BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

Regular Meeting - Board of School Directors
Tuesday, August 12, 2025, 7:00 P.M.

A G E N D A

I. Call to Order – Daniel S. Chubb, President

II. Pledge of Allegiance – Jennifer Goldhahn, Secretary

III. Roll Call – Jennifer Goldhahn, Secretary

IV. Reception of Visitors – Jennifer Goldhahn, Secretary

V. Hearing of Scheduled Delegations or Individuals

VI. Public Comment

VII. Discussion

VIII. Approval of Minutes

A. June 17, 2025 – Regular Meeting (pages 1-11)

IX. Financial Reports

A. Bills Payable
   1. General Fund - (pages 12-23)
   2. Cafeteria Fund - (pages 24-25)
B. General Fund - (pages 26-40)
C. Cafeteria Fund - (pages 41-45)
D. Capital Reserve Fund - (pages 46-47)
E. Scholarship Funds - (pages 48-49)
F. Activity Funds - (pages 50-53)

X. Correspondence

A. Hope Jones (page 54)
B. Linda Kotula (page 55)
C. Sarah Redding (page 56)

XI. Reports and Related Action

XII. Old Business – None

XIII. New Business

A. Personnel – The Administration recommends the following actions:

1. Please approve the following resignations:

   a. From Hope Jones, Elementary School/Middle School ESL Aide, effective July 31, 2025. (see page 54)
   b. From Linda Kotula, Middle School Food Service employee, due to her retirement, effective August 7, 2025. (see page 55)
   c. From Sarah Redding, Middle School Family Consumer Science Teacher, effective for the 2025-2026 school year. (see page 56)

2. The following staff should be granted a professional contract based on the completion of six semesters of satisfactory service:

   a. Samuel Baum
   b. JoAnne Grosskopf
   c. Autumn Shuchart

3. The Administration is recommending the employment of the following support staff employees:

   a. Transfer Gianna De Lotto from a Substitute Support employee to a High School Food Service employee, resuming position she previously resigned. Ms. De Lotto will work 174 days at three (3) hours per day at an hourly rate of $15.00, effective August 19, 2025.
   b. Mary Freysinger, 533 Baltimore Pike, Mount Holly Springs, PA, in the capacity of an Elementary School Media Center Aide, replacing Kristen Teague who resigned. Mrs. Freysinger will work 190 days at six and a half (6.5) hours per day at an hourly rate of $15.00, effective August 19, 2025. Employment is pending receipt of all necessary clearances and employment background checks.
   c. Transfer Amanda Liller form an Elementary School Food Service employee to a Middle School Food Service employee, replacing Linda Kotula who retired. Ms. Liller will work 174 days at five and three quarters (5.75) hours per day at an hourly rate of $15.38, effective August 19, 2025.
   d. Melissa Mummert, 7033 Carlisle Pike, York Springs, PA, in the capacity of a High School Food Services employee, replacing Tammy Guevara, who resigned. Mrs. Mummert will work 174 days at four (4) hours per day at an hourly rate of $15.00, effective August 19, 2025. Employment is pending receipt of all necessary clearances and employment background checks.
   e. Transfer Kendra Redding from a Substitute Support Staff employee to a Middle School Reading Aide, replacing Christine Myers who retired. Mrs. Redding will work 190 days at seven (7) hours per day at an hourly rate of $15.00, effective August 19, 2025.

f. Heaven Rivera, 29 Waylon Way, Hanover, PA, in the capacity of an Elementary School Building 2 Secretary, replacing Tamela Laughman who retired. Miss Rivera will work 261 days at seven and a half (7.5) hours per day at an hourly rate of $17.20, effective August 13, 2025. Employment is pending receipt of all necessary clearances and employment background checks.

4. The Administration recommends the Board approve the following lists of Substitute Nurses and Substitute Support Staff employees for the 2025-2026 school year. The list of substitutes appears on page 57.

5. The Administration is requesting approval for Katherine McMaster to be employed in the capacity of a Teacher Mentor for Lena Freysinger-Polliard for the 2025-2026 school year at a stipend of $400.00.

6. The Administration is requesting Board approval for the following list to be employed in the capacity of Teachers for Eagles Academy for the 2025-2026 school year. The list appears on page 58.

7. The Administration is requesting the Board to rescind the extracurricular contracts from the following employees:

   a. Emma Patton, Jr. High Boys Soccer Coach
   b. Rene Quintanilla, Head Girls Soccer Coach

8. The Administration is requesting the Board approve the following extracurricular contracts for the 2025-2026 school year:

a.	Alyssa Black, Varsity Assistant Field Hockey Coach	-	$2,900.00
b.	Olvin Herrera-Ortiz, Head Varsity Girls' Soccer Coach	-	$4,025.00
c.	Nicholas Kennedy, Fall Games Manager	-	$2,600.00
d.	Jessica Melhorn, Art/Music/Foreign Language Content Lead	-	$1,000.00
e.	Jessica Smith, Social Studies Content Lead K-6	-	$1,000.00
f.	Stefanie Yost, Varsity Assistant Girls' Tennis Coach	-	$2,900.00

9. The Administration is recommending approval for the following list to be employed as District Athletic Game Help for the 2025-2026 school year. The list appears on page 59.

10. The Administration is requesting the Board approve the list of Volunteer Coaches for the 2025-2026 school year. The list appears on page 60.

B. Cafeteria Fund Budget

The Administration is requesting approval of the Cafeteria Fund Budget for the 2025-2026 school year. A copy of the budget appears on pages 61-64. Board approval is recommended.

C. Capital Reserve Fund Budget

The Administration is requesting approval of the Capital Reserve Fund Budget for the 2025-2026 school year. A copy of the budget appears on pages 65-68. Board approval is recommended.

D. Bus & Van Driver Approval

Board approval is requested for the following bus and van drivers employed by E & B Transportation, and School Express, Inc. for the 2025-2026 school year. A list of drivers appears on pages 69-70. Board approval is recommended.

E. 2025-2026 School Bus Routes

The Administration is requesting approval of the following school bus routes for the high school, middle school, and elementary school for the 2025-2026 school year. Copies of the bus routes appear on pages 71-91. Board approval is recommended.

F. Non-Public Transportation Contracts

Please approve the following non-public transportation contracts for the 2025-2026 school year to be paid $.70 per mile as set by the IRS:

1. A contract with Latice Anderson-Powell, to transport one child to Vida Charter School, Gettysburg, PA. Mrs. Anderson-Powell will be paid for 26.0 miles per day. This contract is from August 18 through the end of the 2025-2026 school year.
2. A contract with Gail Elwood, to transport one child to Carlisle Christian Academy, Carlisle, PA. Mrs. Elwood will be paid for 36.0 miles per day. This contract is from August 18 through the end of the 2025-2026 school year.
3. A contract with Danielle Fulmer, to transport one child to the Carlisle Christian Academy, Carlisle, PA. Mrs. Fulmer will be paid for 24.0 miles per day. This contract is from August 18 through the end of the 2025-2026 school year.
4. A contract with Erin Kirkpatrick, to transport two children to St. Patrick Catholic School, Carlisle, PA. Mrs. Kirkpatrick will be paid 29.0 miles per day. This contract is from August 18 through the end of the 2025-2026 school year.
5. A contract with Christina Yost, to transport one child to Carlisle Christian Academy, Carlisle, PA. Mrs. Yost will be paid 24.0 miles per day. This contract is from August 18 through the end of the 2025-2026 school year.

Board approval is recommended.

G. ELA Curriculum Framework

The Administration is requesting approval for the adoption of the ELA Curriculum Framework. A copy appears on pages 92-586. Board approval is recommended.

H. Science Curriculum Framework

The Administration is requesting approval for the adoption of the Science Curriculum Framework. A copy appears on pages 587-991. Board approval is recommended.

I. ProCare Therapy Services Agreement

The Administration is requesting approval to enter into an agreement with ProCare Therapy Services to provide part-time Speech Language services to our Middle School and High School students on an as-needed basis for the 2025-2026 school year. A copy of this agreement and fee sheet appears on pages 992-993. Board approval is recommended.

J. License Agreement

The Administration is recommending approval of the License Agreement between the District and Adams County Head Start regarding the use of the District's Elementary School Building throughout the 2025-2026 school year. A copy of the agreement is attached to pages 994-1001. Board approval is recommended.

K. New Story Schools Agreement

The Administration is requesting approval to enter into an agreement with New Story Schools for the 2025-2026 school year. The agreement would allow the District to utilize various educational services based on a fee schedule. A copy of the agreement is attached to pages 1002-1008. Board approval is recommended.

XIV. Other Business

XV. Adjournment

4905

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

The regular meeting of the Bermudian Springs School Board was called to order at 7:00 p.m. on Tuesday, June 17, 2025, in the Middle School Learning Commons A Room and via remote connection. President Daniel S. Chubb presided.

The Pledge of Allegiance was recited.

ROLL CALL -

Members Present:	Dianna L. Canapp, Daniel S. Chubb, Brian A. Davis, Jennifer Goldhahn, Ruth E. Griffie, Mary R. Kemper, Chad M. Mowery, Matthew P. Nelson and Neil R. Tate
Members Absent:	None
Administration:	Dr. Brad Sterner, Dr. Shannon Myers and Justin Peart
Others:	Brooke Say, Solicitor
Visitors:	None

HEARING OF SCHEDULED DELICATES OR INDIVIDUALS – None

PUBLIC COMMENT – None

APPROVAL OF MINUTES –

Upon the motion of Mary Kemper, seconded by Matthew Nelson, the Board approved the following minutes:

1. Minutes of the Work/Study Session on May 13, 2025

FINANCIAL REPORTS –

General Fund bills in the amount of $1,301,505.98 (copies attached) were approved for payment following a motion by Matthew Nelson, seconded by Mary Kemper. Roll call vote: All members present voted Yea. Motion carried.

Cafeteria Fund bills in the amount of $131,598.29 (copies attached) were approved for payment following a motion by Matthew Nelson, seconded by Mary Kemper. Roll call vote: All members present voted Yea. Motion carried.

Capital Reserve Fund bills in the amount of $20,812.72 (copies attached) were approved for payment following a motion by Matthew Nelson, seconded by Mary Kemper. Roll call vote: All members present voted Yea. Motion carried.

Scholarship Fund bills in the amount of $2,650.00 (copies attached) were approved for payment following a by Matthew Nelson, seconded by Mary Kemper. Roll call vote: All members present voted Yea. Motion carried.

The General Fund Report (copy attached) was approved on a Matthew Nelson, Mary Kemper motion. Roll call vote: All members present voted Yea. Motion carried.

The Cafeteria Fund Report (copy attached) was approved on a Matthew Nelson, Mary Kemper motion. Roll call vote: All members present voted Yea. Motion carried.

The Capital Reserve Fund Report (copy attached) was approved on a Matthew Nelson, Mary Kemper motion. Roll call vote: All members present voted Yea. Motion carried.

The Scholarship Funds Report (copy attached) was approved on a Matthew Nelson, Mary Kemper motion. Roll call vote: All members present voted Yea. Motion carried.

REPORTS AND RELATED ACTION – No action was taken by the Board.

OLD BUSINESS – None

NEW BUSINESS –

Personnel

The Board, on a Matthew Nelson, Neil Tate motion, approved the following resignations:

1. From Pamala Gembe, Elementary School Food Service Employee, effective June 4, 2025.
2. From Christine Myers, Middle School Reading Aide, due to her retirement, effective May 29, 2025.
3. From Elizabeth Rhon, Elementary School Grade 3 Teacher, effective June 30, 2025.

Roll call vote: All members present voted Yea. Motion carried.

The Board, on a Ruth Griffie, Mary Kemper motion, approved the six (6) year Business Manager Employment Agreement with Justin Peart. This contract will be effective from July 1, 2025, through June 30, 2031. Roll call vote: All members present voted Yea. Motion carried.

The Board, on a Mary Kemper, Matthew Nelson motion, approved the employment of the following professional employees:

1. Sonja Austin, 3611 Melinda Court, Monrovia, MD, in the capacity of an Elementary School Special Education Teacher, a newly created position. Ms. Austin will be placed on Step 15 of the Master's Plus 36 Salary Schedule, effective August 19, 2025. Employment is pending receipt of all necessary clearances and employment background checks.
2. Lena Polliard, 533 Baltimore Pike, Mount Holly Springs, PA, in the capacity of a High School Special Education Teacher, replacing Jackie Noerpel, who retired. Ms. Polliard will be placed on Step 2 of the Master's Salary Schedule, effective August 19, 2025. Employment is pending receipt of all necessary clearances and employment background checks.
3. Raelyn Predix, 315 S. Washington Street, Gettysburg, PA, in the capacity of an Elementary School Grade 3 Teacher, replacing Elizabeth Rhon, who resigned. Ms. Predix will be placed on Step 1 of the Master's Salary Schedule, effective August 19, 2025. Employment is pending receipt of all necessary clearances and employment background checks.

Roll call vote: All members present voted Yea. Motion carried.

The Board, on Ruth Griffie, Mary Kemper motion, approved the employment of the following support staff employees:

1. Heather Bloss, 14 Sickles Drive, East Berlin, PA, in the capacity of an Elementary School Food Service Employee, replacing Pamela Gembe, who resigned. Mrs. Bloss will be working 174 days at five and a half (5.5) hours per day at an hourly rate of $15.20, effective August 25, 2025. Employment is pending receipt of all necessary clearances and employment background checks.
2. David Myers, 100 Walnut Street, East Berlin, PA, in the capacity of a Middle School Evening Custodian, replacing Victorea Deyarmin, who resigned. Mr. Myers will be working 261 days at eight (8) hours per day at an hourly rate of $15.80, effective June 18, 2025. Employment is pending receipt of all necessary clearances and employment background checks.

Roll call vote: All members present voted Yea. Motion carried.

The Board, on a Neil Tate, Chad Mowery motion, approved the following employees to be employed as Teacher Mentors for the 2025-2026 school year at a stipend of $400.00:

1. Jill Lerew for Raelyn Predix
2. Erika Smith for Sonja Austin

Roll call vote: All members present voted Yea. Motion carried.

The Board, on a Mary Kemper, Matthew Nelson, approved the following employees to enter into a contract with the district, serving as Substitute Nurses for Summer Camp 2025, at a stipend of $50.00 per hour:

1. Lori Smith
2. Laura Triantafyllou

Roll call vote: All members present voted Yea. Motion carried.

The Board, on a Ruth Griffie, Brian Davis motion, approved the listing of extracurricular contracts for the 2025-2026 school year. The employees and their contracts are attached to these minutes. Roll call vote: All members present voted Yea. Motion carried.

School Psychologist Servies Agreement

1. The Board, on a Matthew Nelson, Mary Kemper motion, approved to enter into an agreement with Mr. Phillip Burge, Certified School Psychologist, to provide School Psychologist Services on an as-needed basis for the 2025-2026 school year. A copy of the agreement is attached to these minutes.
2. The Board, on a Matthew Nelson, Mary Kemper motion, approved to enter into an agreement with Dr. Ray W. Christner, Certified School Psychologist, to provide School Psychological Evaluation Services from July 1, 2025, through June 30, 2026, on an as-needed basis. A copy of this agreement is attached to these minutes.

Roll call vote: All members present voted Yea. Motion carried.

Overnight Trip/Sunday Activity

1. The Board, on a Mary Kemper, Ruth Griffie motion, approved for Cheyenne Wivell and approximately 10 members of the Bermudian Springs High School FFA to attend an overnight trip for the National FFA Convention & Expo in Indianapolis, Indiana, from October 27 to November 1, 2025. This Conference will be a valuable educational experience for our FFA Students.
2. The Board, on a Mary Kemper, Ruth Griffie motion, approved for the Middle School Sunday Musical performance of Matilda, Jr, on November 16, 2025.

Roll call vote: All members present voted Yea. Motion carried.

L.I.U Supply Bids

The Board, on a Neil Tate, Chad Mowery motion, approved the bid items through the Lincoln Intermediate Unit Joint Purchasing Consortium in the amounts attached to these minutes. The following is a list of the supplies that will be ordered for the 2025-2026 school year, totaling $81,978.39.

General Supplies, General Paper Supplies, General Art Supplies,
Industrial Art Supplies, and Spring Copy Paper

Roll call vote: All members present voted Yea. Motion carried.

State Contract Purchasing

The Board, on a Matthew Nelson, Chad Mowery motion, approved to purchase through the following programs under approved state contracts for the 2025-2026 school year. These purchases will eliminate the need to process a district bid for items purchased from approved vendors.

1. Co-Stars
2. GSA – Schedule 70
3. PEPPM
4. KPN
5. NCPA
6. Sourcewell

Roll call vote: All members present voted Yea. Motion carried.

School Dentist

The Board, on a Brian Davis, Ruth Griffie motion, approved to appoint the following dentist for the Bermudian Springs School District, effective for the 2025-2026 school year.

School Dentist: Dr. Michael Tomczyk, D.D.S.

Roll call vote: All members present voted Yea. Motion carried.

Final Adoption of 2025-2026 School Budget

The Board approved the final adoption of the 2025-2026 General Fund Budget to be submitted to the PDE. The Board approved the following expenditures and revenues regarding the 2025-2026 budget. A copy of the Budget is attached to these minutes.

Option A

1. Expenditures in the amount of $38,713,503 and revenue in the amount of $37,521,649 to include the following:

Local Revenue	$21,452,695
State Revenue	$15,628,897
Federal Revenue	$ 440,057
Other Sources	$ 0

The Board, following a motion to approve Option A-1, by Matthew Nelson, seconded by Brian Davis. Roll call vote: Dianna Canapp, Brian Davis, Jennifer Goldhahn, Ruth Griffie, Mary Kemper, Chad Mowery, and Neil Tate voted Nay. Daniel Chubb, and Matthew Nelson voted Yea. Motion failed.

2. Levy of the following taxes to realize the figure above for local revenue:

Real Estate	14.0194 mills
Act 679 Per Capita	$ 5.00
Act 511 Per Capita	$ 5.00
Act 511 Earned Income	1.2%
Act 511 Real Estate Transfer	.5%
Act 511 Amusements	5.0%

The Board did not vote on Option A-2.

Option B:

1. Expenditures in the amount of $38,713,503 and revenue in the amount of $37,255,862 include the following:

Local Revenue	$21,186,908
State Revenue	$15,628,897
Federal Revenue	$ 440,057
Other Sources	$ 0

The Board, following a motion to approve Option B-1, by Brian Davis, seconded By Jennifer Goldhahn. Roll call vote: All members present voted Yea. Motion Carried.

2. Levy of the following taxes to realize the figure above for local revenue:

Real Estate	13.7800 mills
Act 679 Per Capita	$ 5.00
Act 511 Per Capita	$ 5.00
Act 511 Earned Income	1.2%
Act 511 Real Estate Transfer	.5%
Act 511 Amusements	5.0%

The Board, following a motion to approve Option B-2, by Brian Davis, seconded by Jennifer Goldhahn. Roll call vote: All members present voted Yea. Motion carried.

Option C:

1. Expenditures in the amount of $38,713,503 and revenue in the amount of $36,990,075 to include the following:

Local Revenue	$20,921,121
State Revenue	$15,628,897
Federal Revenue	$ 440,057
Other Sources	$ 0

The Board did not vote on Option C-1.

2. Levy of the following taxes to realize the figure above for local revenue:

Real Estate	13.5406 mills
Act 679 Per Capita	$ 5.00
Act 511 Per Capita	$ 5.00
Act 511 Earned Income	1.2%
Act 511 Real Estate Transfer	.5%
Act 511 Amusements	5.0%

The Board did not vote on Option C-2.

Option D:

1. Expenditures in the amount of $38,713,503 and revenue in the amount of $36,724,288 to include the following:

Local Revenue	$20,655,334
State Revenue	$15,628,897
Federal Revenue	$ 440,057
Other Sources	$ 0

The Board did not vote on option D-1.

2. Levy of the following taxes to realize the figure above for local revenue:

Real Estate	13.3012 mills
Act 679 Per Capita	$ 5.00
Act 511 Per Capita	$ 5.00
Act 511 Earned Income	1.2%
Act 511 Real Estate Transfer	.5%
Act 511 Amusements	5.0%

The Board did not vote on option D-2.

2025-2026 Cafeteria Breakfast & Lunch Prices

The Board, on a Neil Tate, Chad Mowery motion, approved the following increases in student breakfast and lunch prices and increasing a la carte items where necessary.

	2024-2025 Prices	2025-2026 Prices
Elementary Breakfast	$1.45	$1.55
Secondary Breakfast	$1.60	$1.70
Elementary Lunch	$2.25	$2.35
Secondary Lunch	$2.50	$2.60
Milk	$0.55	$0.60

Roll call vote: All members present voted Yea. Motion carried.

Federal Program Approval

The Board, on a Matthew Nelson, Chad Mowery motion, approved the following list of title program activities planned for implementation in the 2025-2026 school year using federal funds.

1.	Title I	$ 335,888
2.	Title II	$ 53,925
3.	Title IV	$ 25,051
4.	Perkins	$ 16,822

Roll call vote: All members present voted Yea. Motion carried.

School Insurance

The Board, on a Mary Kemper, Neil Tate motion, approved the student sports and accident insurance be awarded to the Christian-Baker Company of Camp Hill, as underwritten by the United States Fire Insurance Company of Eatontown, NJ. The rates for the 2025-2026 school year are as follows:

Regular School Time Coverage	K-12	$ 22.50
24-Hour Coverage	K-12	$ 90.00
Interscholastic Football (JV/Varsity Only)		$11,268.00

Roll call vote: All members present voted Yea. Motion carried.

District-Wide Insurance Policies

The Board, on a Chad Mowery, Mary Kemper motion, approved the following district-wide insurance policies through Weber Insurance Agency:

	2024-2025	2025-2026
Utica Ins. Co. Umbrella Policy	$ 7,399.00	$ 7,658.00
Utica Ins. Co. Auto Policy	$ 5,050.00	$ 5,097.00
Utica Ins. Co. Commercial Policy	$109,320.00	$127,799.00
Eastern Alliance Workers Compensation Policy	$ 46,781.00	$ 52,269.00

Roll call vote: All members present voted Yea. Motion carried.

Benefit Contracts

The Board, on a Mary Kemper, Chad Mowery motion, approved following employee benefits contracts:

1. *United Concordia* – Dental Insurance
   Insurance premiums reflect no increase for the 2025-2026 school year.
2. *Capital Blue Cross* – Medical and Prescription Insurance
   Insurance premiums reflect an 8.50% increase for the 2025-2026 school year.
3. *Capital Blue Cross* – Vision Insurance
   Insurance premiums reflect no increase for the 2025-2026 school year.
4. *USAble Life* – Life Insurance
   Insurance premiums reflect no increase for the 2025-2026 school year.

Roll call vote: All members present voted Yea. Motion carried.

Substitute Teachers Service Agreement

The Board, on a Matthew Nelson, Neil Tate motion, approved to enter into an agreement with Substitute Teachers Services to provide the District with Temporary Employees to serve as Substitute Teachers for the 2025-2026 and 2026-2027 school years. A copy of this agreement is attached to these minutes. Roll call vote: All members present voted Yea. Motion carried.

Board Certified Behavioral Analysis Contract

The Board, on a Matthew Nelson, Chad Mowery motion, approved to enter into a contract with the Fairfield Area School District for a Board-Certified Behavioral Analyst to provide support and services for the 2025-2026 school year. A copy of this Contract is attached to these minutes. Roll call vote: All members present voted Yea. Motion carried.

Memorandum of Agreement

The Board, on a Neil Tate, Mary Kemper motion, approved the Memorandum of Agreement regarding dental services provided to the District by Family First Mobile Dentist for the 2025-2026 school year. A copy of the memorandum is attached to these minutes. Roll call vote: All members present voted Yea. Motion carried.

Memorandum of Understanding

1. The Board, on a Jennifer Goldhahn, Mary Kemper motion, approved the Memorandum of Understanding between the District and the Pennsylvania State Police, Gettysburg Barracks, Adams County, establishing procedures to follow when certain incidents occur on school property from July 1, 2025, through June 30, 2027. A copy of the memorandum is attached to these minutes.
2. The Board, on a Jennifer Goldhahn, Mary Kemper motion, approved the Memorandum of Understanding regarding the use of District facilities as an emergency evacuation site for Little Life Enrichment Center. A copy of the memorandum is attached to these minutes.

Roll call vote: All members present voted Yea. Motion carried.

License Agreement

The Board, on a Matthew Nelson, Brian Davis motion, approved the License Agreement between the District and Adams County Head Start regarding the use of the District's Elementary School Buildings during the 2025-2026 school year. A copy of the agreement is attached to these minutes. Roll call vote: All members present voted Yea. Motion carried.

Letter of Agreement

The Board, on a Mary Kemper, Ruth Griffie motion, approved the Letter of Agreement for TrueNorth Wellness Services to provide SAP services to the district for the 2025-2026 school year. A copy of the letter is attached to these minutes. Roll call vote: All members present voted Yea. Motion carried.

Real Estate Tax Refunds

The Board, on a Brian Davis, Neil Tate motion, approved the following real estate tax refunds, due to revised assessments:

1. Berk Home Models II LLC, 3335 Morgantown Rd, Mohnton, PA, in the amount of $641.33 for Parcel #36K08-0241---000 in Reading Township.
2. BRH at Hampton Heights LLC, 3335 Morgantown Rd, Mohnton, PA, in the amount of $654.37 for Parcel #36K08-0244---000 in Reading Township.

Roll call vote: All members present voted Yea. Motion carried.

Disposal of Obsolete Equipment

The Board, on a Brian Davis, Matthew Nelson motion, approved to dispose of the following equipment. A copy of the equipment list is attached to these minutes. Roll call vote: All members present voted Yea. Motion carried.

OTHER BUSINESS – None

ADJOURNMENT – The Board meeting was adjourned at 8:57 p.m. by the President.

_____
Secretary

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 06/18/2025 - 06/30/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024156	06/18/2025	AMAZON CAPITAL SERVICES	STEAM CAMP	PERKINS	3,441.54
0000024157	06/18/2025	MEMBERS 1ST FCU	CREDIT CARD CHARGES		2,349.74
0000024158	06/19/2025	BERMUDIAN SPRINGS S.D. CAFETERIA FUND	BANQUET REVENUE		1,105.72
0000024159	06/19/2025	BRANDON DANNER	Music - K Smith		150.00
0000024160	06/19/2025	BRIGHTSPEED	COMMUNICATIONS DISTRICT		1,345.33
0000024161	06/19/2025	CAPITAL ELECTRIC	SUPPLIES		50.80
0000024162	06/19/2025	COMMONWEALTH CHARTER ACADEMY	CYBER CHARTER		85,632.98
0000024163	06/19/2025	DAVID P COOK	TRAVEL		33.75
0000024164	06/19/2025	DOVER AREA SCHOOL DISTRICT	TRANSPORTATION		1,186.29
0000024165	06/19/2025	DRS PRINTING SERVICES INC	SUPPLIES		490.00
0000024166	06/19/2025	GETTYSBURG MONTESSORI CHARTER SCHOOL	RECON		24,394.69
0000024167	06/19/2025	G-FORCE SECURITY SOLUTIONS LLC	Graduation Security		516.25
0000024168	06/19/2025	HILLYARD/MID-ATLANTIC	REPAIR ON C3 MACHINE		395.25
0000024169	06/19/2025	KIMBERLY J FRIEDMAN	GENERAL SUPPLIES DISTRICT		20.95
0000024170	06/19/2025	LINCOLN INTERMEDIATE UNIT	SERVICE		2,268.75
0000024171	06/19/2025	LODGES AT GETTYSBURG	RETREAT		5,556.81
0000024172	06/19/2025	MARCO	CONTRACT		6,069.91
0000024173	06/19/2025	MARCO TECHNOLOGIES LLC	SERVICE		52.40
0000024174	06/19/2025	MASON'S PROPANE SERVICE LLC	PROPANE		2,223.45
0000024175	06/19/2025	MERAKEY PENNSYLVANIA	SERVICE		27,632.00
0000024176	06/19/2025	MID ATLANTIC COOPERATIVE SOLUTIONS INC	FUEL OIL		398.88

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 06/18/2025 - 06/30/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024177	06/19/2025	PA PRINCIPALS ASSOC	REGISTRATION		3,250.00
0000024178	06/19/2025	PITNEY BOWES GLOBAL FINANCIAL SERVICES LLC	RENTALS DISTRICT		519.72
0000024179	06/19/2025	PROCARE THERAPY	SERVICE		630.00
0000024180	06/19/2025	REACH CYBER CHARTER SCHOOL	CYBER CHARTER		30,116.33
0000024181	06/19/2025	VIDA CHARTER SCHOOL	6969.91	CYBER CHARTER	12,622.13
0000024182	06/19/2025	VISUAL SOUND INC	SERVICE		940.50
0000024183	06/19/2025	WEIS MARKETS INC	SUPPLIES		11.38
0000024184	06/19/2025	WELLSPAN HEALTH	SERVICE		3,240.00
0000024185	06/19/2025	WELLSPAN OCCUPATIONAL HEALTH	SERVICE		283.00
0000024186	06/19/2025	WILMINGTON TRUST FEE COLLECTIONS	OTHER OBJECTS DISTRICT		780.00
0000024187	06/19/2025	WOLF'S BUS LINES	TRANSPORTATION		1,715.00
0000024188	06/30/2025	AMAZON CAPITAL SERVICES	PERKINS	SUPPLIES	1,191.16
0000024189	06/30/2025	B.S.S.D. ATHLETIC FUND	BASEBALL STATES MEAL MONEY REIMBERSMENT		484.00
0000024190	06/30/2025	BANKERT TROPHIES AND TEES	MVP NAME PLATES		123.00
0000024191	06/30/2025	BERMUDIAN SPRINGS S.D. CAFETERIA FUND	Senior class - food		466.96
0000024192	06/30/2025	CHRISTINA YOST	CONTRACTED CARRIERS DISTRICT		130.65
0000024193	06/30/2025	CONEWAGO VALLEY SCHOOL DISTRICT	SERVICE		7,543.20
0000024194	06/30/2025	HERFF JONES LLC	Graduation Diploma		17.00
0000024195	06/30/2025	LINCOLN INTERMEDIATE UNIT	SERVICE		2,528.10
0000024196	06/30/2025	LODGES AT GETTYSBURG	OTHER OBJECTS (TITLE II)		263.91

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 06/18/2025 - 06/30/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024197	06/30/2025	MEMBERS 1ST FCU	CREDIT CARD CHARGES		1,033.76
0000024198	06/30/2025	STOCK AND LEADER, ATTORNEYS AT LAW	PURCH PROFESS/TECH SERVICES		2,891.00
0000024199	06/30/2025	UNIFIRST CORP	SERVICE		469.88
0000024200	06/30/2025	VERIZON WIRELESS	COMMUNICATIONS DISTRICT		834.13
0000024201	06/30/2025	WALTERS SERVICES INC.	OTHER PROF SERVICES HIGH		392.00
* 0RET062025	06/20/2025	PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM	1ST QUARTER '24 RETIREMENT		1,061,435.62
* AC06182025	06/18/2025	COUNTY OF ADAMS	A.C.TAX CLAIM BUREAU - MAY 2025 COMMISSION		2,708.97
* KH06182025	06/18/2025	KAREN HEFLIN - RECORDER OF DEEDS	K.HEFLIN - MAY TRANSFER TAX COMMISSION		408.95
* YA06202025	06/20/2025	YORK ADAMS TAX BUREAU	YATB - 1.75% COLLECTION FEES		9,236.44

10 - GENERAL FUND	**1,311,582.28**
Grand Total All Funds	**1,311,582.28**
Grand Total Credit Cards	**0.00**
Grand Total Direct Deposits	**0.00**
Grand Total Manual Checks	**0.00**
Grand Total Other Disbursement Non-negotiables	**1,073,789.98**
Grand Total Procurement Card Other Disbursement Non-negotiables	**0.00**
Grand Total Regular Checks	**237,792.30**
Grand Total Virtual Payments	**0.00**
Grand Total All Payments	**1,311,582.28**

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GP - PSDLAF - GF **Payment Dates:** 06/18/2025 - 06/30/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
* 00DD063025	06/30/2025	DELTA DENTAL OF PA	24/25 MONTHLY EMPLOYEE DENTAL INSURANCE		8,361.06

10 - GENERAL FUND	**8,361.06**
Grand Total All Funds	**8,361.06**
Grand Total Credit Cards	**0.00**
Grand Total Direct Deposits	**0.00**
Grand Total Manual Checks	**0.00**
Grand Total Other Disbursement Non-negotiables	**8,361.06**
Grand Total Procurement Card Other Disbursement Non-negotiables	**0.00**
Grand Total Regular Checks	**0.00**
Grand Total Virtual Payments	**0.00**
Grand Total All Payments	**8,361.06**

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024202	07/01/2025	ACTIVE INTERNET TECHNOLOGIES	SUBSCRIPTION		6,515.00
0000024203	07/01/2025	APPLE FINANCIAL SERV	LEASE		191,728.69
0000024204	07/01/2025	ASSUREDPARTNERS	BONDING INSURANCE DISTRICT		123.00
0000024205	07/01/2025	CARE SOLACE INC	SERVICE		7,500.00
0000024206	07/01/2025	CRISIS PREVENTION INSTITUTE	MEMBERSHIP		200.00
0000024207	07/01/2025	EDVATIVE LEARNING	SERVICE		6,360.00
0000024208	07/01/2025	FISLERDATA LLC	INSTRUCTIONAL MATERIALS/ELEM	RENEWAL	957.00
0000024209	07/01/2025	FOLLETT SOFTWARE LLC	PURCH PROFESS/TECH SVC ELEM	PURCH PROFESS/TECH SVC MIDDLE	2,734.20
0000024210	07/01/2025	FRONTLINE TECHNOLOGIES GROUP LLC	SERVICE		17,254.94
0000024211	07/01/2025	HSLC	PURCH PROFESS/TECH SVC HIGH		325.00
0000024212	07/01/2025	INSTRUCTURE INC	PURCH PROFESS/TECH SERVICES		7,891.00
0000024213	07/01/2025	JOHNSON CONTROLS FIRE PROTECTION LP	SERVICE		3,450.00
0000024214	07/01/2025	PA PRINCIPALS ASSOC	MEMBERSHIP		3,630.00
0000024215	07/01/2025	PA SCHOOL BOARDS ASSOCIATION	25/26 MEMBERSHIP RENEWAL (DISTRICT)		14,281.56
0000024216	07/01/2025	PAFPC	OTHER OBJECTS DISTRICT		50.00
0000024217	07/01/2025	PARSS	MEMBERSHIP		975.00
0000024218	07/01/2025	PASA	22/23 MEMBERSHIP RENEWAL (MYERS)		4,375.00
0000024219	07/01/2025	PASBO	25/26 MEMBERSHIP DUES		800.00
0000024220	07/01/2025	PASCD	15/16 MEMBERSHIP DUES (9 MEMBERS)		774.00
0000024221	07/01/2025	PENNSYLVANIA TRUST	SERVICE		6,400.00

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FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024222	07/01/2025	SCENARIO LEARNING LLC	SUBSCRIPTION		6,179.66
0000024223	07/01/2025	SUSSC	SERVICE		350.00
0000024224	07/01/2025	TREBRON COMPANY INC.	BOOKS AND PERIODICALS DISTRICT		5,024.00
0000024225	07/01/2025	YORK ADAMS ACADEMY	25/26 PAYMENT		6,063.00
0000024226	07/08/2025	A.P.R. SUPPLY COMPANY	SUPPLIES		133.27 #
0000024227	07/08/2025	AMAZON CAPITAL SERVICES	MAINTENANCE SUPPLIES/DIST	GENERAL SUPPLIES DISTRICT	1,513.03 #
0000024228	07/08/2025	AUDIOLOGICAL SERVICE	SERVICE		330.00 #
0000024229	07/08/2025	BELMONT BEHAVIORAL HOSPITAL	SERVICE		1,200.00 #
0000024230	07/08/2025	BRIGHTSPEED	25/26 MONTHLY LOCAL TELEPHONE SERVICE		354.14 #
0000024231	07/08/2025	CAPITAL ELECTRIC	SUPPLIES		1,210.60 #
0000024232	07/08/2025	CATHOLIC CHARITIES OF THE DIOCESE	SERVICE		1,500.00 #
0000024233	07/08/2025	CENTRAL PENN EDUCATION ASSOCIATES INC	SERVICE		2,900.00 #
0000024234	07/08/2025	CHAD MOWERY	TRAVEL DISTRICT		21.60 #
0000024235	07/08/2025	DANIEL CHUBB	TRAVEL DISTRICT		28.35 #
0000024236	07/08/2025	DECKER INC.	MAINTENANCE SUPPLIES/DIST		261.33 #
0000024237	07/08/2025	FAIRFIELD AREA SCHOOL DISTRICT	SERVICE		10,300.00 #
0000024238	07/08/2025	FOLLETT CONTENT SOLUTIONS LLC	BOOKS AND PERIODICALS ELEM		7,055.68 #
0000024239	07/08/2025	GANNETT PENNSYLVANIA LOCALIQ	ADVERTISING DISTRICT		89.77 #
0000024240	07/08/2025	GUERNSEY	EQUIP ORIG & ADD'NL DISTRICT		3,859.27 #
0000024241	07/08/2025	HILLYARD/MID-ATLANTIC	SUPPLIES		1,150.29 #

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FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024242	07/08/2025	JON DEFOE	TRAVEL DISTRICT		198.34 #
0000024243	07/08/2025	KURTZ BROS.	CLASSROOM SUPPLIES		460.97 #
0000024244	07/08/2025	LABORATORY ANALYTICAL &	25/26 WATER TESTING SERVICE		444.00 #
0000024245	07/08/2025	LITTLESTOWN SCHOOL DISTRICT	SERVICE		1,777.47 #
0000024246	07/08/2025	MASON'S PROPANE SERVICE LLC	PROPANE		851.29 #
0000024247	07/08/2025	NEIL TATE	TRAVEL DISTRICT		31.50 #
0000024248	07/08/2025	PA VIRTUAL CHARTER SCHOOL	CYBER CHARTER		3,484.95 #
0000024249	07/08/2025	PYRAMID SCHOOL PRODUCTS	CLASSROOM SUPPLIES		3,401.95 #
0000024250	07/08/2025	QUILL CORPORATION	CLASSROOM SUPPLIES		4,572.40 #
0000024251	07/08/2025	RIVER VALLEY LANDSCAPE INC.	SUPPLIES		4,955.00 #
0000024252	07/08/2025	ROY M WILLIAMS & SONS INC	SERVICE		550.00 #
0000024253	07/08/2025	SALISBURY TOWNSHIP SCHOOL DIST	SERVICE		3,530.40 #
0000024254	07/08/2025	SCHOOL EXPRESS INC.	CONTRACTED CARRIERS DISTRICT		9,029.58 #
0000024255	07/08/2025	SCHOOL HEALTH CORPORATION	ATHLETIC SUPPLIES		2,316.70 #
0000024256	07/08/2025	SPRING GROVE SCHOOL DISTRICT	SERVICE		8,473.34 #
0000024257	07/08/2025	TELESYSTEM	PHONE SYSTEM		405.13 #
0000024258	07/08/2025	THE ART STORE INC.	CLASSROOM SUPPLIES		3,971.74 #
0000024259	07/08/2025	T-MOBILE	SERVICE		600.00 #
0000024260	07/08/2025	UNIFIED DOOR AND HARDWARE GROUP LLC	SUPPLIES		1,105.00 #
0000024261	07/08/2025	WELLSPAN PHILHAVEN	SERVICE		847.50 #
0000024262	07/08/2025	ZIMMERMAN RADIATOR	REPAIR		105.00 #

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FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024263	07/09/2025	AMAZON CAPITAL SERVICES	SUPPLIES		1,517.86
0000024264	07/09/2025	APPALACHIA TECHNOLOGIES LLC	OTHER PROFESSIONAL SERVICES		23,100.00
0000024265	07/09/2025	CAPITAL BLUE CROSS	25/26 MONTHLY EMPLOYEE MEDICAL INSURANCE		277,902.62
0000024266	07/09/2025	EASTERN ALLIANCE INSURANCE GROUP	INSURANCE		52,269.00
0000024267	07/09/2025	EXPLORELEARNING	Office		2,965.50
0000024268	07/09/2025	INTERSTATE TAX SERVICE INC.	UNEMPLOYMENT COMP HIGH		304.80
0000024269	07/09/2025	JOHNSON CONTROLS FIRE PROTECTION LP	SERVICE		856.00
0000024270	07/09/2025	MARCO TECHNOLOGIES LLC	SERVICE		56.40
0000024271	07/09/2025	MOSYLE CORPORATION	RENEWAL		18,085.00
0000024272	07/09/2025	MYSTERY SCIENCE INC	Ahrens / Renewal		1,999.00
0000024273	07/09/2025	NASSP	Student Council Dues		95.00
0000024274	07/09/2025	PASC	Student Council Dues		65.00
0000024275	07/09/2025	PASPA	23/24 MEMBERSHIP DUES (MOORE)		275.00
0000024276	07/09/2025	PITNEY BOWES BANK INC	GENERAL SUPPLIES DISTRICT		1,500.00
0000024277	07/09/2025	SAPPHIRE K12 INC	BOOKS AND PERIODICALS DISTRICT		56,813.00
0000024278	07/09/2025	SIEMENS INDUSTRY INC.	25/26 SERVICE AGREEMENT		33,000.00
0000024279	07/09/2025	USABLE LIFE	25/26 EMPLOYEE LIFE INSURANCE	25/26 OTHER EMPLOYEE BENEFITS ELEM	1,311.28
0000024280	07/09/2025	WM CORPORATE SERVICES INC	GARBAGE/RECYCLE		1,562.58
0000024281	07/09/2025	YAIAA	2025-2026 YAIAA ANNUAL DUES		3,346.62
0000024282	07/16/2025	ANDREA DOWELL	CLASSROOM SUPPLIES/ELEM		55.10 #
0000024283	07/16/2025	BARTELL & BARTELL	WORKSHOP		5,871.54 #

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FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024284	07/16/2025	BRIGHTSPEED	25/26 MONTHLY LOCAL TELEPHONE SERVICE		1,316.34 #
0000024285	07/16/2025	CAPITAL AREA INTERMEDIATE UNIT	SERVICE		4,767.28 #
0000024286	07/16/2025	CDW GOVERNMENT INC.	EQUIPMENT - REPLACEMENT DIST		35,838.00 #
0000024287	07/16/2025	CONEWAGO VALLEY SCHOOL DISTRICT	SERVICE		3,740.08 #
0000024288	07/16/2025	DIRECT ENERGY BUSINESS	25/26 MONTHLY ELECTRIC GENERATION		22,874.66 #
0000024289	07/16/2025	H C NYE CO	SUPPLIES		164.79 #
0000024290	07/16/2025	KURTZ BROS.	CLASSROOM SUPPLIES		868.10 #
0000024291	07/16/2025	LINCOLN INTERMEDIATE UNIT	SERVICE		914.50 #
0000024292	07/16/2025	MET-ED	25/26 MONTHLY ELECTRIC SERVICE		6,760.43 #
0000024293	07/16/2025	MID ATLANTIC COOPERATIVE SOLUTIONS INC	FUEL OIL		1,363.23 #
0000024294	07/16/2025	MSTS RECEIVABLES LLC	GENERAL SUPPLIES HIGH(PERKINS)	GENERAL SUPPLIES HIGH	1,506.89 #
0000024295	07/16/2025	NEVCO SPORTS LLC	ATHLETIC TRAINER REPL EQUIP		827.80 #
0000024296	07/16/2025	NOBLE OTC LLC	GENERAL SUPPLIES DISTRICT		180.31 #
0000024297	07/16/2025	PA DISTANCE LEARNING CHARTER SCHOOL	CYBER CHARTER		8,131.56 #
0000024298	07/16/2025	PYRAMID SCHOOL PRODUCTS	CLASSROOM SUPPLIES		3,308.55 #
0000024299	07/16/2025	QUILL CORPORATION	CLASSROOM SUPPLIES		465.25 #
0000024300	07/16/2025	SCHOOL HEALTH CORPORATION	GENERAL SUPPLIES DISTRICT		103.54 #
0000024301	07/16/2025	WAGEWORKS INC.	PURCH PROFESS/TECH SERVICES		190.75 #
0000024302	07/16/2025	WELLSPAN OCCUPATIONAL HEALTH	SERVICE		133.00 #
0000024303	07/16/2025	WELLSPAN PHILHAVEN	SERVICE		120.00 #

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FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024304	07/17/2025	B&H PHOTO-VIDEO	Music		210.00
0000024305	07/17/2025	BEAST ACADEMY	Ahrens / S. Smith		228.00
0000024306	07/17/2025	COMMITTEE FOR CHILDREN	QUOTE		2,778.00
0000024307	07/17/2025	CURRICULUM ASSOCIATES	QUOTE		50,143.00
0000024308	07/17/2025	EPLUS TECHNOLOGY INC	SERVICE		4,285.44
0000024309	07/17/2025	GILMAN	WRESTLING SUPPLIES		893.20
0000024310	07/17/2025	GL KREINER INC	SERVICE		322.50
0000024311	07/17/2025	GOVERNMENT SOFTWARE SERVICES INC	GENERAL SUPPLIES DISTRICT		12,819.07
0000024312	07/17/2025	GUERNSEY INC	FURNITURE QUOTE		3,781.14
0000024313	07/17/2025	GYM CLOSET INC	BOYS SOCCER SUPPLIES		502.13
0000024314	07/17/2025	HILLYARD/MID-ATLANTIC	SUPPLIES		7,092.12
0000024315	07/17/2025	HOWIES ATHLETIC TAPE	ATHLETIC TRAINING SUPPLES		1,882.00
0000024316	07/17/2025	LEARNING A-Z	Ahrens / Office		3,915.00
0000024317	07/17/2025	LONGSTRETH SPORTING GOODS LLC	FIELD HOCKEY SUPPLIES	FIELD HOCKEY EQUIPMENT-GOALIE	2,006.75
0000024318	07/17/2025	MAKERBOT INDUSTRIES LLC	Ahrens / STEAM		127.50
0000024319	07/17/2025	MARCO	CONTRACT		6,416.91
0000024320	07/17/2025	MASON'S PROPANE SERVICE LLC	PROPANE		210.45
0000024321	07/17/2025	MID ATLANTIC COOPERATIVE SOLUTIONS INC	FUEL OIL		1,275.98
0000024322	07/17/2025	NASSP	Shuchart - NHS		385.00
0000024323	07/17/2025	NET WORLD SPORTS LTD	GIRLS TENNIS SUPPLIES		182.47
0000024324	07/17/2025	PERMANENT SIGN & DISPLAY/PERM AWARD	ATHLETIC AWARD NAME PLATES/RECORDS	ATHLETIC AWARD NAME PLATES	80.50

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FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024325	07/17/2025	PIXEL PRESS TECHNOLOGY LLC	SUBSCRIPTION/MEMBERSHIP		600.00
0000024326	07/17/2025	PLS 3RD LEARNING	QUOTE		2,530.00
0000024327	07/17/2025	QUALITY LOGO PRODUCTS INC	Student School Store		983.80
0000024328	07/17/2025	R.F. FAGER COMPANY	SINK SENSORS - MS		959.32
0000024329	07/17/2025	REALLY GOOD STUFF LLC	1st Grade	Rdg Spec. Books	1,445.70
0000024330	07/17/2025	RIDDELL/ALL AMERICAN SPORTS CORP.	FOOTBALL EQUIPMENT RECONDITIONING		9,512.88
0000024331	07/17/2025	ROLLER PRINTING CO. INC.	PRINTING AND BINDING ELEM	SUPPLIES	660.00
0000024332	07/17/2025	SATOR SOCCER	BOYS SOCCER SUPPLIES		366.85
0000024333	07/17/2025	SCHOOL HEALTH CORPORATION	Ahrens / Nurse		290.89
0000024334	07/17/2025	SCHOOL NURSE SUPPLY	Ahrens / Nurse		113.28
0000024335	07/17/2025	ULINE	SUPPLIES		4,974.09
0000024336	07/17/2025	UPS	SERVICE		56.15
0000024337	07/22/2025	MEMBERS 1ST FCU	CREDIT CARD CHARGES		11,836.55
0000024338	07/28/2025	POSTMASTER	NEWSLETTER		266.25
0000024339	07/28/2025	POSTMASTER	NEWSLETTER		981.36
0000024340	07/29/2025	ZAMINSKI HOME IMPROVEMENTS LLC	SERVICE		7,759.00
0000024341	07/25/2025	AMAZON CAPITAL SERVICES	CLASSROOM SUPPLIES	Guidance - Cool Down Corner	7,298.69
0000024342	08/04/2025	AG SPECIALTY INSURANCE LLC	STUDENT ACCIDENT INSURANCE COVERAGE - SPORTS		11,268.00
0000024343	08/04/2025	APPALACHIA TECHNOLOGIES LLC	OTHER PROFESSIONAL SERVICES		24,255.00
0000024344	08/04/2025	ASCD	McMillian		83.74
0000024345	08/04/2025	BERKSHIRE SYSTEMS GROUP INC.	SERVICE		1,835.20

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FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024346	08/04/2025	BONEYARD BARBEQUE	BACK TO SCHOOL LUNCH		1,000.00
0000024347	08/04/2025	BRISK TEACHING	SUBSCRIPTION		5,400.00
0000024348	08/04/2025	BSN SPORTS LLC	GYM		964.79
0000024349	08/04/2025	CAPITAL BLUE CROSS	25/26 MONTHLY EMPLOYEE MEDICAL INSURANCE		430,164.08
0000024350	08/04/2025	CAPITAL ELECTRIC	SUPPLIES		261.57
0000024351	08/04/2025	CASHMAN'S ACE HARDWARE	SUPPLIES		181.39
0000024352	08/04/2025	COMMONWEALTH OF PA	OTHER OBJECTS DISTRICT		65.00
0000024353	08/04/2025	COMMONWEALTH OF PA	OTHER OBJECTS DISTRICT		65.00
0000024354	08/04/2025	DEREK S. BOYCE	Walck-Band		2,100.00
0000024355	08/04/2025	DRS PRINTING SERVICES INC	SUPPLIES		2,675.00
0000024356	08/04/2025	EAST BERLIN PHARMACY	SUPPLIES		333.85
0000024357	08/04/2025	EPLUS TECHNOLOGY INC	QUOTE		23,950.35
0000024358	08/04/2025	EXPLORELEARNING	CLASSROOM SUBSCRIPTION		800.00
0000024359	08/04/2025	FLINN SCIENTIFIC INC.	CLASSROOM SUPPLIES		172.03
0000024360	08/04/2025	GETTYSBURG MONTESSORI CHARTER SCHOOL	CYBER CHARTER		18,586.43
0000024361	08/04/2025	GOPHER	CLASSROOM SUPPLIES		1,922.50
0000024362	08/04/2025	GUERNSEY INC	SUPPLIES		5,870.11
0000024363	08/04/2025	HUDL	HUDL STREAMING PACKAGE		13,000.00
0000024364	08/04/2025	IMAGINE LEARNING LLC	OTHER OBJECTS DISTRICTWIDE		750.00
0000024365	08/04/2025	INDUSTRIAL CONTROLS INC.	SUPPLIES		929.56
0000024366	08/04/2025	INTEGRAONE	BOOKS AND PERIODICALS DISTRICT		14,763.00
0000024367	08/04/2025	KIMBALL MIDWEST	SUPPLIES		154.38

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024368	08/04/2025	KURTZ BROS.	CLASSROOM SUPPLIES		832.80
0000024369	08/04/2025	LABORATORY ANALYTICAL &	25/26 WATER TESTING SERVICE		354.00
0000024370	08/04/2025	LAKESHORE LEARNING MATERIALS LLC	CLASSROOM SUPPLIES		531.92
0000024371	08/04/2025	LINCOLN INTERMEDIATE UNIT	25-26 MONTHLY SCHEDULE A		56,428.71
0000024372	08/04/2025	LITANIA SPORTS GROUP INC	VOLLEYBALL NET		606.05
0000024373	08/04/2025	M & M ELECTRIC	SERVICE		117.00
0000024374	08/04/2025	MELISSA TRUMP	SERVICE		1,294.71
0000024375	08/04/2025	MENCHEY MUSIC SERVICE	Ahrens / Grosskopf		2,282.33
0000024376	08/04/2025	METHOD AUTOMATION SERVICES INC	ACT 80		1,739.00
0000024377	08/04/2025	MFAC LLC	GIRLS CROSS COUNTRY SUPPLIES	BOYS CROSS COUNTRY SUPPLIES	83.25
0000024378	08/04/2025	MYHOUSE SPORTS GEAR	GIRLS WRESTLING SUPPLIES		1,200.56
0000024379	08/04/2025	NEVCO SPORTS LLC	SUPPLIES		1,360.39
0000024380	08/04/2025	PA DISTANCE LEARNING CHARTER SCHOOL	CYBER CHARTER		2,323.30
0000024381	08/04/2025	PA LEADERSHIP CHARTER SCHOOL	CYBER CHARTER		3,484.96
0000024382	08/04/2025	PA VIRTUAL CHARTER SCHOOL	CYBER CHARTER		1,161.65
0000024383	08/04/2025	PITNEY BOWES INC	SUPPLIES		146.98
0000024384	08/04/2025	PLS 3RD LEARNING	QUOTE		3,732.00
0000024385	08/04/2025	PMEA	Walck-Band		220.00
0000024386	08/04/2025	PSADA	PSADA MEMBERSHIP		50.00
0000024387	08/04/2025	READ NATURALLY	CLASSROOM SUBSCRIPTION		858.00
0000024388	08/04/2025	REALLY GOOD STUFF LLC	CLASSROOM SUPPLIES		54.99

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000024389	08/04/2025	RIVER ROCK ACADEMY LLC	TUITION - PRIVATE SCHOOLS	SERVICE	12,987.00
0000024390	08/04/2025	SAUVE BROS. ATHLETIC EXPRESS	BOYS SOCCER SUPPLIES	FOOTBALL SUPPLIES	3,029.40
0000024391	08/04/2025	SAXTON & STUMP LLC	25/26 SOLICITOR SERVICES RENDERED		3,300.00
0000024392	08/04/2025	SCHAEDLER/YESCO DISTRIBUTION	SUPPLIES		331.98
0000024393	08/04/2025	SCHOLASTIC INC	Ahrens / Magazines	CLASSROOM SUBSCRIPTIONS	4,028.63
0000024394	08/04/2025	SCHOOL EXPRESS INC.	CONTRACTED CARRIERS DISTRICT		15,698.21
0000024395	08/04/2025	SCHOOL HEALTH CORPORATION	ATHLETIC TRAINING SUPPLES	ATHLETIC TRAINING SUPPLIES	479.96
0000024396	08/04/2025	SCHOOLMART	CLASSROOM SUPPLIES		523.23
0000024397	08/04/2025	SEESAW LEARNING INC	SERVICE		5,514.00
0000024398	08/04/2025	SMART SOURCE LLC	SUPPLIES		288.67
0000024399	08/04/2025	SMARTPASS INC	BUILDING SUBSCRIPTION		3,020.50
0000024400	08/04/2025	TEACHER GEEK INC	CLASSROOM SUPPLIES		108.79
0000024401	08/04/2025	TEACHER'S DISCOVERY	CLASSROOM SUPPLIES		224.21
0000024402	08/04/2025	TERSCH PRODUCTS INC.	MEDIA CENTER SUPPLIES		116.79
0000024403	08/04/2025	T-MOBILE	SERVICE		600.00
0000024404	08/04/2025	UNIFIED DOOR AND HARDWARE GROUP LLC	EQUIP ORIG & ADD'NL DISTRICT		71,965.00
0000024405	08/04/2025	UNIFIRST CORP	SERVICE		415.05
0000024406	08/04/2025	UPS	FEES		25.50
0000024407	08/04/2025	USABLE LIFE	25/26 EMPLOYEE LIFE INSURANCE	INSURANCE	1,599.46
0000024408	08/04/2025	UTICA NATIONAL INSURANCE GROUP	INSURANCE		127,799.00
0000024409	08/04/2025	VARSITY SPIRIT FASHIONS & SUPPLY	CHEERLEADING SUPPLIES		798.50

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount	
0000024410	08/04/2025	VERIZON WIRELESS	25/26 MONTHLY CELLULAR PHONE SERVICE	25/26 MONTHLY CELLULAR SERVICE	982.25	
0000024411	08/04/2025	VIDA CHARTER SCHOOL	CYBER CHARTER		10,298.83	
0000024412	08/04/2025	WALTERS SERVICES INC.	OTHER PROF SERVICES HIGH		392.00	
0000024413	08/04/2025	WARD'S NATURAL SCIENCE	CLASSROOM SUPPLIES		18.00	
0000024414	08/04/2025	WILLIAM V MACGILL & CO	Ahrens / Nurse	NURSE SUPPLIES	167.59	
0000024415	08/04/2025	WRESTLING MART.COM	WRESTLING SUPPLIES		695.34	
0000024416	08/05/2025	BLICK ART MATERIALS	CLASSROOM SUPPLIES		2,813.40	#
0000024417	08/05/2025	CAPITAL AREA INTERMEDIATE UNIT	OTHER PROFESSIONAL SERVICES		1,518.00	#
0000024418	08/05/2025	CATHOLIC CHARITIES OF THE DIOCESE	SERVICE		1,950.00	#
0000024419	08/05/2025	CDW GOVERNMENT INC.	EQUIPMENT - REPLACEMENT DIST		14,389.50	#
0000024420	08/05/2025	CONEWAGO VALLEY SCHOOL DISTRICT	SERVICE		33,405.27	#
0000024421	08/05/2025	FAIRFIELD AREA SCHOOL DISTRICT	SERVICE		3,575.00	#
0000024422	08/05/2025	GETTYSBURG AREA SCHOOL DISTRICT	TRANSPORTATION		6,241.78	#
0000024423	08/05/2025	LINCOLN INTERMEDIATE UNIT	SERVICE		140.00	#
0000024424	08/05/2025	MYHOUSE SPORTS GEAR	GIRLS WRESTLING NEW EQUIPMENT		1,561.00	#
0000024425	08/05/2025	NOBLE OTC LLC	GENERAL SUPPLIES DISTRICT		69.54	#
0000024426	08/05/2025	PA DISTANCE LEARNING CHARTER SCHOOL	RECON		7,889.93	#
0000024427	08/05/2025	PYRAMID SCHOOL PRODUCTS	CLASSROOM SUPPLIES		326.73	#
0000024428	08/05/2025	S & S WORLDWIDE INC	CLASSROOM SUPPLIES		31.17	#
0000024429	08/05/2025	SCHOOL HEALTH CORPORATION	GENERAL SUPPLIES DISTRICT		1.50	#

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount	
0000024430	08/05/2025	THE ART STORE INC.	CLASSROOM SUPPLIES		578.38	#
0000024431	08/05/2025	UPPER ADAMS SCHOOL DISTRICT	CONSORTIUM		96,083.03	#
0000024432	08/05/2025	VARSITY SPIRIT FASHIONS & SUPPLY	CHEERLEADING SUPPLIES		6,438.80	#
* 00MS070725	07/07/2025	MAZZITTI & SULLIVAN EAP SERVICES	PURCH PROFESS/TECH SERVICES		1,080.00	
* 0HSA070325	07/03/2025	MEMBERS 1ST FEDERAL CREDIT UNION	OTHER BENEFITS		151,016.64	
* 0RET070325	07/03/2025	PENSERV PLAN SERVICES INC.	RETIREMENT INCENTIVE		47,798.69	#
* 0RET070925	07/09/2025	PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM	RETIREMENT CONTRIBUTIONS		22.50	
* 0RET071725	07/17/2025	PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM	RETIREMENT CONTRIBUTIONS		2,808.60	
* AC07152025	07/15/2025	COUNTY OF ADAMS	A.C.TAX CLAIM BUREAU - JUNE 2025 COMMISSION		4,370.71	
* KH07242025	07/24/2025	KAREN HEFLIN - RECORDER OF DEEDS	K.HEFLIN - JUNE TRANSFER TAX COMMISSION		631.24	
* YA07212025	07/21/2025	YORK ADAMS TAX BUREAU	YATB - 1.75% COLLECTION FEES		5,005.66	

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GF - GENERAL FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

10 - GENERAL FUND	**2,399,227.51**
Grand Total All Funds	**2,399,227.51**
Grand Total Credit Cards	**0.00**
Grand Total Direct Deposits	**0.00**
Grand Total Manual Checks	**0.00**
Grand Total Other Disbursement Non-negotiables	**212,734.04**
Grand Total Procurement Card Other Disbursement Non-negotiables	**0.00**
Grand Total Regular Checks	**2,186,493.47**
Grand Total Virtual Payments	**0.00**
Grand Total All Payments	**2,399,227.51**

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

VOID PAYMENT REPORT

Bank Account: GF - GENERAL FUND Void Date: 07/22/2025 - 07/22/2025
Sort: Void Date, Year End Date, Payment Number

Year	Void Date	Payment Date	Payment Number	Payee Name	Amount
25	07/22/2025	03/05/2025	0000023708	DILLSBURG POST OFFICE	350.00
				TOTAL JULY 2025 VOID DATES:	**350.00**
				TOTAL VOIDS:	**(350.00)**

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: GP - PSDLAF - GF **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
* 00DD073125	07/31/2025	DELTA DENTAL OF PA	INSURANCE		6,990.36
* 0UCC073125	07/31/2025	UNITED CONCORDIA DENTAL CO INC	25/26 MONTHLY EMPLOYEE DENTAL INSURANCE		8,638.59

10 - GENERAL FUND	**15,628.95**
Grand Total All Funds	**15,628.95**
Grand Total Credit Cards	**0.00**
Grand Total Direct Deposits	**0.00**
Grand Total Manual Checks	**0.00**
Grand Total Other Disbursement Non-negotiables	**15,628.95**
Grand Total Procurement Card Other Disbursement Non-negotiables	**0.00**
Grand Total Regular Checks	**0.00**
Grand Total Virtual Payments	**0.00**
Grand Total All Payments	**15,628.95**

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: CF - CAFETERIA FUND **Payment Dates:** 06/18/2025 - 06/30/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000003276	06/30/2025	ANDREA STEM	REFUND LUNCH MONEY		31.15
0000003277	06/30/2025	B.S.S.D. GENERAL FUND	CAFE GROSS PAYROLL - JUNE 2025	CAFE HEALTH INS - JUNE 2025	21,595.91
0000003278	06/30/2025	HEATHER BLEDSOE	REFUND LUNCH MONEY		20.10
0000003279	06/30/2025	JENNIFER GOLDHAHN	REFUND LUNCH MONEY		115.80
0000003280	06/30/2025	SHERRI HAWK	REFUND LUNCH MONEY		54.90
0000003281	06/30/2025	UNITED REFRIGERATION INC.	SUMMER PM MAT		860.34
0000003282	06/30/2025	VERIZON WIRELESS	SUPPLIES		49.99

50 - ENTERPRISE FUND	**22,728.19**
Grand Total All Funds	**22,728.19**
Grand Total Credit Cards	**0.00**
Grand Total Direct Deposits	**0.00**
Grand Total Manual Checks	**0.00**
Grand Total Other Disbursement Non-negotiables	**0.00**
Grand Total Procurement Card Other Disbursement Non-negotiables	**0.00**
Grand Total Regular Checks	**22,728.19**
Grand Total Virtual Payments	**0.00**
Grand Total All Payments	**22,728.19**

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

FUND ACCOUNTING PAYMENT SUMMARY

Bank Account: CF - CAFETERIA FUND **Payment Dates:** 07/01/2025 - 08/12/2025

Payment Categories: Regular Checks, Non-negotiable Disbursements, Direct Deposits, Manual Checks, Procurement Cards, Credit Cards
Sort: Payment Number

Payment #	Paymnt Dt	Vendor Name	Description Of Purchase	Description Of Purchase	Amount
0000003283	07/24/2025	B.S.S.D. GENERAL FUND	CAFE HEALTH INS - JULY 2025	CAFE GROSS PAYROLL - JULY 2025	13,022.01
0000003284	07/24/2025	CYBERSOFT TECHNOLOGIES INC	SUBSCRIPTION		3,380.00
0000003285	07/24/2025	K & D FACTORY SERVICE INC.	SERVICE		1,224.45
0000003286	07/24/2025	PARTS TOWN LLC	SUMMER PM		837.74
0000003295	07/23/2025	11400 INC	SUPPLIES		3,550.00 #
0000003296	07/23/2025	GILBERT CONSULTING LLC	SERVICE		330.00 #
0000003297	07/23/2025	MORABITO BAKING	FOOD		110.00 #

50 - ENTERPRISE FUND	**22,454.20**
Grand Total All Funds	**22,454.20**
Grand Total Credit Cards	**0.00**
Grand Total Direct Deposits	**0.00**
Grand Total Manual Checks	**0.00**
Grand Total Other Disbursement Non-negotiables	**0.00**
Grand Total Procurement Card Other Disbursement Non-negotiables	**0.00**
Grand Total Regular Checks	**22,454.20**
Grand Total Virtual Payments	**0.00**
Grand Total All Payments	**22,454.20**

* - Non-Negotiable Disbursement + - Procurement Card Non-Negotiable # - Payable within Payment P - Prenote D - Direct Deposit C - Credit Card ^ - Virtual Payment

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

Financial Summary of General Fund

BALANCE REVIEW - GENERAL FUND:

Previous Undesignated Balance - June 17, 2025	$8,870,083.75
Previous Designated Balance - June 17, 2025	$0.00
Revenue - June 18, 2025 - June 30, 2025	$1,175,208.79
Transfer from General Fund to Cafeteria Fund	$21,000.00
Expenditures - June 18, 2025 - June 30, 2025	$1,319,943.34
Expenditures - Payroll	$670,171.22
CURRENT BALANCE - June 30, 2025	$8,034,177.98

DISTRIBUTION OF CASH ASSETS:

ACNB Checking	$547,369.86
ACNB Money Market	$42,163.90
Payroll Checking (Interest Rec.)	$11.41
PSDLAF Investments	$3,437,098.70
PSDMAX Series	$4,007,534.11
PSDLAF Overnight Account	$0.00
	$8,034,177.98

COMPARISON OF REVENUE VS. EXPENDITURES 2024-2025

	7/1/24-6/17/25	CURRENT	ACCUM TOTAL
Revenue	$38,199,765.56	$1,175,208.79	$39,374,974.35
Expenditures	$36,741,041.32	$1,990,114.56	$38,731,155.88
		($814,905.77)	$643,818.47

CURRENT INVESTMENT STATUS:

	AMOUNT	PERCENT	TERM	DUE
ACNB Classic Money Market	$42,163.90	0.15%	***	
PSDLAF (MAX Account)	$4,007,534.11	4.166%	***	6/30/2025
PSDLAF (CD)	$3,437,098.70	4.200%	***	6/30/2025
	$7,486,796.71		*** 30 Day Yield	

INTEREST EARNED:

	Current:	To Date:
ACNB Money Market	$5.20	$63.12
ACNB General Fund Checking	$51.66	$2,350.98
ACNB Payroll Checking	$11.41	$161.23
PSDLAF CD/Pool Investments	$11,824.20	$150,878.98
PSDLAF MAX Series	$15,021.46	$278,003.91
	$26,913.93	$431,458.22

PAYROLL ACCOUNT:	7/1/24-6/17/25	CURRENT	ACCUM TOTAL
	$14,357,556.58	$670,171.22	$15,027,727.80

TRANSACTION LEDGER

Year: 25 From 6/18/2025 to 6/30/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
BSMS - BERMUDIAN SPRINGS MIDDLE			10-2250-640-000-20-500-000-000-0000	22103	D68		0.00	(27.98)
RV3496100001	06/18/2025							
Desc: BSMS - LIBRARY LOST BOOKS								
RV	RV3496100001							
0022 - ADAMS COUNTY COMMUNITY FOUNDATION			10-2360-610-000-00-000-000-000-0000	23028	D68		0.00	(76.69)
RV3496100002	06/18/2025							
Desc: A.C.COMMUNITY FOUNDATION - BRICK CAMPAIGN RMBRSMNT								
RV	RV3496100002							
BSATH - BERMUDIAN SPRINGS HIGH SCHOOL			10-6910-000-000-00-000-000-000-0000	69001	D68		0.00	(400.00)
RV3496100003	06/18/2025							
Desc: MID PENN MOTION - USE OF FACILITY RENTAL								
RV	RV3496100003							
BSATH - BERMUDIAN SPRINGS HIGH SCHOOL			10-6910-000-000-00-000-000-000-0000	69001	D68		0.00	(800.00)
RV3496100004	06/18/2025							
Desc: SOUTH CENTRAL PA SOCCER ACADEMY - USE OF FACILITY RENTAL								
RV	RV3496100004							
BSHS - BERMUDIAN SPRINGS HIGH SCHOOL			10-2360-610-000-00-000-000-000-0000	23028	D68		0.00	(1,448.65)
RV3496100005	06/18/2025							
Desc: BSHS - PO #25ADM02273 WEIS/STAFF REC								
RV	RV3496100005							
2010 - KAREN HEFLIN - RECORDER OF DEEDS			10-6153-000-000-00-000-000-000-0000	61033	D68		0.00	(20,447.46)
RV3496100006	06/18/2025							

TRANSACTION LEDGER

Year: 25 From 6/18/2025 to 6/30/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
Desc: K.HEFLIN - MAY TRANSFER TAX								
RV	RV3496100006							
1040 - ADAMS COUNTY TAX CLAIM BUREAU			10-6400-000-000-00-000-000-000-0000	64001	D68		0.00	(54,179.29)
RV3496100007	06/18/2025							
Desc: ADAMS COUNTY TAX CLAIM BUREAU - MAY 2025								
RV	RV3496100007							
Number of Transactions: 7								
			Fund 10 - GENERAL FUND		**EXP**		**0.00**	**(1,553.32)**
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(75,826.75)**
1011 - YORK ADAMS TAX BUREAU			10-6151-000-000-00-000-000-000-0000	61026	R100		0.00	(463,186.55)
RV3497400001	06/20/2025							
Desc: YATB - MAY 2025 DISTRIBUTION								
RV	RV3497400001							
1011 - YORK ADAMS TAX BUREAU			10-6151-000-000-00-000-000-000-0000	61026	R100		0.00	(64,609.79)
RV3497400002	06/20/2025							
Desc: YATB - PRIOR YEAR'S TAX COLLECTED								
RV	RV3497400002							
Number of Transactions: 2								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(527,796.34)**
0209 - COMMONWEALTH OF PA			10-8514-000-412-00-000-000-000-0000	80005	R101		0.00	(22,196.06)
RV3497600001	06/23/2025							
Desc: COMM PA WIRE - 24/25 TITLE I (013-250031)								
RV	RV3497600001							

TRANSACTION LEDGER

Year: 25 From 6/18/2025 to 6/30/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
0209 - COMMONWEALTH OF PA			10-8515-000-421-00-000-000-000-0000	80010	R101		0.00	(2,950.69)
RV3497600002	06/23/2025							
Desc: COMM PA WIRE - 24/25 TITLE IIA (020-250031)								
RV	RV3497600002							
0209 - COMMONWEALTH OF PA			10-8521-000-000-00-000-000-000-0000	85002	R101		0.00	(1,401.83)
RV3497600003	06/23/2025							
Desc: COMM PA WIRE - 24/25 PERKINS (380-250077)								
RV	RV3497600003							
Number of Transactions: 3								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(26,548.58)**
0209 - COMMONWEALTH OF PA			10-7310-000-000-00-000-000-000-0000	73001	R102		0.00	(10,587.00)
RV3499300001	06/26/2025							
Desc: COMM PA WIRE - 23/24 NP TRANSPORTATION								
RV	RV3499300001							
0209 - COMMONWEALTH OF PA			10-7310-000-000-00-000-000-000-0000	73001	R102		0.00	(344,178.89)
RV3499300002	06/26/2025							
Desc: COMM PA WIRE - 23/24 SD TRANSPORTATION								
RV	RV3499300002							
Number of Transactions: 2								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(354,765.89)**
0209 - COMMONWEALTH OF PA			10-3200-580-000-00-000-000-000-0000	32010	D69		0.00	(10.00)
RV3502200001	06/30/2025							

TRANSACTION LEDGER

Year: 25 From 6/18/2025 to 6/30/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
Desc: PA TURNPIKE COMMISSION - EZ PASS REFUND								
RV	RV3502200001							
0209 - COMMONWEALTH OF PA			10-2380-610-000-30-800-000-000-0000	23102	D69		0.00	(36.42)
RV3502200002	06/30/2025							
Desc: COMM OF PA - DISABILITY DETERMINATION								
RV	RV3502200002							
3411 - UTICA NATIONAL INSURANCE GROUP			10-2310-523-000-00-000-000-000-0000	23140	D69		0.00	(48.95)
RV3502200003	06/30/2025							
Desc: UTICA NATIONAL INS GROUP - PREMIUM REFUND								
RV	RV3502200003							
BSHS - BERMUDIAN SPRINGS HIGH SCHOOL			10-1110-610-000-30-800-000-000-0000	11150	D69		0.00	(150.40)
RV3502200004	06/30/2025							
Desc: BSHS - PO #25HS001793 SHIRT SPACE REIMBURSEMENT/TRACK CLUB								
RV	RV3502200004							
BSATH - BERMUDIAN SPRINGS HIGH SCHOOL			10-6910-000-000-00-000-000-000-0000	69001	D69		0.00	(200.00)
RV3502200005	06/30/2025							
Desc: DILLSBURG AREA SOCCER CLUB - USE OF FACILITY RENTAL								
RV	RV3502200005							
BSATH - BERMUDIAN SPRINGS HIGH SCHOOL			10-6910-000-000-00-000-000-000-0000	69001	D69		0.00	(200.00)
RV3502200006	06/30/2025							
Desc: SOUTH CENTRAL PA SOCCER ACADEMY - USE OF FACILITY RENTAL								
RV	RV3502200006							

TRANSACTION LEDGER

Year: 25 From 6/18/2025 to 6/30/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	Trans Date	Invoice #	Invoice Date			Pymt Date		
PAYROLL - BERMUDIAN SPRINGS SCHOOL DISTRICT			10-1110-240-000-30-800-000-000-0000		D69		0.00	(307.50)
RV3502200007 06/30/2025								
Desc: GRAD CREDIT REIMBURSEMENT REPAYMENT - E. RHON								
RV	RV3502200007							
0394 - J.P. HARRIS ASSOCIATES LLC.			10-6400-000-000-00-000-000-000-0000	64001	D69		0.00	(649.00)
RV3502200008 06/30/2025								
Desc: J.P.HARRIS - DELINQUENT TAX								
RV	RV3502200008							
3238 - THERABILITIES INC			10-1241-330-000-00-300-000-000-0000	10622	D69		0.00	(783.90)
RV3502200009 06/30/2025								
Desc: THERABILITIES INC - 24/25 ACCOUNT RECONCILIATION								
RV	RV3502200009							
PAYROLL - BERMUDIAN SPRINGS SCHOOL DISTRICT			10-2360-530-000-00-000-000-000-0000	23178	D69		0.00	(1,545.00)
RV3502200010 06/30/2025								
Desc: CELL PHONE ADMIN DEDUCTION - 2024/2025								
RV	RV3502200010							
PAYROLL - BERMUDIAN SPRINGS SCHOOL DISTRICT			10-0462-271-000-00-000-000-000-0000		D69		0.00	(57,963.89)
RV3502200011 06/30/2025								
Desc: MEDICAL COST SHARE/SPOUSAL SURCHARGE - JUNE								
RV	RV3502200011							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0402-000-000-00-000-000-000-0000		D69		0.00	(59,251.31)
RV3502200012 06/30/2025								
Desc: BSSD CAFE - GROSS PAYROLL/MAY 2025								

TRANSACTION LEDGER

Year: 25 From 6/18/2025 to 6/30/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	Trans Date	Invoice #	Invoice Date			Pymt Date		
RV	RV3502200012							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-211-000-00-000-000-000-0000	04006	D69		0.00	(5,924.13)
RV3502200013 06/30/2025								
Desc: BSSD CAFE - HEALTH INS/MAY 2025								
RV	RV3502200013							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-212-000-00-000-000-000-0000	04007	D69		0.00	(348.75)
RV3502200014 06/30/2025								
Desc: BSSD CAFE - DENTAL INS/MAY 2025								
RV	RV3502200014							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-213-000-00-000-000-000-0000		D69		0.00	(12.90)
RV3502200015 06/30/2025								
Desc: BSSD CAFE - LIFE INS/MAY 2025								
RV	RV3502200015							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-215-000-00-000-000-000-0000		D69		0.00	(41.98)
RV3502200016 06/30/2025								
Desc: BSSD CAFE - VISION INS/MAY 2025								
RV	RV3502200016							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-220-000-00-000-000-000-0000		D69		0.00	(4,473.62)
RV3502200017 06/30/2025								
Desc: BSSD CAFE - SOCIAL SECURITY/MAY 2025								
RV	RV3502200017							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-7810-000-000-00-000-000-000-0000	78002	D69		0.00	2,236.81

TRANSACTION LEDGER

Year: 25 From 6/18/2025 to 6/30/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	Trans Date	Invoice #	Invoice Date			Pymt Date		
RV3502200018 06/30/2025								
Desc: BSSD CAFE - SOCIAL SECURITY/MAY 2025								
RV	RV3502200018							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-230-000-00-000-000-000-0000		D69		0.00	(20,086.20)
RV3502200019 06/30/2025								
Desc: BSSD CAFE - RETIREMENT/MAY 2025								
RV	RV3502200019							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-7820-000-000-00-000-000-000-0000	78003	D69		0.00	10,043.10
RV3502200020 06/30/2025								
Desc: BSSD CAFE - RETIREMENT/MAY 2025								
RV	RV3502200020							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-2360-530-000-00-000-000-000-0000	23178	D69		0.00	(37.03)
RV3502200021 06/30/2025								
Desc: BSSD CAFE - CELL PHONE/MAY 2025								
RV	RV3502200021							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0402-000-000-00-000-000-000-0000		D69		0.00	(12,607.84)
RV3502200022 06/30/2025								
Desc: BSSD CAFE - GROSS PAYROLL/JUNE 2025								
RV	RV3502200022							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-211-000-00-000-000-000-0000	04006	D69		0.00	(5,924.13)
RV3502200023 06/30/2025								
Desc: BSSD CAFE - HEALTH INS/JUNE 2025								
RV	RV3502200023							

TRANSACTION LEDGER

Year: 25 From 6/18/2025 to 6/30/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	Trans Date	Invoice #	Invoice Date			Pymt Date		
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-212-000-00-000-000-000-0000	04007	D69		0.00	(348.75)
RV3502200024 06/30/2025								
Desc: BSSD CAFE - DENTAL INS/JUNE 2025								
RV	RV3502200024							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-213-000-00-000-000-000-0000		D69		0.00	(12.90)
RV3502200025 06/30/2025								
Desc: BSSD CAFE - LIFE INS/JUNE 2025								
RV	RV3502200025							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-215-000-00-000-000-000-0000		D69		0.00	(41.98)
RV3502200026 06/30/2025								
Desc: BSSD CAFE - VISION INS/JUNE 2025								
RV	RV3502200026							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-220-000-00-000-000-000-0000		D69		0.00	(962.50)
RV3502200027 06/30/2025								
Desc: BSSD CAFE - SOCIAL SECURITY/JUNE 2025								
RV	RV3502200027							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-7810-000-000-00-000-000-000-0000	78002	D69		0.00	481.25
RV3502200028 06/30/2025								
Desc: BSSD CAFE - SOCIAL SECURITY/JUNE 2025								
RV	RV3502200028							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-230-000-00-000-000-000-0000		D69		0.00	(4,274.05)
RV3502200029 06/30/2025								

TRANSACTION LEDGER

Year: 25 From 6/18/2025 to 6/30/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
Desc: BSSD CAFE - RETIREMENT/JUNE 2025								
RV	RV3502200029							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-7820-000-000-00-000-000-000-0000	78003	D69		0.00	2,137.02
RV3502200030 06/30/2025								
Desc: BSSD CAFE - RETIREMENT/JUNE 2025								
RV	RV3502200030							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-2360-530-000-00-000-000-000-0000	23178	D69		0.00	(42.03)
RV3502200031 06/30/2025								
Desc: BSSD CAFE - CELL PHONE/JUNE 2025								
RV	RV3502200031							
Number of Transactions: 31								
			Fund 10 - GENERAL FUND		**EXP**		**0.00**	**(2,961.23)**
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**13,849.18**
			Fund 10 - GENERAL FUND		**GEN**		**0.00**	**(172,274.93)**
1043 - ACNB			10-6510-000-000-00-000-000-000-0000	65001	PR26		0.00	(11.41)
RV3502300001 06/30/2025								
Desc: ACNB PAYROLL INTEREST - JUNE								
RV	RV3502300001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(11.41)**
1043 - ACNB			10-6510-000-000-00-000-000-000-0000	65001	R103		0.00	(51.66)
RV3502400001 06/30/2025								
Desc: ACNB CHECKING INTEREST - JUNE								

TRANSACTION LEDGER

Year: 25 From 6/18/2025 to 6/30/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
RV	RV3502400001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(51.66)**
1043 - ACNB			10-6510-000-000-00-000-000-000-0000	65001	R104		0.00	(5.20)
RV3502500001 06/30/2025								
Desc: ACNB MONEY MARKET INTEREST - JUNE								
RV	RV3502500001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(5.20)**
1044 - PSDLAF			10-6510-000-000-00-000-000-000-0000	65001	R105		0.00	(15,021.46)
RV3502600001 06/30/2025								
Desc: PSDMAX INTEREST - JUNE								
RV	RV3502600001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(15,021.46)**
1044 - PSDLAF			10-6510-000-000-00-000-000-000-0000	65001	R106		0.00	(11,824.20)
RV3502700001 06/30/2025								
Desc: PSDLAF FLEX INTEREST								
RV	RV3502700001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(11,824.20)**
0209 - COMMONWEALTH OF PA			10-7250-000-000-00-000-000-000-0000	72004	R107		0.00	(417.00)
RV3504400001 06/30/2025								
Desc: COMM PA WIRE - MIGRANT ED 2023 DOLLAR A DAY REIMBURSEMENT								

TRANSACTION LEDGER

Year: 25 From 6/18/2025 to 6/30/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
RV	RV3504400001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(417.00)**
Transaction Type RV Totals: 51							**0.00**	**(1,175,208.79)**

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

Financial Summary of General Fund

BALANCE REVIEW - GENERAL FUND:

Previous Undesignated Balance - June 30, 2025	$8,034,177.98
Previous Designated Balance - June 30, 2025	$0.00
Revenue - July 1, 2025 - August 12, 2025	$2,056,556.58
Transfer from General Fund to Cafeteria Fund	$21,500.00
Expenditures - July 1, 2025 - August 12, 2025	$2,414,506.46
Expenditures - Payroll	$1,547,481.46
CURRENT BALANCE - August 12, 2025	$6,107,246.64

DISTRIBUTION OF CASH ASSETS:

ACNB Checking	$819,052.59
ACNB Money Market	$42,169.27
Payroll Checking (Interest Rec.)	$21.76
PSDLAF Investments	$3,449,359.20
PSDMAX Series	$1,796,643.82
PSDLAF Overnight Account	$0.00
	$6,107,246.64

COMPARISON OF REVENUE VS. EXPENDITURES 2025-2026

	CURRENT	ACCUM TOTAL
Revenue	$2,056,556.58	$2,056,556.58
Expenditures	$3,961,987.92	$3,961,987.92
	($1,905,431.34)	($1,905,431.34)

CURRENT INVESTMENT STATUS:

	AMOUNT	PERCENT	TERM	DUE
ACNB Classic Money Market	$42,169.27	0.15%	***	
PSDLAF (MAX Account)	$1,796,643.82	4.173%	***	7/31/2025
PSDLAF (CD)	$3,449,359.20	4.200%	***	7/31/2025
	$5,288,172.29		*** 30 Day Yield	

INTEREST EARNED:

	Current:	To Date:
ACNB Money Market	$5.37	$5.37
ACNB General Fund Checking	$57.30	$57.30
ACNB Payroll Checking	$21.76	$21.76
PSDLAF CD/Pool Investments	$12,260.50	$12,260.50
PSDLAF MAX Series	$9,738.66	$9,738.66
	$22,083.59	$22,083.59

PAYROLL ACCOUNT:

CURRENT	ACCUM TOTAL
$1,547,481.46	$1,547,481.46

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	Trans Date	Invoice #	Invoice Date			Pymt Date		
1503 - CLOVER WIRELESS			10-6990-000-000-00-000-000-000-0000	69003	R01		0.00	(190.00)
RV3504500001 07/03/2025								
Desc: CLOVER WIRELESS - CELL PHONE DISPOSAL								
RV	RV3504500001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(190.00)**
BERM - BERMUDIAN SPRINGS SCHOOL DIST.			10-0462-271-000-00-000-000-000-0000		D01		0.00	(20,247.32)
RV3504600001 07/15/2025								
Desc: HEALTH INS PAYMENTS - JULY/RET/PT								
RV	RV3504600001							
BERM - BERMUDIAN SPRINGS SCHOOL DIST.			10-0462-272-000-00-000-000-000-0000		D01		0.00	(4,590.00)
RV3504600002 07/15/2025								
Desc: DENTAL INS PAYMENTS - JULY/RET/PT								
RV	RV3504600002							
BERM - BERMUDIAN SPRINGS SCHOOL DIST.			10-0462-275-000-00-000-000-000-0000		D01		0.00	(198.19)
RV3504600003 07/15/2025								
Desc: VISION INS PAYMENTS - JULY/RET/PT								
RV	RV3504600003							
Number of Transactions: 3								
			Fund 10 - GENERAL FUND		**GEN**		**0.00**	**(25,035.51)**
1048 - ADAMS COUNTY MAGISTRATE DISTRICT COURT 51-3-03			10-6990-000-000-00-000-000-000-0000	69003	D02		0.00	(19.97)
RV3504700001 07/15/2025								

TRANSACTION LEDGER
Year: 26 From 7/1/2025 to 8/12/2025 Funds: 10
Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	Trans Date	Invoice #	Invoice Date			Pymt Date		
Desc: ADAMS COUNTY MAGISTRATE - FINES								
RV	RV3504700001							
BSHS - BERMUDIAN SPRINGS HIGH SCHOOL			10-2380-800-000-30-800-000-000-0000	23120	D02		0.00	(545.00)
RV3504700002 07/15/2025								
Desc: BSHS - PO #'S 26HS00135, 26HS000136, 26HS000271 REIMBURSEMENTS								
RV	RV3504700002							
3585 - HUNTINGTON TOWNSHIP			10-6112-000-000-00-000-000-116-0000	61046	D02		0.00	(185.33)
RV3504700003 07/15/2025								
Desc: HUNTINGTON TOWNSHIP TAXES								
RV	RV3504700003							
1150 - MEMBERS 1ST FCU			10-3200-610-000-30-800-000-000-0000	32031	D02		0.00	(1,193.58)
RV3504700004 07/15/2025								
Desc: MEMBERS 1ST FCU - PO #25HS001937 REFUND								
RV	RV3504700004							
1040 - ADAMS COUNTY TAX CLAIM BUREAU			10-6400-000-000-00-000-000-000-0000	64001	D02		0.00	(87,413.58)
RV3504700005 07/15/2025								
Desc: ADAMS COUNTY TAX CLAIM BUREAU - JUNE 2025								
RV	RV3504700005							
1671 - SUSAN GRAGG TAX COLLECTOR			10-6111-000-000-00-000-000-113-0000	61037	D02		0.00	(155,229.16)
RV3504700006 07/15/2025								
Desc: LATIMORE TOWNSHIP TAXES								
RV	RV3504700006							
1671 - SUSAN GRAGG TAX COLLECTOR			10-6120-000-000-00-000-000-113-0000	61049	D02		0.00	(769.50)

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
RV3504700007 07/15/2025								
Desc: LATIMORE TOWNSHIP TAXES								
RV	RV3504700007							
1671 - SUSAN GRAGG TAX COLLECTOR			10-6141-000-000-00-000-000-113-0000	61055	D02		0.00	(769.50)
RV3504700008 07/15/2025								
Desc: LATIMORE TOWNSHIP TAXES								
RV	RV3504700008							
1671 - SUSAN GRAGG TAX COLLECTOR			10-6112-000-000-00-000-000-113-0000	61043	D02		0.00	(2,198.81)
RV3504700009 07/15/2025								
Desc: LATIMORE TOWNSHIP TAXES								
RV	RV3504700009							
Number of Transactions: 9								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(246,585.85)**
			Fund 10 - GENERAL FUND		**EXP**		**0.00**	**(1,738.58)**
1011 - YORK ADAMS TAX BUREAU			10-6151-000-000-00-000-000-000-0000	61026	R02		0.00	(286,037.84)
RV3509800001 07/21/2025								
Desc: YATB - JUNE 2025 DISTRIBUTION								
RV	RV3509800001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(286,037.84)**
1117 - LAKE MEADE PROPERTY OWNERS ASSOCIATION INC			10-6154-000-000-00-000-000-000-0000	61034	D03		0.00	(141.85)
RV3510200001 07/24/2025								

TRANSACTION LEDGER
Year: 26 From 7/1/2025 to 8/12/2025 Funds: 10
Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
Desc: LAKE MEADE POA - 2ND QT 2025 AMUSEMENT TAX								
RV	RV3510200001							
2010 - KAREN HEFLIN - RECORDER OF DEEDS			10-6153-000-000-00-000-000-000-0000	61033	D03		0.00	(31,561.76)
RV3510200002 07/24/2025								
Desc: K.HEFLIN - JUNE TRANSFER TAX								
RV	RV3510200002							
PAYROLL - BERMUDIAN SPRINGS SCHOOL DISTRICT			10-0462-271-000-00-000-000-000-0000		D03		0.00	(47,764.30)
RV3510200003 07/24/2025								
Desc: BSSD-EMPLOYEE COST SHARE/SPOUSAL SURCHARGE MEDICAL								
RV	RV3510200003							
0904 - DEBRA TATE TAX COLLECTOR			10-6111-000-000-00-000-000-115-0000	61039	D03		0.00	(103,722.59)
RV3510200004 07/24/2025								
Desc: EAST BERLIN BORO TAXES								
RV	RV3510200004							
0904 - DEBRA TATE TAX COLLECTOR			10-6120-000-000-00-000-000-115-0000	61051	D03		0.00	(950.60)
RV3510200005 07/24/2025								
Desc: EAST BERLIN BORO TAXES								
RV	RV3510200005							
0904 - DEBRA TATE TAX COLLECTOR			10-6141-000-000-00-000-000-115-0000	61057	D03		0.00	(950.60)
RV3510200006 07/24/2025								
Desc: EAST BERLIN BORO TAXES								
RV	RV3510200006							

TRANSACTION LEDGER

Year: 26 From 7/1/2025 to 8/12/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
3585 - HUNTINGTON TOWNSHIP			10-6111-000-000-00-000-000-116-0000	61040	D03		0.00	(242,370.02)
RV3510200007	07/24/2025							
Desc: HUNTINGTON TOWNSHIP TAXES								
RV	RV3510200007							
3585 - HUNTINGTON TOWNSHIP			10-6120-000-000-00-000-000-116-0000	61052	D03		0.00	(1,465.60)
RV3510200008	07/24/2025							
Desc: HUNTINGTON TOWNSHIP TAXES								
RV	RV3510200008							
3585 - HUNTINGTON TOWNSHIP			10-6141-000-000-00-000-000-116-0000	61058	D03		0.00	(1,465.60)
RV3510200009	07/24/2025							
Desc: HUNTINGTON TOWNSHIP TAXES								
RV	RV3510200009							
3585 - HUNTINGTON TOWNSHIP			10-6112-000-000-00-000-000-116-0000	61046	D03		0.00	(541.94)
RV3510200010	07/24/2025							
Desc: HUNTINGTON TOWNSHIP TAXES								
RV	RV3510200010							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0402-000-000-00-000-000-000-0000		D03		0.00	(5,100.62)
RV3510200011	07/24/2025							
Desc: BSSD CAFE - GROSS PAYROLL/JULY 2025								
RV	RV3510200011							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-211-000-00-000-000-000-0000	04006	D03		0.00	(6,428.10)
RV3510200012	07/24/2025							

TRANSACTION LEDGER

Year: 26 From 7/1/2025 to 8/12/2025 Funds: 10

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
Desc: BSSD CAFE - HEALTH INS/JULY 2025								
RV	RV3510200012							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-212-000-00-000-000-000-0000	04007	D03		0.00	(326.25)
RV3510200013	07/24/2025							
Desc: BSSD CAFE - DENTAL INS/JULY 2025								
RV	RV3510200013							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-213-000-00-000-000-000-0000		D03		0.00	(13.30)
RV3510200014	07/24/2025							
Desc: BSSD CAFE - LIFE INS/JULY 2025								
RV	RV3510200014							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-215-000-00-000-000-000-0000		D03		0.00	(50.66)
RV3510200015	07/24/2025							
Desc: BSSD CAFE - VISION INS/JULY 2025								
RV	RV3510200015							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-220-000-00-000-000-000-0000		D03		0.00	(387.88)
RV3510200016	07/24/2025							
Desc: BSSD CAFE - SOCIAL SECURITY/JULY 2025								
RV	RV3510200016							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-7810-000-000-00-000-000-000-0000	78002	D03		0.00	193.94
RV3510200017	07/24/2025							
Desc: BSSD CAFE - SOCIAL SECURITY/JULY 2025								
RV	RV3510200017							

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	Trans Date	Invoice #	Invoice Date			Pymt Date		
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-0462-230-000-00-000-000-000-0000		D03		0.00	(1,734.22)
RV3510200018 07/24/2025								
Desc: BSSD CAFE - RETIREMENT/JULY 2025								
RV	RV3510200018							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-7820-000-000-00-000-000-000-0000	78003	D03		0.00	867.11
RV3510200019 07/24/2025								
Desc: BSSD CAFE - RETIREMENT/JULY 2025								
RV	RV3510200019							
0078 - BERMUDIAN SPRINGS S.D. CAFETERIA FUND			10-2360-530-000-00-000-000-000-0000	23178	D03		0.00	(42.03)
RV3510200020 07/24/2025								
Desc: BSSD CAFE - CELL PHONE/JULY 2025								
RV	RV3510200020							
Number of Transactions: 20								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(382,109.51)**
			Fund 10 - GENERAL FUND		**GEN**		**0.00**	**(61,805.33)**
			Fund 10 - GENERAL FUND		**EXP**		**0.00**	**(42.03)**
0394 - J.P. HARRIS ASSOCIATES LLC.			10-6400-000-000-00-000-000-000-0000	64001	D04		0.00	(1,021.50)
RV3511800001 07/31/2025								
Desc: J.P.HARRIS - DELINQUENT TAX								
RV	RV3511800001							
1695 - JENNIFER MILLER TAX COLLECTOR			10-6111-000-000-00-000-000-112-0000	61067	D04		0.00	(23,640.52)
RV3511800002 07/31/2025								

TRANSACTION LEDGER
Year: 26 From 7/1/2025 to 8/12/2025 Funds: 10
Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	Trans Date	Invoice #	Invoice Date			Pymt Date		
Desc: YORK SPRINGS BORO TAXES								
RV	RV3511800002							
1695 - JENNIFER MILLER TAX COLLECTOR			10-6120-000-000-00-000-000-112-0000	61048	D04		0.00	(142.10)
RV3511800003 07/31/2025								
Desc: YORK SPRINGS BORO TAXES								
RV	RV3511800003							
1695 - JENNIFER MILLER TAX COLLECTOR			10-6141-000-000-00-000-000-112-0000	61054	D04		0.00	(142.10)
RV3511800004 07/31/2025								
Desc: YORK SPRINGS BORO TAXES								
RV	RV3511800004							
3585 - HUNTINGTON TOWNSHIP			10-6111-000-000-00-000-000-116-0000	61040	D04		0.00	(131,447.35)
RV3511800005 07/31/2025								
Desc: HUNTINGTON TOWNSHIP TAXES								
RV	RV3511800005							
3585 - HUNTINGTON TOWNSHIP			10-6120-000-000-00-000-000-116-0000	61052	D04		0.00	(348.00)
RV3511800006 07/31/2025								
Desc: HUNTINGTON TOWNSHIP TAXES								
RV	RV3511800006							
3585 - HUNTINGTON TOWNSHIP			10-6141-000-000-00-000-000-116-0000	61058	D04		0.00	(348.00)
RV3511800007 07/31/2025								
Desc: HUNTINGTON TOWNSHIP TAXES								
RV	RV3511800007							

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
3585 - HUNTINGTON TOWNSHIP			10-6112-000-000-00-000-000-116-0000	61046	D04		0.00	(61.92)
RV3511800008	07/31/2025							
Desc: HUNTINGTON TOWNSHIP TAXES								
RV	RV3511800008							
1695 - JENNIFER MILLER TAX COLLECTOR			10-6111-000-000-00-000-000-114-0000	61038	D04		0.00	(455,782.92)
RV3511800009	07/31/2025							
Desc: READING TOWNSHIP TAXES								
RV	RV3511800009							
1695 - JENNIFER MILLER TAX COLLECTOR			10-6120-000-000-00-000-000-114-0000	61050	D04		0.00	(2,462.10)
RV3511800010	07/31/2025							
Desc: READING TOWNSHIP TAXES								
RV	RV3511800010							
1695 - JENNIFER MILLER TAX COLLECTOR			10-6141-000-000-00-000-000-114-0000	61056	D04		0.00	(2,462.10)
RV3511800011	07/31/2025							
Desc: READING TOWNSHIP TAXES								
RV	RV3511800011							
1695 - JENNIFER MILLER TAX COLLECTOR			10-6112-000-000-00-000-000-114-0000	61044	D04		0.00	(3,945.38)
RV3511800012	07/31/2025							
Desc: READING TOWNSHIP TAXES								
RV	RV3511800012							
Number of Transactions: 12								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(621,803.99)**
1043 - ACNB			10-6510-000-000-00-000-000-000-0000	65001	PR02		0.00	(10.35)

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
RV3513900001	07/31/2025							
Desc: ACNB PAYROLL INTEREST - JULY								
RV	RV3513900001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(10.35)**
1043 - ACNB			10-6510-000-000-00-000-000-000-0000	65001	R03		0.00	(57.30)
RV3514000001	07/31/2025							
Desc: ACNB CHECKING INTEREST - JULY								
RV	RV3514000001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(57.30)**
1043 - ACNB			10-6510-000-000-00-000-000-000-0000	65001	R04		0.00	(5.37)
RV3514100001	07/31/2025							
Desc: ACNB MONEY MARKET INTEREST - JULY								
RV	RV3514100001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(5.37)**
1044 - PSDLAF			10-6510-000-000-00-000-000-000-0000	65001	R05		0.00	(9,738.66)
RV3514200001	07/31/2025							
Desc: PSDMAX INTEREST - JULY								
RV	RV3514200001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(9,738.66)**
1044 - PSDLAF			10-6510-000-000-00-000-000-000-0000	65001	R06		0.00	(12,260.50)

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
RV3514300001	07/31/2025							
Desc: PSDLAF FLEX INTEREST								
RV	RV3514300001							
Number of Transactions: 1								
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(12,260.50)**
BERM - BERMUDIAN SPRINGS SCHOOL DIST.			10-0462-271-000-00-000-000-000-0000		D05		0.00	(589.32)
RV3515500001	08/05/2025							
Desc: BSSD-EMPLOYEE COST SHARE/SPOUSAL SURCHARGE MEDICAL-C.MYERS								
RV	RV3515500001							
BSAO - BERMUDIAN SPRINGS SCHOOL DIST.			10-6990-000-000-00-000-000-000-0000	69003	D05		0.00	(5.00)
RV3515500002	08/05/2025							
Desc: BSSD ADMIN - EMERGENCY CERT GUEST SUB TEACHERS								
RV	RV3515500002							
0904 - DEBRA TATE TAX COLLECTOR			10-6111-000-000-00-000-000-115-0000	61039	D05		0.00	(26,062.67)
RV3515500003	08/05/2025							
Desc: EAST BERLIN BORO TAXES								
RV	RV3515500003							
0904 - DEBRA TATE TAX COLLECTOR			10-6120-000-000-00-000-000-115-0000	61051	D05		0.00	(279.30)
RV3515500004	08/05/2025							
Desc: EAST BERLIN BORO TAXES								
RV	RV3515500004							
0904 - DEBRA TATE TAX COLLECTOR			10-6141-000-000-00-000-000-115-0000	61057	D05		0.00	(279.30)
RV3515500005	08/05/2025							

TRANSACTION LEDGER
Year: 26 From 7/1/2025 to 8/12/2025 Funds: 10
Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
Desc: EAST BERLIN BORO TAXES								
RV	RV3515500005							
1695 - JENNIFER MILLER TAX COLLECTOR			10-6111-000-000-00-000-000-114-0000	61038	D05		0.00	(120,548.86)
RV3515500006	08/05/2025							
Desc: READING TOWNSHIP TAXES								
RV	RV3515500006							
1695 - JENNIFER MILLER TAX COLLECTOR			10-6120-000-000-00-000-000-114-0000	61050	D05		0.00	(695.80)
RV3515500007	08/05/2025							
Desc: READING TOWNSHIP TAXES								
RV	RV3515500007							
1695 - JENNIFER MILLER TAX COLLECTOR			10-6141-000-000-00-000-000-114-0000	61056	D05		0.00	(695.80)
RV3515500008	08/05/2025							
Desc: READING TOWNSHIP TAXES								
RV	RV3515500008							
1695 - JENNIFER MILLER TAX COLLECTOR			10-6112-000-000-00-000-000-114-0000	61044	D05		0.00	(8,065.63)
RV3515500009	08/05/2025							
Desc: READING TOWNSHIP TAXES								
RV	RV3515500009							
1671 - SUSAN GRAGG TAX COLLECTOR			10-6111-000-000-00-000-000-113-0000	61037	D05		0.00	(249,062.72)
RV3515500010	08/05/2025							
Desc: LATIMORE TOWNSHIP TAXES								
RV	RV3515500010							

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
1671 - SUSAN GRAGG TAX COLLECTOR			10-6120-000-000-00-000-000-113-0000	61049	D05		0.00	(1,397.60)
RV3515500011	08/05/2025							
Desc: LATIMORE TOWNSHIP TAXES								
RV	RV3515500011							
1671 - SUSAN GRAGG TAX COLLECTOR			10-6141-000-000-00-000-000-113-0000	61055	D05		0.00	(1,397.60)
RV3515500012	08/05/2025							
Desc: LATIMORE TOWNSHIP TAXES								
RV	RV3515500012							
1671 - SUSAN GRAGG TAX COLLECTOR			10-6112-000-000-00-000-000-113-0000	61043	D05		0.00	(56.16)
RV3515500013	08/05/2025							
Desc: LATIMORE TOWNSHIP TAXES								
RV	RV3515500013							
Number of Transactions: 13								
			Fund 10 - GENERAL FUND		**GEN**		**0.00**	**(589.32)**
			Fund 10 - GENERAL FUND		**REV**		**0.00**	**(408,546.44)**
Transaction Type RV Totals: 64							**0.00**	**(2,056,556.58)**

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807
Financial Summary of Cafeteria Fund

BALANCE REVIEW - CAFETERIA FUND:

Previous Balance - May 31, 2025	($96,559.95)
Revenue - June 1, 2025 - June 30, 2025	$99,197.48
Transfer from General Fund to Cafeteria Fund	$21,000.00
Expenditures - Payroll for June 2025	$21,595.91
Expenditures - June 1, 2025 - June 30, 2025	$1,132.28
CURRENT BALANCE June 30, 2025	$909.34

DISTRIBUTION OF CASH ASSETS:

NOW Checking Account	$909.34
PSDMAX Series	$0.00
	$909.34

COMPARISON OF REVENUES VS EXPENDITURES 2024-2025

	7/1/24-5/31/25	CURRENT	ACCUM TOTAL
Revenues	$931,638.39	$99,197.48	$1,030,835.87
Expenditures	$1,280,533.24	$22,728.19	$1,303,261.43
		$76,469.29	($272,425.56)

INTEREST EARNED:

	Current	To Date
NOW Checking Account	$4.62	$40.55
	$4.62	$40.55

FUND BALANCE ESTIMATE: June 1, 2025 - June 30, 2025

Cash and Investments on Hand	**$909.34**
Fed/State Reimbursement -	$0.00
Total Revenue Estimate.....	**$909.34**
Total Expense Estimate.....	$0.00
TOTAL ESTIMATED FUND BALANCE (LESS BENEFITS DUE)	**$909.34**

TRANSACTION LEDGER

Year: 25 From 6/1/2025 to 6/30/2025 Funds: 50

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
			50-6630-000-000-00-000-000-000-0000	66015	D125	1770	0.00	(52.50)
RV3496900001	06/24/2025							
Desc: BANQUET REVENUE								
RV	RV3496900001							
			50-6630-000-000-00-000-000-000-0000	66015	D125	34883	0.00	(101.25)
RV3496900002	06/24/2025							
Desc: BANQUET REVENUE								
RV	RV3496900002							
			50-6630-000-000-00-000-000-000-0000	66015	D125	24139	0.00	(25.00)
RV3496900003	06/24/2025							
Desc: BANQUET REVENUE								
RV	RV3496900003							
			50-6630-000-000-00-000-000-000-0000	66015	D125	24101	0.00	(197.00)
RV3496900004	06/24/2025							
Desc: BANQUET REVENUE								
RV	RV3496900004							
			50-6630-000-000-00-000-000-000-0000	66015	D125	24158	0.00	(1,105.72)
RV3496900005	06/24/2025							
Desc: BANQUET REVENUE								
RV	RV3496900005							
Number of Transactions: 5								
			Fund 50 - ENTERPRISE FUND		**REV**		**0.00**	**(1,481.47)**
			50-7600-000-000-00-000-000-000-0000	76001	R753		0.00	(3,426.08)
RV3498300001	06/26/2025							
Desc: NON-CATEGORICAL DISTRICTWIDE								

TRANSACTION LEDGER

Year: 25 From 6/1/2025 to 6/30/2025 Funds: 50

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	**Trans Date**	**Invoice #**	**Invoice Date**			**Pymt Date**		
RV	RV3498300001							
			50-7600-000-720-00-000-000-000-0000	76002	R753		0.00	(9,669.49)
RV3498300002	06/26/2025							
Desc: NON-CATEGORICAL DISTRICTWIDE								
RV	RV3498300002							
			50-8531-000-000-00-000-000-000-0000	85001	R753		0.00	(68,909.53)
RV3498300003	06/26/2025							
Desc: NON-CATEGORICAL DISTRICTWIDE								
RV	RV3498300003							
			50-8531-000-720-00-000-000-000-0000	85003	R753		0.00	(15,246.19)
RV3498300004	06/26/2025							
Desc: NON-CATEGORICAL DISTRICTWIDE								
RV	RV3498300004							
Number of Transactions: 4								
			Fund 50 - ENTERPRISE FUND		**REV**		**0.00**	**(97,251.29)**
			50-6510-000-000-00-000-000-000-0000		R757		0.00	(4.62)
RV3508500001	06/30/2025							
Desc: ACNB BANK INTEREST - JUNE 2025								
RV	RV3508500001							
Number of Transactions: 1								
			Fund 50 - ENTERPRISE FUND		**REV**		**0.00**	**(4.62)**
			50-0480-000-000-00-000-000-000-0000		R758		0.00	(460.10)
RV3508600001	06/30/2025							
Desc: SCHOOLCAFE ONLINE PYMT								

TRANSACTION LEDGER

Year: 25 From 6/1/2025 to 6/30/2025 Funds: 50

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	Trans Date	Invoice #	Invoice Date			Pymt Date		
RV	RV3508600001							
Number of Transactions: 1								
			Fund 50 - ENTERPRISE FUND		GEN		0.00	(460.10)
Transaction Type RV Totals: 11							0.00	(99,197.48)

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807
Financial Summary of Cafeteria Fund

BALANCE REVIEW - CAFETERIA FUND:

Previous Balance - June 30, 2025		$909.34
Revenue - July 1, 2025 - July 31, 2025		$1,075.25
Transfer from General Fund to Cafeteria Fund		$21,500.00
Expenditures - Payroll for July 2025		$13,022.01
Expenditures - July 1, 2025 - July 31, 2025		$9,432.19
CURRENT BALANCE	July 31, 2025	$1,030.39

DISTRIBUTION OF CASH ASSETS:

NOW Checking Account	$1,030.39
PSDMAX Series	$0.00
	$1,030.39

COMPARISON OF REVENUES VS EXPENDITURES 2025-2026

	CURRENT	ACCUM TOTAL
Revenues	$1,075.25	$1,075.25
Expenditures	$22,454.20	$22,454.20
	($21,378.95)	($21,378.95)

INTEREST EARNED:

	Current	To Date
NOW Checking Account	$0.74	$0.74
	$0.74	$0.74

FUND BALANCE ESTIMATE: July 1, 2025 - July 31, 2025

Cash and Investments on Hand	**$1,030.39**
Fed/State Reimbursement -	$0.00
Total Revenue Estimate.....	**$1,030.39**
Total Expense Estimate.....	$0.00
TOTAL ESTIMATED FUND BALANCE (LESS BENEFITS DUE)	**$1,030.39**

TRANSACTION LEDGER

Year: 26 From 7/1/2025 to 7/31/2025 Funds: 50

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	Trans Date	Invoice #	Invoice Date			Pymt Date		
			50-6630-000-000-00-000-000-000-0000	66015	R754		0.00	(466.96)
RV3502800001	07/09/2025							
Desc: BANQUET REVENUE								
RV	RV3502800001							
Number of Transactions: 1								
			Fund 50 - ENTERPRISE FUND		**REV**		**0.00**	**(466.96)**
			50-6690-000-000-00-000-000-000-0000	66001	D126	199314	0.00	(421.55)
RV3511200001	07/30/2025							
Desc: 4Q24 REBATE								
RV	RV3511200001							
Number of Transactions: 1								
			Fund 50 - ENTERPRISE FUND		**REV**		**0.00**	**(421.55)**
			50-0480-000-000-00-000-000-000-0000		R763		0.00	(186.00)
RV3515800001	07/31/2025							
Desc: SCHOOLCAFE ONLINE PYMT								
RV	RV3515800001							
Number of Transactions: 1								
			Fund 50 - ENTERPRISE FUND		**GEN**		**0.00**	**(186.00)**
			50-6510-000-000-00-000-000-000-0000		R762		0.00	(0.74)
RV3515900001	07/31/2025							
Desc: ACNB BANK INTEREST - JULY 2025								

TRANSACTION LEDGER

Year: 26 From 7/1/2025 to 7/31/2025 Funds: 50

Sort: Transaction Type, Batch, Batch Count

Vendor	Transaction Number	PO #	Account Code	ASN	Jrnl/Rev Ctrl #	Pymt #	Enc/Liq	Expd/Rcvd
Trans #	Trans Date	Invoice #	Invoice Date			Pymt Date		
RV	RV3515900001							
Number of Transactions: 1								
			Fund 50 - ENTERPRISE FUND		**REV**		**0.00**	**(0.74)**
Transaction Type RV Totals: 4							**0.00**	**(1,075.25)**

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

Financial Summary of Capital Reserve Fund

BALANCE REVIEW - CAPITAL RESERVE FUND:

Previous Balance - June 17, 2025	$972,154.13
Revenue - June 18, 2025 - June 30, 2025	$471.83
Expenditures - June 18, 2025 - June 30, 2025	$0.00
CURRENT BALANCE - June 30, 2025	$972,625.96

DISTRIBUTION OF CASH ASSETS:

ACNB Super NOW Checking Account	$855,312.34
PSDLAF Investments	$0.00
PSDMAX Series	$117,313.62
PSDLAF Overnight Account	$0.00
	$972,625.96

CURRENT INVESTMENT STATUS:

	AMOUNT	PERCENT	TERM	DUE
PSDLAF CD Pool Investment				
PSDLAF (MAX Account)	$117,313.62	4.166%	***	
PSDLAF (Overnight Account)	$0.00	0.000%	***	

*** 30 Day Yield

INTEREST EARNED:

	Current:	To Date:
Checking Super Now Account	$71.55	$587.19
PSDLAF MAX Series	$400.28	$5,158.60
PSDLAF Overnight Account	$0.00	$0.00
PSDLAF Investment	$0.00	$0.00
	$471.83	$5,745.79

CAPITAL RESERVE FUND REVENUES:

ACNB Checking Interest	$71.55
PSDLAF/MAX Investment	$400.28
Fund Transfers (General)	$0.00
	$471.83

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

Financial Summary of Capital Reserve Fund

BALANCE REVIEW - CAPITAL RESERVE FUND:

Previous Balance - June 30, 2025	$972,625.96
Revenue - July 1, 2025 - August 12, 2025	$488.43
Expenditures - July 1, 2025 - August 12, 2025	$0.00
CURRENT BALANCE - August 12, 2025	$973,114.39

DISTRIBUTION OF CASH ASSETS:

ACNB Super NOW Checking Account	$855,384.99
PSDLAF Investments	$0.00
PSDMAX Series	$117,729.40
PSDLAF Overnight Account	$0.00
	$973,114.39

CURRENT INVESTMENT STATUS:

	AMOUNT	PERCENT	TERM	DUE
PSDLAF CD Pool Investment				
PSDLAF (MAX Account)	$117,729.40	4.173%	***	
PSDLAF (Overnight Account)	$0.00	0.000%	***	

*** 30 Day Yield

INTEREST EARNED:

	Current:	To Date:
Checking Super Now Account	$72.65	$72.65
PSDLAF MAX Series	$415.78	$415.78
PSDLAF Overnight Account	$0.00	$0.00
PSDLAF Investment	$0.00	$0.00
	$488.43	$488.43

CAPITAL RESERVE FUND REVENUES:

ACNB Checking Interest	$72.65
PSDLAF/MAX Investment	$415.78
Fund Transfers (General)	$0.00
	$488.43

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

Financial Summary of Scholarship Fund

BALANCE REVIEW - SCHOLARSHIP FUND:

Previous Balance - June 17, 2025	$17,713.83
Revenue	$1.62
Expenditures	$0.00
CURRENT BALANCE - June 30, 2025	$17,715.45

DISTRIBUTION OF CASH ASSETS:

ACNB Checking	$17,715.45
	$17,715.45

INTEREST EARNED:

	Current:	Accum Total
Checking Account	$1.62	$35.85
		$35.85

SCHOLARSHIP FUND REVENUES:

ACNB Checking	$1.62
	$1.62

SCHOLARSHIP FUND EXPENDITURES:

SCHOLARSHIP ACCOUNT BALANCE SUMMARY:

Bermudian Alumni Award	$501.02
Max Kaufman	$691.25
Jordan C. Selfe	$0.00
William E. Smith	$0.00
W. Roy Starry	$6,533.57
Lloyd W. Wagener	$2,748.71
Jessica D. Webb	$5,645.00
Taylor Zimmerman	$1,595.90
	$17,715.45

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

Financial Summary of Scholarship Fund

BALANCE REVIEW - SCHOLARSHIP FUND:

Previous Balance - June 30, 2025	$17,715.45
Revenue	$1.64
Expenditures	$0.00
CURRENT BALANCE - August 12, 2025	$17,717.09

DISTRIBUTION OF CASH ASSETS:

ACNB Checking	$17,717.09
	$17,717.09

INTEREST EARNED:

	Current:	Accum Total
Checking Account	$1.64	$1.64
		$1.64

SCHOLARSHIP FUND REVENUES:

ACNB Checking	$1.64
	$1.64

SCHOLARSHIP FUND EXPENDITURES:

SCHOLARSHIP ACCOUNT BALANCE SUMMARY:

Bermudian Alumni Award	$501.05
Max Kaufman	$691.29
Jordan C. Selfe	$0.00
William E. Smith	$0.00
W. Roy Starry	$6,534.12
Lloyd W. Wagener	$2,748.90
Jessica D. Webb	$5,645.49
Taylor Zimmerman	$1,596.24
	$17,717.09

Bermudian Springs Elementary School

Activities Account

April 1, 2025 to June 30, 2025

Catagories	Opening Balance	Credits	SubTotal	Expenses	Balance
Office Account	$ 11,162.09	$ 1,523.63	$ 12,685.72	$ -	$12,685.72
Library Account	$ 15,316.33	$ 7,188.14	$ 22,504.47	$ 6,938.90	$15,565.57
Music Account			$ -		$ -
Field Trips Account	$ 5,937.07	$ 4,463.50	$ 10,400.57	$ 9,121.95	$ 1,278.62
Guidance Account	$ 258.34	$ -	$ 258.34	$ -	$ 258.34
Social Club Account	$ 357.53	$ -	$ 357.53		$ 357.53
Grand Total	$ 33,031.36	$ 13,175.27	$ 46,206.63	$ 16,060.85	$30,145.78

Bermudian Springs Middle School
York Springs, Pennsylvania 17372

QUARTERLY ACTIVITY FUND REPORT

April 1, 2025 - June 30, 2025

	Account Number	Previous Balance	Receipts	Expenses	Balance
Peer Helpers Account	101	$7,391.73	$4.68	$0.00	$7,396.41
Clearing Account	102	$394.52	$1,554.91	$1,949.43	$0.00
Band & Chorus Account	103	$1,583.78	$0.00	$0.00	$1,583.78
Library Account	104	$3,317.91	$2.34	$0.00	$3,320.25
Memory Book Account	105	$3,877.11	102.34	$0.00	$3,979.45
Student Council Account	106	$592.58	$0.00	$0.00	$592.58
Performing Arts Account	107	$11,840.41	$28.02	$23.00	$11,845.43
Office Account	108	$3,970.44	$938.86	$47.63	$4,861.67
Gym Uniform Account	109	$753.19	$0.00	$0.00	$753.19
Art Account	110	$1,139.97	$0.00	$0.00	$1,139.97
Totals of Accounts		$34,861.64	$2,631.15	$2,020.06	$35,472.73

BERMUDIAN SPRINGS HIGH SCHOOL

Activity Account 2024-2025

ACTIVITY ACCOUNT		Quarterly: April 1, 2025 to June 30, 2025			
ACCOUNT NAME	PREVIOUS BAL	EXPENSES	INCOME	BALANCE	
ART HONOR SOCIETY (Nat'l)	$4,187.38		$170.00	$4,357.38	
BAND	$6,700.48	$215.00		$6,485.48	
BASEBALL	$6,823.98	$4,205.16		$2,618.82	
BERM BREW	$1,484.81			$1,484.81	
BIBLE CLUB	$187.85			$187.85	
BOYS BASKETBALL	$106.09	$1,842.74	$2,490.00	$753.35	
BOYS SOCCER	$1,477.74			$1,477.74	
CALLIGRAPHY CLUB	$71.53			$71.53	
CHEERLEADERS	$977.74			$977.74	
CHOIR CLUB	-$197.09			-$197.09	
CLASS OF 2023	$0.00			$0.00	
CLASS OF 2024	$2,107.63			$2,107.63	
CLASS OF 2025	$22,041.26	$20,044.83		$1,996.43	
CLASS OF 2026	$11,945.53	$12,898.20	$14,143.57	$13,190.90	
CLASS OF 2027	$7,654.75	$1,195.00		$6,459.75	
CLASS OF 2028	$4,685.55			$4,685.55	
CLEARING ACCT	$948.51	$993.91	$993.91	$948.51	
CROSS COUNTRY	$351.87		$560.00	$911.87	
ESPORTS	$2,842.70			$2,842.70	
FBLA	-$47.66	$624.62	$467.00	-$205.28	
FCCLA	-$102.11			-$102.11	
FFA	$13,034.20	$3,126.65	$3,569.00	$13,476.55	
FIELD HOCKEY	$5,041.51	$642.05	$99.95	$4,499.41	
FOOTBALL CLUB	$7,937.00	$3,364.74		$4,572.26	
FRENCH CLUB	$525.31	$108.91		$416.40	
GIRLS BASKETBALL	$2,570.42	$625.00		$1,945.42	
GIRLS SOCCER	$51.80		$275.00	$326.80	
GIRLS WRESTLING	$140.74			$140.74	
GOLF	$327.60			$327.60	
GREENHOUSE	$1,762.73	$1,722.40	$2,902.66	$2,942.99	
LEO CLUB	$2,191.27			$2,191.27	WAS INTERACT CLUB
MODEL UN CLUB	$542.00	$1,021.00	$479.00	$0.00	
MUSICAL (Student)	$7,791.47	$891.79	$2,094.73	$8,994.41	
NAT'L HONOR SOC	$2,979.33	$4,960.70	$4,345.20	$2,363.83	
PEER MEDIATORS	$11,716.12	$11,463.46	$7,923.67	$8,176.33	
PRESS CLUB	$1,087.36			$1,087.36	
QUIZ BOWL CLUB	$2,175.60			$2,175.60	
RECYCLE CLUB	$1,197.35			$1,197.35	
ROBOTICS CLUB	$5,070.77			$5,070.77	
S.A.F.E	$539.14			$539.14	
SCIENCE CLUB	$0.00			$0.00	
SOFTBALL CLUB	$916.01			$916.01	
SPANISH CLUB	$651.94			$651.94	
STUDENT COUNCIL	$7,936.75	$1,568.15	$524.66	$6,893.26	
STUDENT TRAINERS	$235.95			$235.95	
TECH & GRAPHICS	$12,725.92	$129.99	$450.00	$13,045.93	
TENNIS CLUB - BOYS	$1,128.98	$377.14		$751.84	
TENNIS CLUB - GIRLS	$45.63		$652.00	$697.63	
TRACK CLUB	$3,182.28	$7,193.55	$4,533.00	$521.73	
TRY	$927.69	$330.03		$597.66	
WOODWORKING	$34.36	$1,151.71	$1,288.00	$170.65	
VARSITY CLUB	$0.00			$0.00	
VOLLEYBALL CLUB	$6,210.04		$106.75	$6,316.79	
WRESTLING	$5,481.46	$1,408.65		$4,072.81	
YEARBOOK	$3,415.17	$20.85	$908.22	$4,302.54	
YOUTH COALITION	$10,064.29			$10,064.29	
TOTALS	$193,886.73	$82,126.23	$48,976.32	$160,736.82	

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, PA 17372-8807
Athletic Account

QUARTERLY REPORT
April 1, 2025 thru June 31, 2025

Previous Balance	Expenses	Receipts	Balance
$122,840.81	$16,870.96	$1,526.17	$107,496.02

Bermudian Springs School District

Shelly Moore <smoore@bermudian.org>

Fwd: Upcoming school year

1 message

To: Danielle Curzi <dcurzi@bermudian.org>, Ryan Murphy <rmurphy@bermudian.org>, Shelly Moore <smoore@bermudian.org>, Brad Sterner <bsterner@bermudian.org>

From: Hope Jones <hopewjones24@gmail.com>
Date: July 31, 2025 at 8:56:16 PM EDT
To: Shannon Myers <smyers@bermudian.org>
Subject: Upcoming school year

Good Evening Shannon!

I hope you are having a great summer thus far. Unfortunately I will not be able to come back to work as an EL aide this coming year. I apologize for the short notice and I really enjoyed my time working for the school. Thank you for allowing me to be part of the team and hopefully the district will be able to find a replacement for the position.

Sincerely,
Hope Jones

8/4/25

to Bermudian Springs School District.

I Linda J. Kotula have decided to retire as of 8/1/25. Thank you for my years of employment.

Sincerely, Linda J. Kotula

Bermudian Springs School District

FCS Position

Mon, Jul 7, 2025 at 1:26 PM

Good Afternoon,

It is with a heavy heart that I submit my resignation from the Family Consumer Science teaching position for the 2025–2026 school year. Due to recent health issues, I have made the very difficult decision to step away from teaching in order to prioritize my health and focus on recovery.

This role is truly a dream position for me, and making this choice has not been easy. I was genuinely excited to join Bermudian Springs School District, and I remain incredibly grateful for the opportunity. From the beginning of the hiring process, you both showed me such kindness and professionalism, which only deepened my desire to be part of your team.

Please know that as soon as I am ready and able to return to the classroom, Bermudian Springs is exactly where I hope to continue my teaching career. I have the highest respect for your district, and it would be an honor to return when the time is right.

I am truly sorry to put you in this position and for any inconvenience this may cause. I hope you can understand that this decision was not made lightly. Thank you again for your support and understanding during this time.

Sincerely,

Sarah Redding

Support Sub List

FIRST Name	*LAST Name*
Wendy	Groft
Amanda	Hockensmith
Jessica	Hoffner
Pablo	Jimenez Saldivar
Lori	Kuhn
Brenda	Long
Tanya	Tanner

Nurse List

FIRST Name	*LAST Name*
Shawney	Cook
Jami	Skinner
Lori	Smith
Bonnie	Sowers
Laura	Triantafyllou
Anne-Marie	Weiser

Eagles Academy 25-26

Wendy	Cutright
Heather	Denger
Marti	Dorak
Olivia	Dyksterhouse
Sheila	Foster
Kari	Garben
Alexa	Groft
Angela	Jewart
Lori	King
John	Livelsberger
Nathan	Mattis
Kara	McCauslin
Katherine	McMaster
Lauren	Miller
Shane	Miller
Jared	Nace
Mitchell	Nace
Kaela	Piechowicz
Trish	Rapp
Wendy	Rose
Mandi	Ruberg
Brooke	Shambach
Autumn	Shuchart
Holly	Wallen
Cheyenne	Wivell
Brittany	Wood
Beth	Yosler
Stefanie	Yost

25-26 Game Help List

BLACK, KARYN M
BLACK, TODD W
BLASONE, MICHAEL J
BLASONE, OLIVIA L
DANNER, BRANDON M
EMEIGH, TAMMY J
HAWK, SHERRI K
JAMES, VANESSA R
LAUGHMAN JR, CHARLES A
LAUGHMAN, VICKI J
MERKEL, ANDREW D
MILLER, ALLISON M
MILLER, JAROD M
ORWIG, DAVID W
PROSSER, STACEY A
SIMS, JESSE J
SMITH, JAN M
SPANGLER, DONALD E
SPEELMAN, DONALD G
SPEELMAN, NICOLE M
STUART, CARRIE S
WEIGLE, JENNIFER L
YOUNG, JAN L

Volunteer Coaches-Fall 2025

Tori Berwager-Volunteer Asst. Cheerleading Coach
Kyla Caruso-Volunteer Asst. Golf Coach
Olivia Dyksterhouse-Volunteer Asst. Soccer Coach
Jason Eckenrode-Volunteer Asst. Volleyball Coach
Erin Friedman-Volunteer Asst. Cheerleading Coach
Teagan Hinkle-Volunteer Asst. Cheerleading Coach
Autumn Klunk-Volunteer Asst. Volleyball Coach
Rob McNulty-Volunteer Asst. Soccer Coach
Ryan Murphy-Volunteer Asst. Football Coach
Michelle Orsi-Volunteer Asst. Field Hockey Coach
Cassandra Ramos Estrada-Volunteer Asst. Soccer Coach
Dave Reinecker-Volunteer Football Statistician
Brieanna Royer-Volunteer Asst. Cross Country Coach
Ivanna Stanko-Volunteer Asst. Field Hockey Coach
Merle Zehr-Volunteer Asst. Field Hockey Coach

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

CAFETERIA FUND

2025-2026

BUDGET

Dr. Brad Sterner, Superintendent
Mr. Justin Peart, Business Manager
Mrs. Judy Sterling, Director of Food Service

OBJECT	CATEGORY	2023-2024 ACTUAL	2024-2025 BUDGET	2024-2025 YEAR END ESTIMATE	2025-2026 BUDGET	% INC
LOCAL REVENUES						
6400	Delinquent Collections	$124	$0	$43	$0	#DIV/0!
6510	Investment Earnings	$57	$100	$36	$50	-50.00%
6611	Student Lunches	$133,880	$0	$0	$0	#DIV/0!
6612	Student Breakfast	$0	$0	$0	$0	#DIV/0!
6621	Adult Lunches	$15,883	$17,000	$8,511	$15,000	-11.76%
6622	A La Carte Sales	$137,416	$140,493	$98,709	$120,000	-14.59%
6623	Ice Cream Sales	$12,661	$13,500	$8,236	$12,000	-11.11%
6630	Special Functions	$3,884	$4,000	$5,689	$5,000	25.00%
6690	Misc Revenue	$1,159	$1,500	$1,552	$1,500	0.00%
	Sub-Totals for Local Rev.....	$305,064	$176,593	$122,776	$153,550	-13.05%
STATE REVENUES						
7600	State Breakfast Reim	$72,203	$72,203	$72,243	$72,300	0.13%
7600	State Lunch Reim	$40,025	$40,025	$40,065	$40,100	0.19%
7810	State Payment, Soc Sec	$14,186	$14,927	$15,283	$16,300	9.20%
7820	State Payment, Retire	$64,488	$66,340	$68,401	$72,300	8.98%
	Sub-Totals for State Rev.....	$190,902	$193,495	$195,992	$201,000	3.88%
FEDERAL REVENUES						
8531	Federal Breakfast Reim	$81,018	$81,018	$91,729	$102,229	26.18%
8531	Federal Lunch Reim	$627,116	$850,368	$652,108	$676,608	-20.43%
8531	Federal Snack Prog Reim	$0	$0	$0	$0	0.00%
8532	Non-food Assistance					
8533	Donated Commodities	$0	$79,195	$0	$79,195	0.00%
	Sub-Totals for Federal Rev....	$708,134	$1,010,581	$743,837	$858,032	-15.10%
OTHER REVENUES		$0	$0	$0	$0	0.00%
	TOTAL REVENUES.....	**$1,204,100**	**$1,380,669**	**$1,062,605**	**$1,212,582**	-12.17%

OBJECT	CATEGORY	2023-2024 ACTUAL	2024-2025 BUDGET	2024-2025 YR END ESTIMATE	2025-2026 BUDGET	% INC
170	SALARIES	$381,484	$390,233	$404,940	$439,582	12.65%
200	EMPLOYEE BENEFITS					
	210-Group Insurance	$113,629	$110,403	$75,933	$93,036	-15.73%
	220-Social Security	$28,277	$29,853	$30,567	$33,628	12.65%
	230-Retirement	$128,976	$132,679	$136,802	$149,458	12.65%
	250-Unemployment Comp	$0	$0	$0	$0	0.00%
	290-Other Benefits	$0	$0	$0	$0	0.00%
300	PURCH PROF SERVICES	$1,610	$2,500	$1,156	$2,000	-20.00%
400	PURCH PROP SERVICES					
	411-Trash Removal	$0	$0	$0	$0	0.00%
	430-Equipment Repair	$10,676	$3,000	$478	$3,000	0.00%
500	OTHER PURCH SERVICES					
	530-communications	$491	$500	$499	$500	0.00%
	540-Advertising	$0	$0	$0	$0	0.00%
	580-Travel	$0	$500	$544	$500	0.00%
600	SUPPLIES					
	610-Non food Supplies	$48,072	$46,154	$39,170	$43,500	-5.75%
	631-Food	$645,843	$664,030	$624,389	$655,608	-1.27%
	632-Milk	$65,250	$65,250	$65,250	$65,250	0.00%
	633-Donated Commod	$0	$79,195	$0	$0	-100.00%
700	EQUIPMENT					
	740-Depreciation	$0	$0	$0	$0	0.00%
	750-New Equipment	$0	$0	$0	$0	0.00%
	760-Replacement	($20)	$5,000	$1,773	$3,500	-30.00%
800	OTHER OBJECTS					
	810-Training/Workshops	$4,955	$2,500	$4,955	$4,000	60.00%
	890-Other Expenses	$0	$0	$0	$0	0.00%
900	OTHER FINANCING USES					
	930-Transfer to Cap Reserve	$0	$0	$0	$0	0.00%
	930-Transfer to General Fund	$0	$0	$0	$0	0.00%
	TOTAL EXPENDITURES.....	**$1,429,243**	**$1,531,797**	**$1,386,456**	**$1,493,562**	-2.50%

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807
CAFETERIA PROFIT-LOSS SUMMARY

REVENUE	TITLE	ACTUAL 2021-22	ACTUAL 2022-23	ACTUAL 2023-24	BUDGET 2024-25	ESTIMATE 2024-25	BUDGET 2025-26
6400	Delinquent Collections	$0.00	$0.00	$124.00	$0.00	$43.00	$0.00
6510	Investments	$135.00	$194.00	$57.00	$100.00	$36.00	$50.00
6611	Reg Lunches	$0.00	$295,289.00	$133,880.00	$0.00	$0.00	$0.00
6612	Reg Breakfasts	$0.00	$3,062.00	$0.00	$0.00	$0.00	$0.00
6621	Adult Lunches	$9,212.00	$13,144.00	$15,883.00	$17,000.00	$8,511.00	$15,000.00
6622/23	A La Carte/ Ice Cream	$107,616.00	$137,437.00	$150,077.00	$153,993.00	$106,945.00	$132,000.00
6630	Special Functions	$1,090.00	$2,745.00	$3,884.00	$4,000.00	$5,689.00	$5,000.00
6690	Misc Revenue	$736.00	$1,005.00	$1,159.00	$1,500.00	$1,552.00	$1,500.00
7600	State Subsidy	$31,405.00	$78,069.00	$112,228.00	$112,228.00	$112,308.00	$112,400.00
7810	Social Security	$11,938.00	$13,647.00	$14,186.00	$14,927.00	$15,283.00	$16,300.00
7820	Retirement	$55,054.00	$64,533.00	$64,488.00	$66,340.00	$68,401.00	$72,300.00
	Other	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8531	Federal Subsidy	$1,176,706.00	$697,580.00	$708,134.00	$931,386.00	$743,837.00	$778,837.00
TOTAL REVENUE		**$1,393,892.00**	**$1,306,705.00**	**$1,204,100.00**	**$1,301,474.00**	**$1,062,605.00**	**$1,133,387.00**
PERCENT INC/DEC			**-6.25%**	**-7.85%**	**8.09%**	**-18.35%**	**-12.92%**
TOTAL REVENUE BUDGET		$1,060,994.00	$1,304,750.00	$1,304,750.00	$1,301,474.00	$1,380,669.00	$1,133,387.00
PERCENT ACTUAL/BUDG AMT		**131.38%**	**100.15%**	**92.29%**	**100.00%**	**76.96%**	**100.00%**
EXPENDITURES (Function 3100)							
170	Salaries	$317,176.00	$367,998.00	$381,484.00	$390,233.00	$404,940.00	$439,582.00
210	Group Insurance	$79,165.00	$114,904.00	$113,629.00	$110,403.00	$75,933.00	$93,036.00
220	Social Security	$23,876.00	$27,389.00	$28,277.00	$29,853.00	$30,567.00	$33,628.00
230	Retirement	$110,107.00	$129,067.00	$128,976.00	$132,679.00	$136,802.00	$149,458.00
260	Workers Comp	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
290	Other Benefits	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
300	Purch Prof Service	$2,462.00	$1,257.00	$1,610.00	$2,500.00	$1,156.00	$2,000.00
400	Equipment Repair	$0.00	$5,458.00	$10,676.00	$3,000.00	$478.00	$3,000.00
411	Trash Removal	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
540	Advertising	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
530	Communications	$485.00	$464.00	$491.00	$500.00	$499.00	$500.00
580	Travel	$0.00	$0.00	$0.00	$500.00	$544.00	$500.00
610	Supplies	$34,001.00	$36,619.00	$48,072.00	$46,154.00	$39,170.00	$43,500.00
631	Food	$501,033.00	$671,887.00	$645,843.00	$664,030.00	$624,389.00	$655,608.00
632	Milk/Ice Cream	$61,650.00	$65,250.00	$65,250.00	$65,250.00	$65,250.00	$65,250.00
750	New Equipment	$33,997.00	$310.00	$0.00	$0.00	$0.00	$0.00
760	Replace Equipment	$0.00	$1,417.00	-$20.00	$5,000.00	$1,773.00	$3,500.00
800	Other Expenses	$1,995.00	$3,965.00	$4,955.00	$2,500.00	$4,955.00	$4,000.00
900	Other Finance Uses	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTAL EXPENSES		**$1,165,947.00**	**$1,425,985.00**	**$1,429,243.00**	**$1,452,602.00**	**$1,386,456.00**	**$1,493,562.00**
PERCENT INC/DEC			**22.30%**	**0.23%**	**1.63%**	**-4.55%**	**2.82%**
TOTAL EXPEND BUDGET		$1,098,720.00	$1,303,821.00	$1,345,703.00	$1,452,602.00	$1,452,602.00	$1,493,562.00
PERCENT ACTUAL/BUDG AMT		**106.12%**	**109.37%**	**106.21%**	**100.00%**	**95.45%**	**100.00%**
CASH GAIN/LOSS		**$227,945.00**	**($119,280.00)**	**($225,143.00)**	**($151,128.00)**	**($323,851.00)**	**($360,175.00)**
GOVT COMMOD REC'D		$ 79,195.00	$ 79,195.00	$ 79,195.00	$ 79,195.00	$ 79,195.00	$ 79,195.00
GOVT COMMOD USED		$ 79,195.00	$ 79,195.00	$ 79,195.00	$ 79,195.00	$ 79,195.00	$ 79,195.00
BALANCE		**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
NET FUND GAIN/LOSS		**$227,945.00**	**($119,280.00)**	**($225,143.00)**	**($151,128.00)**	**($323,851.00)**	**($360,175.00)**

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

CAPITAL RESERVE FUND

2025 -2026

BUDGET

Dr. Brad Sterner, Superintendent
Mr. Justin Peart, Business Manager

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

CAPITAL RESERVE BUDGET, 2025-2026

		2023-24 ACTUAL	2024-25 BUDGET	2024-25 ESTIMATE	2025-26 BUDGET
AUDIT REPORT FUND BALANCE		**$826,458**	**$483,323**	**$483,324**	**$972,154**
REVENUES:					
6510	Interest Investments	$6,149	$6,500	$5,274	$5,500
6920	Contributions/Donations Private	$0	$0	$0	$0
9310	Fund Transfer from General Fund	$386	$0	$550,000	$0
	Other Fund Transfers	$0	$0	$0	$0
TOTAL REVENUES		***$6,535***	***$6,500***	***$555,274***	***$5,500***
EXPENDITURES:					
2240-760	Computer Equipment	$0	$0	$0	$0
2360-540	Advertising	$0	$0	$0	$0
4200-430	Site Improvement Services	$0	$0	$0	$0
4200-790	Site Improvement Services	$0	$0	$0	$0
4500-330	Build Construct Services	$0	$0	$0	$0
4500-610	Build General Supplies	$0	$0	$0	$0
4600-330	Building Improvement Services	$349,669	$0	$24,200	$0
4600-430	Repairs & Maintenance Services	$0	$42,000	$20,813	$50,000
4600-580	Travel	$0	$0	$0	$0
4600-600	General Supplies	$0	$10,000	$0	$10,000
4600-720	Buildings	$0	$0	$0	$0
4600-750	New Equipment	$0	$0	$21,431	$0
4600-760	Equipment Replacement	$0	$35,000	$0	$22,000
4600-790	Other Property	$0	$0	$0	$0
4600-800	Other Objects	$0	$0	$0	$0
TOTAL EXPENDITURES		***$349,669***	***$87,000***	***$66,444***	***$82,000***
EXCESS REVENUES OVER (UNDER) EXPEND		($343,134)	($80,500)	$488,830	($76,500)
UNAUDITED FUND BALANCE, JUNE 30		***$483,324***	***$402,823***	***$972,154***	***$895,654***

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

CAPITAL RESERVE FUND EXPLANATIONS
2025-2026

EXPENDITURES:

FUNCTION	DESCRIPTION	BUDGET
	ANNUAL BUDGETED ITEMS:	
4600-610	Supplies for Bldg/Grounds Repair	$5,000
4600-610	Centralized Water Treatment Supplies	$5,000
	ADDITIONAL BUDGETED ITEMS:	
4600-430	Stadium Speaker and Sound System Replacement	$50,000
4600-760	Custodial Equipment	$17,000
4600-760	Misc. Technology Equipment	$5,000
	GRAND TOTAL EXPENDITURES	**$82,000**

REVENUES:

FUNCTION	DESCRIPTION	BUDGET
6510	Interest Investments	$5,500
9320	Transfer from Athletic Capital Improvement	$0
	GRAND TOTAL REVENUES	**$5,500**

BERMUDIAN SPRINGS SCHOOL DISTRICT
York Springs, Pennsylvania 17372-8807

CAPITAL RESERVE FUND - PROJECTED BUDGET

	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
PROJECTED JULY 1 BALANCE.....	**$826,458**	**$483,324**	**$972,154**	**$895,654**	**$843,154**
PROJECTED REVENUES:					
Local Interest	$6,149	$5,274	$5,500	$5,500	$5,500
Athletic Booster's Club/Track	$0	$0	$0	$0	$0
Donations & Contributions	$386	$550,000	$0	$0	$0
Operating Transfers In	$0	$0	$0	$0	$0
TOTAL PROJECTED REVENUES.....	**$6,535**	**$555,274**	**$5,500**	**$5,500**	**$5,500**
PROJECTED EXPENDITURES:					
Building/Grounds Improve/Repair	$349,669	$24,200	$0	$3,000	$3,000
Major Building Repair/Equipment	$0	$42,244	$77,000	$50,000	$50,000
Advertisements	$0	$0	$0	$0	$0
Supplies for Bldg/Grounds Repair	$0	$0	$0	$0	$0
Technology Equipment	$0	$0	$5,000	$5,000	$5,000
TOTAL PROJECTED EXPENSES.....	**$349,669**	**$66,444**	**$82,000**	**$58,000**	**$58,000**
PROJECTED JUNE 30 BALANCE.....	**$483,324**	**$972,154**	**$895,654**	**$843,154**	**$790,654**

E&B Transportation
Driver's 2025-2026

Mustafa Ali
Tanya Ali
Renee Anthony
Jonathan Bish
Mike Blasone
Carl Coulson
Erin Deputy
Samantha Deshong
Bradford Funt
Tanya Highlands
Alexandra Hoffman
Sherry Johnson
Alisha Kenny
Stefaine Klinedinst
Rick Lauer
Rebecca Laughman
Amber Leedy
Tom Lush
Shane McCarty
Kelley Mclearen
Mike Megonnell
Sharon Megonnell
Randy Miller
Wendy Mutschler
Nichelle Parker
Tammy Paull
Courtney Reever
Cindy Scott
Josh Sentz
Steve Silsley
Scott Starner
Josh Starry
Kayla Starry
Amanda Wagner
Amber Warner
Rose Weidner
Dean Wonders
Jane Yost
Ronnie Zinn

School Express Inc.
Driver's 2025-2026

Judy Bixler
David Fentiman
Pablo Jimenez Saldivar
Laura Leiphart
Edward Leonard
Mathew McKelvey
Clair Menges
Christopher Miller
Heather Miller
Kyle Musselman
Kelly Wolf

Trip Summary by Trip

Ordered by Trip Name

Trip: 01 Elementary AM

Vehicle: Route1

STOP	TIME	STUDENTS	LOCATION
1	7:46	0	HS Parking Lot
2	7:55	2	230 Stoney Point Road
3	8:01	2	525 W King St
4	8:02	1	E King St & Jacob St
5	8:05	4	Hillside Dr & Walnut St
6	8:10	4	Hillside Dr & Upland Dr
7	8:10	6	Beaver St & Upland Dr
8	8:11	0	Branch Cir & Lodge Ln 1
9	8:11	3	Branch Cir & Aspen Dr 1
10	8:12	2	Branch Cir & Twig Ter 1
11	8:12	6	Branch Cir & Twig Ter 2
12	8:13	0	Branch Cir & Aspen Dr 2
13	8:13	0	Branch Cir & Lodge Ln 2
14	8:14	2	Branch Cir & Beaver St 2
15	8:17	1	Boyer Dr & Route 194 N
16	8:19	5	Manor Apt Complex
17	8:21	3	Abbottstown St & Locust St
18	8:26	2	335 West King Street
19	8:35	-43	BSES

Trip: 02 Elementary AM

Vehicle: Route2

STOP	TIME	STUDENTS	LOCATION
1	7:35	0	HS Parking Lot
2	7:38	1	270 Buttonwood Rd
3	7:42	3	421 Mud Run Road
4	7:43	1	450 Lake Meade Rd
5	7:45	1	554 E Berlin Rd
6	7:47	1	450 East Berlin Road
7	7:48	1	107 Gun Club Rd
8	7:49	1	138 Gun Club Rd
9	7:54	1	345 White Church Road
10	8:04	1	191 Browns Dam Road
11	8:05	2	1145 N Browns Dam Dr
12	8:06	1	1256 N Browns Dam Dr
13	8:06	2	75 Shemon Dr
14	8:09	3	Deer Park -Antler & Fawn Ave. 1 (side towards Trailer Park)

15	8:10	3	Deer Park - Fawn Ave. 2/Antler (Enterance to RT. 94)
16	8:13	8	Hampton Fire Hall
17	8:15	4	Chesterfield Development Entrance
18	8:35	-34	BSES

Trip: 03 Elementary AM

Vehicle: Route3

STOP	TIME	STUDENTS	LOCATION
1	7:50	0	HS Parking Lot
2	8:02	3	Sedgwick Dr & Lake Meade Dr
3	8:03	5	Halleck Dr & Lake Meade Dr
4	8:04	3	Hill Dr & Lake Meade Dr
5	8:07	2	Lake Meade Dr & Long St
6	8:09	2	Thomas Dr & Lake Meade Dr
7	8:11	2	Longstreet Dr & Lake Meade Dr
8	8:12	5	Schofield Dr & Lake Meade Dr
9	8:12	1	Davis Dr & Lake Meade Dr
10	8:13	3	Bragg Dr & Lake Meade Dr
11	8:13	2	Lake Meade Dr & Sickles Dr
12	8:15	1	1250 Wolf Rd
13	8:19	1	1205 Wolf Road
14	8:20	2	1139 Wolf Rd
15	8:20	4	1099 Wolf Rd
16	8:22	1	Old Loghouse Rd & Wolf Rd
17	8:22	1	770 Wolf Road
18	8:35	1	609 Wolf Road
19	8:35	-39	BSES

Trip: 04 Elementary AM

Vehicle: Route4

STOP	TIME	STUDENTS	LOCATION
1	7:50	0	HS Parking Lot
2	7:58	1	799 Hoover School Rd
3	7:58	2	755 Hoover School Rd
4	7:59	2	727 Hoover School Road
5	8:02	1	422 Church Road
6	8:02	3	354 Church Rd
7	8:03	2	239 Church Rd
8	8:03	1	110 Church Rd
9	8:06	2	2355 E Berlin Rd
10	8:10	1	1131 Green Ridge Rd
11	8:12	4	1255 Green Ridge Road
12	8:15	2	416 Peepytown Rd

13	8:15	2	Peepytown Rd/Pentz Rd.
14	8:16	1	505 Peepytown Rd
15	8:17	1	603 Peepytown Rd
16	8:18	2	14 Markle Run Rd
17	8:19	1	40 Markle Run Road
18	8:20	1	240 Markle Run Rd
19	8:25	6	Trinity Church
20	8:28	8	Zwingli Church/EBACC
21	8:29	2	601 W King St
22	8:31	2	3756 E Berlin Road
23	8:39	-47	BSES

Trip: 05 Elementary AM

Vehicle: Route5

STOP	TIME	STUDENTS	LOCATION
1	7:47	0	HS Parking Lot
2	7:59	1	2180 Germany Rd
3	8:01	1	2263 Germany Road
4	8:03	7	4th St & Locust St
5	8:07	4	Garden Ln & Harrisburg St
6	8:09	4	Harrisburg St & Wagner Ave
7	8:10	2	Conewago Park Dr & Harrisburg St
8	8:12	1	150 Rife Rd
9	8:15	11	Mountain View Mobile Home Park
10	8:17	1	115 Gladfelter Rd
11	8:21	1	1442 Germany Rd
12	8:23	1	1011 Germany Road
13	8:24	1	875 Germany Rd
14	8:25	1	Germany Ct & Germany Rd
15	8:38	-36	BSES

Trip: 07 Elementary AM

Vehicle: Route7

STOP	TIME	STUDENTS	LOCATION
1	7:37	0	HS Parking Lot
2	7:55	3	Stockhams (Mailbox Intersection)
3	7:58	4	Stockhams (white building)
4	8:00	2	Inn 94
5	8:02	2	340 Turkey Pit Rd
6	8:08	2	493 Plum Run Rd
7	8:09	1	502 Plum Run Rd
8	8:13	2	165 Group Mill Rd
9	8:13	1	190 Group Mill Rd

10	8:20	1	Group Mill Rd & S Hickory Ln
11	8:21	1	Dicks Dam Rd & Group Mill Rd
12	8:23	1	Dicks Dam Rd & Hunterstown-Hampton Road
13	8:30	-20	BSES

Trip: 08 Elementary AM

Vehicle: Route8

STOP	TIME	STUDENTS	LOCATION
1	7:38	0	HS Parking Lot
2	7:45	1	Old US Route 15 & Plank Rd
3	7:50	1	510 Baltimore Rd
4	7:50	2	501 Baltimore Road
5	7:51	1	521 Baltimore Road
6	7:51	1	630 Baltimore Rd
7	7:54	1	1030 Ridge Rd
8	7:55	1	1319 Ridge Rd
9	7:55	1	1375 Ridge Rd
10	7:56	2	1435 Ridge Road
11	7:57	1	1765 Ridge Rd
12	8:03	1	1501 Old Route 15
13	8:04	2	355 Latimore Valley Road
14	8:08	1	1207 Braggtown Rd
15	8:09	1	1247 Braggtown Rd
16	8:10	1	1295 Braggtown Rd
17	8:15	0	Harrison Dr & Lake Meade Dr
18	8:16	1	McClellan Dr & Lake Meade Dr
19	8:20	1	Jackson Dr & Lake Meade Dr
20	8:23	14	Ewell Dr & Lake Meade Dr
21	8:25	5	Sherman Dr & Lake Meade Dr
22	8:27	0	Turnaround @ Sunset Knoll
23	8:29	1	3061 Stoney Point Rd
24	8:31	2	2626 Lake Meade Rd
25	8:35	6	2417 Lake Meade Rd
26	8:40	1	6631 Old Harrisburg Rd
27	8:40	-49	BSES

Trip: 11 Elementary AM

Vehicle: Route11

STOP	TIME	STUDENTS	LOCATION
1	7:55	0	HS Parking Lot
2	7:56	1	6680 Carlisle Pike
3	7:57	0	710 Stoney Point Rd
4	7:57	1	718 Stoney Point Rd

5	7:58	2	950 Stoney Point Rd
6	8:01	2	1102 Stoney Point Road
7	8:05	3	245 Fish & Game Rd
8	8:09	1	235 Fish & Game Rd
9	8:11	1	294 Kuhn Fording Rd
10	8:15	1	669 Kuhn Fording Road
11	8:15	1	532 Kuhn Fording Road
12	8:16	1	11 Crest View Dr
13	8:16	1	560 Conewago Dr
14	8:17	2	238 Conewago Dr
15	8:24	1	190 Conewago Dr
16	8:24	2	142 Conewago Drive
17	8:25	4	96 Conewago Drive
18	8:25	1	88 Kuhn Fording Rd
19	8:27	6	Kimberly Lane & Jessica Drive
20	8:28	15	Kimberly Lane & Heather Lane
21	8:35	-46	BSES

Trip: 13 Elementary AM

Vehicle: Route13

STOP	TIME	STUDENTS	LOCATION
1	7:40	0	HS Parking Lot
2	7:42	1	7901 Carlisle Pike
3	7:53	2	501 Goodyear Rd
4	7:58	2	Slaybaughtown Rd/Snyder Rd Intersection
5	7:59	1	265 Still House Rd
6	8:00	1	Still House Rd & Goodyear Rd
7	8:03	6	Latimore Rd & Strayer Rd Intersection
8	8:04	1	789 Latimore Road
9	8:07	2	1561-1570 Town Hill Rd
10	8:09	3	1675 Town Hill Rd
11	8:11	1	2204 County Line Rd
12	8:12	3	Sequoia Court/County Line Road
13	8:15	2	Peak View Rd & Town Hill Rd
14	8:16	3	503 Peak View Rd
15	8:26	10	Atlantic Ave & Main St
16	8:28	2	8486 Carlisle Pike
17	8:29	1	8460 Carlisle Pike
18	8:30	1	8185 Carlisle Pike
19	8:30	1	8164 Carlisle Pike
20	8:30	1	8292 Carlisle Pike
21	8:35	-44	BSES

Trip: 14 Elementary AM

Vehicle: Route14

STOP	TIME	STUDENTS	LOCATION
1	7:55	0	HS Parking Lot
2	8:00	2	59 Ridge Rd
3	8:00	1	70 Ridge Rd
4	8:00	5	Tracy Dr & Wendy Dr
5	8:01	2	Tammy Dr & Tracy Dr
6	8:01	5	Tammy Dr & Wendy Dr
7	8:02	1	7051 Old Harrisburg Rd
8	8:02	1	6995 Old Harrisburg Rd
9	8:04	2	6810 Old Harrisburg Road
10	8:05	2	Old Harrisburg Rd & Sunset Ln
11	8:10	1	296 Farm View Rd
12	8:12	1	4901 Oxford Rd
13	8:12	1	4540 Oxford Rd
14	8:14	1	4410 Oxford Rd
15	8:16	1	5810 Old Harrisburg Rd
16	8:18	2	6144 Old Harrisburg Rd
17	8:19	1	6133 Old Harrisburg Road
18	8:22	2	339 S Ridge Rd
19	8:30	-31	BSES

Trip: 15 Elementary AM

Vehicle: Route15

STOP	TIME	STUDENTS	LOCATION
1	7:45	0	HS Parking Lot
2	7:58	1	84 Idaville-York Springs Rd
3	7:58	1	71 Idaville York Springs Road
4	7:59	2	20 Idaville-York Springs Rd
5	8:00	1	65 Peach Glen-Idaville Rd
6	8:01	1	232 Peach Glen Idaville Road
7	8:03	1	325 Peach Glen Idaville Road
8	8:07	2	200 Georgetown Rd
9	8:14	1	405 Torway Rd
10	8:17	1	40 Labor Camp Rd
11	8:18	1	160 Labor Camp Rd
12	8:19	2	185 Labor Camp Rd
13	8:20	1	306 Labor Camp Rd
14	8:21	2	324 Labor Camp Rd
15	8:22	1	835 Myerstown Rd
16	8:23	2	855 Myerstown Rd
17	8:25	2	Uriah Daycare

18	8:35	2	416 Main St
19	8:35	2	417 Main St
20	8:36	3	410 Main St
21	8:36	1	413 Main St
22	8:37	10	232 Main St
23	8:37	6	York Springs Post Office
24	8:42	-46	BSES

Trip: 16 Elementary AM

Vehicle: Route16

STOP	TIME	STUDENTS	LOCATION
1	7:50	0	HS Parking Lot
2	8:00	8	Amber Vw & Kimberly Ln
3	8:01	1	Diana Dr & Kimberly Ln
4	8:05	3	3570 Hunterstown Hampton Rd
5	8:06	2	3534 Hunterstown-Hampton Rd
6	8:07	2	3476 Hunterstown Hampton Rd
7	8:08	2	3446 Hunterstown-Hampton Rd
8	8:10	1	550 Gooseville Rd
9	8:11	2	83 Miller Rd
10	8:12	1	42 Miller Road
11	8:13	2	1160 East Berlin Rd
12	8:15	1	1259 Wiermans Mill Road
13	8:18	0	1228 Gun Club Rd
14	8:19	1	1280 Gun Club Rd
15	8:30	-26	BSES

Trip: 22 Elementary AM

Vehicle: Route22

STOP	TIME	STUDENTS	LOCATION
1	7:40	0	HS Parking Lot
2	7:48	2	1586 Mud Run Rd
3	7:52	1	1525 Latimore Valley Road
4	7:55	1	399 Bermudian Creek Rd
5	7:55	2	741 Bermudian Creek Rd
6	8:00	1	120 Nell Rd
7	8:01	1	280 Nell Rd
8	8:02	1	230 Harlacher Rd
9	8:05	2	440 Bakers Watering Trough Rd
10	8:07	1	2481 Stoney Point Rd
11	8:17	1	1950 Lake Meade Rd
12	8:20	1	1934 Lake Meade Rd
13	8:23	2	705 Quaker Church Road

14	8:24	1	539 Quaker Church Rd
15	8:26	1	Baltimore Rd & Roelker Rd
16	8:30	-18	BSES

Trip: 23 Elementary AM

Vehicle: Route23

STOP	TIME	STUDENTS	LOCATION
1	7:45	0	HS Parking Lot
2	7:55	1	680 Town Hill Rd
3	7:57	2	286 Cloverdale Farm Road
4	8:02	1	Mountain Rd & Bushey School Rd
5	8:03	1	267 Mountain Rd
6	8:05	1	25 Latimore Creek Rd
7	8:10	3	880 Latimore Creek Rd
8	8:13	2	1140 Latimore Creek Rd
9	8:15	2	1160 Latimore Creek Rd
10	8:17	1	1735 Mountain Road
11	8:17	1	1938 County Line Rd
12	8:18	1	1866 County Line Rd
13	8:19	2	1768 County Line Rd
14	8:20	1	Bushey School Rd & County Line Rd
15	8:26	1	Old US Route 15 & Van Scoyoc Rd
16	8:28	3	115-119 Harrisburg Street
17	8:28	6	102 - 111 Harrisburg Street
18	8:33	-29	BSES

Trip: 24 Elementary AM

Vehicle: Route24

STOP	TIME	STUDENTS	LOCATION
1	7:33	0	HS Parking Lot
2	8:02	2	Lake Meade Dr & Schofield Dr intersection
3	8:03	6	Lake Meade Dr (Cul De Sac)
4	8:05	3	Burnside Dr (2) & Lake Meade Dr
5	8:06	3	Morgan Dr & Lake Meade Dr
6	8:07	4	McCandless Dr & Lake Meade Dr
7	8:10	10	Buford Dr & Lake Meade Dr
8	8:12	4	Wadsworth Dr & Lake Meade Dr
9	8:13	10	Pemberton Dr & Veltman Dr & Lake Meade Dr
10	8:18	1	225 Big Rock Rd
11	8:21	1	221 Big Rock Rd
12	8:22	1	490 Germany Rd
13	8:24	1	67 Germany Rd
14	8:35	-44	BSES

Trip: 25 Elementary AM

Vehicle: Route25

STOP	TIME	STUDENTS	LOCATION
1	7:45	0	HS Parking Lot
2	7:56	1	170 White Oak Tree Rd
3	7:57	1	514 Idaville York Springs Rd
4	7:58	1	452 Idaville York Springs Road
5	8:00	2	3646 Carlisle Rd
6	8:01	1	3620 Carlisle Rd
7	8:03	1	112 Short Cut Road
8	8:05	1	815 Upper Bermudian Rd
9	8:10	1	6310 Oxford Rd
10	8:16	2	5825 Oxford Rd
11	8:18	1	1125 Cranberry Rd
12	8:19	2	1474 Cranberry Rd
13	8:20	2	Cranberry Rd & Rolling Rd
14	8:22	1	575 Farm View Rd
15	8:22	1	935 Trolley Rd
16	8:22	1	107 High St
17	8:23	4	North B Street
18	8:24	6	Old Harrisburg Rd & Carlisle Pike
19	8:32	-29	BSES

Trip Summary by Trip

Ordered by Trip Name

Trip: 01 Secondary AM

Vehicle: Route1

STOP	TIME	STUDENTS	LOCATION
1	6:30	0	Stefaine Klinedinst Depart Transportation
2	6:31	1	270 Kuhn Fording Rd
3	6:39	2	440 Kuhn Fording Rd
4	6:40	2	611 Kuhn Fording Road
5	6:42	1	646 Kuhn Fording Road
6	6:42	1	669 Kuhn Fording Rd
7	6:43	1	532 Kuhn Fording Road
8	6:43	2	Conewago Ter & Crest View Dr
9	6:44	2	83 Crestview Dr
10	6:45	1	389 Conewago Dr
11	6:46	2	250 Conewago Dr
12	6:47	1	174 Conewago Drive
13	6:48	3	142 Conewago Drive
14	6:48	2	96 Conewago Drive
15	6:51	9	Kuhn Dr & Locust St
16	6:52	3	Abbottstown St & Locust St
17	7:02	1	2222 East Berlin Road
18	7:05	1	191 Browns Dam Road
19	7:06	1	1320 N Browns Dam Dr
20	7:08	17	Stockhams 2 (mailboxes)
21	7:10	4	Stockhams 1 (white building)
22	7:15	2	1695 East Berlin Road
23	7:17	1	1350 E Berlin Rd
24	7:25	1	1260 East Berlin Rd
25	7:25	1	1160 East Berlin Rd
26	7:25	-35	BSMS
27	7:25	-27	BSHS

Trip: 02 Secondary AM

Vehicle: Route2

STOP	TIME	STUDENTS	LOCATION
1	6:26	0	BSSD Parking Lot
2	6:41	1	6th St & W King St
3	6:41	1	601 W King St on 6th St
4	6:41	5	4th Ave & North Ave & School House Ln
5	6:43	2	Manor Apt Complex
6	6:44	5	Apartment Complex 1 - 416 Abbottstown

7	6:45	4	Abottstown St & Boyer Dr
8	6:46	5	Beaver St & Branch Cir 1
9	6:47	3	Branch Cir & Lodge Ln 1
10	6:47	2	Branch Cir & Aspen Dr 1
11	6:48	9	Branch Cir & Twig Ter 1
12	6:48	0	Branch Cir & Twig Ter 2
13	6:49	7	Branch Cir & Aspen Dr 2
14	6:50	4	Beaver St & Branch Cir 2
15	6:57	1	240 Markle Run Rd
16	6:59	1	40 Markle Run Rd
17	7:01	1	479 Peepytown Road
18	7:02	3	Peepytown Rd & Pentz Rd
19	7:02	1	351 Peepytown Rd
20	7:03	3	337 Peepytown Rd
21	7:03	1	1255 Green Ridge Rd
22	7:20	-33	BSMS
23	7:25	-26	BSHS

Trip: 03 Secondary AM

Vehicle: Route3

STOP	TIME	STUDENTS	LOCATION
1	6:45	0	Erin Deputy Depart Transportation
2	7:00	13	Thomas Dr & Lake Meade Dr
3	7:01	7	Longstreet Dr & Lake Meade Dr
4	7:04	2	Wadsworth Dr & Lake Meade Dr
5	7:05	15	Pemberton Dr & Lake Meade Dr
6	7:06	5	Schofield Dr & Lake Meade Dr
7	7:06	0	2540 Stoney Point Rd
8	7:12	1	1159 Wolf Rd
9	7:13	4	1099 Wolf Road
10	7:14	2	913 Wolf Rd
11	7:14	4	Old Loghouse Rd & Wolf Rd
12	7:15	2	770 Wolf Road
13	7:16	1	671 Wolf Rd
14	7:17	1	1090 Germany Road
15	7:17	1	1011 Germany Rd
16	7:18	1	969 Germany Road
17	7:18	1	935 Germany Road
18	7:19	1	Germany Ct & Germany Rd
19	7:24	1	1475 Mud Run Road
20	7:25	0	1586 Mud Run Rd
21	7:25	1	1589 Mud Run Road
22	7:27	2	1435 Lake Meade Road

23	7:28	1	975 Lake Meade Rd
24	7:30	-28	BSMS
25	7:30	-38	BSHS

Trip: 04 Secondary AM

Vehicle: Route4

STOP	TIME	STUDENTS	LOCATION
1	6:57	0	Amanda Wagner Depart Transportation
2	6:59	7	E King St & Jacobs St
3	7:00	2	Hillside Dr & Walnut St
4	7:01	2	Hillside Dr & Park Ave & Pleasant View Ct
5	7:12	22	Kimberly Lane & Jessica Drive
6	7:12	14	Heather Ln & Kimberly Ln
7	7:13	3	67 Diana Dr
8	7:14	4	Diana Dr & Susan Ln
9	7:20	3	6593 Carlisle Pike
10	7:21	2	6679 Carlisle Pike
11	7:22	-31	BSMS
12	7:26	-28	BSHS

Trip: 05 Secondary AM

Vehicle: Route5

STOP	TIME	STUDENTS	LOCATION
1	6:33	1	Tanya Highlands Depart Transportation
2	6:55	1	115 Gladfelter Rd
3	6:56	1	514 Rife Rd
4	6:57	2	361 Rife Road
5	6:58	1	300 Rife Rd
6	7:00	7	Harrisburg St & Wagner Ave (N)
7	7:03	11	Trinity Lutheran Church
8	7:04	9	3rd St & W King St
9	7:05	8	525 W King St
10	7:08	2	2263 Germany Rd
11	7:09	1	2210 Germany Rd
12	7:10	1	1442 Germany Road
13	7:12	1	1406 Germany Road
14	7:13	2	Church Rd & Round Hill Rd
15	7:13	1	791 Church Road
16	7:14	1	871 Hoover School Road
17	7:15	3	799 Hoover School Rd
18	7:15	2	727 Hoover School Road
19	7:17	0	614 Hoover School Rd
20	7:18	1	422 Church Rd

21	7:19	1	410 Church Rd
22	7:24	-26	BSMS
23	7:30	-31	BSHS

Trip: 07 Secondary AM

Vehicle: Route7

STOP	TIME	STUDENTS	LOCATION
1	6:35	0	Samantha Deshong Depart Transportation
2	6:45	1	Miller Rd & East Berlin Rd
3	6:46	2	22 Miller Rd
4	6:47	2	42 Miller Road
5	6:48	1	85 Miller Rd
6	6:50	1	550 Gooseville Rd
7	6:51	1	620 Gooseville Rd
8	6:52	2	3446 Hunterstown-Hampton Rd
9	6:53	5	3540 Hunterstown Hampton Road
10	6:54	14	3574 Hunterstown Hampton Road
11	7:03	1	5160 Carlisle Pike
12	7:04	15	Antler Ln & Fawn Ave
13	7:06	6	Antler Ln & Fawn Ave 2
14	7:11	2	Inn 94
15	7:14	1	600 Turkey Pit
16	7:18	1	502 Plum Run Rd
17	7:18	1	165 Group Mill Rd
18	7:20	1	330 Group Mill Road
19	7:25	2	Group Mill Rd & S Hickory Ln
20	7:26	2	Dicks Dam Rd & Group Mill Rd
21	7:30	0	Dicks Dam Rd & Frazer Ln
22	7:30	1	2725 Hunterstown Hampton Road
23	7:33	1	3246 Hunterstown Hampton Road
24	7:43	-34	BSMS
25	7:45	-29	BSHS

Trip: 08 Secondary AM

Vehicle: Route8

STOP	TIME	STUDENTS	LOCATION
1	6:25	0	Kayla Williams Depart Transportation
2	6:58	7	McClellan Dr & Lake Meade Dr
3	7:01	10	Curtis Dr & Lake Meade Dr
4	7:04	6	Burnside Dr & Lake Meade Dr
5	7:05	5	Lincoln Dr & Lake Meade Dr
6	7:05	8	Burnside Dr 2 & Lake Meade Dr
7	7:06	6	Lake Meade Dr & McCandless Dr

8	7:08	12	Lake Meade Dr & McCandless Dr 2
9	7:18	1	2550 Lake Meade Rd
10	7:20	2	Lake Meade Rd & Two Churches Rd
11	7:25	1	44 Quaker Church Rd
12	7:25	2	6631 Old Harrisburg Rd
13	7:25	-23	BSMS
14	7:27	-37	BSHS

Trip: 09 Secondary AM

Vehicle: Route9

STOP	TIME	STUDENTS	LOCATION
1	6:22	0	Tom Lush Depart Transportation
2	6:40	5	Garden Ln & Harrisburg St
3	6:41	3	Harrisburg St & Conewago Park Dr (NE)
4	6:42	1	95 Rife Rd
5	6:43	13	Mountain View & Rife Rd
6	6:45	1	700 Rife Rd
7	6:48	2	940 Anthony Rd
8	6:53	2	1030 Fish & Game Rd
9	6:55	1	1275 Fish And Game Rd
10	6:55	1	1655 Fish and Game Rd
11	6:58	1	230 Harlacher Road
12	7:00	1	178 Harlacher Rd
13	7:03	1	831 Fish and Game Road
14	7:05	3	640 Possum Hollow Rd
15	7:10	30	Amber Vw & Kimberly Ln
16	7:24	-31	BSMS
17	7:31	-34	BSHS

Trip: 10 Secondary AM

Vehicle: Route10

STOP	TIME	STUDENTS	LOCATION
1	6:43	0	E&B
2	6:45	1	8273 Carlisle Pike
3	6:47	2	631 Ridge Road
4	6:48	1	645 Ridge Road
5	6:51	1	521 Baltimore Rd
6	6:52	2	510 Baltimore Rd
7	6:52	1	115 - 162 Baltimore Rd
8	7:03	2	160 Pondtown Rd
9	7:04	2	200 Pondtown Road
10	7:07	1	Braggtown Road & Pondtown Road
11	7:08	4	1247 Braggtown Rd

12	7:12	1	798 Bermudian Creek Rd
13	7:13	1	741 Bermudian Creek Rd
14	7:13	2	651 Bermudian Creek Road
15	7:14	1	399 Bermudian Creek Rd
16	7:20	1	1090 Latimore Valley Road
17	7:21	1	1020 Latimore Valley Rd
18	7:23	1	355 Latimore Valley Rd
19	7:23	2	225 Latimore Valley Road
20	7:26	1	Old US Route 15 & Van Scoyoc Rd
21	7:27	2	Wolf's
22	7:28	1	129-135 Harrisburg St
23	7:28	3	107-119 Harrisburg St
24	7:29	5	Harrisburg St & Middle St (NE)
25	7:31	20	Main St & N B Aly & S B Aly
26	7:33	1	8486 Carlisle Pike
27	7:34	-27	BSMS
28	7:38	-33	BSHS

Trip: 11 Secondary AM

Vehicle: Route11

STOP	TIME	STUDENTS	LOCATION
1	6:50	0	Steve Silsley Depart Transportation
2	6:50	6	Fisher Dr & Howard Dr & Lake Meade Dr
3	6:51	3	Hines Dr & Lake Meade Dr
4	6:52	2	Howard Dr & Lake Meade Dr
5	6:53	11	Curtis Dr & Lake Meade Dr
6	6:54	2	171 Nell Rd
7	6:55	2	365 Nell Rd
8	6:56	2	460 Bakers Watering Trough Rd
9	6:57	1	1880 Stoney Point Rd
10	6:58	1	1753 Stoney Point Rd
11	6:59	2	1187 Stoney Point Rd
12	7:00	1	950 Stoney Point Rd
13	7:01	4	Hampton Dr & Stoney Point Rd
14	7:04	2	90 Stoney Point Rd
15	7:05	7	Hampton Fire Hall
16	7:07	3	Chesterfield Estates
17	7:20	-26	BSMS
18	7:26	-23	BSHS

Trip: 13 Secondary AM

Vehicle: Route13

STOP	TIME	STUDENTS	LOCATION

1	6:45	0	Amber Leedy Depart Transportation
2	6:50	4	501 Goodyear Road
3	6:53	1	Goodyear Rd & Oxford Rd
4	6:56	4	265 Still House Rd
5	6:57	3	Goodyear Rd & Still House Rd
6	6:59	5	Strayer Rd & Latimore Rd
7	7:00	2	420 Latimore Rd
8	7:00	1	650 Fickel Hill Rd
9	7:01	3	Fickel Hill Rd & Hilltop Rd
10	7:04	1	630 Latimore Road
11	7:05	1	731 Latimore Road
12	7:06	1	789 Latimore Rd
13	7:10	2	Town Hill Rd & Blackberry School Rd
14	7:11	5	1561 - 1575 Town Hill Road
15	7:11	5	Town Hill Rd & Hilltop Rd (NW)
16	7:11	1	1675 Town Hill Rd
17	7:14	2	490 Peak View Road
18	7:20	1	380 Cherry Hill Road
19	7:22	2	1625 White Oak Tree Rd
20	7:25	7	327 Main St
21	7:26	7	216 Main Street Holy Trinity Church
22	7:31	-24	BSMS
23	7:34	-34	BSHS

Trip: 14 Secondary AM

Vehicle: Route14

STOP	TIME	STUDENTS	LOCATION
1	6:59	0	Sherry Johnson Depart Transportation
2	7:00	3	1429 Cranberry Road
3	7:00	2	1451 Cranberry Road
4	7:01	3	1474 Cranberry Road
5	7:03	1	1736 Cranberry Rd
6	7:04	1	1995 Cranberry Rd
7	7:05	2	150 Farm View Road
8	7:07	2	6414 Old Harrisburg Road
9	7:10	1	6370 Old Harrisburg Rd
10	7:11	1	4707 Oxford Rd
11	7:13	1	4671 Oxford Rd
12	7:13	1	4410 Oxford Road
13	7:15	2	6527 Old Harrisburg Road
14	7:19	2	6684 Old Harrisburg Road
15	7:19	1	6790 Old Harrisburg Rd
16	7:23	5	6966 Old Harrisburg Rd

17	7:24	1	7051 Old Harrisburg Rd
18	7:24	2	7090 Old Harrisburg Road
19	7:25	3	7195 Old Harrisburg Road
20	7:26	1	Tammy Dr & Wendy Dr
21	7:27	2	Tammy Dr & Tracy Dr
22	7:28	8	Wendy Dr & Tracy Dr
23	7:32	2	101 State St
24	7:33	1	110 Old Route 15
25	7:33	3	40 Ridge Rd
26	7:40	-21	BSMS
27	7:43	-30	BSHS

Trip: 15 Secondary AM

Vehicle: Route15

STOP	TIME	STUDENTS	LOCATION
1	6:35	0	E&B
2	6:46	1	91 Peach Glen-Idaville Rd
3	6:46	4	115 Peach Glen Idaville Road
4	6:46	1	149 Peach Glen Idaville Road
5	6:47	2	279 Peach Glen-Idaville Rd
6	6:47	4	325-343 Peach Glen-Idaville Rd
7	6:48	1	395 Peach Glen Idaville Road
8	6:48	3	515 Peach Glen Idaville Road
9	6:51	2	200 Georgetown Road
10	6:52	2	140 Georgetown Road
11	6:53	1	72 Georgetown Rd
12	6:54	1	232 Peach Glen-Idaville Rd
13	6:57	1	3710 Carlisle Rd
14	6:57	1	3614 Carlisle Rd
15	6:57	1	3510 Carlisle Rd
16	6:58	2	35 Idaville York Springs Road
17	6:58	1	71 Idaville-York Springs Rd
18	6:58	1	84 Idaville-York Springs Rd
19	7:00	1	405 Torway Rd
20	7:01	1	715 Torway Road
21	7:01	1	660 Torway Rd
22	7:02	1	90 Labor Camp Rd
23	7:04	1	120 Labor Camp Rd
24	7:06	2	152 Labor Camp Rd
25	7:07	1	324-328 Labor Camp Road
26	7:08	2	835 Myerstown Road
27	7:15	2	417 Main St
28	7:16	5	413 Main St

29	7:19	12	Atlantic Avenue and Rt 94
30	7:24	-34	BSMS
31	7:30	-24	BSHS

Trip: 16 Secondary AM

Vehicle: Route16

STOP	TIME	STUDENTS	LOCATION
1	6:35	0	MS Parking Lot
2	6:42	4	Long Ln & S Ridge Rd
3	6:44	5	Greenbriar Rd & S Ridge Rd
4	6:46	1	115 S Ridge Rd
5	6:49	1	82 S Ridge Road
6	6:49	5	35 S Ridge Rd
7	6:50	1	130 Wiermans Mill Road
8	6:52	2	290 Wiermans Mill Road
9	6:54	3	845 White Church Road
10	6:55	4	720 White Church Road
11	6:56	2	560 White Church Road
12	6:58	1	345 White Church Rd
13	7:00	1	450 East Berlin Rd
14	7:01	3	534 East Berlin Road
15	7:01	3	554-558 East Berlin Road
16	7:05	2	1259 Weirmans Mill Rd
17	7:06	2	1181 Wiermans Mill Rd
18	7:14	1	300 Mud Run Rd
19	7:15	3	420 Mud Run Rd
20	7:15	3	435 Fickes School Rd
21	7:17	1	251 Fickes School Rd
22	7:18	3	15 Lake Meade Road
23	7:19	1	415 Lake Meade Rd
24	7:20	1	720 Mud Run Road
25	7:22	2	1228 Gun Club Rd
26	7:23	1	1240 Gun Club Road
27	7:32	-21	BSMS
28	7:35	-35	BSHS

Trip: 22 Secondary AM

Vehicle: Route22

STOP	TIME	STUDENTS	LOCATION
1	6:40	0	Rose Weidner Depart Transportation
2	6:45	1	795 Baltimore Rd
3	6:46	1	710 Ridge Rd
4	6:47	2	1165 Ridge Road

5	6:48	1	1329 Ridge Road
6	6:48	1	1375 Ridge Road
7	6:50	2	1645 Ridge Rd
8	6:51	1	1736 Ridge Road
9	6:51	3	1756 - 1763 Ridge Rd
10	6:55	2	150 County Line Rd
11	6:57	3	1175 Braggtown Rd
12	7:08	0	Jackson Dr & Lake Meade Dr
13	7:09	29	Ewell Dr & Lake Meade Dr
14	7:09	10	Sherman Dr & Lake Meade Dr
15	7:12	4	2640 Lake Meade Rd
16	7:18	2	275 Ironstone Road
17	7:18	1	705 Quaker Church Rd
18	7:19	1	687 Quaker Church Road
19	7:20	1	Roelker Rd & Baltimore Rd
20	7:26	-34	BSMS
21	7:27	-31	BSHS

Trip: 23 Secondary AM

Vehicle: Route23

STOP	TIME	STUDENTS	LOCATION
1	5:53	0	E&B
2	6:30	1	25 Latimore Creek Rd
3	6:31	1	Hoffman Rd & Latimore Creek Rd
4	6:32	1	819 Latimore Creek Rd
5	6:33	1	1079 Latimore Creek Rd
6	6:34	2	1130 Latimore Creek Road
7	6:35	3	1140 Latimore Creek Road
8	6:39	2	Bushey School Rd & County Line Rd
9	6:40	1	890 County Line Road
10	6:42	2	341 Bonners Hill Rd
11	6:46	2	Bushey School Rd & Mountain Rd
12	6:50	1	1735 Mountain Road
13	6:54	1	2650 County Line Road
14	6:55	1	County Line Rd & Ju Dan Ct
15	6:56	2	County Line Rd & Sequoia Ct
16	6:57	1	50 Seneca Dr
17	7:02	1	977 Mountain Rd
18	7:03	3	25 Mill Road
19	7:05	2	286 Cloverdale Farm Road
20	7:08	1	Town Hill Rd & Rt. 94
21	7:09	1	422 Main St
22	7:12	17	232 Main Street

23	7:25	-25	BSMS
24	7:26	-22	BSHS

Trip: 24 Secondary AM

Vehicle: Route24

STOP	TIME	STUDENTS	LOCATION
1	6:30	0	E&B
2	6:58	14	Sedgewick & Lake Meade Dr
3	7:00	14	Halleck Dr (SW) & Lake Meade Dr
4	7:01	3	Hill Dr & Lake Meade Dr
5	7:02	0	Custer Dr & Lake Meade Dr
6	7:04	11	Davis Dr & Lake Meade Dr
7	7:06	19	Buford Dr & Lake Meade Dr
8	7:10	1	2879 Lake Meade Rd
9	7:12	2	2626 Lake Meade Rd
10	7:12	1	2317 - 2405 Lake Meade Rd
11	7:13	1	2166 Lake Meade Rd
12	7:14	2	1525 Latimore Valley Road
13	7:15	1	1439 Latimore Valley Road
14	7:25	-38	BSMS
15	7:27	-31	BSHS

Trip: 25 Secondary AM

Vehicle: Route25

STOP	TIME	STUDENTS	LOCATION
1	6:45	0	Scott Starner Depart Transportation
2	6:47	2	112 Short Cut Road
3	6:55	2	245 White Oak Tree Road
4	6:55	3	90 White Oak Tree Rd
5	6:56	2	67 White Oak Tree Rd
6	7:01	2	5692 Oxford Rd
7	7:02	1	5835 Oxford Rd
8	7:02	2	75 Poplar Hill Road
9	7:02	1	Oxford Rd & Balltown Rd
10	7:03	1	Manor Ln & Oxford Rd
11	7:05	1	6385 Oxford Road
12	7:07	2	127 Ground Oak Church Rd
13	7:12	4	815 Upper Bermudian Road
14	7:13	2	452 Idaville-York Springs Rd
15	7:14	2	514 Idaville York Springs Road
16	7:15	2	1170 Idaville York Springs Roa
17	7:15	2	1420 Idaville-York Springs Rd
18	7:22	1	432 Farm View Rd

19	7:23	1	2073 Cranberry Rd
20	7:29	1	2466 Cranberry Rd
21	7:29	20	Old Harrisburg Rd & Carlisle Pike
22	7:30	2	8292 Carlisle Pike
23	7:30	2	8164 Carlisle Pike
24	7:34	-29	BSMS
25	7:40	-29	BSHS

Module 1: The History of the English Language

Draft Date	Duration	Grades	Subjects	Team
10-11-2024 @ 04:17	3.0 Weeks	11	English Language Arts	Kara McCauslin

Unit Focus

This unit will explore the rich and complex history of the English language, tracing its development from its ancient roots to modern-day usage in American literature and culture. Students will gain an understanding of how historical events, cultural exchanges, and social changes have shaped the language they speak and write today. By examining key milestones in the evolution of English, such as the influence of Latin, Norse, and French on Old and Middle English, the impact of the Renaissance and the printing press, and the standardization of English in the modern era, students will discover how language reflects identity, power, and culture.

In addition to historical analysis, students will explore the role of English in American identity, its spread as a global language, and its adaptation in diverse communities. This unit will help students recognize how the history of English is intertwined with the development of American literature, deepening their appreciation for both the language and the works they study.

Prior Learnings/Connection

This module will build on students' previous exposure to literary analysis, language study, and historical context in earlier grades. In previous years, students may have encountered texts from various periods or cultures that used forms of English that differ from modern usage. These experiences will help them compare past and present language conventions. Students will have likely studied foundational grammar, vocabulary, and the structure of the English language. This module provides a basis for understanding how English has evolved over time.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 11-12 ■ Analyze the interaction and development of a complex set of ideas, sequence of	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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events, or specific individuals over the course of the text. *(CC.1.2.11-12.C)*
- Evaluate how an author's point of view or purpose shapes the content and style of a text. *(CC.1.2.11-12.D)*
- Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging. *(CC.1.2.11-12.E)*
- Analyze seminal texts based upon reasoning, premises, purposes, and arguments. *(CC.1.2.11-12.H)*
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. *(CC.1.4.11-12.V)*
- Initiate and participate effectively in a range of collaborative discussions on grades level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. *(CC. 1.5.11-12.A)*
- Integrate multiple sources of information presented in diverse formats and media (e.g. visually, quantitative, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data. *(CC. 1.5.11-12.C)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*	■ How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA. 07.A)* ■ How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)* ■ How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

Module 6 Natures Fury

Draft Date	Duration	Grades	Subjects	Team
10-11-2024 @ 01:30	4.0 Weeks	5	English Language Arts	AIMEE WAKEFIELD , Marilee Durbin , TANYA HARBOLD , CHRISTOPHER KING , BONNIE MUMMERT

Unit Focus

Students read fiction and nonfiction texts on natural disasters accounts and interpret the impact of these events on people.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 5

- Know and apply grade level phonics and word analysis skills in decoding words. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology to read accurately unfamiliar multisyllabic words. *(CC.1.1.5.D)*
- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.5.E)*
- Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. *(CC.1.2.5.D)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*

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- Determine the meaning of words and phrases as they are used in grade level text, including interpretation of figurative language. *(CC.1.2.5.F)*
- Integrate information from several texts on the same topic to demonstrate understanding of that topic. *(CC.1.2.5.I)*
- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships. *(CC.1.2.5.J)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.5.L)*
- Determine a theme of a text from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. *(CC.1.3.5.A)*
- Compare and contrast two or more characters, settings or events in a story or drama, drawing on specific details in the text. *(CC.1.3.5.C)*
- Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. *(CC.1.3.5.D)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.5.I)*

- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.5.K)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.5.M)*
- Orient the reader by establishing a situation and introducing a narrator and/or characters. *(CC.1.4.5.N)*
- Use narrative techniques such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations; use concrete words and phrases and sensory details to convey experiences and events precisely. *(CC.1.4.5.O)*
- Organize an event sequence that unfolds naturally, using a variety of transitional words and phrases to manage the sequence of events; provide a conclusion that follows from the narrated experiences and events. *(CC.1.4.5.P)*
- Write with an awareness of styles. Use sentences of varying length. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. *(CC.1.4.5.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.5.R)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts. *(CC.1.4.5.S)*
- With guidance and support from peers and adults, develop and strengthen writing as

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needed by planning, revising, editing, rewriting, or trying a new approach. *(CC. 1.4.5.T)*

- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC. 1.4.5.X)*
- Demonstrate command of the conventions of standard English when speaking based on grade 5 level and content. *(CC.1.5.5.G)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*

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■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	

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Comparing Informational and Fictional Text

Draft Date	Course	Grades	Subjects	Team
10-14-2024 @ 01:59	7th Grade ELA	7	English Language Arts	Quinn Turocy

Unit Focus

This unit focuses on strengthening students' ability to read, analyze, and respond to informational texts with a critical lens. Students will learn how authors structure texts using sections, graphics, and charts to convey information effectively. Through explicit vocabulary instruction and practice, students will deepen their understanding of academic and domain-specific words. Students will also learn how to use context clues, word parts, and reference tools to determine the meaning of unknown or multiple-meaning words. The unit will culminate in writing responses to literature and informational texts that include evidence-based analysis and vocabulary-rich expression.

Prior Learnings/Connection

1.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 7 ■ Analyze the structure of the text through evaluation of the author's use of graphics, charts. and the major sections of the text. *(CC.1.2.7.E)* ■ Determine the meaning of words and phrases as they are used in grade level reading and content, including interpretation of figurative, connotative, and technical meanings. *(CC.1.2.7.F)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

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- Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g. how the delivery of a speech affects the impact of the words). *(CC.1.2.7.G)*
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.2.7.J)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade level reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.2.7.K)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.7.I)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and literary non-fiction. *(CC.1.4.7.S)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC.1.4.7.X)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*
- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*

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Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ The purpose of different text structures (e.g., chronological, cause/effect, problem/solution, compare/contrast). *(K1)* ■ How graphics, charts, and headings contribute to understanding the text. *(K2)* ■ ◦ Definitions of figurative, connotative, and technical language. *(K3)* ■ ◦ Common context clue types (e.g., synonyms, antonyms, examples, definitions within the text). *(K4)* ■ ◦ Strategies for determining the meaning of unknown words (e.g., using a dictionary, breaking down roots and affixes) *(K5)* ■ ◦ Definitions of plot, character, setting, conflict, theme, and how these elements interact. *(K6)* ■ ◦ How to cite evidence from a text to support an argument or analysis. *(K7)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Identify how a text is organized (e.g., cause/effect, compare/contrast, sequence). *(S1)* ■ Analyze the function of headings, subheadings, bolded terms, sidebars, and captions. *(S2)* ■ Interpret graphics, charts, and diagrams and explain how they contribute to meaning. *(S3)* ■ Explain how sections of a text contribute to the overall development of ideas or an argument. *(S4)* ■ Use context clues to determine meaning of unknown words or phrases. *(S5)* ■ Recognize technical terms related to content-area texts (e.g., scientific or historical). *(S6)* ■ Interpret word choice and how it affects tone or meaning. *(S7)* ■ Learn and apply academic vocabulary (e.g., analyze, infer, compare). *(S8)*

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	■ ◦ Basic grammar rules (e.g., subject-verb agreement, punctuation, capitalization). *(K8)* ■ ◦ Strategies for revising and editing writing for clarity, organization, and grammar. *(K9)*	■ Learn and apply domain-specific vocabulary (e.g., habitat, legislative). *(S9)* ■ Use resources (e.g., dictionaries, glossaries, digital tools) to gather word knowledge. *(S10)* ■ Apply us of context clues *(S11)* ■ Determine multiple meanings of a word based on how it's used in context. *(S12)* ■ Use strategies to determine word meanings (context, roots, affixes, etc.). *(S13)* ■ Interpret figurative language in literature (e.g., simile, metaphor). *(S14)* ■ Analyze how a word's meaning contributes to a text's theme or characterization. *(S15)* ■ Cite textual evidence accurately and effectively. *(S16)* ■ Use evidence to support analysis, interpretation, or argument. *(S17)* ■ Organize ideas clearly in writing (e.g., using introduction, body, and conclusion). *(S18)* ■ Write for different purposes (e.g., narrative, informative, argumentative). *(S19)* ■ Write for different audiences (e.g., peers, teachers, public). *(S20)*

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		■ Practice revising and editing drafts. *(S21)*

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English 12 Unit 1: Memoirs and Narrative Writing

Draft Date	Duration	Grades	Subjects	Team
07-05-2022 @ 04:24	7.0 Weeks	12	English Language Arts	Rachel Detsch

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- **Determine and analyze the relationship between two or more central ideas of a text, including the development and interaction of the central ideas; provide an objective summary of the text.** *(CC.1.2.11-12.A)*
- **Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs.** *(CC.1.2.11-12.B)*
- **Analyze the interaction and development of a complex set of ideas, sequence of events, or specific individuals over the course of the text.** *(CC.1.2.11-12.C)*
- **Evaluate how an author's point of view or purpose shapes the content and style of a text.** *(CC.1.2.11-12.D)*
- **Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether**

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that... ■ reading and evaluating others' narratives/stories often helps us better write and evaluate our own narratives/stories. *(U1)*	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering... ■ How does reading and evaluating others' narratives/stories influence how we write and evaluate our own narratives/stories? *(Q1)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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the structure makes points clear, convincing, and engaging. *(CC.1.2.11-12.E)*

- **Evaluate how words and phrases shape meaning and tone in texts.** *(CC.1.2.11-12.F)*
- **Integrate and evaluate multiple sources of information presented in different media or formats (e.g. visually, quantitatively) as well as in words in order to address a question or solve a problem.** *(CC.1.2.11-12.G)*
- **Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.** *(CC.1.2.11-12.J)*
- **Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade level reading and content, choosing flexibly from a range of strategies and tools.** *(CC. 1.2.11-12.K)*
- **Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently.** *(CC.1.2.11-12.L)*
- **Write narratives to develop real or imagined experiences or events.** *(CC. 1.4.11-12.M)*
- **Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple points of view, and introducing a narrator and/or characters.** *(CC.1.4.11-12.N)*

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- **Use narrative techniques such as dialogue, description, reflection, multiple plot lines, and pacing, to develop experiences, events, and/or characters; use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, settings, and/or characters.** *(CC.1.4.11-12.O)*
- **Create a smooth progression of experiences or events using a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome; provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.** *(CC.1.4.11-12.P)*
- **Write with an awareness of the stylistic aspects of writing. Use parallel structure. Use various types of phrases and clauses to convey specific meanings and add variety and interest. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic.** *(CC.1.4.11-12.Q)*
- **Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling.** *(CC.1.4.11-12.R)*
- **Initiate and participate effectively in a range of collaborative discussions on grades level topics, texts, and issues, building on others' ideas and expressing**

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their own clearly and persuasively. *(CC. 1.5.11-12.A)* ■ **Evaluate how the speaker's perspective, reasoning, and use of evidence and rhetoric affect the credibility of an argument through the author's stance, premises, links among ideas, word choice, points of emphasis, and tone.** *(CC. 1.5.11-12.B)*	

Science and Engineering Practices

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): K-2 Science & Engineering Practices

- With guidance, plan and conduct an investigation in collaboration with peers. *(SEP.K-2.P6.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): K Disciplinary Core Ideas

- A bigger push or pull makes things speed up or slow down more quickly. *(DCI.K.PS3.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 3-5 Crosscutting Concepts

- Different materials have different substructures, which can sometimes be observed. *(CCC.3-5.C4.1)*

Foundational Module

Draft Date	Course	Duration	Grades	Subjects	Team
01-09-2025 @ 08:18	1st Grade Reading	180.0 Day(s)	1	English Language Arts	Jessica Smith , Shannon Myers

Unit Focus

This year-long module focuses on building and reinforcing foundational literacy skills for first-grade students through ongoing instruction and assessment. Throughout the year, students will develop their understanding of print concepts, phonological awareness, phonics, fluency, and comprehension. They will recognize sentence structures, distinguish sounds in spoken words, and apply phonics skills to decode and read words accurately. Through consistent engagement with both literary and informational texts, students will practice reading independently and proficiently. Writing activities will provide opportunities for students to express their thoughts clearly across various tasks and time frames. Additionally, students will participate in collaborative discussions, actively listen to and evaluate spoken information, and strengthen their communication skills by describing ideas with relevant details and visual supports. By integrating speaking, listening, reading, and writing throughout the year, this module ensures continuous growth and development in literacy.

Prior Learnings/Connection

In kindergarten, students develop early literacy skills by exploring print concepts, phonological awareness, and basic phonics. They demonstrate understanding of print directionality, recognize that words represent spoken language, and practice identifying syllables and phonemes. Students begin decoding simple words and reading emergent texts with support. They also participate in collaborative discussions, ask and answer questions, and describe people, places, and events with prompting. Through short writing tasks, they express their ideas and use drawings or visual displays to clarify their thoughts. This foundation prepares them to read fluently, write with more independence, and engage in deeper comprehension and analysis in 1st grade.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 1 ■ Demonstrate understanding of the organization and basic features of print.	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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Recognize the distinguishing features of a sentence. *(CC.1.1.1.B)*

- Demonstrate understanding of spoken words, syllables, and sounds (phonemes). Distinguish long from short vowel sounds in spoken single-syllable words. Count, pronounce, blend, and segment syllables in spoken and written words. Orally produce single-syllable words, including consonant blends and digraphs. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. Add or substitute individual sounds (phonemes) in one-syllable words to make new words. *(CC.1.1.1.C)*
- Know and apply grade level phonics and word analysis skills in decoding words. Identify common consonant diagraphs, final-e, and common vowel teams. Decode one and two-syllable words with common patterns. Read grade level words with inflectional endings. Read grade-appropriate irregularly spelled words. *(CC.1.1.1.D)*
- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.1.E)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.1.L)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Print has an organized structure, and sentences have distinguishing features. *(K1)*
- Spoken words are made up of syllables and phonemes, which can be manipulated to form new words. *(K2)*
- Letters and letter combinations represent sounds in predictable ways

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying and understanding basic print concepts, including sentence structure. *(S1)*
- Distinguishing long and short vowels in spoken words. *(S2)*
- Counting, pronouncing, blending, and segmenting syllables. *(S3)*

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- Read and comprehend literature on grade level, reading independently and proficiently. *(CC.1.3.1.K)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC.1.4.1.X)*
- Participate in collaborative conversations with peers and adults in small and larger groups. *(CC.1.5.1.A)*
- Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. *(CC.1.5.1.B)*
- Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood. *(CC.1.5.1.C)*
- Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly. *(CC.1.5.1.D)*
- Produce complete sentences when appropriate to task and situation. *(CC.1.5.1.E)*
- Add drawings or other visual displays when sharing aloud to clarify ideas, thoughts, and feelings. *(CC.1.5.1.F)*
- Demonstrate command of the conventions of standard English when speaking based on grade 1 level and content. *(CC.1.5.1.G)*

(phonics rules).
(K3)
- Words can be decoded using phonics skills, syllabication patterns, and irregular word recognition.
(K4)
- Reading fluently involves accuracy, expression, and comprehension.
(K5)
- Informational and literary texts should be read independently and proficiently.
(K6)
- Writing serves various purposes and requires different time frames for development.
(K7)
- Effective communication includes active listening, questioning, and clarifying information.
(K8)
- Visuals can enhance oral presentations.
(K9)
- Clear and complete sentences are essential for effective speaking and writing.
(K10)

- Producing and manipulating phonemes in single-syllable words.
(S4)
- Applying phonics skills to decode grade-level words, including words with digraphs, final-e, vowel teams, and inflectional endings.
(S5)
- Reading fluently with accuracy, appropriate pacing, and expression to aid comprehension.
(S6)
- Using context to confirm or self-correct word recognition and understanding.
(S7)
- Reading and comprehending both informational and literary texts at grade level.
(S8)
- Writing for different purposes over varied time frames.
(S9)
- Engaging in discussions, asking and answering questions to clarify understanding.
(S10)
- Describing people, places, things, and events with relevant details.
(S11)
- Using visual displays to clarify ideas when speaking.
(S12)
- Demonstrating appropriate grammar and sentence structure in speaking.
(S13)

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Other Goals

- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Foundational Module

Draft Date	Course	Duration	Grades	Subjects	Team
01-09-2025 @ 08:23	2nd Grade Reading	180.0 Day(s)	2	English Language Arts	Jessica Smith , Julie Hermes , Brooke Shambach , Rachel Mleczko

Unit Focus

This year-long module focuses on building second-grade students' literacy skills across foundational reading, writing, speaking, and listening standards. Students will develop phonics and word recognition abilities, decoding both regular and irregular words, and reading with fluency and comprehension. They will acquire vocabulary in both informational and literary texts, reading independently and proficiently. Collaborative discussions will be emphasized in speaking and listening, where students will also learn to provide clear, detailed responses. Throughout the year, students will strengthen their command of standard English conventions, enhancing their ability to communicate effectively both orally and in writing.

Prior Learnings/Connection

In 1st grade, students develop foundational phonics and word recognition skills, including recognizing long and short vowels in one-syllable words and beginning to decode two-syllable words. They work on reading fluently with accuracy, expression, and comprehension, as well as using context to self-correct word recognition. Students also focus on vocabulary acquisition, including domain-specific words in informational texts, and reading independently with proficiency. In writing, they start practicing writing for a range of tasks, purposes, and audiences, while continuing to strengthen their ability to participate in collaborative discussions and express ideas using complete sentences.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 2 ■ Know and apply grade level phonics and word analysis skills in decoding words. Distinguish long and short vowels when reading regularly spelled one-syllable	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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words. Decode two-syllable words with long vowels and words with common prefixes and suffixes. Read grade level high-frequency sight words and words with inconsistent but common spelling-sound correspondences. Read grade-appropriate irregularly spelled words. *(CC.1.1.2.D)*

- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.2.E)*
- Acquire and use grade-appropriate conversational, general academic, and domain-specific words and phrases. *(CC.1.2.2.J)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.2.L)*
- Acquire and use grade-appropriate conversational, general academic, and domain-specific words and phrases. *(CC.1.3.2.J)*
- Read and comprehend literature on grade level, reading independently and proficiently. *(CC.1.3.2.K)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC.1.4.2.X)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Phonics and word recognition are key to decoding both regular and irregular words. *(K1)*
- Fluency and comprehension are developed through repeated practice reading on-grade level texts with accuracy and understanding. *(K2)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Applying grade-level phonics and word analysis skills to decode words, including those with long and short vowels, prefixes, and suffixes. *(S1)*
- Reading texts accurately and fluently, rereading to confirm or self-correct word recognition and understanding. *(S2)*

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- Participate in collaborative conversations with peers and adults in small and larger groups. *(CC.1.5.2.A)*
- Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. *(CC.1.5.2.E)*
- Demonstrate command of the conventions of standard English when speaking based on grade 2 level and content. *(CC.1.5.2.G)*

Other Goals

- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- Vocabulary includes both academic and domain-specific words and phrases. *(K3)*
- Writing can be produced for a variety of purposes and audiences, with time for reflection and revision. *(K4)*
- Speaking and listening require clear, detailed responses and the ability to participate in collaborative discussions. *(K5)*
- Standard English conventions are important for effective communication in both speaking and writing. *(K6)*

- Acquiring and using appropriate vocabulary, including conversational, academic, and domain-specific words. *(S3)*
- Reading and comprehending both literary nonfiction and informational texts independently at grade level. *(S4)*
- Writing routinely for a range of tasks, purposes, and audiences, including extended and short-term projects. *(S5)*
- Participating in collaborative discussions with peers and adults, both in small and large groups. *(S6)*
- Producing complete sentences to provide clarification or detail when appropriate for the task and situation. *(S7)*
- Demonstrating command of standard English conventions when speaking. *(S8)*

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Foundational Module

Draft Date	Course	Duration	Grades	Subjects	Team
02-10-2025 @ 02:51	Kindergarten Reading	180.0 Day(s)	K	English Language Arts	Danielle Curzi , Jessica Smith

Unit Focus

This year-long kindergarten module develops foundational skills in reading, writing, speaking, and listening through engaging, developmentally appropriate activities. Students will learn book-handling skills, print concepts, phonological awareness, and phonics to support early reading and writing. Speaking and listening activities will encourage clear communication, questioning, and sharing ideas. Writing will focus on building early skills through short, routine tasks. Through integrated instruction and ongoing assessment, this module lays the groundwork for literacy success.

Prior Learnings/Connection

In Pre-K, students should be introduced to basic book handling skills, such as turning pages from left to right and recognizing the importance of the cover, title, and author. They began to explore print concepts by understanding that print carries meaning, with a focus on following words from left to right and top to bottom. Pre-K students were also introduced to phonological awareness, practicing rhyming, syllables, and sounds (phonemes) through songs, rhymes, and simple word play. They began to isolate sounds in words and identify the first and last sounds in simple words.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: K ■ Utilize book handling skills. *(CC.1.1.K.A)* ■ Demonstrate understanding of the organization and basic features of print. Follow words left to right, top to bottom, and page by page. Recognize that spoken words are represented in written language by specific sequences of letters.	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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Understand that words are separated by spaces in print. Recognize and name all upper and lower case letters of the alphabet. *(CC.1.1.K.B)*

- Demonstrate understanding of spoken words, syllables, and sounds (phonemes). Recognize and produce rhyming words. Count, pronounce, blend, and segment syllables in spoken words. Blend and segment onsets and rimes of single-syllable spoken words. Isolate and pronounce the initial, medial vowel, and final sound (phonemes) in the three-phoneme (CVC) words. *(CC.1.1.K.C)*
- Know and apply grade level phonics and word analysis skills in decoding words. Demonstrate basic knowledge of one-to one letter-sound correspondence. Associate the long and short sounds with common spellings for the five major vowels. Read grade level high-frequency sight words with automaticity. Distinguish between similarly spelled words by identifying the sounds of the letters that differ. *(CC.1.1.K.D)*
- Write routinely over short time frames. *(CC. 1.4.K.X)*
- Ask and answer questions in order to seek help, get information, or clarify something that is not understood. *(CC.1.5.K.C)*
- Share stories, familiar experiences, and interests speaking clearly enough to be understood by all audiences using appropriate volume. *(CC.1.5.K.D)*
- Speak audibly and express thoughts, feelings, and ideas clearly. *(CC.1.5.K.E)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA. 07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Books have a front cover, back cover, and pages that are read in order. *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Holding a book correctly and turning pages in order. *(S1)*

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- Demonstrate command of the conventions of standard English when speaking based on kindergarten level and content. *(CC. 1.5.K.G)*

Other Goals

- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- Print is organized from left to right, top to bottom, and page by page. *(K2)*
- Words are made up of letters in a specific order and are separated by spaces. *(K3)*
- The alphabet includes uppercase and lowercase letters, and each letter has a name and sound. *(K4)*
- Spoken words are made up of syllables and phonemes (individual sounds). *(K5)*
- Words can be broken down into syllables and sounds and put together to make new words. *(K6)*
- Some words are read by sight (high-frequency words), while others are sounded out using phonics rules. *(K7)*
- Vowel sounds can be long or short, and letters make different sounds depending on the word. *(K8)*
- Writing is used to share thoughts, ideas, and stories. *(K9)*
- Kindergarten writing includes short, routine writing tasks to develop early literacy skills. *(K10)*
- Speaking clearly and at an appropriate volume helps others understand. *(K11)*

- Following words from left to right, top to bottom, and page by page while reading. *(S2)*
- Recognizing and naming all uppercase and lowercase letters. *(S3)*
- Identifying words and spaces in a sentence. *(S4)*
- Blending, and segmenting spoken words. *(S5)*
- Blending and segmenting onsets (beginning sounds) and rimes (word endings). *(S6)*
- Identifying and pronouncing beginning, middle, and ending sounds in short words. *(S7)*
- Matching letters with their corresponding sounds. *(S8)*
- Reading and recognizing high frequency words automatically. *(S9)*
- Writing regularly in short bursts to build stamina. *(S10)*
- Using letters and sounds to write words. *(S11)*
- Beginning to form simple sentences with pictures or words. *(S12)*

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	■ Listeners ask and answer questions to get help or understand information. *(K12)* ■ Stories and personal experiences can be shared with others through speaking. *(K13)* ■ Using correct grammar and sentence structure helps with clear communication. *(K14)*	■ Asking and answering questions to clarify understanding. *(S13)* ■ Speaking clearly and at an appropriate volume when sharing stories or experiences. *(S14)* ■ Using complete sentences and kindergarten-level grammar when speaking. *(S15)* ■ Expressing thoughts, feelings, and ideas in an organized and understandable way. *(S16)*

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Foundational Module

Draft Date	Course	Duration	Grades	Subjects	Team
03-28-2025 @ 03:23	4th Grade ELA	180.0 Day(s)	4	English Language Arts	Jessica Smith

Unit Focus

This year-long unit develops key literacy skills in reading, writing, speaking, and listening. Students will decode multisyllabic words, building fluency for comprehension, and read literary and informational texts independently. Writing instruction will focus on planning, revising, and editing across various tasks. Through discussions, students will express ideas clearly and adjust language for different contexts. These skills will be taught, practiced, and assed throughout the year to support literacy growth.

Prior Learnings/Connection

In third grade, students developed foundational reading and writing skills that prepared them for more complex literacy tasks. They applied their knowledge of phonics and word analysis skills to decode multisyllabic words, using letter-sound patterns and context to support accuracy. Students practiced reading with fluency and expression, aiming for comprehension through successive readings of grade-level texts. They also worked on reading both literary and informational texts independently and proficiently.

In writing, third graders strengthened their ability to plan, revise, and edit their work with support from peers and adults. They engaged in writing for both short and extended time frames, building their stamina and refining their ability to write for different purposes. Additionally, students participated in collaborative discussions, practicing how to build on others' ideas and express their own clearly. They began to recognize the distinction between formal and informal language based on the context and applied grade-level conventions of standard English when speaking.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 4 ■ Know and apply grade level phonics and word analysis skills in decoding words. Use combined knowledge of all letter-sound	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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correspondences, syllabication patterns, and morphology to read accurately unfamiliar multisyllabic words. *(CC.1.1.4.D)*

- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.4.E)*
- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic. *(CC.1.2.4.J)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.4.L)*
- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic. *(CC.1.3.4.J)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.4.K)*
- With guidance and support form peers and adults, develop and strengthen writing as needed by planning, revising, and editing. *(CC.1.4.4.T)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*	■ How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)* ■ How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ How to apply phonics and word analysis skills to decode unfamiliar multisyllabic words. *(K1)* ■ Strategies for building reading fluency, including accuracy, rate, expression, and self-correction using context. *(K2)* ■ How to read and comprehend both literary fiction and informational texts independently at grade level. *(K3)*	■ Decoding unfamiliar multisyllabic words using phonics, syllabication patterns, and morphology. *(S1)* ■ Reading with accuracy, fluency, and comprehension across literary and informational texts. *(S2)* ■ Independently reading and understanding grade-level fiction and nonfiction. *(S3)*

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- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC.1.4.4.X)*
- Engage effectively in a range of collaborative discussions on grade level topics and texts, building on others' ideas and expressing their own clearly. *(CC.1.5.4.A)*
- Differentiate between contexts that require formal English versus informal situations. *(CC.1.5.4.E)*
- Demonstrate command of the conventions of standard English when speaking based on grade 4 level and content. *(CC.1.5.4.G)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*

- The writing process, including planning, drafting, revising, and editing with guidance from peers and adults. *(K4)*
- How to write for various purposes and audiences over both extended and short time frames. *(K5)*
- How to participate effectively in discussions by listening actively, responding to others, and expressing their own ideas clearly. *(K6)*
- The differences between formal and informal English and when to use each appropriately. *(K7)*
- The conventions of standard English grammar, usage, and mechanics in both writing and speaking. *(K8)*

- Engaging in the writing process, including planning, revising, and editing their work. *(S4)*
- Writing for different purposes, including research, reflection, and response to literature. *(S5)*
- Participating in collaborative discussions, building on others' ideas, and clearly articulating their own thoughts. *(S6)*
- Adjusting language and speech based on context, using formal or informal English appropriately. *(S7)*
- Demonstrating correct grammar and conventions in spoken and written communication. *(S8)*

Foundational Skills

Draft Date	Duration	Grades	Subjects	Team
01-09-2025 @ 08:04	40.0 Weeks	K	English Language Arts	Jessica Smith , Shannon Myers

Unit Focus

In this year-long module develops foundational literacy skills essential for kindergarten reading and writing. Students will learn book-handling, print concepts, phonemic awareness, phonics, and high-frequency word recognition. Through ongoing instruction and assessment throughout the entire instructional year, they will practice decoding, blending sounds, and reading emergent texts with purpose and understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: PK

- Practice appropriate book handling skills. *(CC.1.1.PREK.A)*
- Identify basic features of print. Differentiate between numbers and letters and letters and words. Recognize and name some upper and lower case letters of the alphabet. *(CC.1.1.PREK.B)*
- Demonstrate understanding of spoken words, syllables, and sounds (phonemes). Recognize rhyming words and when two or more words begin with the same sound (alliteration). Count syllables in spoken words. Segment single-syllable spoken words. Isolate and pronounce initial sounds. *(CC.1.1.PREK.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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■ Develop beginning phonics and word skills. Associates some letters with their names and sounds. Identify familiar words and environmental print. *(CC.1.1.PREK.D)*	

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Foundational Skills and Literacy Development

Draft Date	Course	Duration	Grades	Subjects	Team
01-09-2025 @ 08:26	3rd Grade ELA	180.0 Day(s)	3	English Language Arts	Jessica Smith , Caitlin Schweiger

Unit Focus

The Foundational Skills and Literacy Development unit is a yearlong focus on essential reading, writing, speaking, and listening skills. Students will develop phonics and fluency, decode multisyllabic words, and expand vocabulary through context and word analysis. They will read literary and informational texts independently, engage in the writing process for various purposes, and strengthen communication through discussions and presentations. Ongoing practice in these areas ensures students build confidence, comprehension, and proficiency as lifelong readers and writers.

Prior Learnings/Connection

For prior learning in 2nd grade, students have developed foundational skills in decoding and word recognition, including recognizing common prefixes, suffixes, and basic multisyllabic words. They have been practicing reading with fluency, focusing on accuracy, rate, and expression in oral reading. Students have worked on determining the meaning of unfamiliar words by using context clues and word analysis strategies. In writing, students have gained experience in revising and editing their work, using appropriate grammar, spelling, and punctuation. They have also participated in collaborative discussions, learning to build on others' ideas and express their own clearly.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 3 ■ Know and apply grade level phonics and word analysis skills in decoding words. Identify and know the meaning of the most common prefixes and derivational suffixes. Decode words with common Latin suffixes. Decode multisyllable words. Read grade-	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)* ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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appropriate irregularly spelled words. *(CC.1.1.3.D)*

- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.3.E)*
- Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade level reading and content; choosing flexibly from a range of strategies and tools. *(CC.1.2.3.K)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.3.L)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.3.I)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.3.K)*
- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. *(CC.1.4.3.T)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)* ■ Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*	■ How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)* ■ How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)* ■ How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)* ■ How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)* ■ How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)* ■ How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ How to apply phonics and word analysis skills to decode words. *(K1)*	■ Identifying and applying knowledge of common prefixes, suffixes, and Latin

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specific tasks, purposes and audiences. *(CC.1.4.3.X)*
- Engage effectively in a range of collaborative discussions on grade level topics and texts, building on others' ideas and expressing their own clearly. *(CC.1.5.3.A)*
- Ask and answer questions about information from a speaker, offering appropriate detail. *(CC.1.5.3.C)*
- Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. *(CC.1.5.3.E)*
- Demonstrate command of the conventions of standard English when speaking based on grade 3 level and content. *(CC.1.5.3.G)*

Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- The meanings of common prefixes, derivational suffixes, and Latin suffixes. *(K2)*
- Strategies for decoding multisyllabic words and recognizing irregularly spelled words. *(K3)*
- How fluency (accuracy, rate, and expression) supports comprehension. *(K4)*
- How to use context clues to confirm or self-correct word recognition. *(K5)*
- Strategies for determining the meaning of unknown or multiple-meaning words. *(K6)*
- Students will know that writing can serve different purposes (e.g., to inform, persuade, entertain) and that adjusting tone, style, and structure based on audience and time frame enhances effectiveness. *(K7)*
- The importance of reading grade-level texts independently and proficiently. *(K8)*
- The steps in the writing process, including planning, revising, and editing. *(K9)*
- How to engage in collaborative discussions and respond to speakers with appropriate details. *(K10)*

suffixes to decode words. *(S1)*
- Reading multisyllabic and irregularly spelled words fluently. *(S2)*
- Reading on-level texts with accuracy, appropriate pacing, and expression. *(S3)*
- Using context to determine the meaning of unfamiliar words and self-correct when necessary. *(S4)*
- Reading and comprehending both literary and informational texts independently. *(S5)*
- Planning, revising, and editing writing with guidance from peers and adults. *(S6)*
- Writing regularly for various purposes and audiences over different time frames. *(S7)*
- Engaging in collaborative discussions by building on others' ideas and expressing their own clearly. *(S8)*
- Asking and answering questions with appropriate detail to evaluate information from a speaker. *(S9)*
- Speaking in complete sentences to provide detail and clarification when needed. *(S10)*

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	■ How to construct complete sentences and follow standard English conventions when speaking. *(K11)*	■ Demonstrating proper use of standard English conventions when speaking. *(S11)* ■ Students will be skilled at using context clues, word parts (prefixes, suffixes, root words), and reference materials to determine the meaning of unknown or multiple-meaning words. *(S12)*

Module 1 - Narrative

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 01:58	English 10	45.0 Day(s)	10	English Language Arts	SHEILA FOSTER , Martha Dorak

Unit Focus

In this module, reading, writing, speaking and listening center around the big idea of how our experiences of morality and power shape our understanding of justice and humanity. This module addresses the essential question: In what ways do our morals and personal experiences shape our perceptions of justice? Students read from, and write to, informational texts as well as classic and contemporary literature. They engage in class discussions involving informational text and literature to decipher perceptions of truth and justice.

Students address how morals, experiences, and power impact the way one understands humanity and justice. Key outcomes include identifying point of view and how it impacts the reader's understand of the plot; analyzing how an author draws on and transforms themes, topics, character types, and/or other text elements from source material in a specific work; evaluating the author's use of imagery, figurative language and other literary devices; and constructing a narrative utilizing point of view, themes, character types, and literary devices.

Prior Learnings/Connection

Students approaching these 9-10th grade standards should have foundational knowledge in basic literary elements including plot structure, character development, and different types of point of view, as well as experience analyzing texts and comparing different artistic mediums. For the writing components, they need prior experience with narrative writing fundamentals including story structure, descriptive language, dialogue, and revision skills. Finally, students should possess grade-level reading comprehension, critical thinking abilities, and discussion skills including turn-taking and respectful expression of opinions for successful collaborative work.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 9-10

- Analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme. *(CC.1.3.9-10.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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- Determine the point of view of the text and analyze the impact the point of view has on the meaning of the text. *(CC.1.3.9-10.D)*
- Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment. *(CC.1.3.9-10.G)*
- Analyze how an author draws on and transforms themes, topics, character types, and/or other text elements from source material in a specific work. *(CC.1.3.9-10.H)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.9-10.M)*
- Engage and orient the reader by setting out a problem, situation, or observation, establishing one or multiple points of view, and introducing a narrator and/or characters. *(CC.1.4.9-10.N)*
- Use narrative techniques such as dialogue, description, reflection, multiple plot lines, and pacing, to develop experiences, events, and/or characters; use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, settings, and/or characters. *(CC.1.4.9-10.O)*
- Create a smooth progression of experiences or events using a variety of techniques to sequence events so that they build on one another to create a coherent whole; provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative. *(CC.1.4.9-10.P)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Students will know how to analyze how complex characters evolve and contribute to the story's development. *(K1)*
- Students will know how to identify the point of view and assess its impact on the text's meaning. *(K2)*
- Students will know how to compare and contrast how subjects or scenes

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Students will be skilled at analyzing the development and interactions of complex characters throughout the text. *(S1)*
- Students will be skilled at determining the point of view and evaluating its impact on the text's meaning. *(S2)*
- Students will be skilled at analyzing how authors adapt and transform

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- Initiate and participate effectively in a range of collaborative discussions on grades level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. *(CC. 1.5.9-10.A)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

are represented in different mediums. *(K3)*
- Students will know how to examine how authors adapt themes and character types from original sources. *(K4)*
- Students will know how to write engaging narratives that showcase their understanding of structure and technique. *(K5)*
- Students will know how to participate in discussions that respect diverse perspectives and enhance collective understanding. *(K6)*

themes and character types from source material. *(S3)*
- Students will be skilled at writing narratives that develop real or imagined experiences. *(S4)*
- Students will be skilled at engaging readers by effectively introducing problems, characters, and perspectives. *(S5)*
- Students will be skilled at using narrative techniques to develop vivid experiences and characters. *(S6)*
- Students will be skilled at creating coherent narratives that progress logically and conclude meaningfully. *(S7)*
- Students will be skilled at initiating and participating in discussions, building on others' ideas, and expressing their thoughts clearly. *(S8)*

Module 1 Analyzing Literary Elements and Close Reading

Draft Date	Course	Duration	Grades	Subjects	Team
09-13-2024 @ 05:59	5th Grade ELA	7.0 Weeks	5	English Language Arts	Marilee Durbin , TANYA HARBOLD , CHRISTOPHER KING , BONNIE MUMMERT , AIMEE WAKEFIELD

Unit Focus

In this unit focused on relationships, students practice close reading, interpretation, and analysis of fictional texts, developing their understanding of plot, theme, character traits, and point of view.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 5

- Know and apply grade level phonics and word analysis skills in decoding words. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology to read accurately unfamiliar multisyllabic words. *(CC.1.1.5.D)*
- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.5.E)*
- Determine a theme of a text from details in the text, including how characters in a story or drama respond to challenges or

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

how the speaker in a poem reflects upon a topic; summarize the text. *(CC.1.3.5.A)*

- Cite textual evidence by quoting accurately from the text to explain what the text says explicitly and make inferences. *(CC.1.3.5.B)*
- Compare and contrast two or more characters, settings or events in a story or drama, drawing on specific details in the text. *(CC.1.3.5.C)*
- Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. *(CC.1.3.5.D)*
- Explain how a series of chapters, scenes or stanzas fits together to provide the overall structure of a particular story, drama, or poem. *(CC.1.3.5.E)*
- Determine the meaning of words and phrases as they are used in grade level text, including interpretation of figurative language. *(CC.1.3.5.F)*
- Compare and contrast texts in the same genre on their approaches to similar themes and topics as well as additional literary elements. *(CC.1.3.5.H)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.5.I)*
- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships. *(CC.1.3.5.J)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)* ■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*	■ How does a reader's purpose influence how text should be read?How does word choice enhance the ability to communicate effectively?How do strategic readers create meaning from literary text? *(Q1)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Understanding vocabulary, recognizing sentence structure, identifying main ideas and supporting details. *(K1)* ■ Know and apply grade level phonics and word analysis skills in decoding words. *(K2)* ■ Understanding story elements (characters, setting, plot), recognizing themes and main ideas in various genres. *(K3)*	■ Reading with accuracy, reading fluently, comprehending text. *(S1)* ■ Decoding words, applying phonics, analyzing word structures. *(S2)* ■ Identifying themes, analyzing character responses, summarizing texts. *(S3)* ■ Quoting accurately from the text, identifying explicit information, making inferences. *(S4)*

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- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.5.K)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.5.M)*
- Orient the reader by establishing a situation and introducing a narrator and/or characters. *(CC.1.4.5.N)*
- Organize an event sequence that unfolds naturally, using a variety of transitional words and phrases to manage the sequence of events; provide a conclusion that follows from the narrated experiences and events. *(CC.1.4.5.P)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts. *(CC.1.4.5.S)*
- Demonstrate command of the conventions of standard English when speaking based on grade 5 level and content. *(CC.1.5.5.G)*

Other Goals

- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

- Understanding the text, recognizing key details, differentiating between literal and inferred meanings. *(K4)*
- Comparing and contrasting characters, settings, or events. *(K5)*
- Recognizing different perspectives, understanding bias and perspective in storytelling. *(K6)*
- Recognizing story elements (plot, character, setting), identifying the organizational pattern of texts. *(K7)*
- Understanding context clues, recognizing different types of figurative language (metaphors, similes, idioms). *(K8)*
- Understanding genre characteristics, identifying themes, recognizing literary elements (such as tone, style, and structure). *(K9)*
- Understanding context clues, utilizing reference tools (dictionaries, thesauruses), recognizing word parts (roots, prefixes, suffixes). *(K10)*
- Understanding conversational, academic, and domain-specific vocabulary; identifying words that signal contrast, addition, and other relationships. *(K11)*
- Understanding literary elements (plot, character, setting, theme), recognizing narrative structures. *(K12)*
- Understanding narrative structure (beginning, middle, end), character development, setting, and plot. *(K13)*

- Comparing and contrasting characters, settings, or events. *(S5)*
- Analyzing multiple accounts, noting similarities and differences, understanding points of view. *(S6)*
- Analyzing structure, understanding relationships between chapters, scenes, or stanzas. *(S7)*
- Determining word meanings, interpreting figurative language. *(S8)*
- Comparing and contrasting texts, analyzing themes and literary elements. *(S9)*
- Determining meanings of unknown words, clarifying multiple-meaning words. *(S10)*
- Acquiring and using vocabulary, recognizing logical relationships in language. *(S11)*
- Reading independently, comprehending literary fiction. *(S12)*
- Writing narratives, developing experiences or events. *(S13)*
- Orienting the reader, establishing a situation, introducing characters and narrator. *(S14)*
- Organizing event sequences, using transitional words and phrases, concluding narratives. *(S15)*
- Drawing evidence from texts, supporting analysis and reflection. *(S16)*
- Using standard English conventions in speaking. *(S17)*

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■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	■ Understanding narrative perspective, character traits, and setting context. *(K14)* ■ Understanding narrative structure and the role of transitions in storytelling. *(K15)* ■ Understanding how to identify and cite textual evidence, differentiating between literary and informational texts. *(K16)* ■ Understanding grammar, vocabulary, sentence structure, and pronunciation. *(K17)*	

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Module 1: Analyzing Story Elements and Text Structure

Draft Date	Grades	Subjects	Team
03-11-2025 @ 06:25	4	English Language Arts	Jessica Smith

Stage 1: Learning Goals

Established Goals	Transfer	
	Long-Term Transfer Goals	
	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...	
	Meaning	
	Big Ideas	**Essential Questions**
	What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
	What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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Module 1: Building Writing Foundations

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 02:39	2nd Grade Writing	20.0 Day(s)	2	English Language Arts	Rachel Mleczko

Unit Focus

This first module of the year sets the tone by establishing key routines and expectations that will guide students throughout the year. It provides students with the opportunity to build writing stamina, develop essential skills, and gradually introduce procedures for success. At the same time, it allows teachers to gauge students' abilities and identify areas where additional support may be needed. The unit culminates in a publishing opportunity, where students can finalize a narrative piece, creating stories from real or imagined experiences, with clear criteria to guide the process.

Prior Learnings/Connection

In 1st grade, students begin to explore narrative writing by developing simple stories about real or imagined experiences. They learn to introduce characters and a situation early in their narratives. In this foundational stage, students are also encouraged to express characters' thoughts and feelings to describe experiences. They begin organizing stories with a simple beginning, middle, and end, using basic temporal words (like "first," "next," "last") to indicate the sequence of events. In terms of writing conventions, students practice capitalizing proper nouns, using commas and apostrophes, and spelling words correctly by relying on phonics and common spelling patterns.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 2 ■ Write narratives to develop real or imagined experiences or events. *(CC.1.4.2.M)* ■ Establish a situation and introduce a narrator and/or characters. *(CC.1.4.2.N)* ■ Include thoughts and feeling to describe experience and events to show the	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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response of characters to situations. *(CC. 1.4.2.O)*
- Organize a short sequence of events, using temporal words to signal event order; provide a sense of closure. *(CC.1.4.2.P)*
- Choose words and phrases for effect *(CC. 1.4.2.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. Capitalize proper nouns. Use commas and apostrophes appropriately. Spell words drawing on common spelling patterns. Consult reference material as needed. *(CC. 1.4.2.R)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA. 07.A)*

Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Writing narratives involves developing real or imagined experiences or events, with clear organization and sequence. *(K1)*
- Narratives include a situation, characters, and events, and can express thoughts and feelings. *(K2)*
- Using temporal words and phrases helps organize events in a narrative. *(K3)*
- Standard English conventions, such as capitalization, punctuation, and spelling, are important for clear writing. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Writing narratives that develop real or imagined experiences or events. *(S1)*
- Establishing a situation and introducing a narrator or characters in their stories. *(S2)*
- Including thoughts and feelings to describe experiences and events, showing how characters respond to situations. *(S3)*
- Organizing a sequence of events, using temporal words to indicate event order and providing a sense of closure. *(S4)*

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	■ Writing can be polished and finalized through a publishing opportunity, reflecting the process of revision and improvement. *(K5)*	■ Choosing words and phrases for effect to enhance their narratives. *(S5)* ■ Demonstrating grade-appropriate command of standard English grammar and spelling, including capitalization, commas, apostrophes, and spelling conventions. *(S6)* ■ Using reference materials as needed to support writing. *(S7)*

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Module 1: Drawing and Labeling Narratives

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:06	Kindergarten Writing	Day(s)	K	English Language Arts	Bryn Sporer , Josh Korb

Unit Focus

In this unit, students will focus on using drawings to tell their stories, incorporating labels to support their narrative. Through a combination of drawing, dictating, and writing, students will learn how to establish the characters and setting of their stories, using illustrations to bring these elements to life. They will practice labeling their pictures with words that describe the characters, setting, and important events, building connections between their drawings and the narrative they are telling. As students develop their stories, they will strengthen their ability to convey meaning and details through visual and written expression. By the end of the unit, students will have created a series of labeled illustrations that tell a coherent and engaging narrative, showcasing their understanding of storytelling through both pictures and words.

Prior Learnings/Connection

In Pre-K, students should begin exploring narrative skills by telling simple stories through drawing and verbal expression. They should use pictures to

represent events or experiences and began to understand the basic structure of a story, such as who the characters are and what the story is

about. Pre-K students also should practice dictating their stories, allowing their teachers to write down their words, helping them connect spoken

language to written form. They should focus on establishing a central idea or theme for their stories, and while their narratives were brief and

primarily visual, they began to experiment with organizing events in a logical sequence.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Use a combination of drawing, dictating, and writing to compose narratives that describe real or imagined experiences or events. *(CC.1.4.K.M)*
- Establish who and what the narrative will be about. *(CC.1.4.K.N)*

Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Oral storytelling uses words, voice, and expression to share a story with others. *(K1)*
- Stories can be told using a combination of pictures, spoken words (dictation), and writing. *(K2)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Retelling a familiar story with clear sequence, using appropriate voice and expression. *(S1)*
- Using drawings to share a story. *(S2)*

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	■ A narrative includes characters, a setting, and events that tell a story. *(K3)* ■ Labels help describe the characters, setting, and key events in a story. *(K4)* ■ Every story has a focus—it is about someone (characters) and something (events or experiences). *(K5)* ■ Illustrations help show what is happening in a story and support the meaning of the words. *(K6)* ■ Words and pictures work together to tell a complete story. *(K7)*	■ Establishing who and what the story is about. *(S3)* ■ Using illustrations to show action, and emotions. *(S4)* ■ Describing characters and settings. *(S5)* ■ Orally explain the meaning of drawings. *(S6)*

Module 1: Explaining a Topic

Draft Date	Course	Duration	Grades	Subjects	Team
02-18-2025 @ 06:12	1st Grade Writing	30.0 Day(s)	1	English Language Arts	Jessica Smith , Josh Korb

Unit Focus

In this unit, students will practice writing informative/explanatory texts to examine a topic and convey ideas. They will develop skills in identifying a specific topic, gathering facts, and organizing their writing to explain information clearly. This unit complements the skills learned in Module 1 (Informational Text Comprehension) by reinforcing the ability to identify main ideas and key details in informational texts and then communicate that understanding in writing.

Prior Learnings/Connection

In kindergarten, students begin developing informative writing skills by using a combination of drawing, dictating, and writing to express their ideas. With support, they identify a specific topic and provide basic information about it. They practice organizing their thoughts and supplying a simple sense of closure. Students also demonstrate early command of conventions, capitalizing the first word of sentences, using end punctuation, and spelling simple words phonetically.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 1

- Write informative/ explanatory texts to examine a topic and convey ideas and information. *(CC.1.4.1.A)*
- Identify and write about one specific topic. *(CC.1.4.1.B)*
- Develop the topic with two or more facts. *(CC.1.4.1.C)*
- Group information and provide some sense of closure. *(CC.1.4.1.D)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. Capitalize dates and names of people. Use end punctuation; use commas in dates and words in series. Spell words drawing on common spelling patterns, phonemic awareness and spelling conventions. *(CC.1.4.1.F)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Informative/explanatory writing is used to examine a topic and convey ideas and information clearly. *(K1)*
- Facts and details help explain and support a topic. *(K2)*
- Writing should be organized to help readers understand the information. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Writing informative/explanatory texts that clearly convey information. *(S1)*
- Identifying and focusing on one specific topic when writing. *(S2)*
- Developing a topic by including two or more facts. *(S3)*

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	■ Grammar, punctuation, and spelling conventions improve clarity in writing. *(K4)*	■ Organizing ideas logically and providing a sense of closure. *(S4)* ■ Applying grade-appropriate grammar and spelling rules, including capitalization, punctuation, and common spelling patterns. *(S5)*

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Module 1: Nonfiction, Narrative Writing

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 12:54	English 12	8.0 Weeks	12	English Language Arts	Beth Yosler

Unit Focus

In this module, reading writing, speaking, and listening are focused around the big idea of mastering purposeful and independent expression. Instruction will center around an essential question: What are the essential character traits and behaviors that help humans overcome adversity? Students read from, and write to, informational text as well as classic and contemporary literature. Students engage in class discussions involving the informational text and literature to interpret diverse perspectives.

Students apply a broad range of reading, writing, speaking, and listening skills. Students address how a writer influences the views and opinions of his or her audience. Key outcomes include integrating and evaluating multiple sources of information presented in different media or formats; analyzing the interaction and development of a complex set of ideas; creating a smooth progression of experiences or events using a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome; writing with an awareness of the stylistic aspects of writing; conducting short as well as more sustained research projects to answer a question or solve a problem.

Prior Learnings/Connection

This module builds on students' prior knowledge of independent expression, particularly questioning, research, synthesis, and problem solving. It also connects to rhetorical analysis, as students will apply skills such as close reading, authorial style, and complex ideology. Knowledge of informational writing, grammar and academic vocabulary will also be expanded through collaborative discussions and independent projects, giving students a deeper grasp of language mechanics. Students will have an understanding of how personal narratives help identify character traits and behaviors and connect to problem solving of societal challenges.Using previously learned competencies, students master skills such as asking their own questions, solving their own problems, and leading their own class discussions. Finally, students continue to develop the skills in reading, writing, speaking, and listening to master purposeful and independent expression.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Determine and analyze the relationship between two or more central ideas of a text, including the development and interaction of the central ideas; provide an objective summary of the text. *(CC.1.2.11-12.A)*
- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs. *(CC.1.2.11-12.B)*
- Analyze the interaction and development of a complex set of ideas, sequence of events, or specific individuals over the course of the text. *(CC.1.2.11-12.C)*
- Integrate and evaluate multiple sources of information presented in different media or formats (e.g. visually, quantitatively) as well as in words in order to address a question or solve a problem. *(CC.1.2.11-12.G)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.11-12.M)*
- Create a smooth progression of experiences or events using a variety of techniques to sequence events so that they build on one another to create a

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

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coherent whole and build toward a particular tone and outcome; provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative. *(CC.1.4.11-12.P)*

- Write with an awareness of the stylistic aspects of writing. Use parallel structure. Use various types of phrases and clauses to convey specific meanings and add variety and interest. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. *(CC.1.4.11-12.Q)*
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. *(CC.1.4.11-12.V)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*

- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Familiarity with textual evidence and its relevance. *(K1)*
- Knowledge of narrative techniques and structure. *(K2)*
- Recognition of various media and formats of information. *(K3)*
- Awareness of stylistic elements in writing. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Determine and analyze relationships between central ideas. *(S1)*
- Cite textual evidence effectively. *(S2)*
- Analyze interactions and developments in the text. *(S3)*
- Integrate and evaluate multiple sources of information. *(S4)*
- Create coherent narratives. *(S5)*
- Write with stylistic awareness. *(S6)*
- Conduct research projects effectively. *(S7)*

- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

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Module 1: Reading Literature/Writing

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 01:04	English 9	5.0 Weeks	9	English Language Arts	Heather Dengler , Shannon Myers

Unit Focus

In this thrilling unit, students will delve into the art of suspenseful storytelling. Through a selection of short stories, poems, and literary excerpts from various genres, students will explore how authors craft tension, use foreshadowing, and choose precise diction to captivate readers. This unit will enhance critical reading and writing skills while engaging students in discussions about the techniques that evoke anticipation and suspense.

Prior Learnings/Connection

In order for students to succeed in this suspenseful storytelling unit, they should be familiar with a basic understanding of plot structure (exposition, rising action, climax, etc.) as this forms the backbone for building suspense; literary devices like imagery, metaphor, and simile, which authors often use to create atmosphere; experience with character development and point of view, since perspective greatly impacts how suspense unfolds; and some understanding of mood and tone, as these are crucial elements in creating tension. They should also be able to make inferences from text evidence, since suspense often relies on subtle clues, and pick up on nuanced word choices and details. A writing foundation is also important, so students should have experience with varying sentence structure and length for effect, basic understanding of show-don't-tell principles, and familiarity with dialogue writing, as conversation can be key to building suspense. Students should also have some knowledge of the genre: exposure to mystery, horror, thriller (though deep knowledge isn't required), understanding that suspense isn't limited to "scary" stories but appears across genres, and recognition that poetry can create tension through structure and word choice.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 9-10 ■ Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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conclusions based on an author's explicit assumptions and beliefs about a subject. *(CC.1.3.9-10.B)*

- Determine the point of view of the text and analyze the impact the point of view has on the meaning of the text. *(CC.1.3.9-10.D)*
- Analyze how words and phrases shape meaning and tone in texts. *(CC.1.3.9-10.F)*
- Analyze how an author draws on and transforms themes, topics, character types, and/or other text elements from source material in a specific work. *(CC.1.3.9-10.H)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 9-10 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.9-10.I)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.9-10.K)*
- Write informative/ explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately. *(CC.1.4.9-10.A)*
- Organize ideas, concepts, and information to make important connections and distinctions; use appropriate and varied transitions to link the major sections of the text; include formatting when useful to aiding comprehension; provide a concluding statement or section. *(CC.1.4.9-10.D)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to manage the complexity of the topic. •
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)* ■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)* ■ Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)* ■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*	■ How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)* ■ How does the type of text influence how it is read? *(EQ.ELA.01.B)* ■ How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)* ■ How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)* ■ How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)* ■ How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)* ■ How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

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Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.9-10.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.9-10.F)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- textual evidence and its role in analysis. *(K1)*
- point of view and its influence on text interpretation. *(K2)*
- how word choice affects meaning and tone. *(K3)*
- themes and character types in relation to source material. *(K4)*
- method to clarify meanings of unknown or multiple-meaning words. *(K5)*
- the methods of reading literary fiction at a grade-appropriate level. *(K6)*
- the structure of informative/ explanatory texts. *(K7)*
- stylistic elements in writing and discipline-specific norms. *(K8)*
- standard English grammar and spelling conventions. *(K9)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- citing textual evidence to support analysis. (S1) *(S1)*
- determining and analyzing point of view. (S2) *(S2)*
- analyzing word choice to determine meaning and tone. (S3) *(S3)*
- using strategies to clarify meanings of unfamiliar words. *(S4)*
- reading and comprehending literary texts independently. *(S5)*
- writing informative texts that convey complex ideas clearly. *(S6)*
- organizing ideas and using transitions effectively in writing. *(S7)*
- applying precise language and maintaining an objective tone in writing. *(S8)*
- demonstrating proper grammar and spelling in written work. *(S9)*

Module 1: Speaking & Listening, Written Communication

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 12:52	English 21st Century 1	Weeks	11 , 12	English Language Arts	SHANNON CONGLETON-PARR

Unit Focus

In this module, reading, writing, speaking, and listening are focused around the big idea of mastering purposeful communication and independent expression. Instruction will center around the essential questions: How can individuals communicate effectively and make a difference in improving the lives of others.

Students will engage in class discussions and address how individuals can make an impact on the lives of others. Students will apply a broad range of reading, writing, speaking and listening skills. Key outcomes include: analyzing the impact of the authors choices; evaluating how words and phrases shape meaning and tone in texts, distinguishing claims, and research.

Students will write letters, resumes, emails, practice interview skills and communicate to others to impact lives and how communication effects others.

Prior Learnings/Connection

This course builds on students' prior knowledge of communication, particularly speaking, listening, reading and writing for an audience. It also connects to 21st Century skills as students learn to communicate effectively through speaking and writing while deepening their knowledge of grammar and vocabulary. Students will have an understanding of how communication can impact the lives of others.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 11-12 ■ Evaluate how words and phrases shape meaning and tone in texts. *(CC.1.2.11-12.F)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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- Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama. *(CC.1.3.11-12.C)*
- Evaluate how words and phrases shape meaning and tone in texts. *(CC.1.3.11-12.F)*
- Write with a sharp distinct focus identifying topic, task, and audience. *(CC.1.4.11-12.B)*
- Organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create whole; use appropriate and varied transitions and syntax to link the major sections of the text; provide a concluding statement or section that supports the information presented; include formatting when useful to aiding comprehension. *(CC.1.4.11-12.D)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.11-12.E)*
- Write with a sharp distinct focus identifying topic, task, and audience. Introduce the precise, knowledgeable claim. *(CC.1.4.11-12.H)*
- Distinguish the claim(s) from alternate or opposing claims; develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)* ■ Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)* ■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*	■ How do I communicate effectively to impact others and myself? *(Q1)* ■ What is a first impression? How should I introduce myself? What is a resume & how are they used? What is a cover letter & how are they used? How can I use letters to communicate to others? How can letters impact the lives of others? *(Q2)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Understanding of text elements such as tone, meaning, and narrative structure. *(K1)*	■ Write letters and an email, a resume, ask and answer interview questions *(S1)* ■ Evaluate language for meaning and tone *(S2)*

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anticipates the audience's knowledge level, concerns, values, and possible biases. *(CC. 1.4.11-12.I)*

Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- Familiarity with writing conventions and styles *(K2)*
- Knowledge of argumentation and evidence in writing *(K3)*

- Analyze author's choices in narrative elements *(S3)*
- Write with distinct focus and awareness of audience *(S4)*
- Organize complex ideas cohesively *(S5)*
- Use precise language and stylistic techniques *(S6)*
- Distinguish and develop claims and counterclaims effectively *(S7)*

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Module 1: The History of the English Language

Draft Date	Course	Duration	Grades	Subjects	Team
05-30-2025 @ 12:56	English 11	3.0 Weeks	11	English Language Arts	Kara McCauslin

Unit Focus

This module explores the rich and fascinating history of the English language, tracing its evolution from its early roots to the modern-day forms we use in American literature. Students will examine the major periods of linguistic development—Old English, Middle English, and Modern English—analyzing how historical events, cultural shifts, and foreign influences have shaped the language over time. Students will learn how the English language has evolved and how these changes impact the literature and culture of the English-speaking world. This will deepen students' understanding of how language reflects and influences society, providing them with valuable tools for analyzing literary texts.

Prior Learnings/Connection

This course builds on students' prior knowledge of world history, particularly the influence of key historical events. It also connects to earlier studies of literary analysis, as students will apply skills such as close reading, thematic analysis, and understanding authorial choices to texts. Knowledge of grammar and vocabulary will be deepened through the study of linguistic changes, giving students a stronger grasp of language mechanics. Students will have an understanding of how the history of the English language connects to American literature, world history, and modern communication.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Analyze the interaction and development of a complex set of ideas, sequence of events, or specific individuals over the course of the text. *(CC.1.2.11-12.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

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- Evaluate how an author's point of view or purpose shapes the content and style of a text. *(CC.1.2.11-12.D)*
- Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging. *(CC.1.2.11-12.E)*
- Analyze seminal texts based upon reasoning, premises, purposes, and arguments. *(CC.1.2.11-12.H)*
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. *(CC.1.4.11-12.V)*
- Initiate and participate effectively in a range of collaborative discussions on grades level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. *(CC.1.5.11-12.A)*
- Integrate multiple sources of information presented in diverse formats and media (e.g. visually, quantitative, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data. *(CC.1.5.11-12.C)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*	■ How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)* ■ How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)* ■ How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Understanding complex ideas and sequences in texts. *(K1)* ■ Knowledge of literary techniques and authorial intent. *(K2)* ■ Familiarity with structural elements of exposition and argument. *(K3)* ■ Awareness of seminal texts and their significance. *(K4)* ■ Research methodologies and techniques. *(K5)* ■ Collaborative discussion strategies and communication skills. *(K6)*	■ Analyzing interactions and developments in texts. *(S1)* ■ Evaluating author's perspective and its impact on content and style. *(S2)* ■ Analyzing and evaluating structure in exposition and arguments. *(S3)* ■ Analyzing seminal texts based on reasoning and arguments. *(S4)* ■ Conducting research projects and synthesizing information. *(S5)* ■ Initiating and participating in collaborative discussions. *(S6)*

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Other Goals		
■ Utilize time and manage workload efficiently *(POG.ISD.2)* ■ Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)* ■ Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*	■ Evaluation criteria for diverse sources of information. *(K7)*	■ Integrating information from diverse sources for decision-making *(S7)*

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Module 1: Understanding Poetry and Narrative Techniques

Draft Date	Course	Duration	Grades	Subjects	Team
09-13-2024 @ 06:03	8th Grade ELA	6.0 Weeks	8	English Language Arts	LAURA HUGHES , ANGELA NEIL

Unit Focus

In this introductory unit, students read a variety of verse texts to explore poetry techniques and then create their own narrative poetry collections.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 8

- Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style. *(CC.1.3.8.E)*
- Analyze the influence of the words and phrases in a text including figurative and connotative meanings; and how they shape meaning and tone. *(CC.1.3.8.F)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 8 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.8.I)*
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*

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word or phrase important to comprehension or expression. *(CC.1.3.8.J)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.8.K)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.8.M)*
- Write with an awareness of the stylistic aspects of writing. Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effect. Use sentences of varying lengths and complexities Create tone and voice. though precise language. *(CC.1.4.8.Q)*
- Engage effectively in a range of collaborative discussions, on grade level topics, texts, and issues, building on others' ideas and expressing their own clearly. *(CC.1.5.8.A)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*

- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding of different text structures (e.g., chronological, cause and effect, problem and solution) *(K1)*
- Awareness of how structure influences meaning and style *(K2)*
- Understanding of figurative language, connotation, and tone. *(K3)*
- Understanding narrative elements (e.g., setting, character, conflict, resolution), different narrative styles (first-person, third-person), and audience awareness. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Compare and contrast *(S1)*
- Analyze text structures *(S2)*
- Identify and explain the use of figurative language (e.g., similes, metaphors, personification). *(S3)*
- Recognize connotative meanings and how they differ from literal meanings. *(S4)*
- Analyze how the choice of words shapes the overall meaning and tone of a text. *(S5)*
- Employ narrative structure effectively (beginning, middle, end). *(S6)*

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■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)* ■ Communicate for a range of purposes *(POG.COM.2)* ■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	■ Stylistic aspects of writing, tone, voice, and the impact of sentence length and complexity. *(K5)* ■ Familiarity with discussion norms and strategies *(K6)*	■ Utilize sensory details and vivid descriptions to enhance their writing. *(S7)* ■ Develop characters and settings that are relatable *(S8)* ■ Identify and use active and passive voice appropriately. *(S9)* ■ Recognize and apply conditional and subjunctive moods in their writing. *(S10)* ■ Vary sentence lengths and complexities to enhance their writing. *(S11)* ■ Develop a distinct tone and voice through precise language choices. *(S12)* ■ Listen to peers and build on their ideas. *(S13)* ■ Clearly express their own viewpoints and ideas. *(S14)* ■ Engage in respectful and constructive dialogue. *(S15)*

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Module 1: Writing, Speaking & Listening

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 03:04	English 21st Century 2	8.0 Weeks	11 , 12	English Language Arts	SHANNON CONGLETON-PARR

Unit Focus

In this module, reading, writing, speaking and listening are framed around the big idea of exploring and evaluating rhetorical devices. This module addresses the question: How does the language affect our way to communicate effectively? Students will read and write informative texts, engage in class discussions and analyze the impact of the authors choices on style of text.

Prior Learnings/Connection

This course builds on students' prior knowledge from English 21st Century 1, as students continue to communicate effectively particularly by speaking, listening, reading and writing for an audience. Students will analyze the impact of the authors word choices and style of text by analyzing various texts.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Analyze the interaction and development of a complex set of ideas, sequence of events, or specific individuals over the course of the text. *(CC.1.2.11-12.C)*
- Evaluate how an author's point of view or purpose shapes the content and style of a text. *(CC.1.2.11-12.D)*
- Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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the structure makes points clear, convincing, and engaging. *(CC.1.2.11-12.E)*
- Evaluate how words and phrases shape meaning and tone in texts. *(CC.1.2.11-12.F)*
- Integrate and evaluate multiple sources of information presented in different media or formats (e.g. visually, quantitatively) as well as in words in order to address a question or solve a problem. *(CC.1.2.11-12.G)*
- Analyze seminal texts based upon reasoning, premises, purposes, and arguments. *(CC.1.2.11-12.H)*
- Initiate and participate effectively in a range of collaborative discussions on grades level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. *(CC. 1.5.11-12.A)*
- Integrate multiple sources of information presented in diverse formats and media (e.g. visually, quantitative, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data. *(CC. 1.5.11-12.C)*
- Present information, findings, and supporting evidence, conveying a clear and distinct perspective; organization, development, substance, and style are appropriate to purpose, audience, and task. *(CC.1.5.11-12.D)*
- Make strategic use of digital media in presentations to add interest and enhance understanding of findings, reasoning, and evidence. *(CC.1.5.11-12.F)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*

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Other Goals	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
■ Demonstrate an awareness that actions have broad implications *(POG.GC.1)* ■ Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)* ■ Show empathy and respect towards a diverse global community *(POG.GC.3)* ■ Promote positive change while respective the perspectives of a global society *(POG.GC.4)* ■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)* ■ Communicate for a range of purposes *(POG.COM.2)* ■ Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)* ■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	What facts and basic concepts should students know and be able to recall? Students will know... ■ Understanding of complex texts and their components. *(K1)* ■ Familiarity with various media formats and their respective credibility *(K2)* ■ Knowledge of effective communication strategies in discussions and presentations. *(K3)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Students will analyze the impact of the author's choices of words that are communicated and use Lego Education to design, write directions and evaluate their peer's work. Students have the choice of formats and media in order to make informed decisions and solve problems. Students will write informative text to create a Lego design. Students will discuss the impact language has on communication and miscommunication. Students will read, analyze and discuss War of the Worlds radio broadcast. Students will self reflect on a time of miscommunication in their own lives *(S1)* ■ Analyzing interactions and developments of ideas or events *(S2)* ■ Evaluating author's point of view and its impact on content and style *(S3)* ■ Analyzing and evaluating text structure for clarity and engagement *(S4)* ■ Evaluating the effect of word choice on meaning and tone. *(S5)* ■ Integrating and evaluating multiple sources of information. *(S6)* ■ Analyzing seminal texts for reasoning and arguments. *(S7)*

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		■ Initiating and participating in collaborative discussions. *(S8)* ■ Integrating diverse information formats to solve problems. *(S9)* ■ Presenting information effectively with appropriate organization and style. *(S10)* ■ Utilizing digital media strategically in presentations. *(S11)*

Module 2 - Research

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 12:36	English 10	45.0 Day(s)	10	English Language Arts	SHEILA FOSTER

Unit Focus

In this module, reading, writing, speaking, and listening are framed around the big idea of determining fact from fiction. This module addresses the essential question: How do writers effectively employ evidence-based reasoning to engage and inform their audience? Students should read from and write to informational text as well as classic and contemporary literature. Students should engage in class discussions involving the informational text and literature to interpret diverse perspectives.

The goal of this unit is to have students apply a broad range of reading, writing, speaking, and listening skills. Students will address how a writer influences the views and opinions of his or her audience. Key outcomes include analyzing various accounts of a subject told in different mediums; delineating and evaluation the argument and specific claims in a text and assessing its validity; acquiring and using accurately general academic and domain-specific words and phrases; and creating organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 9-10

- Apply appropriate strategies to analyze, interpret, and evaluate how an author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them. *(CC.1.2.9-10.C)*
- Analyze in detail how an author's ideas or claims are developed and refined by

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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particular sentences, paragraphs, or larger portions of a text. *(CC.1.2.9-10.E)*

- Analyze various accounts of a subject told in different mediums (e.g., a person's life story in both print and multimedia), determining which details are emphasized in each account. *(CC.1.2.9-10.G)*
- Delineate and evaluate the argument and specific claims in a text, assessing the validity of reasoning and relevance of evidence. *(CC.1.2.9-10.H)*
- Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.2.9-10.J)*
- Write informative/ explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately. *(CC.1.4.9-10.A)*
- Organize ideas, concepts, and information to make important connections and distinctions; use appropriate and varied transitions to link the major sections of the text; include formatting when useful to aiding comprehension; provide a concluding statement or section. *(CC.1.4.9-10.D)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to manage the complexity of the topic. •

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)* ■ Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)* ■ Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)* ■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*	■ How does the type of text influence how it is read? *(EQ.ELA.01.B)* ■ How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)* ■ How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)* ■ How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)* ■ How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)* ■ How does a researcher best present findings? *(EQ.ELA.05.C)* ■ How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Students should learn to analyze how authors present ideas, evaluate arguments, and use precise language in writing. They should also be able to	■ Students will be skilled at analyzing and interpreting an author's argument and structure *(S1)*

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Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.9-10.E)*

- Write with a sharp distinct focus identifying topic, task, and audience. Introduce the precise claim. *(CC.1.4.9-10.H)*
- Distinguish the claim(s) from alternate or opposing claims; develop claim(s) fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns. *(CC.1.4.9-10.I)*
- Create organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence; Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims; provide a concluding statement or section that follows from and supports the argument presented. *(CC. 1.4.9-10.J)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.9-10.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.9-10.L)*

compare accounts across different mediums and develop their writing with appropriate structure and clarity. *(K1)*

- Students will analyze how an author develops ideas and claims through specific text features. *(K2)*
- Students will evaluate the effectiveness of arguments and the validity of reasoning in texts. *(K3)*
- Students will compare different accounts of a subject, noting emphasized details in various formats. *(K4)*
- Students will acquire and accurately use general academic and domain-specific vocabulary to enhance comprehension and expression. *(K5)*
- Students will write informative texts that convey complex ideas clearly and accurately. *(K6)*
- Students will organize their writing effectively, using transitions and formatting to aid comprehension while maintaining a formal tone and style. *(K7)*
- Students will identify and develop claims and counterclaims, linking evidence logically to support their arguments. *(K8)*
- Students will demonstrate a command of standard English grammar and spelling in their writing. *(K9)*

- Students will be skilled at evaluating the development of ideas and claims *(S2)*
- Students will be skilled at comparing different mediums of storytelling *(S3)*
- Students will be skilled at assessing validity and relevance of evidence *(S4)*
- Students will be skilled at acquiring and using academic vocabulary *(S5)*
- Students will be skilled at writing informative/explanatory texts *(S6)*
- Students will be skilled at organizing and transitioning ideas effectively *(S7)*
- Students will be skilled at maintaining a formal style and objective tone *(S8)*
- Students will be skilled at distinguishing claims and counterclaims effectively *(S9)*
- Students will be skilled at demonstrating command of standard English conventions *(S10)*

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Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

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Module 2 Understanding Nonfiction and Text Organization

Draft Date	Course	Duration	Grades	Subjects	Team
09-13-2024 @ 06:06	5th Grade ELA	7.0 Weeks	5	English Language Arts	AIMEE WAKEFIELD , Marilee Durbin , TANYA HARBOLD , CHRISTOPHER KING , BONNIE MUMMERT

Unit Focus

In this unit focused on the human impact of the environment, students read literary non-fiction and informational text. They interpret text structure and analyze elements that contribute to the meaning of a text. Students draw from multiple sources to demonstrate the ability to locate text based evidence to answer questions or solve problems efficiently.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 5

- Know and apply grade level phonics and word analysis skills in decoding words. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology to read accurately unfamiliar multisyllabic words. *(CC.1.1.5.D)*
- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.5.E)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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- Determine two or more main ideas in a text and explain how they are supported by key details; summarize the text. *(CC.1.2.5.A)*
- Cite textual evidence by quoting accurately from the text to explain what the text says explicitly and make inferences. *(CC.1.2.5.B)*
- Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. *(CC.1.2.5.D)*
- Use text structure, in and among texts, to interpret information (e.g., chronology, comparison, cause/effect, problem/solution). *(CC.1.2.5.E)*
- Determine the meaning of words and phrases as they are used in grade level text, including interpretation of figurative language. *(CC.1.2.5.F)*
- Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. *(CC.1.2.5.G)*
- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships. *(CC.1.2.5.J)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade level reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.2.5.K)*
- Read and comprehend literary non-fiction and informational text on grade level,

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- Identify and interpret vocabulary, understand figurative language. *(Q7)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- ◦ Understanding the relationship between letters and sounds.

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- ◦ Decoding unfamiliar words using phonics.

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reading independently and proficiently. *(CC.1.2.5.L)*

- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.5.A)*
- Identify and introduce the topic clearly. *(CC.1.4.5.B)*
- Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic; include illustrations and multimedia when useful to aiding comprehension. *(CC.1.4.5.C)*
- Group related information logically linking ideas within and across categories of information using words, phrases, and clauses; provide a concluding statement or section; include formatting when useful to aiding comprehension. *(CC.1.4.5.D)*
- Write with an awareness of style. Use precise language and domain-specific vocabulary to inform about or explain the topic. Use sentences of varying length. *(CC.1.4.5.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.5.F)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts. *(CC.1.4.5.S)*
- With some guidance and support, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others;

(K1)

- ◦ Familiarity with various word structures (syllables, prefixes, suffixes).

(K2)

- ◦ Awareness of irregular spelling patterns.

(K3)

- Understanding of text structure, vocabulary, and comprehension strategies. *(K4)*
- Understanding the structure of a text, recognizing the relationship between ideas and details. *(K5)*
- ◦ Understanding the difference between explicit statements and inferences; familiarity with various types of texts (narratives, informational, etc.).

(K6)

- Understanding different perspectives, recognizing bias, and identifying key details in texts. *(K7)*
- ◦ Understand various text structures and their purposes in conveying information; recognize signal words and phrases that indicate specific text structures.

(K8)

- Knowledge of common figurative language (similes, metaphors, idioms). *(K9)*

(S1)

- ◦ Recognizing and applying advanced phonetic patterns.

(S2)

- ◦ Using context clues to understand word meanings.

(S3)

- Ability to read aloud with accuracy, appropriate rate, and expression; use of context clues for self-correction; rereading for clarity and comprehension. *(S4)*
- Identifying main ideas, explaining support from key details, summarizing texts. *(S5)*
- ◦ Quoting accurately from a text; Identifying explicit information; making inferences based on the text.

(S6)

- Analyzing, comparing, contrasting, and critical thinking. *(S7)*
- ◦ identify and analyze different text structures (chronology, comparison, cause/effect, problem/solution); interpret information based on the identified text structures.

(S8)

- ◦ Locating information quickly from various sources; evaluating the

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demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting. *(CC.1.4.5.U)*

- Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. *(CC.1.4.5.V)*
- Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources. *(CC.1.4.5.W)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC.1.4.5.X)*
- Engage effectively in a range of collaborative discussions on grade level topics and texts, building on others' ideas and expressing their own clearly. *(CC.1.5.5.A)*
- Summarize the main points written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. *(CC.1.5.5.B)*
- Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence. *(CC.1.5.5.C)*
- Report on a topic or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speaking clearly with adequate volume,

- ◦ Understanding different types of print and digital sources (books, articles, websites, etc.); recognizing how to use search tools and databases

(K10)

- ◦ Familiarity with grade-appropriate vocabulary.

(K11)

- ◦ Understanding of vocabulary development; familiarity with context clues, word structures, and reference materials.

(K12)

- ◦ Familiarity with various genres of non-fiction and informational texts; understanding of text structures (e.g., headings, subheadings, captions).

(K13)

- Understanding the topic being written about, knowledge of text structure (introduction, body, conclusion), and the purpose of informative writing. *(K14)*
- ◦ Understanding of what a topic is; awareness of the audience and purpose of the introduction.

(K15)

- ◦ Understanding various types of information (facts, definitions, examples)

credibility of sources; synthesizing information to answer questions or solve problems

(S9)

- ◦ Ability to acquire new vocabulary; use of words and phrases accurately in conversation and writing; understanding of logical relationships in language (contrast, addition, etc.).

(S10)

- ◦ identify unknown words and phrases; interpret multiple-meaning words based on context; utilize various strategies and tools to determine meanings.

(S11)

- ◦ Ability to read independently; comprehension of literary non-fiction and informational texts; proficient understanding of grade-level content.

(S12)

- Writing clear and coherent informative/explanatory texts, organizing information logically, using appropriate vocabulary. *(S13)*
- ◦ Ability to identify a topic; capability to introduce a topic in a clear manner.

(S14)

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appropriate pacing, and clear pronunciation. *(CC.1.5.5.D)*
- Demonstrate command of the conventions of standard English when speaking based on grade 5 level and content. *(CC.1.5.5.G)*

Other Goals

- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

(K16)
- Understanding categories of information, the role of clauses and phrases, the purpose of a concluding statement. *(K17)*
- ◦ Understanding what style means in writing; recognizing the importance of word choice; identifying and using vocabulary related to specific topics.

(K18)
- ◦ Familiarity with parts of speech (nouns, verbs, adjectives, etc.); knowledge of sentence structure and types; awareness of common spelling patterns and exceptions.

(K19)
- ◦ Understanding literary and informational texts; identifying main ideas and supporting details; recognizing text structures and features

(K20)
- ◦ Understanding of various technology tools and platforms; knowledge of online communication etiquette

(K21)
- ◦ Understanding the research process.

(K22)
- ◦ Summarize information.
- ◦ Organizing information logically; using facts and definitions effectively

(S15)
- Organizing information logically, linking ideas, using appropriate language. *(S16)*
- ◦ Writing with awareness of style; using precise language

(S17)
- Varying sentence lengths for effect; incorporating domain-specific vocabulary *(S18)*
- ◦ Understanding and applying grammar rules; correctly using punctuation and capitalization; spelling words correctly.

(S19)
- ◦ Analyzing texts; reflecting on content; drawing evidence from texts

(S20)
- ◦ Use of technology for writing and publishing; interaction and collaboration with others online

(S21)
- ◦ Conducting research using multiple sources.

(S22)
- ◦ Understanding how to identify credible sources.

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- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

(K23)

- Understanding various writing styles and formats, recognizing audience needs, and effective research techniques. *(K24)*
- Understanding grade-level topics and texts; familiarity with discussion norms and etiquette; ability to listen actively and respond thoughtfully *(K25)*
  - Understanding different media types (text, audio, visual); recognizing how information is presented

(K26)

  - Understanding the structure of arguments (claim, reason, evidence); familiarity with different types of evidence (facts, statistics, examples).

(K27)

  - Understanding of topic, relevant facts, descriptive details.

(K28)

  - Understand the rules of standard English conventions; recognize when to use formal versus informal language; identify context-appropriate expressions and phrases.

(K29)

(S23)

- Writing for different purposes, revising and reflecting on writing, managing time effectively. *(S24)*
  - Engaging in discussions; building on others' ideas; expressing personal ideas clearly

(S25)

  - Summarizing main ideas; identifying important details; analyzing information from various formats

(S26)

  - Summarizing key points made by a speaker; identifying claims presented by the speaker; analyzing how claims are supported by reasons and evidence.

(S27)

- Reporting, presenting opinions, sequencing ideas, speaking clearly. *(S28)*
  - Use proper grammar and sentence structure when speaking; employ appropriate vocabulary for different contexts; adjust language based on the audience and purpose

(S29)

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Module 2: Crafting Personal Narrative

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 02:44	2nd Grade Writing	30.0 Day(s)	2	English Language Arts	Rachel Mleczko

Unit Focus

In this unit, students will focus on writing personal narratives to recount meaningful events or sequences of events with elaborated details. They will practice including descriptions of actions, thoughts, and feelings, using temporal words to indicate the order of events, and ensuring their stories provide a sense of closure. Students will revise and edit their work, applying their knowledge of narrative elements, and finalize their writing for publication. The unit concludes with a celebration of student writing, which can be simple yet plays an essential role in recognizing and valuing the writing process.

Prior Learnings/Connection

In 1st grade, students begin writing narratives by focusing on real or imagined experiences. They learn how to establish a situation and introduce basic characters. As they develop their stories, students begin to include thoughts and feelings to describe events and show how characters respond to situations. They are introduced to the basic structure of a narrative, organizing a short sequence of events with the help of temporal words like "first," "then," and "last," to indicate the order of events and provide closure. In terms of language conventions, students practice capitalizing proper nouns, using commas and apostrophes appropriately, and spelling words based on phonetic rules. They are also introduced to basic elements of the writing process, learning to revise and edit with guidance from teachers.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 2 ■ Write narratives to develop real or imagined experiences or events. *(CC.1.4.2.M)* ■ Establish a situation and introduce a narrator and/or characters. *(CC.1.4.2.N)* ■ Include thoughts and feeling to describe experience and events to show the	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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response of characters to situations. *(CC.1.4.2.O)*
- Organize a short sequence of events, using temporal words to signal event order; provide a sense of closure. *(CC.1.4.2.P)*
- Choose words and phrases for effect *(CC.1.4.2.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. Capitalize proper nouns. Use commas and apostrophes appropriately. Spell words drawing on common spelling patterns. Consult reference material as needed. *(CC.1.4.2.R)*
- With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing. *(CC.1.4.2.T)*

Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Personal narratives involve recounting meaningful events or sequences of events, with details that describe actions, thoughts, and feelings. *(K1)*
- Using temporal words helps to show the order of events in a narrative. *(K2)*
- A personal narrative should provide a sense of closure, completing the story. *(K3)*
- Writing can be revised and edited with feedback from adults and peers to improve quality. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Writing personal narratives that recount real or imagined experiences or events. *(S1)*
- Establishing a situation and introducing a narrator or characters in their stories. *(S2)*
- Including thoughts and feelings to describe experiences and events, showing the response of characters to situations. *(S3)*
- Organizing a sequence of events using temporal words to indicate the order

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	■ Narrative writing follows specific conventions, including grammar, punctuation, and spelling rules, such as capitalization and the use of commas and apostrophes. *(K5)*	and providing a sense of closure. *(S4)* ■ Choosing words and phrases for effect to enhance the narrative. *(S5)* ■ Demonstrating grade-appropriate command of standard English grammar and spelling, including capitalization, commas, apostrophes, and spelling conventions. *(S6)* ■ Revising and editing their writing with guidance from adults and peers to strengthen and improve their work. *(S7)*

Module 2: Non-fiction, Persuasive Writing/Speaking

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 03:12	English 12	4.0 Weeks	12	English Language Arts	Beth Yosler

Unit Focus

In this module, reading, writing, speaking, and listening are focused around the big idea of independent expression. Instruction will center around an essential question: Based on your own unique life experiences, what advice could you give to inspire others? Students read from, and write to, informational texts as well as classic and contemporary literature. Students engage in class discussions involving the informational texts and literature to interpret diverse perspectives.

Students apply a broad range of reading, writing, speaking, and listening skills. Students address how a writer influences the views and opinions of his or her audience. Key outcomes include evaluating how an author's point of view or purpose shapes the content and style of a text; citing strong and thorough textual evidence to support analysis of what the text says explicitly; evaluating how words and phrases shape meaning and tone in texts; writing with a sharp distinct focus; and evaluating how the speaker's perspective, reasoning, and use of evidence and rhetoric affect credibility.

Prior Learnings/Connection

This module builds on students' prior knowledge of independent expression, particularly persuasion, perspective, reasoning, and evidence. It also connects to rhetorical analysis, as students will apply skills such as close reading, authorial style, and audience analysis. Knowledge of expository writing, grammar and academic vocabulary will also be expanded through Socratic Seminars and independent speeches, giving students a deeper grasp of language mechanics. Students will have an understanding of how personal experiences help to inspire others.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 11-12 ■ Evaluate how an author's point of view or purpose shapes the content and style of a text. *(CC.1.2.11-12.D)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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- Evaluate how words and phrases shape meaning and tone in texts. *(CC.1.2.11-12.F)*
- Write with a sharp distinct focus identifying topic, task, and audience. *(CC.1.4.11-12.B)*
- Evaluate how the speaker's perspective, reasoning, and use of evidence and rhetoric affect the credibility of an argument through the author's stance, premises, links among ideas, word choice, points of emphasis, and tone. *(CC.1.5.11-12.B)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

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- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Understanding of textual evidence and analysis *(K1)* ■ Familiarity with authors' purposes and points of view *(K2)* ■ Knowledge of how language shapes meaning *(K3)* ■ Comprehension of audience and task relevance *(K4)* ■ Insight into argument credibility *(K5)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Citing textual evidence *(S1)* ■ Analyzing author's assumptions and beliefs *(S2)* ■ Evaluating point of view and purpose *(S3)* ■ Analyzing word choice and tone *(S4)* ■ Writing with focus and clarity *(S5)* ■ Evaluating speaker's perspective and rhetoric *(S6)*

Module 2: reading informational & writing

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 01:47	English 21st Century 1	6.0 Weeks	11 , 12	English Language Arts	SHANNON CONGLETON-PARR

Unit Focus

In this unit, reading, writing, speaking and listening are focused around the big ideas of mastering purposeful and independent expression. Instruction will center around: what are essential character traits and behaviors that help humans overcome adversity? What careers and higher education will help to overcome adversity? What character traits do I need to reach my goal after high school?

Prior Learnings/Connection

This course builds on students' prior knowledge of communication, particularly speaking, listening, reading and writing for an audience. It also connects to 21st Century skills as students learn to communicate effectively through speaking and writing while deepening their knowledge of grammar and vocabulary. Students will have an understanding of how essential character traits and behaviors help humans overcome adversity, how careers and education can help to overcome adversity and how they can reach their goals after high school.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs. *(CC.1.2.11-12.B)*
- Analyze the interaction and development of a complex set of ideas, sequence of events, or specific individuals over the course of the text. *(CC.1.2.11-12.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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- Integrate and evaluate multiple sources of information presented in different media or formats (e.g. visually, quantitatively) as well as in words in order to address a question or solve a problem. *(CC.1.2.11-12.G)*
- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs. *(CC.1.3.11-12.B)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.11-12.E)*
- Create a smooth progression of experiences or events using a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome; provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative. *(CC.1.4.11-12.P)*
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject,

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- What careers can I pursue after high school? What higher education can I pursue after high school? What character traits do I need to be successful? *(Q1)*
- What are essential character traits and behaviors that help humans overcome adversity? *(Q2)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*

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demonstrating understanding of the subject under investigation. *(CC.1.4.11-12.V)*
- Initiate and participate effectively in a range of collaborative discussions on grades level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. *(CC. 1.5.11-12.A)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding authors' implicit and explicit assumptions *(K1)*
- Recognizing the development of ideas and events *(K2)*
- Familiarity with various media and formats *(K3)*
- Comprehension of stylistic writing techniques *(K4)*
- Research methods and inquiry practices *(K5)*
- Discussion and argumentation techniques *(K6)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Students will conduct career & college research to see what options they have after high school. Students will put together a career presentation to present to the class. Students will create a college pennant of college research which will be displayed for all students to do a gallery walk. Students will do a self reflection and reflect on their projects and choices after high school. *(S1)*
- Citing textual evidence *(S2)*
- Analyzing complex ideas and interactions *(S3)*
- Integrating and evaluating multiple information sources *(S4)*
- Writing with awareness of stylistic aspects *(S5)*
- Conducting research projects *(S6)*
- Participating in collaborative discussions *(S7)*

Module 2: Reading Literature/ Reading Information/ Writing

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 02:21	English 9	8.0 Weeks	9	English Language Arts	Heather Dengler , Shannon Myers

Unit Focus

No matter who you are, life involves facing challenges and making choices. In these stories, poems, and essays, students will see how people in many different situations confront challenges and choices daily. People approach challenges in different ways and make decisions for all kinds of reasons. Some decisions are made quietly, by ordinary people with little fanfare, but they can take as much courage, and have as much impact, as the decisions of a great leader.

Prior Learnings/Connection

To help students engage meaningfully with this unit, they should be able to draw from their personal experience, reading foundation, analytical skills, and cultural/social awareness. They should understand that everyone faces both big and small decisions, daily choices have consequences, and people can have different valid responses to similar situations. They should also be able to to identify character motivations and internal conflicts, analyze how characters change over time, recognize different perspectives within text, understand internal and external conflicts, discuss theme and central ideas, compare and contrast different approaches to problems, understand cause and effect relationships, support arguments with evidence from texts, identify unstated consequences of actions, understand that cultural context influences decision-making, recognize that different communities may value different approaches, and understand that historical context shapes options available to people.

Would you like me to expand on any of these areas?

Stage 1: Learning Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 9-10

- Determine an author's particular point of view and analyze how rhetoric advances the point of view. *(CC.1.2.9-10.D)*
- Analyze seminal U.S. documents of historical and literary significance, including how they address related themes and concepts. *(CC.1.2.9-10.I)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade level reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.2.9-10.K)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.9-10.L)*
- Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text. *(CC.1.3.9-10.A)*
- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on an author's explicit assumptions and beliefs about a subject. *(CC.1.3.9-10.B)*
- Analyze how complex characters develop over the course of a text, interact with
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*

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other characters, and advance the plot or develop the theme. *(CC.1.3.9-10.C)*

- Determine the point of view of the text and analyze the impact the point of view has on the meaning of the text. *(CC.1.3.9-10.D)*
- Analyze how words and phrases shape meaning and tone in texts. *(CC.1.3.9-10.F)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 9-10 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.9-10.I)*
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.3.9-10.J)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.9-10.K)*
- Write informative/ explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately. *(CC.1.4.9-10.A)*
- Write with a sharp distinct focus identifying topic, task, and audience. *(CC.1.4.9-10.B)*
- Organize ideas, concepts, and information to make important connections and distinctions; use appropriate and varied transitions to link the major sections of the text; include formatting when useful to aiding comprehension; provide a concluding statement or section. *(CC. 1.4.9-10.D)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- methods of understanding authorial perspective and rhetoric. *(K1)*
- methods of reading seminal U.S. documents and their themes. *(K2)*
- vocabulary, including multiple-meaning words. *(K3)*
- comprehension methods of literary non-fiction, informational text, and literary fiction. *(K4)*
- themes and central ideas in texts. *(K5)*
- text evidence and character development. *(K6)*
- how tone and meaning are shaped by language. *(K7)*
- conventions of standard English writing. *(K8)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- analyzing author's point of view and rhetoric. *(S1)*
- analyzing historical and literary significance of texts. *(S2)*
- determining the meaning of unknown words and phrases. *(S3)*
- reading and comprehending texts at grade level independently. *(S4)*
- summarizing texts objectively and analyzing themes in detail. *(S5)*
- citing textual evidence to support analysis. *(S6)*
- analyzing character development and interactions. *(S7)*
- writing informative/explanatory texts with a clear focus. *(S8)*
- organizing ideas and information effectively. *(S9)*
- using precise language and maintaining a formal tone. *(S10)*
- demonstrating command of English grammar and spelling. *(S11)*

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- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.9-10.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.9-10.F)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Module 3: Drama

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 01:56	English 10	45.0 Day(s)	10	English Language Arts	Martha Dorak , SHEILA FOSTER

Unit Focus

In this module, reading, writing, speaking and listening are framed around the big idea that effective readers use appropriate strategies to construct meaning. This module addressed the essential question: How does the speaker, through the rhetorical devices he or she uses, influence the views and opinions of his or her audience? Students read from, and write to, informational texts as well as classic and contemporary literature. Students engage in class discussions involving the informational texts and literature to interpret diverse perspectives.

Students apply a broad range of reading, writing, speaking and listening skills. Students address how a speaker influences the views and opinions of his or her audience. Key outcomes include citing strong and thorough textual evidence to support analysis of a text; analyzing how an author's choices create a desired effect; analyzing how an author transforms text elements in a written work; evaluating the use of rhetorical devices in speeches; and presenting information, findings, and supporting evidence appropriate to purpose, audience, and task.

Prior Learnings/Connection

Students need strong foundational reading skills including comprehension, understanding of literary elements, and the ability to identify explicit vs. implicit meaning from their previous coursework. Prior knowledge of literary analysis basics such as characterization, point of view, story structure, and theme development is essential, as is experience with argumentative writing and evidence-based claims. Critical thinking abilities including making logical inferences, identifying patterns, and distinguishing fact from opinion are crucial, along with fundamental speaking and listening skills for effective participation in discussions and presentations.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 9-10 ■ Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

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conclusions based on an author's explicit assumptions and beliefs about a subject. *(CC.1.3.9-10.B)*

- Analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme. *(CC.1.3.9-10.C)*
- Determine the point of view of the text and analyze the impact the point of view has on the meaning of the text. *(CC.1.3.9-10.D)*
- Analyze how an author's choices concerning how to structure a text, order events within it and manipulate time create an effect. *(CC.1.3.9-10.E)*
- Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment. *(CC.1.3.9-10.G)*
- Analyze how an author draws on and transforms themes, topics, character types, and/or other text elements from source material in a specific work. *(CC.1.3.9-10.H)*
- Create organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence; Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims; provide a concluding statement or section that follows from and supports the argument presented. *(CC.1.4.9-10.J)*
- Initiate and participate effectively in a range of collaborative discussions on

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)* ■ Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)* ■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)* ■ Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*	■ How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)* ■ How does the type of text influence how it is read? *(EQ.ELA.01.B)* ■ How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)* ■ How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)* ■ What do active listeners do to create meaning? *(EQ.ELA.03.A)* ■ How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)* ■ How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)* ■ How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)* ■ How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)* ■ How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

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grades level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. *(CC.1.5.9-10.A)*

- Evaluate a speaker's perspective, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence. *(CC.1.5.9-10.B)*
- Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning; ensure that the presentation is appropriate to purpose, audience, and task. *(CC.1.5.9-10.D)*

- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding of textual evidence and its role in analysis. *(K1)*
- Knowledge of character dynamics and plot development. *(K2)*
- Familiarity with different points of view and their effects. *(K3)*
- Awareness of narrative structure and authorial techniques. *(K4)*
- Insight into artistic representation and thematic transformation. *(K5)*
- Understanding of argumentative writing structures. *(K6)*
- Familiarity with discussion norms and presentation skills. *(K7)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Analyze textual evidence and make inferences. *(S1)*
- Analyze character development and interactions. *(S2)*
- Determine and analyze point of view. *(S3)*
- Examine authorial choices in text structure. *(S4)*
- Compare representations in different artistic mediums. *(S5)*
- Transform and draw on themes and character types from source material. *(S6)*
- Organize arguments clearly with claims, counterclaims, and evidence. *(S7)*
- Engage in collaborative discussions. *(S8)*
- Evaluate speaker's arguments and reasoning. *(S9)*

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		■ Present information clearly and effectively. *(S10)*

Module 3: Non-fiction, Informational (Cause & Effect) Writing

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 03:19	English 12	8.0 Weeks	12	English Language Arts	Beth Yosler

Unit Focus

In this module, reading, writing, speaking, and listening are focused around the big idea of mastering purposeful and independent expression. Instruction will center around an essential question: How does a person's reputation and integrity benefit or undermine their future opportunities and choices? Students read from, and write to, informational texts as well as classic and contemporary literature. Students engage in class discussions involving the informational text and literature to interpret diverse perspectives.

Students apply a broad range of reading, writing, speaking, and listening skills. Students address how a writer influences the view and opinions of his or her audience. Key outcomes include evaluating how words and phrases shape meaning and tone in texts and writing with a sharp, distinct focus identifying topic, task, and audience. In addition, students conduct more sustained research and then organize their findings to answer an identified question, while using appropriate transistors and formatting to aid in comprehension.

Prior Learnings/Connection

This module builds on students' prior knowledge of independent expression, particularly cause and effect. It also connects to rhetorical analysis, as students will apply skills such as close reading, authorial style, and complex ideology. Knowledge of expository writing, grammar and academic vocabulary will also be expanded through digital media, collaborative discussions and independent research, giving students a deeper grasp of language mechanics, multiple perspectives, credibility, and accuracy. Students will have an understanding of reasoning, decision-making, and outcomes.

Stage 1: Learning Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Evaluate how words and phrases shape meaning and tone in texts. *(CC.1.3.11-12.F)*
- Organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create whole; use appropriate and varied transitions and syntax to link the major sections of the text; provide a concluding statement or section that supports the information presented; include formatting when useful to aiding comprehension. *(CC.1.4.11-12.D)*
- Integrate multiple sources of information presented in diverse formats and media (e.g. visually, quantitative, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data. *(CC.1.5.11-12.C)*
- Make strategic use of digital media in presentations to add interest and enhance understanding of findings, reasoning, and evidence. *(CC.1.5.11-12.F)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*

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- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding of language nuances. *(K1)*
- Knowledge of organizational structures in writing. *(K2)*
- Familiarity with different information formats. *(K3)*
- Proficiency in digital media tools. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Analyzing language and tone. *(S1)*
- Structuring written work cohesively. *(S2)*
- Synthesizing information from multiple sources. *(S3)*
- Utilizing digital media in communication. *(S4)*

Module 3: Reading Literature/ Reading Information/ Research/ Writing

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 03:01	English 9	7.0 Weeks	9	English Language Arts	Heather Dengler , Shannon Myers

Unit Focus

People have always tried to imagine the future. Some have worried that today's human carelessness will produce the problems of tomorrow. Others have looked optimistically toward the future, hoping that technological progress will offer us a way to solve our current problems. Still others have predicted that each set of advancements will bring its own set of problems and solutions, in an endless cycle of human wisdom and folly. Through it all, the authors in this module offer their perspectives and hope.

Prior Learnings/Connection

Ninth graders would need basic scientific understanding, historical context, critical thinking, technology awareness, and a literary foundation for this environmentally-focused future unit:

Scientific Understanding:

*Basic grasp of climate change concepts

*Understanding of ecosystems and how changes affect them

*Familiarity with renewable vs. non-renewable resources

*Knowledge of basic environmental challenges (pollution, deforestation, etc.)

Historical Context:

*Awareness of major environmental movements and legislation

*Knowledge of how technology has both helped and harmed the environment

*Familiarity with some key environmental disasters and their effects

Critical Thinking Base:

*Ability to evaluate cause-and-effect relationships

*Experience considering long-term consequences of actions

*Understanding that complex problems rarely have simple solutions

*Ability to consider multiple perspectives on issues

Technology Awareness:

*Basic understanding research using technology

*Awareness that technology can have unintended consequences

*Understanding of how human behavior and technology interact

Literary Foundation:

*Experience analyzing author's purpose and perspective

*Ability to distinguish between fact and speculation in texts

*Understanding of how tone affects message

*Familiarity with argumentative writing techniques

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 9-10

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on an author's explicit assumptions and beliefs about a subject. *(CC.1.2.9-10.B)*
- Determine an author's particular point of view and analyze how rhetoric advances the point of view. *(CC.1.2.9-10.D)*
- Analyze how words and phrases shape meaning and tone in texts. *(CC.1.2.9-10.F)*
- Delineate and evaluate the argument and specific claims in a text, assessing the validity of reasoning and relevance of evidence. *(CC.1.2.9-10.H)*
- Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.2.9-10.J)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade level reading and

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*

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content, choosing flexibly from a range of strategies and tools. *(CC.1.2.9-10.K)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.9-10.L)*
- Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text. *(CC.1.3.9-10.A)*
- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on an author's explicit assumptions and beliefs about a subject. *(CC.1.3.9-10.B)*
- Determine the point of view of the text and analyze the impact the point of view has on the meaning of the text. *(CC.1.3.9-10.D)*
- Analyze how words and phrases shape meaning and tone in texts. *(CC.1.3.9-10.F)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 9-10 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.9-10.I)*
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.3.9-10.J)*

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ methods for citing textual evidence for analysis. *(K1)*	■ understanding literary and rhetorical elements. *(S1)*

- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.9-10.K)*
- Write arguments to support claims in an analysis of substantive topics. *(CC.1.4.9-10.G)*
- Write with a sharp distinct focus identifying topic, task, and audience. Introduce the precise claim. *(CC.1.4.9-10.H)*
- Distinguish the claim(s) from alternate or opposing claims; develop claim(s) fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns. *(CC.1.4.9-10.I)*
- Create organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence; Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims; provide a concluding statement or section that follows from and supports the argument presented. *(CC. 1.4.9-10.J)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.9-10.K)*

- an author's point of view and rhetorical strategies. *(K2)*
- the impact of word choice on meaning and tone. *(K3)*
- methods for evaluating arguments and claims for validity and relevance. *(K4)*
- methods for acquiring and using academic and domain-specific vocabulary. *(K5)*
- methods for clarifying meanings of unknown words using various strategies. *(K6)*
- methods for reading and comprehending literary and informational texts at grade level. *(K7)*
- methods for writing arguments and analyses with proper structure and focus. *(K8)*
- methods for conducting research and synthesizing information from multiple sources. *(K9)*

- understanding academic vocabulary and its application. *(S2)*
- recognizing and using different writing styles for different purposes. *(S3)*
- using research methods and proper citation standards. *(S4)*
- understanding themes and central ideas in texts. *(S5)*
- conducting research and synthesizing information. *(S6)*
- writing clearly and accurately for various purposes. *(S7)*
- presenting information effectively. *(S8)*

- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.9-10.L)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and literary non-fiction. *(CC.1.4.9-10.S)*
- Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. *(CC.1.4.9-10.T)*
- Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically. *(CC.1.4.9-10.U)*
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. *(CC.1.4.9-10.V)*
- Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding

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plagiarism and following a standard format for citation. *(CC.1.4.9-10.W)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC.1.4.9-10.X)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Module 3: Writing How-To Guides

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 02:45	2nd Grade Writing	30.0 Day(s)	2	English Language Arts	Rachel Mleczko

Unit Focus

In this unit, students will learn to write how-to informational pieces, using their own experiences to guide their writing. They will focus on organizing steps in a clear, logical sequence, ensuring that their instructions are easy to follow. Students will revise their writing for precise word choices and clarity, and edit for correct use of capital letters and ending punctuation. By the end of the unit, students will have developed a how-to piece that effectively conveys their ideas and information.

Prior Learnings/Connection

In 1st grade, students begin to write informative/explanatory texts where they introduce topics clearly and provide simple explanations. They focus on grouping information in a way that makes sense and helps readers understand the topic. The structure of their writing includes an introduction and a closing statement that provides a sense of completion. Students work on choosing appropriate words to help convey their ideas clearly and are introduced to using basic conventions such as capitalizing proper nouns, using commas and apostrophes, and spelling words based on phonetic patterns. As they learn to organize their writing, students also begin to gather information from personal experiences or provided sources to support their explanations

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 2

- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.2.A)*
- Identify and introduce the topic. *(CC.1.4.2.B)*
- Group information and provide a concluding statement or section. *(CC.1.4.2.D)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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- Choose words and phrases for effect. *(CC.1.4.2.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. Capitalize proper nouns. Use commas and apostrophes appropriately. Spell words drawing on common spelling patterns. Consult reference material as needed. *(CC.1.4.2.F)*
- Recall information from experiences or gather information from provided sources to answer a question. *(CC.1.4.2.W)*

Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- How-to guides are informative pieces that explain a process or set of instructions clearly and logically. *(K1)*
- The topic of a how-to guide should be introduced, followed by a clear sequence of steps. *(K2)*
- Grouping related information and providing a concluding statement or section helps to organize the guide

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Writing informative/explanatory texts that examine a topic and convey ideas clearly. *(S1)*
- Identifying and introducing the topic of the how-to guide. *(S2)*
- Organizing information logically, grouping related steps, and providing a concluding statement or section. *(S3)*

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	effectively. *(K3)* ■ Words and phrases should be chosen for effect, making instructions clear and easy to follow. *(K4)* ■ Writing must follow conventions of standard English, including appropriate capitalization, punctuation, and spelling. *(K5)*	■ Choosing words and phrases for effect to clarify instructions. *(S4)* ■ Demonstrating grade-appropriate command of standard English grammar, punctuation, and spelling, including the use of commas, apostrophes, and capital letters. *(S5)* ■ Using personal experiences or gathered information from provided sources to answer questions or explain processes. *(S6)*

Module 4: Allegory

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 03:08	English 10	45.0 Day(s)	10	English Language Arts	Martha Dorak

Unit Focus

In this module, reading, writing, speaking and listening center around the big idea of how people gain and keep power through rhetoric and manipulation. This module addressed the essential question: How do leaders gain and keep power? Students should read from and write to informational text as well as classic and contemporary literature. Students should engage in class discussions involving informational text and literature to understand how rhetoric influences others.

The goal of this unit is to have students apply a broad range of reading, writing, speaking, and listening skills. Students will address how a writer/speaker influences the views and opinions of his or her audience. Key outcomes include analyzing various accounts of a subject told in different mediums; delineating and evaluating the argument and specific claims in a text and assessing validity; reading closely, annotating texts, and collecting and organizing evidence to support analysis; understanding how fiction can echo real world issues, and how to analyze a novel through a critical lens.

Prior Learnings/Connection

Students approaching these 9th-10th grade standards need strong foundational reading comprehension skills, including the ability to identify main ideas, make inferences, and analyze basic literary elements at an 8th-grade level. Prior writing experience should include familiarity with different writing modes, basic essay structure, and grade-appropriate grammar and punctuation usage. Critical thinking and communication foundations are essential, including the ability to draw conclusions from evidence, participate effectively in discussions, and use basic digital tools for research and presentation.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 9-10 ■ Determine a central idea of a text and analyze its development over the course of	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text. *(CC.1.2.9-10.A)*

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on an author's explicit assumptions and beliefs about a subject. *(CC.1.2.9-10.B)*
- Apply appropriate strategies to analyze, interpret, and evaluate how an author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them. *(CC.1.2.9-10.C)*
- Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text. *(CC.1.2.9-10.E)*
- Analyze various accounts of a subject told in different mediums (e.g., a person's life story in both print and multimedia), determining which details are emphasized in each account. *(CC.1.2.9-10.G)*
- Analyze seminal U.S. documents of historical and literary significance, including how they address related themes and concepts. *(CC.1.2.9-10.I)*
- Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary

- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

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knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.2.9-10.J)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.9-10.L)*
- Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text. *(CC.1.3.9-10.A)*
- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on an author's explicit assumptions and beliefs about a subject. *(CC.1.3.9-10.B)*
- Analyze how words and phrases shape meaning and tone in texts. *(CC.1.3.9-10.F)*
- Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment. *(CC.1.3.9-10.G)*
- Analyze how an author draws on and transforms themes, topics, character types, and/or other text elements from source material in a specific work. *(CC.1.3.9-10.H)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.9-10.K)*
- Write informative/ explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately. *(CC.1.4.9-10.A)*

- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Understanding of central ideas and themes in various texts. *(K1)* ■ Familiarity with textual evidence and how to cite it effectively. *(K2)* ■ Knowledge of the development and structure of arguments and analyses in texts. *(K3)* ■ Awareness of different mediums and their representations of subjects. *(K4)* ■ Recognition of significant U.S. historical and literary documents. *(K5)* ■ Expansion and application of academic vocabulary and domain-specific language. *(K6)* ■ Comprehension of literary fiction and non-fiction at grade level. *(K7)*	■ Analyzing and summarizing texts. *(S1)* ■ Citing evidence to support analyses and conclusions. *(S2)* ■ Evaluating an author's argumentative strategies. *(S3)* ■ Comparing representations across different mediums. *(S4)* ■ Writing informative and argumentative texts with clarity. *(S5)* ■ Engaging in collaborative discussions and effective presentations. *(S6)* ■ Applying conventions of standard English in writing and speaking. *(S7)*

- Organize ideas, concepts, and information to make important connections and distinctions; use appropriate and varied transitions to link the major sections of the text; include formatting when useful to aiding comprehension; provide a concluding statement or section. *(CC. 1.4.9-10.D)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.9-10.E)*
- Write arguments to support claims in an analysis of substantive topics. *(CC.1.4.9-10.G)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.9-10.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.9-10.L)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and literary non-fiction. *(CC.1.4.9-10.S)*
- Initiate and participate effectively in a range of collaborative discussions on

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grades level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. *(CC. 1.5.9-10.A)*
- Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning; ensure that the presentation is appropriate to purpose, audience, and task. *(CC.1.5.9-10.D)*
- Make strategic use of digital media in presentations to add interest and enhance understanding of findings, reasoning, and evidence. *(CC.1.5.9-10.F)*
- Demonstrate command of the conventions of standard English when speaking based on grade 9-10 level and content. *(CC. 1.5.9-10.G)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*

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■ Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)* ■ Use a wide range of creation techniques *(POG.CI.1)* ■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)* ■ Communicate for a range of purposes *(POG.COM.2)* ■ Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)* ■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	

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Module 4: Crafting Opinion Pieces

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 02:47	2nd Grade Writing	30.0 Day(s)	2	English Language Arts	Rachel Mleczko

Unit Focus

In this unit, students will focus on writing opinion pieces, where they will state a clear opinion on a familiar topic and provide supporting details to back it up. They will also learn to organize their writing logically, including reasons that support their opinion and a concluding statement. Students will revise and edit their work to ensure clarity and effectiveness, and they will use a variety of words and phrases to make their writing appealing to their audience.

Prior Learnings/Connection

In 1st grade, students begin to express their opinions in writing by focusing on familiar topics or texts. They start by stating their opinion and supporting it with basic reasons that are connected to their viewpoint. Writing in opinion/argumentative style introduces students to the idea of creating a structured argument, though it may be simple. They are also introduced to the concept of organizing their writing by presenting their opinion, supporting reasons, and concluding the piece. In 1st grade, students develop their ability to express their thoughts clearly and are guided in improving their grammar, spelling, and punctuation to ensure clarity. Through the writing process, students work on revising and editing with support from adults and peers

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 2 ■ Write opinion pieces on familiar topics or texts. *(CC.1.4.2.G)* ■ Identify the topic and state an opinion. *(CC.1.4.2.H)* ■ Support the opinion with reasons that include details connected to the opinion. *(CC.1.4.2.I)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

- Create an organizational structure that includes reasons and includes a concluding statement. *(CC.1.4.2.J)*
- Use a variety of words and phrases to appeal to the audience. *(CC.1.4.2.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.2.L)*
- With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing. *(CC.1.4.2.T)*
- Recall information from experiences or gather information from provided sources to answer a question. *(CC.1.4.2.W)*

Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- An opinion piece clearly states an opinion on a familiar topic or text and supports it with reasons and details. *(K1)*
- A strong opinion piece includes an introduction where the topic is identified and the opinion is stated. *(K2)*
- Reasons supporting the opinion must be provided with details that are connected to the opinion. *(K3)*
- A logical structure is important in an opinion piece, including a conclusion

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Writing opinion pieces on familiar topics or texts. *(S1)*
- Identifying the topic and stating a clear opinion. *(S2)*
- Supporting the opinion with reasons and details that are logically connected to the opinion. *(S3)*
- Organizing the writing with a clear structure, including reasons and a concluding statement. *(S4)*

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	that summarizes the main idea. *(K4)* ■ Different words and phrases can be used to appeal to the audience and make the opinion persuasive. *(K5)* ■ Standard English grammar, punctuation, and spelling must be followed to ensure clarity and effectiveness in writing. *(K6)*	■ Using a variety of words and phrases to appeal to the audience and enhance the persuasiveness of the writing. *(S5)* ■ Demonstrating grade-appropriate command of standard English grammar and spelling, including capitalization, commas, apostrophes, and spelling conventions. *(S6)* ■ Revising and editing writing to improve clarity, effectiveness, and appeal. *(S7)* ■ Using personal experiences or gathered information from sources to support an opinion. *(S8)*

Module 4: Fiction, Argumentative Writing

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 12:18	English 12	9.0 Weeks	12	English Language Arts	Beth Yosler

Unit Focus

In this module, reading, writing, speaking, and listening are focused around the big idea of mastering purposeful and independent expression. Instruction will center around an essential question: How can individuals make the greatest difference in improving the lives of others? Students read from, and write to, informational text as well as classic and contemporary literature. Students engage in class discussions involving the informational text and literature to interpret diverse perspectives.

Students apply a broad range of reading, writing, speaking, and listening skills. Students address how individuals can make the greatest difference in improving the lives of others. Key outcomes include analyzing the impact of the author's choices; evaluating how words and phrases shape meaning and tone in texts; distinguishing claims from alternate or opposing claims; developing claims and counterclaims fairly and thoroughly; creating a smooth progression of experiences or events using a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome; and conducting short as well as more sustained research projects to answer a question or solve a problem.

Prior Learnings/Connection

This module builds on students' prior knowledge of independent expression, particularly argumentation and cause and effect. It also connects to rhetorical analysis, as students will apply skills such as close reading, thematic analysis, complex ideology, and implications. Knowledge of argumentative and expository writing, grammar and academic vocabulary will also be expanded through collaborative discussions and independent research, giving students a deeper grasp of language mechanics and bias. Students will have an understanding of claims, evidence, reasoning, and implications.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama. *(CC.1.3.11-12.C)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 11-12 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.11-12.I)*
- Develop and analyze the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic; include graphics and multimedia when useful to aiding comprehension. *(CC.1.4.11-12.C)*
- Distinguish the claim(s) from alternate or opposing claims; develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases. *(CC.1.4.11-12.I)*
- Write with an awareness of the stylistic aspects of composition. • Use precise

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*

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language and domain-specific vocabulary to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.11-12.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC. 1.4.11-12.L)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA. 07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding narrative structure and elements of drama. *(K1)*
- Familiarity with vocabulary strategies and tools for comprehension. *(K2)*
- Recognizing different perspectives and biases in arguments. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Analyzing authorial choices in storytelling. *(S1)*
- Determining meanings of words and phrases. *(S2)*
- Distinguishing and developing claims and counterclaims. *(S3)*

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■ Demonstrate an awareness that actions have broad implications *(POG.GC.1)* ■ Demonstrate originality and inventiveness *(POG.CI.2)* ■ View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)* ■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*	

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Module 4: Reading Literature: Short Stories/ Writing

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 03:15	English 9	4.0 Weeks	9	English Language Arts	Heather Dengler , Shannon Myers

Unit Focus

A short story is a brief visit to an imaginary world. The world could be nineteenth-century Paris, the American Southwest, or the swamp country of South Carolina. In these stories, students will meet characters who deal with problems that are surprisingly real. As students live through these problems with the characters, they gain a deeper understanding of the world around them. This unit highlights the elements of the short story while showing the power and variety of the form.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 9-10

- Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text. *(CC.1.3.9-10.A)*
- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on an author's explicit assumptions and beliefs about a subject. *(CC.1.3.9-10.B)*
- Analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme. *(CC.1.3.9-10.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*

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- Determine the point of view of the text and analyze the impact the point of view has on the meaning of the text. *(CC.1.3.9-10.D)*
- Analyze how an author's choices concerning how to structure a text, order events within it and manipulate time create an effect. *(CC.1.3.9-10.E)*
- Analyze how words and phrases shape meaning and tone in texts. *(CC.1.3.9-10.F)*
- Analyze how an author draws on and transforms themes, topics, character types, and/or other text elements from source material in a specific work. *(CC.1.3.9-10.H)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 9-10 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.9-10.I)*
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.3.9-10.J)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.9-10.K)*
- Write informative/ explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately. *(CC.1.4.9-10.A)*
- Write with a sharp distinct focus identifying topic, task, and audience. *(CC.1.4.9-10.B)*
- Develop and analyze the topic with relevant, well-chosen, and sufficient facts, extended definitions, concrete details,

- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- themes and central ideas in texts. *(K1)*
- complex character development and interactions. *(K2)*
- point of view and its impact on meaning. *(K3)*
- authorial choices in text structure and language. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- analyzing textual evidence to support claims. *(S1)*
- providing objective summaries of texts. *(S2)*
- writing informative and explanatory texts. *(S3)*
- organizing and articulating complex ideas clearly. *(S4)*

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quotations, or other information and examples appropriate to the audience's knowledge of the topic; include graphics and multimedia when useful to aiding comprehension. *(CC.1.4.9-10.C)*
- Organize ideas, concepts, and information to make important connections and distinctions; use appropriate and varied transitions to link the major sections of the text; include formatting when useful to aiding comprehension; provide a concluding statement or section. *(CC.1.4.9-10.D)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.9-10.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.9-10.F)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

- vocabulary acquisition and comprehension strategies. *(K5)*

- employing appropriate grammar and conventions of standard English. *(S5)*

Module 5: Drama, Narrative/Informative Writing, Speaking

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 12:42	English 12	9.0 Weeks	12	English Language Arts	Beth Yosler

Unit Focus

Through close reading, interpretation, and analysis of fiction and nonfiction texts, students cite text based evidence to accurately quote what the text says explicitly and make inferences. Students draw from the information and inferences to form opinions.

Students continue to develop their writing skills by drawing from multiple sources in order to form an opinion. They write opinion pieces with a clear topic supported by facts and details from credible sources. Students thoroughly cultivate their opinions by grouping related opinions, facts, and details. Students enhance their writing through an awareness of style and precision.

Prior Learnings/Connection

This module builds on students' prior knowledge of independent expression, particularly opinions, premises, and purposes. It also connects to rhetorical analysis, as students will apply skills such as close reading, sequencing, identifying points of emphasis and stances, and reflection. Knowledge of opinion writing, grammar and academic vocabulary will also be expanded through collaborative discussions, digital media and independent speeches, giving students a deeper grasp of language mechanics. Students will have an understanding of how a speaker's perspective, evidence, reasoning, and use of rhetoric impact credibility.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 11-12 ■ Integrate and evaluate multiple sources of information presented in different media or formats (e.g. visually, quantitatively) as well as in words in order to address a question or solve a problem. *(CC.1.2.11-12.G)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)* ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

- Analyze seminal texts based upon reasoning, premises, purposes, and arguments. *(CC.1.2.11-12.H)*
- Write with a sharp distinct focus identifying topic, task, and audience. *(CC.1.4.11-12.B)*
- Organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create whole; use appropriate and varied transitions and syntax to link the major sections of the text; provide a concluding statement or section that supports the information presented; include formatting when useful to aiding comprehension. *(CC.1.4.11-12.D)*
- Create a smooth progression of experiences or events using a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome; provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative. *(CC.1.4.11-12.P)*
- Write with an awareness of the stylistic aspects of writing. Use parallel structure. Use various types of phrases and clauses to convey specific meanings and add variety and interest. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. *(CC.1.4.11-12.Q)*
- Evaluate how the speaker's perspective, reasoning, and use of evidence and
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)* ■ Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)* ■ Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)* ■ Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)* ■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*	■ How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)* ■ How does the type of text influence how it is read? *(EQ.ELA.01.B)* ■ How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)* ■ How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)* ■ What do active listeners do to create meaning? *(EQ.ELA.03.A)* ■ How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)* ■ How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)* ■ How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)* ■ How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)* ■ How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

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rhetoric affect the credibility of an argument through the author's stance, premises, links among ideas, word choice, points of emphasis, and tone. *(CC.1.5.11-12.B)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding various media and formats of information *(K1)*
- Familiarity with seminal texts and their arguments *(K2)*
- Knowledge of writing conventions and audience awareness *(K3)*
- Comprehension of narrative structure and progression *(K4)*
- Awareness of rhetorical devices and their effects on argumentation *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Integrating and evaluating multiple sources of information *(S1)*
- Analyzing texts based on reasoning and arguments *(S2)*
- Writing with a clear focus on topic, task, and audience *(S3)*
- Organizing complex ideas and information logically *(S4)*
- Creating coherent narratives with a specific tone and outcome *(S5)*
- Using stylistic writing techniques *(S6)*
- Evaluating the credibility of arguments based on perspective and evidence *(S7)*

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■ Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)* ■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	

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Module 5: Reading Literature: Poetry/ Writing

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 03:26	English 9	5.0 Weeks	9	English Language Arts	Heather Dengler , Shannon Myers

Unit Focus

A powerful poem uses language to draw you in, invites you to reread, and inspires you to find a new layer of meaning each time. A poet carefully chooses words to capture a unique and personal vision. Poetry combines meaning with sound to add music and rhythm to ideas. Each reader brings a different set of associations to a poem based on the people, places, and experiences he or she has known.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 9-10

- Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text. *(CC.1.3.9-10.A)*
- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on an author's explicit assumptions and beliefs about a subject. *(CC.1.3.9-10.B)*
- Determine the point of view of the text and analyze the impact the point of view has on the meaning of the text. *(CC.1.3.9-10.D)*
- Analyze how words and phrases shape meaning and tone in texts. *(CC.1.3.9-10.F)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*

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- Analyze how an author draws on and transforms themes, topics, character types, and/or other text elements from source material in a specific work. *(CC.1.3.9-10.H)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 9-10 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.9-10.I)*
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.3.9-10.J)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.9-10.K)*
- Write with an awareness of the stylistic aspects of writing. Use parallel structure. Use various types of phrases and clauses to convey meaning and add variety and interest. *(CC.1.4.9-10.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.9-10.R)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and literary non-fiction. *(CC.1.4.9-10.S)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-

- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- methods of finding the theme or central idea of a text. *(K1)*
- methods of finding pertinent textual evidence and its importance. *(K2)*
- point of view and its influence on meaning. *(K3)*
- how language shapes tone and meaning. *(K4)*
- literary elements and their transformation. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- analyzing and summarizing texts. *(S1)*
- citing evidence effectively. *(S2)*
- determining and analyzing point of view. *(S3)*
- understanding and applying vocabulary strategies. *(S4)*
- writing with stylistic awareness. *(S5)*

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specific tasks, purposes and audiences. *(CC. 1.4.9-10.X)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*

Module 5: Writing All-About Informational Texts

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 02:48	2nd Grade Writing	45.0 Day(s)	2	English Language Arts	Rachel Mleczko

Unit Focus

This unit introduces students to the structure and organization of informational writing. Students will recall information from their experiences to write an All-About piece, focusing on clearly introducing a topic, supporting it with relevant details, and providing a concluding statement. The organizational structure taught in this unit sets the foundation for future writing, and research Students will also learn to use a variety of digital tools to publish their writing and participate in collaborative projects. Through this process, they will develop key skills in writing informative texts and conducting basic research.

Prior Learnings/Connection

In 1st grade, students are introduced to writing informative/explanatory texts, which begins with identifying and introducing a topic. They learn to develop their writing with simple facts and definitions, laying the groundwork for expanding on a topic with supporting information. Organization becomes a focus as students begin to group related information and conclude their writing with a basic statement or closing thought. At this stage, students are introduced to the importance of using appropriate words and phrases to convey meaning clearly and effectively. In 1st grade, writing also involves revising and editing with the guidance of peers and adults, as well as exploring digital tools for producing and publishing work. While the depth of research and the evaluation of sources is still limited, students begin to gather information from experiences or simple sources to answer basic questions.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 2

- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.2.A)*
- Identify and introduce the topic. *(CC.1.4.2.B)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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- Develop the topic with facts and/or definitions *(CC.1.4.2.C)*
- Group information and provide a concluding statement or section. *(CC.1.4.2.D)*
- Choose words and phrases for effect. *(CC.1.4.2.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. Capitalize proper nouns. Use commas and apostrophes appropriately. Spell words drawing on common spelling patterns. Consult reference material as needed. *(CC.1.4.2.F)*
- With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing. *(CC.1.4.2.T)*
- With guidance and support, use a variety of digital tools to produce and publish writing including in collaboration with peers. *(CC.1.4.2.U)*
- Participate in individual or shared research and writing projects. *(CC.1.4.2.V)*
- Recall information from experiences or gather information from provided sources to answer a question. *(CC.1.4.2.W)*

Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*

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- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Informational writing requires a clear introduction of the topic, followed by facts and details to support the topic, and a concluding statement. *(K1)* ■ Writing is organized with a logical structure: introduction, supporting details, and conclusion. *(K2)* ■ The use of facts and definitions helps clarify and develop the topic. *(K3)* ■ Different words and phrases can be used to enhance the writing and make it more engaging. *(K4)* ■ Standard English conventions for grammar, punctuation, and spelling are essential for clear communication. *(K5)* ■ Technology can be used to produce and publish written work, often in collaboration with peers. *(K6)* ■ Research is a valuable tool for gathering relevant information to enhance writing. *(K7)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Writing informative/explanatory texts to examine a topic and clearly convey ideas and information. *(S1)* ■ Identifying and introducing the topic in an informative piece. *(S2)* ■ Developing the topic with relevant facts and/or definitions. *(S3)* ■ Organizing information logically, grouping it into sections, with a clear concluding statement. *(S4)* ■ Choosing appropriate words and phrases for clarity and effect in writing. *(S5)* ■ Demonstrating grade-appropriate command of standard English grammar and spelling, including capitalization, commas, apostrophes, and spelling conventions. *(S6)* ■ Revising and editing writing to strengthen the topic and clarity. *(S7)* ■ Using digital tools to produce and publish writing, often collaborating with

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		peers. *(S8)* ■ Participating in research and writing projects to gather and incorporate relevant information from reliable sources. *(S9)*

Module 6: Exploring Narrative and Creative Writing

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 02:51	2nd Grade Writing	25.0 Day(s)	2	English Language Arts	Rachel Mleczko

Unit Focus

In this narrative and creative writing unit, second-grade students dive into the world of story elements by applying their understanding from reading to create their own stories. They explore key components such as characters, setting, plot, and resolution, using interactive activities to brainstorm ideas, develop plot lines, and engage in collaborative projects. Students will practice organizing their narratives in a clear sequence, using descriptive language to enhance their writing, and revising their work for improvement.

Prior Learnings/Connection

In 1st grade, students begin to develop their skills in narrative writing, starting with the basics of establishing a situation and introducing simple characters. They focus on writing short stories about real or imagined experiences while including basic thoughts and feelings to show how characters respond to events. Organization of these narratives is introduced, where students learn to sequence events using simple temporal words (e.g., first, then, next) to create a basic flow of the story. The idea of closure is introduced, encouraging students to end their stories with a clear conclusion. In terms of style, students start to experiment with using words that help express emotions and actions. Conventions such as capitalizing proper nouns, using commas, apostrophes, and spelling words correctly are focused on at the 1st grade level, though the expectations are simpler than in later grades. Writing involves revising and editing, with support from peers and adults, allowing students to reflect on and improve their work.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 2

- Write narratives to develop real or imagined experiences or events. *(CC.1.4.2.M)*
- Establish a situation and introduce a narrator and/or characters. *(CC.1.4.2.N)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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- Include thoughts and feeling to describe experience and events to show the response of characters to situations. *(CC.1.4.2.O)*
- Organize a short sequence of events, using temporal words to signal event order; provide a sense of closure. *(CC.1.4.2.P)*
- Choose words and phrases for effect *(CC.1.4.2.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. Capitalize proper nouns. Use commas and apostrophes appropriately. Spell words drawing on common spelling patterns. Consult reference material as needed. *(CC.1.4.2.R)*
- With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing. *(CC.1.4.2.T)*

Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- A narrative is a story that includes key elements such as characters, setting, plot, and resolution. *(K1)*
- Writing a narrative involves organizing events in a logical sequence and using temporal words to show the order of events. *(K2)*
- The use of descriptive language helps create vivid pictures for the reader and enhances the narrative. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Writing narratives that develop real or imagined experiences or events. *(S1)*
- Establishing a situation and introducing characters and/or a narrator in their stories. *(S2)*
- Including thoughts and feelings to describe experiences and events and showing how characters respond to situations. *(S3)*

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	■ The writing process involves planning, drafting, revising, and editing to improve the quality of the work. *(K4)* ■ Narratives should include the thoughts and feelings of characters, which show how they respond to situations. *(K5)* ■ Standard English conventions, including grammar, punctuation, and spelling, are important for clarity and readability. *(K6)*	■ Organizing their writing into a short sequence of events, using temporal words to signal event order and providing a sense of closure. *(S4)* ■ Choosing words and phrases that have an effect on the reader and enhance the story. *(S5)* ■ Demonstrating grade-appropriate command of standard English grammar and spelling, including capitalization, commas, apostrophes, and spelling conventions. *(S6)* ■ Revising and editing their writing with guidance and support from adults and peers to strengthen their work. *(S7)*

Module 6: Reading Literature: Drama

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 06:44	English 9	6.0 Weeks	9	English Language Arts	Heather Dengler , Shannon Myers

Unit Focus

In this unit, students will explore William Shakespeare's themes of love, conflict, and fate. Through research, reading, discussion, and creative assignments, students will gain a deeper understanding of the text while developing their critical thinking and communication skills.

Prior Learnings/Connection

Essential prior knowledge for students includes literary elements and analysis skills such as basic understanding of plot structure (exposition, rising action, climax, etc.); familiarity with literary devices like metaphor, simile, and foreshadowing; experience analyzing character motivation and development; and understanding of the differences between tragedy and comedy in literature. They should also have exposure to historical and cultural context such as general knowledge of Renaissance/Elizabethan era; basic understanding of social class structures and family dynamics in medieval/Renaissance society; and some exposure to how different cultures and time periods view love and marriage. In addition, students will need to be able to use language skills such as reading texts with complex syntax and vocabulary, interpreting figurative language, and reading dialogue and stage directions.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 9-10 ■ Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text. *(CC.1.3.9-10.A)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)* ■ Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)* ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on an author's explicit assumptions and beliefs about a subject. *(CC.1.3.9-10.B)*
- Analyze how complex characters develop over the course of a text, interact with other characters, and advance the plot or develop the theme. *(CC.1.3.9-10.C)*
- Analyze how an author's choices concerning how to structure a text, order events within it and manipulate time create an effect. *(CC.1.3.9-10.E)*
- Analyze how words and phrases shape meaning and tone in texts. *(CC.1.3.9-10.F)*
- Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment. *(CC.1.3.9-10.G)*
- Analyze how an author draws on and transforms themes, topics, character types, and/or other text elements from source material in a specific work. *(CC.1.3.9-10.H)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 9-10 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.9-10.I)*
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.3.9-10.J)*

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)* ■ Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)* ■ Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)* ■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)* ■ Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)* ■ Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*	■ How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)* ■ How does the type of text influence how it is read? *(EQ.ELA.01.B)* ■ How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)* ■ How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)* ■ What do active listeners do to create meaning? *(EQ.ELA.03.A)* ■ How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)* ■ How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)* ■ How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)* ■ How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)* ■ How does a researcher best present findings? *(EQ.ELA.05.C)* ■ How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.9-10.K)*
- Write informative/ explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately. *(CC.1.4.9-10.A)*
- Write with a sharp distinct focus identifying topic, task, and audience. *(CC.1.4.9-10.B)*
- Develop and analyze the topic with relevant, well-chosen, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic; include graphics and multimedia when useful to aiding comprehension. *(CC.1.4.9-10.C)*
- Organize ideas, concepts, and information to make important connections and distinctions; use appropriate and varied transitions to link the major sections of the text; include formatting when useful to aiding comprehension; provide a concluding statement or section. *(CC.1.4.9-10.D)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.9-10.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.9-10.F)*

- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- themes and central ideas in texts. *(K1)*
- methods for recognizing textual evidence that supports analysis. *(K2)*
- character development and interactions. *(K3)*
- authorial choices and their effects. *(K4)*
- the role of language in conveying meaning and tone. *(K5)*
- methods for understanding vocabulary and its context. *(K6)*
- writing structures and conventions. *(K7)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- analyzing and summarizing texts objectively. *(S1)*
- citing textual evidence effectively. *(S2)*
- analyzing character interactions and plot advancements. *(S3)*
- evaluating authorial structure and language use. *(S4)*
- conducting research and synthesizing information. *(S5)*
- writing clearly and accurately for various purposes. *(S6)*
- presenting information effectively. *(S7)*

- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and literary non-fiction. *(CC.1.4.9-10.S)*
- Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically. *(CC.1.4.9-10.U)*
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. *(CC.1.4.9-10.V)*
- Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation. *(CC.1.4.9-10.W)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC.1.4.9-10.X)*
- Integrate multiple sources of information presented in diverse media or formats (e.g.

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visually, quantitatively, orally) evaluating the credibility and accuracy of each source. *(CC.1.5.9-10.C)*

- Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning; ensure that the presentation is appropriate to purpose, audience, and task. *(CC.1.5.9-10.D)*
- Adapt speech to a variety of contexts and tasks. *(CC.1.5.9-10.E)*
- Make strategic use of digital media in presentations to add interest and enhance understanding of findings, reasoning, and evidence. *(CC.1.5.9-10.F)*
- Demonstrate command of the conventions of standard English when speaking based on grade 9-10 level and content. *(CC. 1.5.9-10.G)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*

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■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	

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Unit #1 Foundational Skills and Literacy Development

Draft Date	Course	Duration	Grades	Subjects	Team
09-13-2024 @ 06:15	6th Grade ELA	8.0 Weeks	6	English Language Arts	Amy Miller , Deborah Hill , Shannon Myers , Sam Baum

Unit Focus

Unit #1 Part 1: How Individuals Change Over Time: In this unit, reading, writing, speaking, and listening are constructed around the big idea of how individuals change over time. Through a variety of literature, students will explore how point of view impacts perception. Furthermore, students will examine the structure and details in literary works to determine how these elements contribute to the development of theme, setting, and plot. Key outcomes include interpreting figurative language, identifying plot elements in order to compose an objective summary, understanding how characters change as the plot moves towards the resolution, in addition applying strategies learned to craft a text-dependent analysis essay.

Prior Learnings/Connection

* Familiarity with basic story elements: characters, setting, plot

* Ability to identify the beginning, middle, and end of a story

* Understanding of simple cause and effect in stories

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 6 ■ Determine the meaning of words and phrases as they are used in grade level reading and content, including	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)* ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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interpretation of figurative language in context. *(CC.1.2.6.F)*
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.2.6.J)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade level reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.2.6.K)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.6.L)*
- Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. *(CC.1.3.6.A)*
- Describe how a particular story or drama's plot unfolds in a series of episodes, as well as how the characters respond or change as the plot moves toward a resolution. *(CC.1.3.6.C)*
- Determine an author's purpose in a text and explain how it is conveyed in a text. *(CC.1.3.6.D)*
- Analyze how the structure of a text contributes to the development of theme, setting, and plot. *(CC.1.3.6.E)*
- Engage effectively in a range of collaborative discussions, on grade level topics, texts, and issues, building on others'

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that... ■ Understanding Theme and Central Ideas *(U1)* ■ Plot Development and Character Change *(U2)* ■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)* ■ Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)* ■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*	**What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...** ■ How can readers identify the elements of a fiction story? *(Q1)* ■ Why does using summarizing characterization, and noting detail reading strategies help to improve reading comprehension of a text? *(Q2)* ■ How do readers summarize a passage and use details to support the summary? *(Q3)* ■ How does the cause/effect relationship of events lead to the climax and resolution of the conflict? *(Q4)* ■ How does the author develop his/her characters? *(Q5)* ■ How do a characters' actions, emotions, and thoughts change throughout the story? *(Q6)* ■ How does the type of text influence how it is read? *(EQ.ELA.01.B)* ■ How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*

ideas and expressing their own clearly. *(CC. 1.5.6.A)*

- Delineate a speaker's argument and specific claims by identifying specific reasons and evidence, and recognize arguments or claims not supported by factual evidence. *(CC.1.5.6.B)*
- Interpret information presented in diverse media and formats (e.g. visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study. *(CC.1.5.6.C)*
- Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation. *(CC.1.5.6.D)*
- Adapt speech to a variety of contexts and tasks. *(CC.1.5.6.E)*
- Include multimedia components and visual displays in presentations to clarify information. *(CC.1.5.6.F)*
- Demonstrate command of the conventions of standard English when speaking based on grade 6 level and content. *(CC.1.5.6.G)*

Other Goals

- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding of themes and central ideas in literature, familiarity with summarization techniques. (K1) *(K1)*
- Elements of plot (exposition, rising action, climax, falling action, resolution), character development. (K2) *(K2)*
- Different purposes (to inform, entertain, persuade), textual clues indicating purpose. (K3) *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying the theme or central idea, analyzing details that convey the theme, summarizing text.(S1) *(S1)*
- Describe plot structure, identify character responses, track changes in characters. (S2) *(S2)*
- Determine author's purpose, analyze text for purpose, explain findings. (S3) *(S3)*

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■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)* ■ Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)* ■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	

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Unit #2 Citing Text Evidence and Making Inferences

Draft Date	Course	Grades	Subjects	Team
09-13-2024 @ 06:14	6th Grade ELA	6	English Language Arts	Sam Baum , Deborah Hill , Shannon Myers , Amy Miller

Unit Focus

In this unit, students read grade-appropriate, complex literature and informational text and cite textual evidence to support analyses. They engage in assignments through which they will cite specific textual evidence in order to support analysis of what the text says, as well as generalizations drawn from the text. Students also employ a variety of reading and writing skills to determine how the organization of ideas can effectively shape a piece of writing. Key outcomes in this unit include: examining an author's word and structure choice, interpreting visual representations, citing textual evidence to support what a text says explicitly, as well as making valid inferences and generalizations, and organizing ideas in a clear and concise manner.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 6

- Determine the central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. *(CC.1.2.6.A)*
- Cite textual evidence to support analysis of what the text says explicitly as well as inferences and/or generalizations drawn from the text. *(CC.1.2.6.B)*
- Determine an author's point of view or purpose in a text and explain how it is conveyed in the text. *(CC.1.2.6.D)*
- Integrate information presented in different media or formats (e.g. visually,

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*

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quantitatively) as well as in words to develop a coherent understanding of a topic or issue. *(CC.1.2.6.G)*

- Write informative/ explanatory texts to examine a topic and convey ideas, concepts, and information clearly. *(CC.1.4.6.A)*
- Identify and introduce the topic for the intended audience. *(CC.1.4.6.B)*
- Develop and analyze the topic with relevant facts, definitions, concrete details, quotations, or other information and examples; include graphics and multimedia when useful to aiding comprehension. *(CC.1.4.6.C)*
- Organize ideas, concepts, and information using strategies such as definition, classification, comparison/contrast, and cause/effect; use appropriate transitions to clarify the relationships among ideas and concepts; provide a concluding statement or section; include formatting when useful to aiding comprehension. *(CC.1.4.6.D)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to inform about or explain the topic. • Use sentences of varying lengths and complexities • Develop and maintain a consistent voice • Establish and maintain a formal style *(CC.1.4.6.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.6.F)*
- Write arguments to support claims. *(CC.1.4.6.G)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ How does the structure and language of a text influence our understanding and interpretation of its meaning? *(U1)* ■ Critical thinkers actively and skillfully interpret, analyze, evaluate and synthesize information. *(U2)* ■ Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)* ■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)* ■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)* ■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*	■ How do readers connect information from the text and prior knowledge to draw conclusions based on information from the text? *(Q1)* ■ What is the author's purpose for the text, and how did the author convey it? *(Q2)* ■ How do readers use reading process to make strong comparisons? *(Q3)* ■ How do readers compare and contrast text from different genres in order to identify similar themes and topics? *(Q4)* ■ How do readers identify the author's intended purpose of the text? *(Q5)* ■ How does the type of text influence how it is read? *(EQ.ELA.01.B)* ■ How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)* ■ How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)* ■ How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)* ■ What do active listeners do to create meaning? *(EQ.ELA.03.A)* ■ How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*

- Introduce and state an opinion on a topic. *(CC.1.4.6.H)*
- Use clear reasons and relevant evidence to support claims, using credible sources and demonstrating an understanding of the topic. *(CC.1.4.6.I)*
- Organize the claim(s) with clear reasons and evidence clearly; clarify relationships among claim(s) and reasons by using words, phrases, and clauses; provide a concluding statement or section that follows from the argument presented. *(CC.1.4.6.J)*
- Write with an awareness of the stylistic aspects of composition. Use precise language and domain-specific vocabulary to inform about or explain the topic. Use sentences of varying lengths and complexities. Develop and maintain a consistent voice Establish and maintain a formal style. *(CC.1.4.6.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.6.L)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.6.M)*
- Engage and orient the reader by establishing a context and introducing a narrator and/or characters. *(CC.1.4.6.N)*
- Use narrative techniques such as dialogue, description, and pacing, to develop experiences, events, and/or characters; use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. *(CC.1.4.6.O)*

- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Understanding text structure, recognizing relevant details, differentiating between summary and personal opinion.(K1) *(K1)* ■ Understanding of author's perspective, intention, and textual evidence.(K2) *(K2)* ■ Understand how different media (text, visuals, data) convey information. (K3)Recognize the importance of context in interpreting information. *(K3)* ■ Recognize the importance of context in interpreting information. (K4) *(K4)*	■ Identifying the central idea, analyzing how details support the central idea, summarizing text without personal opinions.(S1) *(S1)* ■ Analyzing text, identifying viewpoint, interpreting purpose. (S1) *(S2)* ■ ◦ Analyze and interpret information from various media.(S3) *(S3)* ■ Synthesize information from different formats to create a cohesive understanding. (S4) *(S4)*

- Organize an event sequence that unfolds naturally and logically, using a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another; provide a conclusion that follows from the narrated experiences and events. *(CC. 1.4.6.P)*
- Write with an awareness of the stylistic aspects of writing. Vary sentence patterns for meaning, reader/listener interest, and style. Use precise language. Develop and maintain a consistent voice. *(CC.1.4.6.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.6.R)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and literary non-fiction. *(CC.1.4.6.S)*
- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. *(CC. 1.4.6.T)*
- Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting. *(CC.1.4.6.U)*
- Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate. *(CC.1.4.6.V)*

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- Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of other while avoiding plagiarism and providing basic bibliographic information for sources. *(CC.1.4.6.W)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC.1.4.6.X)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

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Unit #3 Comparing and Contrasting Perspectives and Themes.

Draft Date	Course	Grades	Subjects	Team
10-11-2024 @ 12:44	6th Grade ELA	6	English Language Arts	Sam Baum , Deborah Hill , Shannon Myers , Amy Miller

Unit Focus

In this module, reading, writing, speaking, and listening are constructed around the big idea of structure and sequencing while students grapple with how individuals and events create change. Students engage in class discussions involving selected texts to analyze how key individuals, events, or ideas are introduced, illustrated, or elaborated throughout a text. Students also determine how the organization of ideas can shape a piece of writing. Key outcomes include developing an objective summary and evaluating text structure, all while keeping in mind that a strong base of knowledge is built through exposure to a variety of informational texts.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 6

- Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text. *(CC.1.2.6.C)*
- Evaluate an author's argument by examining claims and determining if they are supported by evidence. *(CC.1.2.6.H)*
- Examine how two authors present similar information in different types of text. *(CC.1.2.6.I)*

Other Goals

- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

Meaning	
Big Ideas	**Essential Questions**
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ How does a reader understand and respond to a non-fiction text using textual evidence when making connections in a text? *(U1)* ■ How do students identify and analyze the main ideas and key events conveyed in a non-fiction text? *(U2)* ■ Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)* ■ Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)* ■ Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)* ■ Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*	■ How to differentiate between essential and nonessential information when writing a summary of an informational text? *(Q1)* ■ How do readers read, understand and analyze nonfiction text and relate the text to people's lives today? *(Q2)* ■ How do students examine the text's content and make inferences and drawing conclusions and supporting them with details from the text? *(Q3)* ■ Compare between two ideas and concepts in nonfiction text explaining how a key ideas are presented in a text. *(Q4)* ■ How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)* ■ How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)* ■ How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)* ■ How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)* ■ How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*

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		■ How does a researcher best present findings? *(EQ.ELA.05.C)* ■ How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
	What facts and basic concepts should students know and be able to recall? Students will know... ■ Understanding how authors introduce, illustrate, and elaborate on concepts. (K1) *(K1)* ■ Understanding the role of evidence in supporting claims. (K2) *(K2)* ■ Understanding different text types and their purposes. (K3) *(K3)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Analyzing texts, identifying key individuals, events, or ideas. (S1) *(S1)* ■ Evaluating arguments, examining claims and evidence. (S2) *(S2)* ■ Comparing texts, identifying similarities and differences. (S3) *(S3)*

Module 1

Draft Date	Duration	Grades	Subjects	Team
09-13-2024 @ 05:48	9.0 Weeks	3	English Language Arts	Caitlin Schweiger

Unit Focus

Students will develop their phonics, fluency, reading comprehension, and writing skills through engaging with both informational and literary texts. They will learn to decode words, identify main ideas, analyze texts, and convey information clearly through writing.

Prior Learnings/Connection

Phonics and Word Recognition

1. **Basic Phonics Skills**: Understanding of letter-sound relationships and the ability to decode simple one-syllable words.
2. **Common Prefixes and Suffixes**: Familiarity with basic prefixes (e.g., un-, re-) and suffixes (e.g., -ing, -ed) to help decode and understand words.
3. **Multisyllable Word Decoding**: Ability to break down simple multisyllabic words into manageable parts for easier decoding.

Fluency

1. **Reading Practice**: Experience with reading aloud to develop fluency and accuracy, ideally with grade-level texts.
2. **Self-Correction Strategies**: Familiarity with using context clues to self-correct when encountering unknown words.

Reading Informational Text

1. **Identifying Main Ideas**: Prior experience in determining the main idea of shorter texts and summarizing key details.
2. **Questioning Skills**: Practice in asking and answering questions about a text to enhance comprehension.

Vocabulary Acquisition and Use

1. **Context Clues**: Basic ability to infer meanings of new words from context, along with a foundation of grade-appropriate vocabulary.
2. **Domain-Specific Vocabulary**: Exposure to key terms related to various subjects (e.g., science, social studies).

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Reading Literature

1. **Identifying Themes**: Previous experience with discussing themes and morals in stories, including identifying lessons learned.
2. **Textual Evidence**: Skills in referencing specific parts of a text to support opinions or answers about the story.

Writing

1. **Basic Writing Skills**: Familiarity with writing complete sentences and simple paragraphs, including topic sentences.
2. **Organizational Skills**: Understanding of basic paragraph structure (introduction, body, conclusion).
3. **Research Skills**: Basic experience in gathering information from various sources, even if at a simple level.

Speaking and Listening

1. **Oral Communication**: Experience in sharing ideas or stories verbally, with attention to clarity and organization.
2. **Listening Skills**: Ability to listen to peers and respond appropriately, fostering a collaborative learning environment.

General Skills

1. **Critical Thinking**: Experience in making inferences and drawing conclusions based on evidence from texts.
2. **Collaboration**: Skills in working with peers for feedback on writing and ideas.

By ensuring that students have these foundational skills and experiences, they'll be better prepared to engage with the content and meet the expectations set by the standards.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 3 ■ Know and apply grade level phonics and word analysis skills in decoding words.	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*

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Identify and know the meaning of the most common prefixes and derivational suffixes. Decode words with common Latin suffixes. Decode multisyllable words. Read grade-appropriate irregularly spelled words. *(CC.1.1.3.D)*

- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.3.E)*
- Determine the main idea of a text; recount the key details and explain how they support the main idea. *(CC.1.2.3.A)*
- Ask and answer questions about the text and make inferences from text; refer to text to support responses. *(CC.1.2.3.B)*
- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships. *(CC.1.2.3.J)*
- Determine the central message, lesson, or moral in literary text; explain how it is conveyed in text. *(CC.1.3.3.A)*
- Ask and answer questions about the text and make inferences from text; refer to text to support responses. *(CC.1.3.3.B)*
- Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters. *(CC.1.3.3.H)*

- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

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- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.3.A)*
- Identify and introduce the topic. *(CC.1.4.3.B)*
- Develop the topic with facts, definitions, details, and illustrations, as appropriate. *(CC.1.4.3.C)*
- Create an organizational structure that includes information grouped and connected logically with a concluding statement or section. *(CC.1.4.3.D)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.3.F)*
- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. *(CC.1.4.3.T)*
- Conduct short research projects that build knowledge about a topic. *(CC.1.4.3.V)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC.1.4.3.X)*
- Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly with adequate volume, appropriate pacing, and clear pronunciation. *(CC.1.5.3.D)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*

- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- 1. Phonics and Word Analysis:
  - Common prefixes (e.g., un-, re-) and their meanings.
  - Common suffixes (e.g., -ing, -ed, -ful) and their meanings.
  - How to decode multisyllable words by breaking them into syllables.
  - Recognition of grade-appropriate irregularly spelled words.
- 2. Fluency:
  - Definition of fluency: reading accurately, at an appropriate rate, and with expression.
  - Importance of rereading to improve comprehension and fluency.
- 3. Reading Informational Text:
  - What constitutes the main idea of a text.

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- 1. Decoding Skills:
  - Apply phonics rules to decode unfamiliar words.
  - Use knowledge of prefixes and suffixes to determine the meaning of words.
- 2. Fluency Practices:
  - Read aloud with increased accuracy, expression, and appropriate pacing.
  - Self-monitor and self-correct while reading using context clues.
- 3. Comprehension Strategies:
  - Identify and summarize the main idea and supporting details in both informational and literary texts.
  - Make inferences and predictions based on text evidence.

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- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- How to identify key details that support the main idea.
- Strategies for summarizing information from a text.

4. Reading Literature:
   - Understanding of key story elements: characters, setting, plot.
   - Definition of theme and how it differs from the main idea.
   - How to identify moral lessons in stories.
5. Writing Informative Texts:
   - The structure of an informative/explanatory text (introduction, body, conclusion).
   - Importance of including facts, definitions, and details in writing.
   - Basic conventions of grammar, punctuation, and spelling.
6. Research Skills:
   - Steps for conducting research: choosing a topic, gathering information, and organizing facts.
   - How to take notes and summarize information from sources.
7. Speaking and Listening:
   - Key elements of effective presentations: clear speech, appropriate volume, and pacing.

4. Text Analysis:
   - Analyze themes, characters, and plot structures in literary texts.
   - Compare and contrast different texts, noting similarities and differences in themes and settings.
5. Writing Skills:
   - Organize ideas logically in informative/explanatory writing.
   - Use facts, definitions, and details to develop topics effectively.
   - Revise and edit writing for clarity, grammar, and coherence.
6. Research Processes:
   - Conduct short research projects, gathering relevant information from multiple sources.
   - Take organized notes and summarize key points to support writing.
7. Speaking and Listening Skills:
   - Present information clearly and engagingly to peers.
   - Participate actively in discussions, listening to others and responding appropriately.

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	■ Active listening skills and how to engage in discussions respectfully. *(K1)*	8. **Critical Thinking:** ■ Evaluate the effectiveness of different texts and writing styles. ■ Reflect on personal learning and articulate growth in reading and writing abilities. *(S1)*

Module 1

Draft Date	Duration	Grades	Subjects	Team
10-11-2024 @ 01:45	8.0 Weeks	K	English Language Arts	Lindsay Bishop

Unit Focus

This module students will learn to properly handle books, recognizing key components like covers and pages, while also understanding how print functions by following text from left to right and identifying letters and spaces between words. Phonological awareness will be developed through activities that encourage recognizing and producing rhymes, counting and segmenting syllables, and isolating sounds in simple words. In terms of phonics and word recognition, students will enhance their decoding skills by mastering letter-sound relationships and reading high-frequency sight words automatically. Additionally, with support, learners will retell stories, answer questions about texts, identify literary elements such as characters and settings, and actively engage in group reading activities.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Utilize book handling skills. *(CC.1.1.K.A)*
- Demonstrate understanding of the organization and basic features of print. Follow words left to right, top to bottom, and page by page. Recognize that spoken words are represented in written language by specific sequences of letters. Understand that words are separated by spaces in print. Recognize and name all upper and lower case letters of the alphabet. *(CC.1.1.K.B)*
- Demonstrate understanding of spoken words, syllables, and sounds (phonemes). Recognize and produce rhyming words.

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- What do active listeners do to create meaning? *(EQ.ELA.03.A)*

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Count, pronounce, blend, and segment syllables in spoken words. Blend and segment onsets and rimes of single-syllable spoken words. Isolate and pronounce the initial, medial vowel, and final sound (phonemes) in the three-phoneme (CVC) words. *(CC.1.1.K.C)*

- Know and apply grade level phonics and word analysis skills in decoding words. Demonstrate basic knowledge of one-to one letter-sound correspondence. Associate the long and short sounds with common spellings for the five major vowels. Read grade level high-frequency sight words with automaticity. Distinguish between similarly spelled words by identifying the sounds of the letters that differ. *(CC.1.1.K.D)*
- With prompting and support, retell familiar stories including key details. *(CC.1.3.K.A)*
- Answer questions about key details in a text. *(CC.1.3.K.B)*
- With prompting and support, identify characters, settings, and major events in a story. *(CC.1.3.K.C)*
- Actively engage in group reading activities with purpose and understanding. *(CC. 1.3.K.K)*

Other Goals

- Communicate for a range of purposes *(POG.COM.2)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

Module 1: Building Our Classroom Community

Draft Date	Course	Duration	Grades	Subjects	Team
02-10-2025 @ 02:49	Kindergarten Reading	20.0 Day(s)	K	English Language Arts	Danielle Curzi , Jessica Smith

Unit Focus

In this introductory module, students will learn how to actively engage in group reading, participate in discussions, and work together as a classroom community. Through shared reading experiences, they will practice listening, following along, and understanding stories and informational texts. Students will also develop conversation skills by taking turns, listening to others, and sharing their thoughts in both small and large group settings. These foundational routines will prepare students to collaborate, communicate, and engage in learning throughout the year.

Prior Learnings/Connection

Prior to this unit, in Pre-K, students should be introduced to group activities that fostered early listening and speaking skills. They should engage in basic group discussions, often with prompts or simple questions to guide conversations, though the focus was on developing social communication skills and understanding basic group dynamics. Pre-K students should practice following simple directions during shared reading and discussions, but without a strong emphasis on purposeful engagement. Vocabulary acquisition was primarily through verbal interactions, songs, and stories read aloud.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: K ■ Actively engage in group reading activities with purpose and understanding. *(CC.1.2.K.L)* ■ Actively engage in group reading activities with purpose and understanding. *(CC. 1.3.K.K)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

- Participate in collaborative conversations with peers and adults in small and larger groups. *(CC.1.5.K.A)*

Other Goals

- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Texts have basic features such as the front cover, title, author, and pictures. *(K1)*
- Reading can be a shared activity in group settings. *(K2)*
- Active participation in group reading activities is important. *(K3)*
- Listening to and following along with a text being read aloud is key to comprehension. *(K4)*
- Discussions are opportunities to share and listen to ideas. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Participating in group reading with purpose and understanding (e.g., listening attentively, following the text, responding to questions). *(S1)*
- Following along with the text during shared reading, showing awareness of text progression. *(S2)*
- Listening actively to stories and informational texts and demonstrating comprehension (e.g., responding to questions, making predictions). *(S3)*
- Taking turns in conversations, waiting for others to finish speaking before sharing their thoughts. *(S4)*

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	■ There are expectations for taking turns when speaking during conversations. *(K6)*	■ Listening to others during small and large group discussions, showing respect and engagement. *(S5)* ■ Sharing thoughts and ideas clearly and appropriately in group discussions, with support from peers and adults. *(S6)*

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Module 1: Comprehension of Informational Texts

Draft Date	Course	Duration	Grades	Subjects	Team
02-18-2025 @ 05:32	1st Grade Reading	45.0 Day(s)	1	English Language Arts	Jessica Smith , Shannon Myers

Unit Focus

In this module, students will focus on identifying the main ideas and key details of informational texts. They will practice skills such as identifying the main idea or focus of the text, describing new learning, and using text features (like headings and captions) to locate key facts. The goal is to build students' ability to extract and understand basic information from texts, setting the stage for more advanced comprehension skills.

Prior Learnings/Connection

In kindergarten, students develop foundational skills for comprehending informational texts. They learn to identify the main topic and retell key details with prompting and support. Students also ask and answer questions about text details and begin making simple connections between individuals, events, or ideas. They become familiar with basic text features, such as titles and illustrations, to locate information. Additionally, they practice describing how illustrations relate to the text, laying the groundwork for more detailed analysis and independent comprehension in 1st grade.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 1

- Identify the main idea and retell key details of text. *(CC.1.2.1.A)*
- Ask and answer questions about key details in a text. *(CC.1.2.1.B)*
- Describe the connection between two individual, events, ideas, or pieces of information in a text. *(CC.1.2.1.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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- Use various text features and search tools to locate key facts or information in a text. *(CC.1.2.1.E)*
- Use the illustrations and details in a text to describe its key ideas. *(CC.1.2.1.G)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*

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Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Informational texts present true facts and details about a specific topic. *(K1)* ■ Informational texts have a main idea that tells what the text is mostly about. *(K2)* ■ Key details support the main idea and help readers understand the text. *(K3)* ■ Asking and answering questions about a text can help clarify its meaning. *(K4)* ■ Texts contain connections between people, events, ideas, or information. *(K5)* ■ Text features (such as headings, captions, and bold words) help locate and understand key facts. *(K6)* ■ Illustrations and details in a text contribute to understanding the main ideas. *(K7)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Identifying the main idea of an informational text. *(S1)* ■ Retelling key details to demonstrate understanding of the text. *(S2)* ■ Asking and answering questions about important details in the text. *(S3)* ■ Describing connections between two individuals, events, ideas, or pieces of information in a text. *(S4)* ■ Using text features (headings, captions, bold words, etc.) and search tools to find key information. *(S5)* ■ Analyzing illustrations and details to explain the main ideas of a text. *(S6)*

Module 1: Fiction

Draft Date	Duration	Grades	Subjects	Team
09-13-2024 @ 06:45	2.0 Semester(s)	4	English Language Arts	Shannon Myers , Quinn Turocy

Unit Focus

This unit focuses on fiction, guiding students through the elements of narrative structure while developing critical reading and writing skills. Students will explore themes, characters, settings, and events in various texts. They will engage in discussions, practice reading fluency, and learn to use context clues to determine the meanings of unknown words. Additionally, students will use technology to produce and publish their writing, enhancing their ability to communicate effectively.

Prior Learnings/Connection

1. **Basic Reading Skills:**

- Familiarity with grade-level phonics and the ability to decode simple and some multisyllabic words.
- Experience with reading fluency, including reading aloud with appropriate pace and expression.

2. Understanding of Fiction Elements:

- Basic knowledge of story elements such as characters, settings, and plots.
- Previous exposure to narrative structure, including the beginning, middle, and end of a story.

3. Vocabulary Skills:

- An understanding of common vocabulary words and phrases, with some ability to infer meanings from context.
- Experience with using context clues to help determine the meanings of unknown words.

4. Comprehension Strategies:

- Basic skills in summarizing stories and identifying main ideas.
- Familiarity with making predictions, inferences, and drawing conclusions based on text.

5. Writing Skills:

- Experience with writing simple narratives and using descriptive language.
- Basic knowledge of organizing thoughts in a coherent manner.

6. Discussion and Collaboration:

- Experience participating in group discussions, sharing ideas, and providing feedback to peers.

7. Technology Use:

- Basic familiarity with using technology for writing and research (e.g., word processors, internet navigation).

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 4 ■ Know and apply grade level phonics and word analysis skills in decoding words. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology to read accurately unfamiliar multisyllabic words. *(CC.1.1.4.D)* ■ Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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recognition and understanding, rereading as necessary. *(CC.1.1.4.E)*

- Use text structure to interpret information (e.g., chronology, comparison, cause/effect, problem/ solution). *(CC.1.2.4.E)*
- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and that are basic to a particular topic. *(CC. 1.2.4.J)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade level reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.2.4.K)*
- Determine a theme of a text from details in the text; summarize the text. *(CC.1.3.4.A)*
- Cite relevant details from text to support what the text says explicitly and make inferences. *(CC.1.3.4.B)*
- Describe in depth a character, setting or event in a story or drama, drawing on specific details in the text. *(CC.1.3.4.C)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.4.I)*
- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being and

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- 1. Understanding Story Elements:
  - Stories are made up of characters, settings, and plots, which work together to create meaning and engage the reader.

2. Theme Exploration:

  - Themes are central ideas or messages conveyed through the story, and they can reflect universal truths about human experiences.

3. Character Development:

  - Characters drive the plot and reveal themes through their actions, decisions, and relationships, making detailed character analysis essential for comprehension.

4. Text Structure and Organization:

  - Different texts use various structures (e.g., cause/effect, problem/solution) to convey

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- Decoding and Word Analysis:
  - How can understanding letter-sound relationships help us decode unfamiliar words?
  - What strategies can we use to break down multisyllabic words into manageable parts?

Reading Fluency and Comprehension:

  - How does reading with expression and appropriate pacing improve our understanding of a text?
  - In what ways can context clues help us self-correct our understanding while reading?

Text Structure and Interpretation:

  - How do different text structures (like cause/effect or problem/ solution) help us understand a story or informational text?
  - How can recognizing a text's structure aid in summarizing its main ideas?

Vocabulary Development:

  - Why is it important to acquire and use grade-appropriate vocabulary in our writing and speaking?
  - What strategies can we use to determine the meanings of

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that are basic to a particular topic. *(CC.1.3.4.J)*

- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.4.K)*
- With some guidance and support, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. *(CC.1.4.4.U)*
- Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. *(CC.1.4.4.W)*
- Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speaking clearly with adequate volume, appropriate pacing, and clear pronunciation. *(CC.1.5.4.D)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*

information, and understanding these structures enhances comprehension and interpretation.

5. Vocabulary in Context:

    - Contextual clues in texts help readers decipher the meanings of unknown or multiple-meaning words, enriching their understanding of the story.

6. Critical Thinking and Inference:

    - Readers must actively engage with texts, making inferences and connections to better understand deeper meanings and themes.

7. Writing as a Reflection of Understanding:

    - Writing narratives allows students to express their interpretations of texts while practicing organizational skills and descriptive language.

8. Collaboration and Communication:

    - Sharing ideas and collaborating with peers enhances understanding and promotes a love for storytelling, fostering a community of readers and writers.

unknown words or phrases we encounter?

Theme and Text Analysis:

- How can we identify the theme of a text through its details?
- What role do character descriptions and settings play in understanding the overall message of a story?

Citing Evidence and Making Inferences:

- How can we find and use specific details from a text to support our interpretations and inferences?
- In what ways can making inferences enhance our comprehension of a story?

Writing and Communication:

- How can technology enhance our ability to publish our writing and collaborate with others?
- What are the key elements of organizing a report or story to ensure clarity and coherence in our presentation?

Research and Information Gathering:

- How can we effectively gather and categorize information from various sources to support our writing?
- What strategies can we use to recall relevant information from our own experiences or research?

(Q1)

- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*

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- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

(U1)

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- **Decoding and Word Analysis**
  1. Letter-Sound Relationships:
     - Each letter and combination of letters corresponds to specific sounds.
     - Knowing common phonics rules (e.g., silent letters, digraphs) helps with decoding.
  3. Multisyllabic Words:
     - Break words into syllables using rules like identifying vowel patterns and common prefixes/suffixes (e.g., re-, -ing).

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Decoding and Word Analysis (CC.1.1.4.D)
  1. Apply Phonics Skills:
     - Identify and articulate letter-sound correspondences for consonants and vowels.
     - Recognize and apply common phonics patterns, including digraphs and blends.
  3. Syllabication:
     - Break down multisyllabic words into syllables using appropriate rules (e.g.,

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- Use strategies like chunking and looking for familiar parts of the word.

Reading Fluency and Comprehension

1. Reading with Expression:
   - Appropriate expression (tone, pitch) and pacing make reading engaging and aid comprehension.
   - Repeated readings improve fluency and understanding.
3. Context Clues:
   - Use surrounding words or sentences to figure out the meaning of unfamiliar words.
   - Reread sections to clarify understanding when confused.

Text Structure and Interpretation

1. Text Structures:
   - Recognize common structures: cause/effect, problem/solution, chronological order, comparison.
   - Different structures guide how to summarize or interpret the text.

identifying vowels and consonant clusters).
   - Use strategies like clapping or tapping to count syllables in words.
3. Morphology:
   - Recognize common prefixes and suffixes and understand their meanings.
   - Combine knowledge of roots, prefixes, and suffixes to determine the meanings of unfamiliar words.

Reading Fluency and Comprehension (CC. 1.1.4.E)

1. Reading with Accuracy:
   - Read grade-level text aloud with minimal errors, demonstrating proper pronunciation.
   - Use appropriate pacing and intonation to enhance comprehension.
3. Self-Correction:
   - Use context clues to identify and correct misread words during oral reading.
   - Reread sentences or passages to clarify understanding when confused.

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3. Summarizing Main Ideas:
    - Identify key details that support the main idea based on the text's structure.
    - Use sentence starters to help summarize (e.g., "The main idea is... because...").

Vocabulary Development

1. Importance of Vocabulary:
    - Using appropriate vocabulary enhances clarity in writing and speaking.
    - It helps convey precise meanings and enrich communication.
3. Strategies for Unknown Words:
    - Use context clues, word parts (roots, prefixes, suffixes), and dictionary definitions.
    - Practice word mapping to explore meanings and synonyms.

Theme and Text Analysis

1. Identifying Theme:
    - Themes are the underlying messages or lessons of a text.
    - Look for repeated ideas, character actions, and

3. Reading Purposefully:
    - Identify the main idea and supporting details of a text as they read.
    - Engage with the text by asking questions and making predictions.

Text Structure and Interpretation (CC.1.2.4.E)

1. Recognize Text Structures:
    - Identify and describe different text structures (e.g., cause/effect, problem/solution, chronological order).
    - Explain how the structure of a text influences its meaning and organization.
3. Summarize Information:
    - Create concise summaries of texts by identifying key points and main ideas.
    - Use graphic organizers to visualize the relationships between main ideas and supporting details.

Vocabulary Development (CC.1.2.4.J & CC.1.2.4.K)

1. Acquire Vocabulary:
    - Use grade-appropriate academic and domain-specific vocabulary in both

outcomes to identify themes.

3. Character Descriptions and Settings:
    - Detailed descriptions of characters and settings contribute to understanding motivations and themes.
    - Settings can influence the mood and plot development.

Citing Evidence and Making Inferences

1. Supporting Interpretations:
    - Use direct quotes and specific examples from the text to back up thoughts or arguments.
    - Make connections between the text and personal experiences or knowledge.
3. Enhancing Comprehension:
    - Inferences are conclusions drawn from evidence and reasoning; they deepen understanding.
    - Ask questions about character motivations and plot developments to make inferences.

written and oral communication.
    - Recognize and use words that convey precise meanings related to specific topics.
3. Determine Word Meanings:
    - Use context clues, word parts, and dictionaries to clarify the meanings of unknown and multiple-meaning words.
    - Apply strategies like synonyms and antonyms to expand vocabulary understanding.

Theme and Text Analysis (CC.1.3.4.A, CC. 1.3.4.B, CC.1.3.4.C)

1. Identify Themes:
    - Determine the central theme of a text based on details and character actions.
    - Summarize the main message of a story in one or two sentences.
3. Cite Evidence:
    - Locate and cite specific details or quotes from the text to support interpretations and inferences.

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Writing and Communication

1. Using Technology:
    - Technology can be used for writing, editing, and collaborating (e.g., word processors, online tools).
    - Learn to publish and share work through platforms like blogs or presentations.
3. Organizing Reports and Stories:
    - Use outlines or graphic organizers to structure writing clearly.
    - Include an introduction, body, and conclusion, with relevant details and transitions.

Research and Information Gathering

1. Gathering Information:
    - Use a variety of sources (books, articles, websites) to collect information on a topic.
    - Take notes and categorize information using charts or lists.
3. Recalling Relevant Information:
    - Reflect on personal experiences and observations related to the topic.

    - Distinguish between explicit statements and inferred meanings based on textual evidence.
3. Describe Elements:
    - Provide in-depth descriptions of characters, settings, or events using specific details from the text.
    - Analyze how characters' traits influence the story's plot and themes.

(S1)

	■ Summarize key points and details from research to support writing tasks. *(K1)*	

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Module 1: Key Ideas and Details

Draft Date	Course	Duration	Grades	Subjects	Team
09-13-2024 @ 05:46	2nd Grade Reading	30.0 Day(s)	2	English Language Arts	Rachel Mleczko , Julie Hermes , Brooke Shambach

Unit Focus

In this module, students develop their ability to determine the main idea by identifying key details and using textual evidence while recounting major events and character challenges. By asking and answering questions—including who, what, where, when, why, and how—they strengthen their comprehension and make meaningful connections. Additionally, students practice retelling stories and experiences with clear, descriptive details and coherent sentences.

Prior Learnings/Connection

In 1st grade, students build foundational skills for asking and answering questions about key details in texts, whether informational or literary. They focus on comprehending stories and nonfiction by identifying key facts and using questions like who, what, where, and when to demonstrate their understanding. In speaking and listening, they work on expressing ideas and feelings clearly, using appropriate details when describing people, places, things, and events.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 2 ■ Ask and answer questions such as who, what, where, when, why, and how to demonstrate understanding of key details in a text. *(CC.1.2.2.B)* ■ Ask and answer questions such as who, what, where, when, why, and how to demonstrate understanding of key details in a text. *(CC.1.3.2.B)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

- Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences. *(CC.1.5.2.D)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*

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Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ The main idea of a text is the central point or message it conveys. *(K1)* ■ Key details in a text support the main idea and help explain or elaborate on the story or information. *(K2)* ■ Asking questions about who, what, where, when, why, and how helps to clarify and deepen understanding of the text. *(K3)* ■ Stories and experiences can be retold with clear details and in a logical order. *(K4)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Identifying the main idea and key details in a text. *(S1)* ■ Asking and answering questions (who, what, where, when, why, how) to demonstrate understanding of the text. *(S2)* ■ Retelling stories or experiences with relevant facts and descriptive details. *(S3)* ■ Speaking audibly and coherently when recounting a story or experience, using complete sentences. *(S4)*

Module 1: Understanding and Writing Narrative Texts

Draft Date	Course	Duration	Grades	Subjects	Team
02-09-2025 @ 02:57	3rd Grade ELA	30.0 Day(s)	3	English Language Arts	Jessica Smith

Unit Focus

In this module, students will explore narrative texts by analyzing characters, vocabulary, and illustrations to deepen their comprehension of how stories unfold. They will describe character actions and their impact on the sequence of events while distinguishing between literal and figurative language. Writing instruction will focus on crafting engaging narratives, guiding students to develop real or imagined experiences with well-structured sequences, descriptive details, and dialogue. Students will learn to establish a setting, introduce characters, and use temporal words to organize their stories effectively. Additionally, they will enhance their storytelling by selecting impactful words and phrases. To bring their narratives to life, students will create and present engaging audio recordings, incorporating visuals to emphasize key details.

Prior Learnings/Connection

In 2nd grade, students have worked on identifying characters and their actions in stories, understanding how characters' actions contribute to the events of a story. They have also explored the meanings of words and phrases in context, including understanding both literal and non-literal meanings. Students have practiced recognizing how illustrations in a text contribute to the story, enhancing their understanding of mood and character traits. In writing, students have gained experience in crafting narratives by introducing characters and situations, organizing events with appropriate sequencing, and using dialogue and descriptions to develop their stories. They have also worked on improving their grammar and spelling skills in their writing.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 3

- Determine the meaning of words and phrases as they are used in grade level text, distinguishing literal from non-literal

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

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meaning as well as shades of meaning among related words. *(CC.1.2.3.F)*
- Describe characters in a story and explain how their actions contribute to the sequence of events. *(CC.1.3.3.C)*
- Determine the meaning of words and phrases as they are used in grade level text, distinguishing literal from non-literal meaning as well as shades of meaning among related words. *(CC.1.3.3.F)*
- Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting). *(CC.1.3.3.G)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.3.I)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.3.M)*
- Establish a situation and introduce a narrator and/or characters. *(CC.1.4.3.N)*
- Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. *(CC.1.4.3.O)*
- Organize an event sequence that unfolds naturally, using temporal words and phrases to signal event order; provide a sense of closure. *(CC.1.4.3.P)*
- Choose words and phrases for effect. *(CC.1.4.3.Q)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.3.R)*
- Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details. *(CC.1.5.3.F)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- How to describe characters in a story and explain how their actions influence the sequence of events. *(K1)*
- The distinction between literal and figurative language and how to interpret them in context. *(K2)*
- The role of illustrations in enhancing the meaning of a story, such as creating mood or emphasizing aspects of characters or settings. *(K3)*
- The conventions of narrative writing, including how to structure stories with a clear beginning, middle, and end. *(K4)*
- How to effectively use dialogue and descriptive language to develop characters, actions, and events in a narrative. *(K5)*
- Students will know that effective multimedia presentations combine audio, visuals, and pacing to enhance storytelling and engage the audience. *(K6)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Analyzing characters and their actions to explain how they impact the story's sequence of events. *(S1)*
- Interpreting words and phrases, distinguishing between literal and figurative meanings, and understanding shades of meaning among related words. *(S2)*
- Explaining how illustrations in a text contribute to the story's meaning, such as highlighting emotions or important details. *(S3)*
- Writing engaging narratives that develop real or imagined experiences, including the introduction of characters, settings, and events in a logical sequence. *(S4)*
- Using temporal words and phrases to organize events in a story. *(S5)*
- Selecting descriptive words and phrases to enhance the impact of their writing and evoke specific emotions or imagery. *(S6)*

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		■ Producing audio recordings of their stories with appropriate pacing and adding visuals to highlight key details. *(S7)*

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Module 2: Speaking & Listing, Writing

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 03:05	English 21st Century 2	6.0 Weeks	11 , 12	English Language Arts	SHANNON CONGLETON-PARR

Unit Focus

In this module, reading, writing, speaking and listening are confronted around the big idea of exploring and evaluating rhetorical choices. This module addresses Ethos, Pathos and Logos and students will give their own 60 second "elevator pitches" on a topic that interests them and create a podcast for the class to listen to.

Prior Learnings/Connection

This course builds on students' prior knowledge of communication from English 21st Century 1 course: particularly speaking, listening, reading and writing for an audience. Students will have an understanding of rhetorical devices as they listen to and create podcasts.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Determine and analyze the relationship between two or more central ideas of a text, including the development and interaction of the central ideas; provide an objective summary of the text. *(CC. 1.2.11-12.A)*
- Evaluate how an author's point of view or purpose shapes the content and style of a text. *(CC.1.2.11-12.D)*
- Evaluate the structure of texts including how specific sentences, paragraphs and

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

larger portions of the texts relate to each other and the whole. *(CC.1.3.11-12.E)*

- Demonstrate knowledge of foundational works of literature that reflect a variety of genres in the respective major periods of literature, including how two or more texts from the same period treat similar themes or topics. *(CC.1.3.11-12.H)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.11-12.E)*
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. *(CC.1.4.11-12.V)*

Other Goals

- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*

- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Central ideas and their development. *(K1)* ■ Authorial intent and its impact on style and content *(K2)* ■ Text structure and its coherence. *(K3)* ■ Literary genres and periods. *(K4)* ■ Stylistic devices and formal writing norms. *(K5)* ■ Research methodologies. *(K6)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Students will learn about Ethos, Pathos and Logos. Students will conduct mini research and write their own 60 second "Elevator Pitches" on a topic of their choice to share with the class. Their presentation will show their understanding of logos, pathos and ethos. Students will also create their own podcasts *(S1)* ■ Analyze relationships between central ideas. *(S2)* ■ Summarize texts objectively. *(S3)* ■ Evaluate author's point of view and purpose. *(S4)* ■ Evaluate text structure *(S5)* ■ Demonstrate knowledge of foundational literature. *(S6)* ■ Write with stylistic awareness *(S7)* ■ Conduct research projects *(S8)*

Module 2: Crafting Simple Narratives

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:06	Kindergarten Writing	Day(s)	K	English Language Arts	Bryn Sporer , Josh Korb

Unit Focus

In this unit, students will create their own narrative stories, focusing on developing key elements such as characters, setting. Using a combination of drawing, dictating, and writing, students will learn how to establish the who and what of their stories, clearly introducing the characters and setting. Through guided support, students will build the skills to develop and organize their narratives, ensuring that the events flow logically. By the end of the unit, students will have created their own stories with engaging characters, vivid settings, and a clear narrative structure.

Prior Learnings/Connection

In Pre-K, students should start practicing narrative skills by sharing stories through pictures and simple oral expressions. They began

understanding that stories have characters and events, even if they didn't yet have the ability to fully write out their stories. They focused on

telling short, simple narratives using drawings and verbal descriptions. At this stage, students are supported in identifying who the story

was about (the characters) and what was happening (the events), though their understanding of structure was still developing. As they

progressed, they should begin dictating their ideas to teachers, which allowed them to start connecting words with their drawings and expand their

storytelling skills.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Use a combination of drawing, dictating, and writing to compose narratives that describe real or imagined experiences or events. *(CC.1.4.K.M)*
- Establish who and what the narrative will be about. *(CC.1.4.K.N)*

Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- A story includes characters, and a setting. *(K1)*
- Characters are who the story is about. *(K2)*
- The setting is where and when the story takes place. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Using drawing, dictation, and writing to create a story. *(S1)*
- Establishing characters and setting of the story. *(S2)*
- Using illustrations to support the narrative by showing characters,

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	■ Stories can be told using a combination of pictures, spoken words (dictation), and writing. *(K4)* ■ A story should have a who and what. *(K5)*	setting, and events. *(S3)* ■ Using labels or simple sentences to describe characters, settings, and events. *(S4)*

Module 2: Reading Informational Text/Writing

Draft Date	Course	Duration	Grades	Subjects	Team
05-30-2025 @ 12:57	English 11	10.0 Weeks	11	English Language Arts	Kara McCauslin

Unit Focus

This module offers an in-depth exploration of Early American Literature, tracing the development of literary traditions from the colonial period through the early 19th century. We will examine texts that reflect the cultural, social, religious, and political dynamics that shaped the emerging American identity. Readings will include works by Native American storytellers, colonial writers, Puritan theologians, revolutionary thinkers, and early American fiction writers.

Students will engage with key themes such as colonization, religious fervor, revolution, democracy, slavery, and the frontier spirit. Through close reading, discussion, and analysis, students will gain a deeper understanding of how early American literature reflects and critiques the values, conflicts, and ideals of the time.

Prior Learnings/Connection

The Early American Literature module will involve recognizing how previous knowledge and skills acquired in other academic areas can enhance students' understanding of the subject. Students who have studied early American history will be able to connect historical events (such as colonization, the American Revolution, and the founding of the nation) to the themes and concerns reflected in early American literature. Understanding the social, political, and religious context will deepen their analysis of the texts.These prior experiences provide students with the tools to critically engage with the texts, identify key themes, and make informed interpretations of how these early literary works reflect and shape American cultural identity.

Stage 1: Learning Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Determine and analyze the relationship between two or more central ideas of a text, including the development and interaction of the central ideas; provide an objective summary of the text. *(CC.1.2.11-12.A)*
- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs. *(CC.1.2.11-12.B)*
- Evaluate how an author's point of view or purpose shapes the content and style of a text. *(CC.1.2.11-12.D)*
- Analyze foundational U.S. and world documents of historical, political, and literary significance for their themes, purposes, and rhetorical features. *(CC.1.2.11-12.I)*
- Organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create whole; use appropriate and varied transitions and syntax to link the major sections of the text; provide a concluding statement or section that supports the information presented; include formatting when useful to aiding comprehension. *(CC.1.4.11-12.D)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding of central ideas and their development. *(K1)*
- Knowledge of textual evidence and its relevance. *(K2)*
- Familiarity with rhetorical features and styles. *(K3)*
- Awareness of historical context in U.S. and world documents. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Analyzing relationships between central ideas in a text. *(S1)*
- Citing textual evidence effectively. *(S2)*
- Evaluating author's point of view and purpose. *(S3)*
- Analyzing significant historical and literary documents. *(S4)*
- Organizing complex ideas and using transitions. *(S5)*

- Write with an awareness of the stylistic aspects of composition. • Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.11-12.E)*
- Distinguish the claim(s) from alternate or opposing claims; develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases. *(CC. 1.4.11-12.I)*
- Evaluate how the speaker's perspective, reasoning, and use of evidence and rhetoric affect the credibility of an argument through the author's stance, premises, links among ideas, word choice, points of emphasis, and tone. *(CC.1.5.11-12.B)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*

- Understanding of formal writing conventions and styles. *(K5)*
- Knowledge of argumentation and counterargument strategies. *(K6)*
- Familiarity with the elements that build credibility in arguments. *(K7)*

- Writing with stylistic awareness and precision. *(S6)*
- Distinguishing between claims and counterclaims. *(S7)*
- Evaluating credibility of arguments. *(S8)*

Module 2: Theme Development and Narrative Writing

Draft Date	Course	Grades	Subjects	Team
09-13-2024 @ 06:03	8th Grade ELA	8	English Language Arts	LAURA HUGHES , ANGELA NEIL

Unit Focus

In this unit, students read a variety of short stories and analyze how the theme is developed through a narrative. They analyze literary elements, such as dialogue, foreshadowing, dramatic irony, and imagery, to create their own suspenseful narrative stories.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 8

- Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text. *(CC.1.3.8.A)*
- Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision. *(CC.1.3.8.C)*
- Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by directors or actors. *(CC.1.3.8.G)*
- Analyze how a modern work of fiction draws on themes, patterns of events, or character types from traditional works,

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*

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including describing how the material is rendered new. *(CC.1.3.8.H)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 8 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.8.I)*
- Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters. *(CC.1.4.8.N)*
- Use narrative techniques such as dialogue, description, reflection, and pacing, to develop experiences, events, and/or characters; use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. *(CC.1.4.8.O)*
- Organize an event sequence that unfolds naturally and logically using a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another and show the relationships among experiences and events; provide a conclusion that follows from and reflects on the narrated experiences or events. *(CC.1.4.8.P)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*

- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding of literary elements (theme, character, setting, plot). *(K1)*
- Familiarity with various texts and genres. *(K2)*
- Understanding elements of narrative structure (e.g., plot, character, dialogue). *(K3)*
- Recognizing the role of dialogue in storytelling. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identify themes or central ideas in a text. *(S1)*
- Analyze how themes develop throughout the text. *(S2)*
- Connect themes to characters, setting, and plot. *(S3)*
- Summarize the text objectively. *(S4)*
- Analyze dialogue and incidents in a text. *(S5)*

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- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- Understanding of traditional works of fiction and their themes. *(K5)*
- Familiarity with modern works of fiction. *(K6)*
- Awareness of literary elements such as character development, plot structure, and themes *(K7)*
- Understanding narrative elements (setting, character, plot) *(K8)*
- Recognizing different perspectives in storytelling *(K9)*
- Understanding of narrative structure and elements. *(K10)*
- Familiarity with sensory language and its impact. *(K11)*
- Recognizing how dialogue contributes to character development. *(K12)*
- Understanding different types of transition words and phrases, time frames, settings, and relationships among events. *(K13)*

- Identify how these elements affect the story's progression *(S6)*
- Evaluate character development and decision-making influenced by dialogue. *(S7)*
- Analyze themes and character types. *(S8)*
- Compare and contrast modern and traditional works of fiction. *(S9)*
- Describe how modern works reinterpret traditional elements. *(S10)*
- Create a compelling context that draws the reader into the story. *(S11)*
- Develop a clear point of view that influences how the story is perceived. *(S12)*
- Introduce characters and/or a narrator effectively to enhance the narrative. *(S13)*
- Use of narrative techniques (dialogue, description, reflection, pacing) *(S14)*
- Development of experiences, events, and characters. *(S15)*
- Apply precise language and descriptive details. *(S16)*
- Use of sensory language *(S17)*
- Organize a narrative or event sequence logically. *(S18)*
- Use a variety of transition words and phrases effectively.

(S19)

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		■ Signal shifts in time or setting clearly. *(S20)* ■ Show relationships between experiences and events. *(S21)* ■ Provide a reflective conclusion that ties back to the events narrated *(S22)*

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Module 2: Understanding and Summarizing Texts

Draft Date	Grades	Subjects	Team
03-11-2025 @ 06:26	4	English Language Arts	Jessica Smith

Stage 1: Learning Goals

<table>
<tr><th>Established Goals</th><th colspan="2">Transfer</th></tr>
<tr><td rowspan="8"></td><th colspan="2">Long-Term Transfer Goals</th></tr>
<tr><td colspan="2">What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...</td></tr>
<tr><th colspan="2">Meaning</th></tr>
<tr><th>Big Ideas</th><th>Essential Questions</th></tr>
<tr><td>What specifically do you want students to understand? What inferences should they make? Students will understand that...</td><td>What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...</td></tr>
<tr><th colspan="2">Acquisition of Knowledge & Skill</th></tr>
<tr><th>Knowledge</th><th>Skills</th></tr>
<tr><td>What facts and basic concepts should students know and be able to recall? Students will know...</td><td>What discrete skills and processes should students be able to use? Students will be skilled at...</td></tr>
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Module 3 Comprehension of Literature and Figurative Language

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 12:24	5th Grade ELA	5.0 Weeks	5	English Language Arts	Marilee Durbin , TANYA HARBOLD , CHRISTOPHER KING , BONNIE MUMMERT , AIMEE WAKEFIELD

Unit Focus

In this unit students will focus on the understanding of theme and literary devices through close reading, interpretation, and analysis of fiction, especially fantasy, folk tales, tall tales, and fairy tales.

Stage 1: Learning Goals

Established Goals

Standards

Common Core

English Language Arts: 5

- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. *(CCSS.ELA-LITERACY.W.5.5)*
- With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting. *(CCSS.ELA-LITERACY.W.5.6)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- Audience and purpose influence a writer's choice of organizational

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

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Pennsylvania Core Standards

English Language Arts: 5

- Know and apply grade level phonics and word analysis skills in decoding words. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology to read accurately unfamiliar multisyllabic words. *(CC.1.1.5.D)*
- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.5.E)*
- Determine a theme of a text from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. *(CC.1.3.5.A)*
- Cite textual evidence by quoting accurately from the text to explain what the text says explicitly and make inferences. *(CC.1.3.5.B)*
- Compare and contrast two or more characters, settings or events in a story or drama, drawing on specific details in the text. *(CC.1.3.5.C)*
- Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. *(CC.1.3.5.D)*
- Explain how a series of chapters, scenes or stanzas fits together to provide the overall pattern, language, and literary techniques. *(BIG.ELA.06)*
- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Understanding textual evidence, distinguishing between explicit information and inferred meaning. *(U5)*
- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Awareness of prefixes, suffixes, and root words. *(K1)*
- Understanding the purpose of reading; Recognizing words in context *(K2)*
- Understanding what a theme is and how it is expressed in literature. *(K3)*
- Understanding textual evidence, distinguishing between explicit information and inferred meaning. *(K4)*
- Understanding of characters, settings, and events in stories or dramas *(K5)*
- Understanding point of view, recognizing bias, and interpreting different accounts of events. *(K6)*
- Knowledge: Understanding of story elements (plot, setting, characters), poetic structures (stanzas, rhythm), and dramatic components (acts, scenes). *(K7)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Decoding unfamiliar multisyllabic words. *(S1)*
- Reading with accuracy and fluency; Rereading for comprehension; Self-correcting word recognition *(S2)*
- Identify and analyze themes in various texts. *(S3)*
- Quoting accurately, making inferences. *(S4)*
- Analyze characters, settings, or events; Identify similarities and differences; Use textual evidence to support comparisons *(S5)*
- Analyzing texts, comparing perspectives, and identifying similarities and differences. *(S6)*
- Analyzing structure, identifying relationships between chapters/scenes/stanzas, summarizing content. *(S7)*

structure of a particular story, drama, or poem. *(CC.1.3.5.E)*

- Determine the meaning of words and phrases as they are used in grade level text, including interpretation of figurative language. *(CC.1.3.5.F)*
- Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem). *(CC.1.3.5.G)*
- Compare and contrast texts in the same genre on their approaches to similar themes and topics as well as additional literary elements. *(CC.1.3.5.H)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.5.I)*
- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships. *(CC.1.3.5.J)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.5.K)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.5.M)*
- Orient the reader by establishing a situation and introducing a narrator and/or characters. *(CC.1.4.5.N)*
- Use narrative techniques such as dialogue, description, and pacing, to develop

- Understand various types of figurative language and their effects on meaning. *(K8)*
- Understanding different types of visual and multimedia elements (e.g., images, video, sound, layout), familiarity with various text forms (graphic novels, multimedia presentations, folktales, myths, poems). *(K9)*
- Understanding the characteristics of different genres; Familiarity with various literary elements and their functions in a text *(K10)*
- Vocabulary development, context clues, word structure (prefixes, suffixes, roots). *(K11)*
- Familiarity with grade-appropriate vocabulary. *(K12)*
- Familiarity with various literary genres and elements; Understanding narrative structure (beginning, middle, end); Recognizing figurative language and literary devices *(K13)*
- Understanding narrative structure (e.g., plot, setting, characters); Familiarity with various narrative techniques (e.g., show, don't tell); Awareness of audience and purpose in narrative writing *(K14)*
- Understanding narrative structure (beginning, middle, end); Recognizing different types of narrators (first-person, third-person, etc.) *(K15)*
- Understanding narrative structure; Recognizing the role of characters and their response *(K16)*

- Analyze figurative language (e.g., similes, metaphors, idioms). *(S8)*
- Analyzing visual and multimedia elements, interpreting meaning, assessing tone, recognizing beauty in texts. *(S9)*
- Analyzing texts for similarities and differences; Identifying themes and topics; Recognizing and comparing literary elements (e.g., character, setting, plot, style *(S10)*
- identifying unknown words, understanding multiple meanings, using strategies to clarify meanings. *(S11)*
- Understanding and using conversational language; Using general academic vocabulary *(S12)*
- Identify main ideas and themes in literary texts; Analyze characters, settings, and plots; Make inferences and draw conclusions based on the text; Use context clues to understand vocabulary. *(S13)*
- Ability to organize thoughts and ideas coherently; Use of descriptive language to create imagery; Ability to incorporate dialogue and character development; Skill in establishing a clear beginning, middle, and end. *(S14)*
- Establishing a situation in writing; Introducing a narrator and/or characters effectively. *(S15)*
- Employing narrative techniques (dialogue, description, pacing);Using

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experiences and events or show the responses of characters to situations; use concrete words and phrases and sensory details to convey experiences and events precisely. *(CC.1.4.5.O)*

- Organize an event sequence that unfolds naturally, using a variety of transitional words and phrases to manage the sequence of events; provide a conclusion that follows from the narrated experiences and events. *(CC.1.4.5.P)*
- Write with an awareness of styles. Use sentences of varying length. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. *(CC.1.4.5.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.5.R)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts. *(CC.1.4.5.S)*
- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. *(CC. 1.4.5.T)*
- Demonstrate command of the conventions of standard English when speaking based on grade 5 level and content. *(CC.1.5.5.G)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*

- Understanding of different types of transitional words (e.g., first, next, finally) and their purpose in writing. *(K17)*
- Understanding various writing styles (narrative, descriptive, persuasive, etc.); Recognizing the effect of sentence length on reader engagement *(K18)*
- Understanding of parts of speech (nouns, verbs, adjectives, etc.); Recognizing sentence structure and punctuation rules. *(K19)*
- Understanding of literary and informational text structures; Familiarity with various genres and their feature; Knowledge of citation and paraphrasing techniques. *(K20)*
- Understanding of standard English conventions; awareness of audience and purpose when speaking; knowledge of various speaking contexts (formal vs. informal). *(K21)*

concrete words and phrasesIncorporating sensory detail *(S16)*

- Organizing events in a coherent sequence, using transitional words and phrases, and writing a conclusion. *(S17)*
- Writing with awareness of different styles; Varying sentence length; Expanding, combining, and reducing sentence *(S18)*
- Use correct grammar in writing and speaking. *(S19)*
- Identify and extract relevant evidence from texts; Analyze and reflect on the evidence about a given prompt or question; Conduct research using textual evidence *(S20)*
- Use of proper grammar, sentence structure, and vocabulary; clear articulation; effective use of language to convey meaning. *(S21)*

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■ Demonstrate an awareness that actions have broad implications *(POG.GC.1)* ■ Use a wide range of creation techniques *(POG.CI.1)* ■ Demonstrate originality and inventiveness *(POG.CI.2)* ■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*	

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Module 3: Writing & Reading Informational

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 02:26	English 21st Century 1	Weeks	11 , 12	English Language Arts	SHANNON CONGLETON-PARR

Unit Focus

In this module, reading, writing, speaking and listening are focused around the big idea of mastering purposeful and independent expression. Instruction will center around an essential question: How does a person's reputation and integrity benefit or undermine their future outcomes, opportunities and choices. Students will receive lessons on digital citizenship, appropriate usage of AI, and explore technology innovations.

Prior Learnings/Connection

This course builds on students' prior knowledge of communication, particularly speaking, listening, reading and writing for an audience. It also connects to 21st Century skills as students learn to communicate effectively through speaking and writing while deepening their knowledge of grammar and vocabulary. Students will have an understanding of how a person's reputation and integrity benefit or undermine their future outcomes, opportunities and choices via digital citizenship, appropriate usage of AI and other technology innovations.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 11-12 ■ Evaluate how words and phrases shape meaning and tone in texts. *(CC.1.2.11-12.F)* ■ Integrate and evaluate multiple sources of information presented in different media or formats (e.g. visually, quantitatively) as well as in words in order to address a question or solve a problem. *(CC.1.2.11-12.G)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)* ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

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- Write with a sharp distinct focus identifying topic, task, and audience. *(CC.1.4.11-12.B)*
- Organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create whole; use appropriate and varied transitions and syntax to link the major sections of the text; provide a concluding statement or section that supports the information presented; include formatting when useful to aiding comprehension. *(CC.1.4.11-12.D)*
- Write with a sharp distinct focus identifying topic, task, and audience. Introduce the precise, knowledgeable claim. *(CC.1.4.11-12.H)*
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. *(CC.1.4.11-12.V)*
- Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation. *(CC.1.4.11-12.W)*
- Make strategic use of digital media in presentations to add interest and enhance

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*

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understanding of findings, reasoning, and evidence. *(CC.1.5.11-12.F)*

Other Goals

- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding the impact of word choice on meaning and tone. *(K1)*
- Familiarity with different media formats and their effectiveness. *(K2)*
- Knowledge of writing conventions and audience awareness. *(K3)*
- Research methodologies and citation standards. *(K4)*
- Analysis of digital media tools and their applications. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Students will conduce research on technology technology innovations, complete digital citizenship lessons, learn to use technology responsibly and how to use AI responsibly. *(S1)*
- Evaluating language and tone in texts. *(S2)*
- Integrating and evaluating information from various sources. *(S3)*
- Writing with focus on topic, task, and audience. *(S4)*
- Organizing ideas and using transitions effectively. *(S5)*
- Conducting research and synthesizing information. *(S6)*
- Gathering and assessing information from multiple sources. *(S7)*
- Utilizing digital media in presentations. *(S8)*

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■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	

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Narrative Writing

Draft Date	Course	Grades	Subjects	Team
10-14-2024 @ 02:00	7th Grade ELA	7	English Language Arts	Quinn Turocy

Unit Focus

In this unit, students will explore the art of narrative writing by crafting engaging stories based on real or imagined experiences. Through the study of mentor texts students will learn how to hook a reader, build strong characters, develop plot lines, and use vivid details and dialogue to bring their stories to life. Emphasis will be placed on purposeful word choice, consistent narrative voice, and logical organization. Students will refine their writing through drafting, peer feedback, revision, and editing, ultimately producing a polished personal or fictional narrative that demonstrates command of narrative techniques, conventions, and stylistic elements.

Prior Learnings/Connection

1

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 7 ■ Write narratives to develop real or imagined experiences or events. *(CC.1.4.7.M)* ■ Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters. *(CC.1.4.7.N)* ■ Use narrative techniques such as dialogue, description, and pacing, to develop	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)* ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

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experiences, events, and/or characters; use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. *(CC.1.4.7.O)*

- Organize an event sequence that unfolds naturally and logically, using a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another; provide a conclusion that follows from and reflects on the narrated experiences and events. *(CC.1.4.7.P)*
- Write with an awareness of the stylistic aspects of writing. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy. Use sentences of varying lengths and complexities Use precise language. Develop and maintain a consistent voice. *(CC.1.4.7.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.7.R)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- The story will have a clear context (time and place). *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Understand and apply the structure of a narrative (beginning, middle, end). *(S1)*

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- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- The point of view must be clear and consistent. *(K2)*
- Writers will use dialogue to show character interactions. *(K3)*
- Writers will use description to bring scenes and characters to life. *(K4)*
- Writers will use sensory details. *(K5)*
- Use of precise language and vivid details to show, not tell. *(K6)*
- The events must be told in a logical, natural order. *(K7)*
- Use transition words and phrases to show time and change in setting (e.g., "Later that night," "Suddenly"). *(K8)*
- End with a strong conclusion that reflects on the events and gives closure. *(K9)*
- Choose words that are precise and clear, avoiding repetition and wordiness. *(K10)*
- Use a variety of sentence lengths and structures to keep writing interesting. *(K11)*
- ◦ Keep a consistent voice or tone that fits the narrator and the story. *(K12)*

- Develop real or imagined experiences or events that are coherent and engaging. *(S2)*
- Establish a clear setting and situation from the start. *(S3)*
- Identify and maintain a consistent point of view (first-person or third-person). *(S4)*
- Create believable and distinct characters, including a narrator if appropriate. *(S5)*
- Use dialogue to reveal character traits and advance the plot. *(S6)*
- Include sensory details and vivid descriptions to build imagery. *(S7)*
- Control pacing to build suspense or highlight key moments. *(S8)*
- Select precise words and figurative language to engage the reader. *(S9)*
- Sequence events logically and clearly (chronological or flashback format). *(S10)*
- Use transitional words and phrases to show time shifts and scene changes. *(S11)*
- Write a conclusion that reflects on the story or ties back to the beginning. *(S12)*

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		■ Vary sentence structure for rhythm and emphasis. *(S13)* ■ Eliminate unnecessary words or repetition. *(S14)* ■ Apply correct grammar, punctuation, and spelling consistently. *(S15)* ■ Use appropriate capitalization and verb tenses. *(S16)* ■ ◦ Edit for clarity and accuracy in written work. *(S17)* ■ *(S18)*

Unit #4 Integration and Evaluating Information

Draft Date	Course	Grades	Subjects	Team
10-11-2024 @ 12:45	6th Grade ELA	6	English Language Arts	Sam Baum , Deborah Hill , Shannon Myers , Amy Miller

Unit Focus

Students will read a variety of informational and literary texts, analyzing characters and events, while paying close attention to purpose and point of view. The goal is for students to become aware of how life experiences and misconceptions influence perceptions, potentially creating bias. Key outcomes in this unit include exposure to diverse media types in order to understand the impact of point of view on characters and events, in addition to writing a continuation of narrated events while maintaining logical organization, style, and tone.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 6

- Analyze the author's structure through the use of paragraphs, chapters, or sections. *(CC.1.2.6.E)*
- Cite textual evidence to support analysis of what the text says explicitly as well as inferences and/or generalizations drawn from the text. *(CC.1.3.6.B)*
- Write informative/ explanatory texts to examine a topic and convey ideas, concepts, and information clearly. *(CC. 1.4.6.A)*
- Use clear reasons and relevant evidence to support claims, using credible sources and demonstrating an understanding of the topic. *(CC.1.4.6.I)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do I engage the reader by establishing a context and introducing a narrator and/or characters? *(Q1)*

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- Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate. *(CC.1.4.6.V)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How do I adequately elaborate to illustrate my ideas? *(Q2)*
- What do students have to do in order to examine a topic and convey ideas, concepts and information? *(Q3)*
- Ho do multiple resources aid in learning about specialized topics? *(Q4)*
- How do students introduce, state, and give an opinion on a topic? *(Q5)*
- How do I draw evidence from texts to support analysis? *(Q6)*
- How do I apply the evidence to grade-level texts? *(Q7)*
- How does content explain and/or support a topic? *(Q8)*
- How do i use facts, reasons, examples, and details to thoroughly explain the topic? *(Q9)*
- How can we effectively read and understand nonfiction texts with multiple perspectives? *(Q10)*
- What strategies help us identify an author's viewpoint in argumentative texts? *(Q11)*
- How do conflicting viewpoints and evidence shape an argument in nonfiction writing? *(Q12)*
- How can rewriting a text from an opposing viewpoint deepen our understanding of different perspectives? *(Q13)*
- How can graphic organizers help us visually represent and analyze different

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		viewpoints on a particular subject? *(Q14)* ■ How do the chapters or scenes fit together to create the overall structure of the piece? *(Q15)*
	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
	What facts and basic concepts should students know and be able to recall? Students will know... ■ Understanding paragraphs, chapters, and sections as structural elements of a text. (K1) *(K1)* ■ Understanding the purpose of informative writing, familiarization with different formats (e.g., essays, reports), and awareness of audience and tone. (K2) *(K2)* ■ Knowledge of various topics suitable for the audience.Understanding the characteristics of the intended audience. (S3) *(K3)* ■ Understanding the topic at hand. Recognizing credible sources. (K4) *(K4)* ■ Understanding different sources of information (books, articles, websites).The process of narrowing down or refocusing questions. (S5) *(K5)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Analyzing text structure, identifying organizational patterns. (S1) *(S1)* ■ Writing informative/explanatory texts, organizing ideas logically, using clear language, incorporating relevant details, and employing appropriate text structures.(S2) *(S2)* ■ Ability to identify a relevant topic.Ability to introduce the topic in an engaging manner.Understanding the audience's prior knowledge and interests.(S3) *(S3)* ■ Analyzing sources for credibility.Formulating clear reasons.Supporting claims with relevant evidence. (S4) *(S4)* ■ Research skills.Critical thinking.Synthesis of information.Inquiry-based learning. (S5) *(S5)*

Fiction and Speaking

Draft Date	Course	Grades	Subjects	Team
10-14-2024 @ 02:00	7th Grade ELA	7	English Language Arts	Quinn Turocy

Unit Focus

In this unit, students will explore how authors of fiction use or alter historical events and settings for literary purposes. Through close reading of fiction students will analyze how text structure and word choice contribute to meaning and tone. Through independent and guided reading students will explore how figurative and connotative language shapes tone, theme, and character development. They will also build vocabulary knowledge essential to comprehension and expression. Students will synthesize their analysis into oral presentations, incorporating multimedia elements and adapting their speech for specific audiences and purposes. This unit emphasizes close reading, thoughtful discussion, and effective communication, both in writing and speaking.

Prior Learnings/Connection

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 7

- Analyze how the structure or form of a text contributes to its meaning. *(CC.1.3.7.E)*
- Determine the meaning of words and phrases as they are used in grade level reading and content, including interpretation of figurative, connotative meanings. *(CC.1.3.7.F)*
- Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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means of understanding how authors of fiction use or alter history. *(CC.1.3.7.H)*
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.3.7.J)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.7.K)*
- Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation. *(CC.1.5.7.D)*
- Adapt speech to a variety of contexts and tasks. *(CC.1.5.7.E)*
- Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points. *(CC.1.5.7.F)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

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- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Students should be able to identify and analyze how the structure (e.g., flashbacks, foreshadowing, dialogue, pacing) affects the reader's understanding of the plot, characters, or theme. *(K1)*
- Students should be able to use context clues to figure out the meaning of unknown words or phrases. *(K2)*
- Understand and interpret figurative language *(K3)*
- Understand connotative meanings *(K4)*
- Recognize how an author's word choice contributes to tone and meaning. *(K5)*
- Understand and use academic vocabulary (words used across subjects) and domain-specific vocabulary (words related to literature or a topic). *(K6)*
- Be able to gather and apply vocabulary knowledge when a word or phrase is important to understanding a text. *(K7)*
- Demonstrate proficiency in reading and analyzing fiction, including short stories, novels, plays, and poems. *(K8)*
- Basic knowledge of historical context relevant to the fiction and nonfiction being studied *(K9)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identify and describe various text structures (e.g., chronological, cause-effect, flashback, foreshadowing, verse, prose, drama). *(S1)*
- Explain how a specific structure (such as a poem's stanza, a chapter break, or a scene change) affects the tone or pacing of a text. *(S2)*
- Evaluate how authors organize plot elements and what effect that has on a reader's understanding or emotional response. *(S3)*
- Compare how different genres (e.g., novel vs. play) use structure to convey meaning. *(S4)*
- Use context clues to determine word meanings. *(S5)*
- Interpret figurative language (simile, metaphor, personification, hyperbole, etc.) in context. *(S6)*
- Recognize and explain connotation vs. denotation. *(S7)*

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	■ Understand the purpose of historical texts *(K10)*	■ Analyze how specific word choices impact tone and meaning. *(S8)* ■ Identify factual historical details in both nonfiction and historical fiction texts. *(S9)* ■ Compare how a real historical event or figure is portrayed differently in fiction. *(S10)* ■ Evaluate author's choices in altering or dramatizing history for narrative effect. *(S11)* ■ Use grade-level academic and domain-specific words accurately in writing and discussion. *(S12)* ■ Apply new vocabulary in original sentences or written responses. *(S13)* ■ Read and comprehend grade-level literature, including novels, short stories, poems, and plays. *(S14)* ■ Organize presentations around a clear central idea with supporting evidence. *(S15)* ■ Emphasize main points using examples, descriptions, or visuals in a presentation. *(S16)* ■ Maintain eye contact and use appropriate volume and pacing in a presentation. *(S17)* ■ Use clear articulation and expression appropriate to purpose and audience. *(S18)* ■ Adjust tone, word choice, and structure depending on setting (e.g., formal presentation vs. class discussion). *(S19)*

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		■ Recognize and apply appropriate spoken language conventions depending on audience. *(S20)* ■ Choose or create visual aids (slides, images, video clips) that enhance understanding. *(S21)* ■ Integrate multimedia elements smoothly into presentations. *(S22)* ■ Ensure visuals are relevant, readable, and aligned with main points. *(S23)* ■ Use technology tools (e.g., Google Slides, Canva, PowerPoint) with minimal teacher support. *(S24)*

Module 1: Analyzing Story Elements and Text Structure

Draft Date	Course	Duration	Grades	Subjects	Team
03-11-2025 @ 06:29	4th Grade ELA	35.0 Day(s)	4	English Language Arts	Jessica Smith

Unit Focus

In this unit, students will explore how both informational and literary texts are organized, with a focus on understanding and analyzing text structure. Through reading a variety of texts, students will learn to explain events, procedures, ideas, and concepts using evidence from the text. They will examine how different structures, such as chronology, cause/effect, and problem/solution, shape understanding. In literature, students will analyze characters, settings, and events in depth and compare different literary forms, including poems, dramas, and prose. Additionally, students will develop their vocabulary skills by identifying figurative language.

To apply their understanding of text structure and storytelling, students will write a narrative piece. They will create a well-structured story with a clear beginning, middle, and end, incorporating dialogue, sensory details, and precise language. Students will practice using transitions to develop a natural flow of events and conclude their narratives effectively.

The unit will culminate in an oral presentation where students share their narratives, focusing on speaking clearly and effectively to engage their audience.

Prior Learnings/Connection

Prior to this unit, students in earlier grades focused on developing foundational skills in reading both informational and literary texts. In 2nd and 3rd grade, students primarily identified key details and main ideas in texts, explained basic events and characters, and began recognizing simple text structures like cause and effect or problem and solution. They also worked on understanding the differences between narrative genres, such as stories and informational texts. In writing, they practiced composing simple narratives with a focus on clarity, basic sequencing of events, and using descriptive language to enhance their writing. Speaking and listening skills involved recounting personal experiences and retelling simple stories with basic organization and detail.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 4

- Explain events, procedures, ideas, or concepts in a text, including what happened and why, based on specific information in the text. *(CC.1.2.4.C)*
- Use text structure to interpret information (e.g., chronology, comparison, cause/effect, problem/ solution). *(CC.1.2.4.E)*
- Describe in depth a character, setting or event in a story or drama, drawing on specific details in the text. *(CC.1.3.4.C)*
- Explain major differences between poems, drama and prose and refer to the structural elements of each when writing or speaking about a text. *(CC.1.3.4.E)*
- Determine the meaning of words and phrases as they are used in grade level text, including figurative language. *(CC.1.3.4.F)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.4.M)*
- Orient the reader by establishing a situation and introducing a narrator and/or characters. *(CC.1.4.4.N)*
- Use dialogue and descriptions to develop experiences and events or show the responses of characters to situations; use concrete words and phrases and sensory

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

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details to convey experiences and events precisely. *(CC.1.4.4.O)*
- Organize an event sequence that unfolds naturally, using a variety of transitional words and phrases to manage the sequence of events; provide a conclusion that follows from the narrated experiences and events. *(CC.1.4.4.P)*
- Choose words and phrases to convey ideas precisely. *(CC.1.4.4.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.4.R)*
- Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speaking clearly with adequate volume, appropriate pacing, and clear pronunciation. *(CC.1.5.4.D)*

Other Goals

- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Events, procedures, ideas, and concepts in informational texts are structured in specific ways (e.g., chronological order, cause/effect, problem/solution). *(K1)*
- Different text structures help readers interpret and comprehend information. *(K2)*
- Literary texts have structural elements unique to their forms (e.g., stanza in poetry, acts in drama, paragraphs in prose). *(K3)*
- Characters, settings, and events develop through specific details in a text. *(K4)*
- Figurative language and word choice impact meaning and tone in a text. *(K5)*
- Effective narratives include a clear sequence of events, character development, and descriptive details. *(K6)*
- Writing conventions (grammar, punctuation, and spelling) enhance clarity and readability. *(K7)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying and explaining text structures in informational and literary texts. *(S1)*
- Analyzing how characters, settings, and events develop in a story. *(S2)*
- Comparing different literary forms (poems, drama, prose) and discussing their structural elements. *(S3)*
- Determining the meaning of words and phrases in context. *(S4)*
- Writing well-organized narratives with clear event sequences, descriptive language, and dialogue. *(S5)*
- Using transitions to connect ideas and create a smooth narrative flow. *(S6)*
- Applying grade-appropriate grammar, punctuation, and spelling conventions. *(S7)*
- Presenting their narratives effectively with appropriate volume, pacing, and pronunciation. *(S8)*
- Identifying figurative language in texts. *(S9)*

Module 2

Draft Date	Duration	Grades	Subjects	Team
09-13-2024 @ 06:27	5.0 Weeks	3	English Language Arts	Caitlin Schweiger

Unit Focus

Students will develop phonics, fluency, and word recognition skills, enhance comprehension of informational and literary texts through analysis and discussion, improve writing skills through narrative and informative texts, and foster effective speaking and listening skills through collaborative discussions.

Prior Learnings/Connection

Phonics and Word Recognition

- **Basic Phonics Skills:** Familiarity with consonant and vowel sounds, as well as common one-syllable words.
- **Recognition of Common Suffixes and Prefixes:** Basic understanding of frequently used prefixes (e.g., un-, re-, pre-) and suffixes (e.g., -ing, -ed) to build vocabulary.

Fluency

- **Reading Experience:** Prior experience reading grade-level texts aloud to build confidence and comfort with oral reading.
- **Basic Fluency Skills:** Ability to read familiar texts with appropriate speed and expression.

Reading Informational Text

- **Understanding of Text Features:** Familiarity with basic text features such as headings, captions, and bullet points to locate information in nonfiction texts.
- **Basic Comprehension Skills:** Experience answering simple questions about texts and making basic predictions.

Reading Literature

- **Experience with Story Elements:** Understanding of characters, setting, and plot from previous readings.

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- **Basic Inferencing Skills:** Ability to make simple inferences and predictions based on illustrations and text.

Writing

- **Basic Sentence Structure:** Familiarity with writing complete sentences and using capitalization and punctuation correctly.
- **Narrative Writing Experience:** Previous practice in writing short stories or personal narratives, focusing on a clear beginning, middle, and end.

Speaking and Listening

- **Participation in Discussions:** Experience engaging in small group discussions and sharing ideas with peers.
- **Listening Skills:** Ability to listen attentively to peers and respond appropriately during discussions.

Overall Skills

- **Collaboration and Teamwork:** Prior exposure to working with classmates on projects or group activities.
- **Critical Thinking:** Basic skills in analyzing information and making connections between texts or ideas.

By ensuring students have these foundational skills, they will be better prepared to engage with the content of this unit and build upon their literacy knowledge.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 3 ■ Know and apply grade level phonics and word analysis skills in decoding words. Identify and know the meaning of the most common prefixes and derivational suffixes. Decode words with common Latin suffixes. Decode multisyllable words. Read grade-	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

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appropriate irregularly spelled words. *(CC.1.1.3.D)*
- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.3.E)*
- Use text features and search tools to locate and interpret information. *(CC.1.2.3.E)*
- Use information gained from text features to demonstrate understanding of a text. *(CC.1.2.3.G)*
- Compare and contrast the most important points and key details presented in two texts on the same topic. *(CC.1.2.3.I)*
- Ask and answer questions about the text and make inferences from text; refer to text to support responses. *(CC.1.3.3.B)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.3.M)*
- Establish a situation and introduce a narrator and/or characters. *(CC.1.4.3.N)*
- Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. *(CC.1.4.3.O)*
- Organize an event sequence that unfolds naturally, using temporal words and phrases to signal event order; provide a sense of closure. *(CC.1.4.3.P)*
- Choose words and phrases for effect. *(CC.1.4.3.Q)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

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- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.3.R)*
- Engage effectively in a range of collaborative discussions on grade level topics and texts, building on others' ideas and expressing their own clearly. *(CC.1.5.3.A)*
- Determine the main ideas and supporting details of a text read aloud or information presented in diverse media formats, including visually, quantitatively, and orally. *(CC.1.5.3.B)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*

- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Phonics and Word Recognition
  - **Decoding Skills**: Understand how to decode words using phonics and word analysis skills. This includes breaking down words into syllables and identifying letter-sound relationships.
  - **Common Prefixes and Suffixes**: Recognize and understand the meaning of common prefixes (e.g., "un-", "re-", "dis-") and suffixes (e.g., "-ful", "-ly", "-ness").
  - **Latin Suffixes**: Decode words that have common Latin suffixes like "-able", "-ible", "-tion", "-sion", and "-ment".
  - **Multisyllable Words**: Be able to break down and decode multisyllable words, recognizing syllables and applying phonics rules to read them.
  - **Irregularly Spelled Words**: Identify and read words that do not follow

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

-

  Phonics and Word Recognition (CC.1.1.3.D)

  1. **Apply Phonics Rules**:
     - Use phonetic decoding strategies to break down and read unfamiliar words.
     - Apply knowledge of vowel sounds, consonant blends, and digraphs to decode new words.
  2. **Identify and Use Prefixes and Suffixes**:
     - Recognize and understand the meaning of common prefixes (e.g., "un-", "dis-", "re-") and suffixes (e.g., "-able", "-ly", "-ness").

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- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

standard phonetic patterns, using memorization or recognition strategies for irregular spelling (e.g., "enough", "colonel").

Fluency

- **Accuracy and Fluency**: Read text smoothly and accurately, with appropriate speed, rhythm, and expression to support comprehension.
- **Purposeful Reading**: Read texts with understanding, using context to help decode unfamiliar words.
- **Self-Correction**: Use context clues to self-correct and ensure accurate word recognition and comprehension while reading aloud, rereading when necessary.

Reading Informational Text

- **Text Features and Search Tools**: Use headings, subheadings, captions, bold/italicized words, and indexes to locate and understand key information in informational texts.
- **Interpretation of Text Features**: Analyze and use text features (such as diagrams, tables, graphs) to understand the content and support comprehension.

- Use prefixes and suffixes to figure out the meaning of unfamiliar words.

3. **Decode Latin Suffixes**:
   - Break down words with common Latin suffixes (e.g., "-tion", "-ment", "-able") and understand their meaning.
4. **Decode Multisyllable Words**:
   - Identify syllable patterns in multisyllable words and apply phonics rules to decode them.
   - Use strategies like chunking (breaking words into smaller, manageable parts) and recognizing common syllable patterns.
5. **Read Irregularly Spelled Words**:
   - Recognize and memorize high-frequency, irregularly spelled words (e.g., "enough", "colonel").
   - Apply visual memory or word recognition strategies to read words that don't follow standard phonetic rules.

Fluency (CC.1.1.3.E)

1. **Read Aloud with Accuracy**:
   - Pronounce words correctly and automatically with no hesitation.

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- **Comparing Texts**: Compare and contrast key details and main ideas across two informational texts on the same topic, recognizing similarities and differences in the presented information.

Reading Literature

- **Text Analysis**: Ask and answer questions about the text, and make inferences based on evidence from the text. Be able to cite specific text details to support answers.
- **Making Inferences**: Use clues from the text (actions, words, or descriptions) to make logical guesses or inferences about characters, events, and themes.

Writing

- **Narrative Writing**:
  - **Narrative Focus**: Introduce a situation and characters clearly.
  - **Content Development**: Use dialogue, descriptions of thoughts and feelings, and actions to develop characters or events and show how characters respond to situations.
  - Correct errors while reading aloud and self-correct when necessary.
2. **Read at an Appropriate Rate**:
   - Maintain a steady, fluid pace while reading, not too fast or too slow.
   - Adjust reading rate based on the complexity of the text (slower for challenging texts, faster for easier ones).
3. **Read with Expression**:
   - Use appropriate intonation, pitch, and volume to convey meaning (e.g., raising voice for excitement, lowering it for seriousness).
   - Add emphasis on key words to highlight important details or emotions.
4. **Self-Correct Using Context**:
   - Use context clues (surrounding words or sentences) to figure out unknown words and their meanings.
   - Reread sections of the text if the meaning is unclear or a mistake is made.
5. **Read for Comprehension**:
   - Read with the purpose of understanding the content and identifying key details.

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- **Organization**: Organize the story logically, using transitional words (e.g., first, next, then) to signal the order of events. Ensure the story has a clear beginning, middle, and end.
- **Style**: Choose words and phrases that convey emotions or effects (e.g., describing a setting with sensory details, or using strong action verbs).
- **Conventions**: Demonstrate a grade-appropriate understanding of English grammar, punctuation, and spelling. Use proper sentence structure and punctuation marks (e.g., periods, commas, quotation marks in dialogue).

Speaking and Listening

- **Collaborative Discussion**: Participate actively in discussions, sharing ideas and building on others' contributions. Express thoughts clearly and respectfully.
- **Critical Listening**: Listen attentively to presentations, determining the main idea and supporting details of spoken information (whether in person or through diverse media formats

Reading Informational Text (CC.1.2.3.E, CC.1.2.3.G, CC.1.2.3.I)

1. **Use Text Features to Locate Information**:
   - Identify and use features like headings, subheadings, bold/italicized words, captions, diagrams, and the index to find information.
   - Use search tools (e.g., table of contents, glossary) to quickly locate topics in a text.
2. **Interpret Information from Text Features**:
   - Use captions, charts, graphs, and other visual elements to support the understanding of the text.
   - Identify how text features help clarify or emphasize important points.
3. **Compare and Contrast Texts**:
   - Identify the main points and key details in two texts on the same topic.
   - Compare how each text presents the same information differently (e.g., one may focus on statistics, the other on anecdotes).
   - Identify similarities and differences in perspectives

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like video or audio). Be able to summarize and discuss key points, even if presented in various forms (visual, quantitative, or oral).

(K1)

or arguments in informational texts.

Reading Literature (CC.1.3.3.B)

1. Ask and Answer Questions About the Text:
   - Generate questions about characters, events, and themes in the text.
   - Provide answers based on evidence from the text to support ideas and responses.
2. Make Inferences:
   - Use clues from the text (e.g., character actions, dialogue, setting) to make logical guesses about characters' feelings, motivations, or future events.
   - Support inferences with specific details from the text.
3. Cite Textual Evidence:
   - Identify and refer to specific parts of the text (quotes, descriptions, actions) to support interpretations and answers.

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Writing (Narrative)

1. Establish a Situation and Introduce Characters:
    - Create a clear opening that sets up a situation and introduces characters with details that make them interesting.
2. Develop Characters and Plot Using Dialogue and Description:
    - Use dialogue to show how characters feel, think, or respond to events.
    - Add descriptions of characters' actions, thoughts, and feelings to build depth.
    - Show characters' responses to events and how these drive the plot.
3. Organize a Sequence of Events:
    - Use chronological or logical order to present events.
    - Use transition words (e.g., "first", "then", "afterwards") to guide the reader through the events.
4. Provide a Sense of Closure:
    - Ensure the story ends in a way that resolves the main conflict or provides a conclusion to the narrative.

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5. **Choose Words for Effect**:
    - Select words that create vivid imagery or convey emotion (e.g., instead of "happy", use "ecstatic" or "delighted").
6. **Apply Conventions of Standard English**:
    - Use correct grammar (subject-verb agreement, proper tense), punctuation (periods, commas, quotation marks), and spelling in writing.

Speaking and Listening

1. **Engage in Collaborative Discussions**:
    - Listen to others' ideas respectfully and add relevant comments or ask questions to further the discussion.
    - Clearly express their own thoughts and opinions, providing explanations or reasoning to support their ideas.
2. **Build on Others' Ideas**:
    - Show understanding of others' viewpoints and extend the conversation by introducing new ideas or perspectives.

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		3. **Determine Main Ideas and Details in Presentations**: ■ Listen actively to determine the central idea and important details in texts or presentations, whether spoken, visual, or written. ■ Summarize and discuss the main ideas and supporting details, recognizing different formats of presentation (oral, visual, quantitative). 4. **Use Diverse Media to Understand Content**: ■ Interpret and analyze information presented in multiple formats (e.g., oral presentations, videos, charts, graphs). ■ Understand how each format contributes to the overall meaning of the content. *(S1)*

Module 2

Draft Date	Duration	Grades	Subjects	Team
10-11-2024 @ 02:05	6.0 Weeks	K	English Language Arts	Bryn Sporer , Shannon Myers

Unit Focus

In this module, students will identify the key components of a book, such as the title and author, as well as the various parts of a text, including the beginning, end, and supporting details. Students will recognize common types of text and engage in meaningful group reading activities. Students will apply phonics skills to decode words, understand letter-sound relationships, and read high-frequency words with ease.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Demonstrate understanding of the organization and basic features of print. Follow words left to right, top to bottom, and page by page. Recognize that spoken words are represented in written language by specific sequences of letters. Understand that words are separated by spaces in print. Recognize and name all upper and lower case letters of the alphabet. *(CC.1.1.K.B)*
- Demonstrate understanding of spoken words, syllables, and sounds (phonemes). Recognize and produce rhyming words. Count, pronounce, blend, and segment syllables in spoken words. Blend and segment onsets and rimes of single-

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*

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syllable spoken words. Isolate and pronounce the initial, medial vowel, and final sound (phonemes) in the three-phoneme (CVC) words. *(CC.1.1.K.C)*

- Know and apply grade level phonics and word analysis skills in decoding words. Demonstrate basic knowledge of one-to one letter-sound correspondence. Associate the long and short sounds with common spellings for the five major vowels. Read grade level high-frequency sight words with automaticity. Distinguish between similarly spelled words by identifying the sounds of the letters that differ. *(CC.1.1.K.D)*
- Identify parts of a book (title, author) and parts of a text (beginning, end, details). *(CC. 1.2.K.E)*
- Recognize common types of text. *(CC.1.3.K.E)*
- Actively engage in group reading activities with purpose and understanding. *(CC. 1.3.K.K)*

Other Goals

- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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Module 2: Comprehension of Literary Texts

Draft Date	Course	Duration	Grades	Subjects	Team
02-18-2025 @ 05:33	1st Grade Reading	45.0 Day(s)	1	English Language Arts	Jessica Smith , Shannon Myers

Unit Focus

This module introduces students to retelling stories and understanding key elements of literary texts, such as characters, settings, and major events. Students will practice asking and answering questions about key details, identifying the narrator of a story, and describing how illustrations and details contribute to understanding characters and events. The focus is on helping students build their comprehension skills in narrative texts by identifying central messages or lessons.

Prior Learnings/Connection

In kindergarten, students build foundational skills for engaging with literary texts. They learn to retell familiar stories with key details and begin to ask and answer questions about the text with support. Students identify characters, settings, and major events, establishing a basic understanding of story structure. They are introduced to the roles of authors and illustrators and recognize common text types, such as storybooks and poems. Additionally, they use illustrations to describe story elements, preparing them to deepen their comprehension and analytical skills in 1st grade.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 1

- Retell stories, including key details, and demonstrate understanding of their central message or lesson. *(CC.1.3.1.A)*
- Ask and answer questions about key details in a text. *(CC.1.3.1.B)*
- Describe characters, settings, and major events in a story, using key details. *(CC.1.3.1.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

- Identify who is telling the story at various points in a text. *(CC.1.3.1.D)*
- Explain major differences between books that tell stories and books that give information, drawing on a wide reading or range of text types. *(CC.1.3.1.E)*
- Use illustrations and details in a story to describe characters, setting, or events. *(CC.1.3.1.G)*

Other Goals

- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Stories have a central message or lesson that can be determined by retelling key details. *(K1)*
- Asking and answering questions about a story helps with comprehension. *(K2)*
- Characters, settings, and major events are key elements that shape a story. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Retelling stories, including key details, to demonstrate understanding of the central message or lesson. *(S1)*
- Asking and answering questions about key details in a story to clarify meaning. *(S2)*
- Describing characters, settings, and major events using details from the text. *(S3)*

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	■ A narrator tells the story, and identifying who is speaking helps with understanding. *(K4)* ■ Literary texts (stories) and informational texts (nonfiction) have different structures and purposes. *(K5)* ■ Illustrations and details in a story provide important information about characters, settings, and events. *(K6)*	■ Identifying the narrator of a story. *(S4)* ■ Explaining the differences between books that tell stories and books that provide information. *(S5)* ■ Using illustrations and details to describe characters, settings, or events in a story. *(S6)*

Module 2: Craft and Structure

Draft Date	Course	Duration	Grades	Subjects	Team
09-13-2024 @ 05:54	2nd Grade Reading	30.0 Day(s)	2	English Language Arts	Rachel Mleczko , Julie Hermes , Brooke Shambach

Unit Focus

In this module, students explore how authors develop characters and convey different points of view. They learn to recognize and explain these differences, including using distinct voices when reading dialogue aloud. Students also analyze the structure of stories, identifying how the beginning introduces the narrative and how the ending brings it to a close. Additionally, they use text features and search tools to efficiently locate key information in nonfiction texts. To deepen their understanding, students incorporate drawings or visual displays into presentations to clarify their ideas, thoughts, and feelings.

Prior Learnings/Connection

In 1st grade, students begin to explore the structure of texts by using text features and search tools to find information in both informational and literary texts. They also start to identify the point of view in stories, particularly recognizing who is telling the story. In speaking and listening, they focus on using visual displays to enhance their spoken presentations, adding drawings or other images to help clarify ideas.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 2

- Use various text features and search tools to locate key facts or information in a text efficiently. *(CC.1.2.2.E)*
- Acknowledge differences in the points of views of characters, including by speaking in a different voice for each character when reading dialogue aloud. *(CC.1.3.2.D)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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- Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action. *(CC.1.3.2.E)*
- Add drawings or other visual displays to presentations when appropriate to clarify ideas, thoughts, and feelings. *(CC.1.5.2.F)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Different characters in a story can have distinct points of view, which can be recognized through their dialogue. *(K1)*
- The structure of a story includes an introduction at the beginning and a conclusion at the end, which help to organize and wrap up the narrative. *(K2)*
- Text features and search tools are useful for locating important information in nonfiction texts. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Using text features and search tools to efficiently find key facts or information in a nonfiction text. *(S1)*
- Recognizing and explaining different points of view in a story, and using a different voice for each character when reading dialogue aloud. *(S2)*
- Describing the overall structure of a story, including identifying how the beginning introduces the story and how the ending concludes it. *(S3)*

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		■ Adding drawings or other visual displays to their presentations to clarify ideas, thoughts, and feelings. *(S4)*

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Module 2: Exploring Stories Through Words and Pictures

Draft Date	Course	Duration	Grades	Subjects	Team
02-10-2025 @ 02:50	Kindergarten Reading	40.0 Day(s)	K	English Language Arts	Danielle Curzi , Jessica Smith

Unit Focus

In this module, students will dive into storytelling by identifying key story elements such as characters, settings, and major events with support. They will learn about the roles of authors and illustrators, understanding how both contribute to a story's meaning. Through read-alouds and shared reading experiences, students will make connections between illustrations and text, using pictures to deepen their comprehension. This module builds early literacy skills and fosters a love of reading by helping students engage with stories in meaningful ways.

Prior Learnings/Connection

In Pre-K, students began exploring basic story elements, such as recognizing characters, familiar settings, and identifying simple events during shared read-alouds. They were introduced to the concept of illustrations as part of the storytelling process, focusing on how pictures help tell the story. At this stage, students were not expected to analyze these elements in detail but to recognize them through adult-led discussion and storytelling. The introduction to authors and illustrators was likely minimal, with students focusing more on enjoying the narrative rather than understanding the specific roles of the author and illustrator.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- With prompting and support, identify characters, settings, and major events in a story. *(CC.1.3.K.C)*
- Name the author and illustrator of a story and define the role of each in telling the story. *(CC.1.3.K.D)*
- Make connections between the illustrations and the text in a story (read or read aloud). *(CC.1.3.K.G)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- A story has characters who are the people, animals, or things in the story. *(K1)*
- A story takes place in a particular location or time, known as the setting. *(K2)*
- Events in a story include key actions or happenings that move the story forward. *(K3)*
- The author writes the story, and the illustrator creates the pictures. *(K4)*
- Illustrations provide important clues that help explain the text. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying characters in the story. *(S1)*
- Identifying the setting of the story. *(S2)*
- Identifying major events in the story with prompting and support. *(S3)*
- Describing the role of the author and illustrator in creating the story. *(S4)*
- Connecting text with illustrations to gain a deeper understanding of the story. *(S5)*

Module 2: Non Fiction and Fiction

Draft Date	Grades	Subjects	Team
10-11-2024 @ 02:34	4	English Language Arts	Shannon Myers , Quinn Turocy

Unit Focus

This unit focuses on developing students' abilities to identify main ideas, support their understanding with key details, and summarize texts effectively. Additionally, students will learn to interpret text structures and use this knowledge to enhance their narrative writing skills. By engaging with both literary non-fiction and informational texts, students will practice making inferences, explaining concepts, and using dialogue and sensory details in their writing.

Prior Learnings/Connection

Comprehension Skills:

1. **Identifying Main Ideas:**
    - Familiarity with distinguishing between main ideas and supporting details from previous reading experiences.
2. **Summarization Techniques:**
    - Basic understanding of how to summarize a text, focusing on key points without adding personal opinions.
2. **Text Features:**
    - Awareness of various text features (headings, subheadings, captions) that can aid in identifying main ideas and key details.

Analytical Skills:

1. **Making Inferences:**
    - Experience in making predictions and drawing conclusions based on context clues within a text.
2. **Referencing Text:**
    - Ability to cite specific examples and details from a text to support understanding and discussions.
2. **Understanding Cause and Effect:**
    - Knowledge of simple cause-and-effect relationships and how they are presented in narratives and informational texts.

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Text Structure:

1. **Recognizing Text Structures:**
    - Familiarity with different organizational structures, such as chronological order, comparison/contrast, and problem/solution, from prior reading.

2. **Understanding Literary Non-Fiction:**
    - Previous exposure to literary non-fiction, such as biographies or memoirs, and understanding how these differ from fictional texts.

Writing Skills:

1. **Basic Narrative Writing:**
    - Experience writing simple narratives, including elements like characters, settings, and basic plot structure.

2. **Using Dialogue:**
    - Understanding how dialogue functions in narratives, including punctuation and formatting.

2. **Descriptive Language:**
    - Familiarity with using descriptive language and sensory details to enhance writing.

Reading Proficiency:

1. **Independent Reading:**
    - Ability to read grade-level texts independently and demonstrate comprehension through discussion or written responses.

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Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 4

- Determine the main idea of a text and explain how it is supported by key details; summarize the text. *(CC.1.2.4.A)*
- Refer to details and examples in text to support what the text says explicitly and make inferences. *(CC.1.2.4.B)*
- Explain events, procedures, ideas, or concepts in a text, including what happened and why, based on specific information in the text. *(CC.1.2.4.C)*
- Use text structure to interpret information (e.g., chronology, comparison, cause/effect, problem/ solution). *(CC.1.2.4.E)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC. 1.2.4.L)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.4.M)*
- Use dialogue and descriptions to develop experiences and events or show the responses of characters to situations; use concrete words and phrases and sensory details to convey experiences and events precisely. *(CC.1.4.4.O)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA. 07.A)*

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Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- 1. Main Idea and Key Details (CC.1.2.4.A)
  - Identifying the main idea: Students should be able to find the main point or message of a text.
  - Supporting details: They need to recognize and explain how specific details support the main idea.
  - Summarizing: Students should be able to create concise summaries of the text, capturing its essential points without unnecessary details.

2. **Using Textual Evidence and Making Inferences** (CC.1.2.4.B)

  - Citing evidence: Students should refer to specific details and examples from a text to explain what the text says explicitly.
  - Making inferences: They should be able to make logical inferences based on information from the

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- **For CC.1.2.4.A: Determine the main idea**
  - **Identifying Main Ideas**: Practice summarizing paragraphs and identifying the main idea in various texts.
  - **Key Detail Recognition**: Learn to pick out supporting details that back up the main idea.
  - **Summarization Skills**: Develop skills to condense information and articulate the main idea and supporting details in their own words.

For CC.1.2.4.B: Refer to details and examples

  - **Textual Evidence**: Teach students how to locate specific details in the text that support their understanding.
  - **Inference Skills**: Practice making inferences based on clues in the text, teaching them to read between the lines.

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text, even when it isn't directly stated.

3. **Explaining Events, Procedures, Ideas, or Concepts** (CC.1.2.4.C)

- Understanding cause and effect: Students should explain what happens in a text and why, using specific details from the text.
- Explaining steps and processes: They should be able to explain the sequence of events or procedures in informational texts.

4. **Interpreting Text Structure** (CC.1.2.4.E)

- Recognizing text structures: Students need to understand different text structures (e.g., chronology, comparison, cause/effect, problem/solution).
- Using structure to interpret information: They should be able to use the structure of a text to help interpret and understand the information more effectively.

5. **Reading and Comprehending Literary Non-Fiction** (CC.1.2.4.L)

- Independent reading: Students should be able to read and understand grade-level literary

- **Quote and Paraphrase**: Work on quoting text directly and paraphrasing it to support their points.

For CC.1.2.4.C: Explain events or concepts

- **Event Sequencing**: Learn to outline the sequence of events in narratives or the steps in a procedure.
- **Cause and Effect**: Identify cause-and-effect relationships in the text.
- **Explanation Skills**: Practice explaining concepts using specific examples from the text, focusing on clarity and coherence.

For CC.1.2.4.E: Use text structure

- **Understanding Structures**: Familiarize students with various text structures (e.g., chronological order, compare/contrast, cause/effect).
- **Graphic Organizers**: Use tools like Venn diagrams or flow charts to help students visualize and organize information based on text structure.
- **Analyzing Texts**: Encourage analysis of how the structure influences the understanding of the information presented.

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non-fiction and informational texts on their own.
- Reading proficiency: They need to demonstrate proficiency by reading fluently and comprehending texts accurately.

6. **Writing Narratives** (CC.1.4.4.M)

- Narrative writing: Students should be able to write stories, whether based on real events or imagined scenarios.
- Story structure: They need to understand how to organize a narrative with a clear beginning, middle, and end.

7. **Developing Events and Characters with Dialogue and Description** (CC.1.4.4.O)

- Using dialogue: Students should know how to use dialogue between characters to develop the story and show how characters respond to events.
- Descriptive language: They need to use specific, concrete words and phrases to create clear images in the reader's mind.
- Sensory details: Students should include sensory details (sight, sound, touch, taste, and smell) to bring experiences and events to life for the reader.

For CC.1.2.4.L: Read and comprehend texts

- **Reading Fluency**: Promote practice in reading aloud to build fluency and confidence.
- **Comprehension Strategies**: Teach strategies such as predicting, questioning, clarifying, and summarizing to enhance understanding.
- **Independent Reading**: Encourage regular independent reading of grade-level texts, with discussions to reinforce comprehension.

For CC.1.4.4.M: Write narratives

- **Story Structure**: Teach the components of a narrative (setting, characters, conflict, resolution).
- **Writing Workshops**: Engage in writing exercises that focus on developing narratives based on real or imagined experiences.
- **Peer Review**: Use peer feedback to help refine narrative writing and enhance storytelling skills.

For CC.1.4.4.O: Use dialogue and descriptions

- **Dialogue Practice**: Practice writing dialogues between characters to

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	(K1)	develop voice and character interactions. ◦ **Descriptive Writing**: Focus on using sensory details and concrete language to create vivid imagery in writing. ◦ **Character Development**: Encourage students to think about character motivations and responses to situations to enrich their narratives. *(S1)*

Module 2: Telling a Story

Draft Date	Course	Duration	Grades	Subjects	Team
02-18-2025 @ 06:16	1st Grade Writing	30.0 Day(s)	1	English Language Arts	Jessica Smith , Josh Korb

Unit Focus

In this unit, students will focus on writing narratives to describe real or imagined experiences. They will learn to develop characters and events, incorporate thoughts and feelings into their writing, and sequence events logically. This unit encourages students to recount stories in their own words, organize events with temporal words to signal sequence, and conclude with a sense of closure.

Prior Learnings/Connection

In kindergarten, students begin narrative writing by using a combination of drawing, dictating, and writing to describe a single event or multiple loosely connected events. With support, they learn to identify the characters and events and provide simple details. Students practice sequencing events in order and develop a basic sense of narrative flow. They also start using a variety of descriptive words and demonstrate early command of grammar, punctuation, and spelling conventions.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 1

- Write narratives to develop real or imagined experiences or events. *(CC.1.4.1.M)*
- Establish “who” and “what” the narrative will be about. *(CC.1.4.1.N)*
- Include thoughts and feelings to describe experiences and events *(CC.1.4.1.O)*
- Recount two or more appropriately sequenced events using temporal words to signal event order and provide some sense of closure. *(CC.1.4.1.P)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

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- Use a variety of words and phrases. *(CC.1.4.1.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. Capitalize dates and names of people. Use end punctuation; use commas in dates and words in series. Spell words drawing on common spelling patterns, phonemic awareness and spelling conventions. *(CC.1.4.1.R)*

Other Goals

- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Narrative writing tells about real or imagined experiences. *(K1)*
- Characters, events, thoughts, and feelings help bring a story to life. *(K2)*
- Temporal words help sequence events in a logical order. *(K3)*
- A strong conclusion provides a sense of closure for the reader. *(K4)*
- Grammar, punctuation, and spelling conventions improve clarity in writing. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Writing narratives that describe real or imagined experiences. *(S1)*
- Establishing characters and events in their stories. *(S2)*
- Including thoughts and feelings to describe experiences. *(S3)*
- Sequencing events logically using temporal words. *(S4)*
- Providing a sense of closure in their writing. *(S5)*

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		■ Using a variety of words and phrases to enhance their narratives. *(S6)* ■ Applying grade-appropriate grammar and spelling rules, including capitalization, punctuation, and common spelling patterns. *(S7)*

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Module 2: Understanding Text Structure and Key Details

Draft Date	Course	Duration	Grades	Subjects	Team
02-09-2025 @ 02:53	3rd Grade ELA	35.0 Day(s)	3	English Language Arts	Jessica Smith

Unit Focus

In this module, students will develop a deeper understanding of how texts are structured and how key details support comprehension. Through literary and informational texts, they will identify main ideas, analyze text structures, and explore how authors connect ideas across sentences and paragraphs. Students will use text features and search tools to locate and interpret information, strengthening their ability to evaluate and synthesize content from diverse media. They will also engage in writing informative texts, organizing ideas logically, and using appropriate language and conventions. Research skills will be emphasized as students gather and categorize information from various sources. Additionally, students will enhance their speaking and listening skills by discussing texts, analyzing information presented in different formats, and effectively communicating their understanding. This module builds critical literacy skills essential for reading comprehension, writing clarity, and academic success.

Prior Learnings/Connection

In 2nd grade, students have focused on determining the main idea of texts and identifying key details that support that idea. They have practiced explaining how events or concepts within a text are connected, using appropriate language for time, sequence, and cause/effect. In addition, students have worked on using text features (such as headings, captions, and indexes) to locate and interpret information, helping them better understand the material. They have also analyzed how authors connect sentences and paragraphs to support their main points. In writing, students have created informational texts, introduced topics, and supported them with facts and details, while organizing their ideas logically. They have also worked on applying conventions of standard English grammar and spelling to improve their writing.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 3 ■ Determine the main idea of a text; recount the key details and explain how they support the main idea. *(CC.1.2.3.A)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*

- Explain how a series of events, concepts, or steps in a procedure is connected within a text, using language that pertains to time, sequence, and cause/effect. *(CC.1.2.3.C)*
- Use text features and search tools to locate and interpret information. *(CC.1.2.3.E)*
- Use information gained from text features to demonstrate understanding of a text. *(CC.1.2.3.G)*
- Describe how an author connects sentences and paragraphs in a text to support particular points. *(CC.1.2.3.H)*
- Describe characters in a story and explain how their actions contribute to the sequence of events. *(CC.1.3.3.C)*
- Refer to parts of texts when writing or speaking about a text using such terms as chapter, scene and stanza and describe how each successive part builds upon earlier sections. *(CC.1.3.3.E)*
- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.3.A)*
- Identify and introduce the topic. *(CC.1.4.3.B)*
- Develop the topic with facts, definitions, details, and illustrations, as appropriate. *(CC.1.4.3.C)*
- Create an organizational structure that includes information grouped and connected logically with a concluding statement or section. *(CC.1.4.3.D)*
- Choose words and phrases for effect. *(CC. 1.4.3.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.3.F)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

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- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts *(CC.1.4.3.S)*
- Conduct short research projects that build knowledge about a topic. *(CC.1.4.3.V)*
- Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories. *(CC.1.4.3.W)*
- Determine the main ideas and supporting details of a text read aloud or information presented in diverse media formats, including visually, quantitatively, and orally. *(CC.1.5.3.B)*
- Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly with adequate volume, appropriate pacing, and clear pronunciation. *(CC.1.5.3.D)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- The main idea of a text and how key details support it. *(K1)*
- The structure of texts, including how text features and search tools help locate and interpret information. *(K2)*
- The role of text structure in connecting events, ideas, or procedures in a text (e.g., time, sequence, cause/effect). *(K3)*
- How authors connect sentences and paragraphs to support particular points. *(K4)*
- How literary elements (such as characters) contribute to the sequence of events in stories. *(K5)*
- The components of informative/explanatory writing (e.g., facts, definitions, details, illustrations). *(K6)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying main ideas and supporting details in both literary and informational texts. *(S1)*
- Analyzing how text structures (e.g., sequence, cause/effect) are used to organize content. *(S2)*
- Using text features and search tools to find and interpret information. *(S3)*
- Writing informative/explanatory texts that are well-organized, clear, and appropriate for the topic. *(S4)*
- Identifying and explaining how literary elements, such as characters, influence the sequence of events in a story. *(S5)*
- Organizing information logically with a clear introduction, supporting details,

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■ Communicate for a range of purposes *(POG.COM.2)*	■ How to assess the credibility, reliability, and validity of sources for research. *(K7)* ■ Key components of oral communication (e.g., determining main ideas and supporting details when listening or viewing different media formats). *(K8)*	and conclusion. *(S6)* ■ Using language and conventions correctly to communicate ideas in writing. *(S7)* ■ Conducting research by gathering, categorizing, and sorting information from a variety of sources. *(S8)* ■ Discussing texts and conveying their understanding through speaking and listening in various formats (e.g., oral, visual, quantitative). *(S9)* ■ Reflecting on and analyzing content using evidence from texts to support conclusions. *(S10)*

Module 3: Reading Literature, Speaking & Listening

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 03:05	English 21st Century 2	10.0 Weeks	11 , 12	English Language Arts	SHANNON CONGLETON-PARR

Unit Focus

In this module, reading, writing, speaking and listening are confronted around the big idea of exploring and evaluating rhetorical choices. This module addresses: How do stereotypes impact 21st Century society? Key outcomes include reading Shakespeare, comparing to novels and listening to podcasts.

Prior Learnings/Connection

This course builds on students' prior knowledge of communication from English 21st Century 1, particularly speaking, listening, reading and writing for an audience. Students will have an understanding of podcasts from the last module and this is module students will understand how stereotypes impact our 21st Century society.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Determine and analyze the relationship between two or more central ideas of a text, including the development and interaction of the central ideas; provide an objective summary of the text. *(CC. 1.2.11-12.A)*
- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*

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author's implicit and explicit assumptions and beliefs. *(CC.1.2.11-12.B)*
- Analyze the interaction and development of a complex set of ideas, sequence of events, or specific individuals over the course of the text. *(CC.1.2.11-12.C)*
- Evaluate how an author's point of view or purpose shapes the content and style of a text. *(CC.1.2.11-12.D)*
- Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging. *(CC.1.2.11-12.E)*
- Evaluate how words and phrases shape meaning and tone in texts. *(CC.1.2.11-12.F)*
- Integrate and evaluate multiple sources of information presented in different media or formats (e.g. visually, quantitatively) as well as in words in order to address a question or solve a problem. *(CC.1.2.11-12.G)*
- Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.2.11-12.J)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade level reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.2.11-12.K)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

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- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.11-12.L)*
- Determine and analyze the relationship between two or more themes or central ideas of a text, including the development and interaction of the themes; provide an objective summary of the text. *(CC.1.3.11-12.A)*
- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs. *(CC.1.3.11-12.B)*
- Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text. (Include at least one play by Shakespeare and one play by an American dramatist.) *(CC.1.3.11-12.G)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 11-12 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.11-12.I)*
- Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Foundational works of literature from various genres and periods. *(K1)*
- Characteristics of dramatic and poetic forms. *(K2)*
- Importance of themes and topics in literature. *(K3)*
- Techniques for effective communication and presentation. *(K4)*
- Textual comparisons to other pieces of literature *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Students will read Long Way Down, an excerpt from Macbeth and listen to This American Life Podcast series based on Harper High School. Students will compare the texts and media. Students will consider the author's word choice and impact on those choices on both implicit and explicit meanings. *(S1)*
- Analyze multiple interpretations of literature. *(S2)*
- Evaluate themes across different texts. *(S3)*
- Organize complex ideas coherently. *(S4)*
- Participate in collaborative discussions. *(S5)*
- Present information effectively. *(S6)*
- Use digital media strategically. *(S7)*
- Cite textual evidence for analysis. *(S8)*
- Evaluate author's perspective. *(S9)*
- Analyze text structure and effectiveness. *(S10)*
- Write a reflection journal based off of readings and peer opinions *(S11)*
- Compare words and context in Long Way Down and Macbeth by looking at speech, word usage, etc *(S12)*
- Write conversation/report, peer edit, then present to peers *(S13)*

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phrase important to comprehension or expression. *(CC.1.3.11-12.J)*

- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.11-12.K)*
- Write informative/ explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately. *(CC.1.4.11-12.A)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.11-12.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC. 1.4.11-12.F)*
- Write arguments to support claims in an analysis of substantive topics. *(CC. 1.4.11-12.G)*
- Create organization that logically sequences claim(s), counterclaims, reasons, and evidence; Use words, phrases, and clauses as well as varied syntax to link the major sections of the text create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims; provide a concluding statement or section that

- Research/Survey how stereotypes have changed or stayed the same throughout the years *(S14)*
- Use new vocabulary words correctly in writings and discussion *(S15)*

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follows from and supports the argument presented. *(CC.1.4.11-12.J)*

- Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple points of view, and introducing a narrator and/or characters. *(CC.1.4.11-12.N)*
- Use narrative techniques such as dialogue, description, reflection, multiple plot lines, and pacing, to develop experiences, events, and/or characters; use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, settings, and/or characters. *(CC.1.4.11-12.O)*
- Create a smooth progression of experiences or events using a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome; provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative. *(CC.1.4.11-12.P)*
- Write with an awareness of the stylistic aspects of writing. Use parallel structure. Use various types of phrases and clauses to convey specific meanings and add variety and interest. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. *(CC.1.4.11-12.Q)*
- Draw evidence from literary or informational texts to support analysis,

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reflection, and research, applying grade level reading standards for literature and literary non-fiction. *(CC.1.4.11-12.S)*
- Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. *(CC.1.4.11-12.T)*
- Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments and information. *(CC.1.4.11-12.U)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC.1.4.11-12.X)*
- Adapt speech to a variety of contexts and tasks. *(CC.1.5.11-12.E)*
- Demonstrate command of the conventions of standard English when speaking based on grade 11-12 level and content. *(CC.1.5.11-12.G)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*

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■ Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)* ■ Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)* ■ Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)* ■ Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)* ■ Demonstrate an awareness that actions have broad implications *(POG.GC.1)* ■ Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)* ■ Show empathy and respect towards a diverse global community *(POG.GC.3)* ■ Promote positive change while respective the perspectives of a global society *(POG.GC.4)*	

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Module 3: Argumentative Writing and Formal Debate

Draft Date	Course	Grades	Subjects	Team
09-13-2024 @ 06:03	8th Grade ELA	8	English Language Arts	LAURA HUGHES , ANGELA NEIL

Unit Focus

In this unit, students select a debatable topic to research and develop an argument for or against. Then, participate in a live debate using argumentative writing and speaking skills.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 8

- Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences, conclusions, and/or generalizations drawn from the text. *(CC.1.2.8.B)*
- Analyze how a text makes connections among and distinctions between individuals, ideas, or events. *(CC.1.2.8.C)*
- Analyze the influence of the words and phrases in a text including figurative and connotative, and technical meanings; and how they shape meaning and tone. *(CC.1.2.8.F)*
- Evaluate authors' arguments, reasoning, and specific claims for the soundness of the arguments and the relevance of the evidence. *(CC.1.2.8.H)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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- Analyze two or more texts that provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation. *(CC.1.2.8.I)*
- Write informative/ explanatory texts to examine a topic and convey ideas, concepts, and information clearly. *(CC. 1.4.8.A)*
- Identify and introduce the topic clearly, including a preview of what is to follow. *(CC.1.4.8.B)*
- Organize ideas, concepts, and information into broader categories; use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts; provide a concluding statement or section; include formatting when useful to aiding comprehension. *(CC. 1.4.8.D)*
- Write arguments to support claims. *(CC. 1.4.8.G)*
- Introduce and state an opinion on a topic. *(CC.1.4.8.H)*
- Acknowledge and distinguish the claim(s) from alternate or opposing claims and support claim with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic. *(CC.1.4.8.I)*
- With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. With some guidance and support from peers and

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*

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adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. *(CC.1.4.8.T)*

- Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration. *(CC.1.4.8.V)*
- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes and audiences. *(CC.1.4.8.X)*
- Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence. *(CC.1.5.8.B)*
- Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume and clear pronunciation. *(CC.1.5.8.D)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding text structure and elements *(K1)*
- Recognizing themes and main ideas *(K2)*
- Understanding literary elements, themes, and context. *(K3)*
- Understanding tone and meaning in literature. *(K4)*
- Understanding what constitutes a sound argument *(K5)*
- Identifying types of evidence that support arguments *(K6)*
- Understanding of text structure *(K7)*
- Understanding of authors' purposes *(K8)*
- Understanding of how facts and interpretations can differ. *(K9)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Citing textual evidence. *(S1)*
- Analyzing texts explicitly and inferentially. *(S2)*
- Drawing conclusions and generalizations. *(S3)*
- Identify and explain how different elements in a text relate to one another. *(S4)*
- Distinguish between various individuals, ideas, or events presented in the text *(S5)*
- Provide evidence from the text to support their analyses. *(S6)*
- Differentiate between literal and figurative meanings of words *(S7)*
- Evaluate how specific language choices affect the tone and overall message of the text *(S8)*
- Articulate their understanding through discussion and writing *(S9)*

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- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- Identify and evaluate the main arguments presented by authors. *(S10)*
- Analyze the reasoning behind these arguments to determine their validity. *(S11)*
- Assess the relevance and credibility of the evidence provided to support claims. *(S12)*
- Analyze different texts. *(S13)*
- Identify conflicting information *(S14)*
- Evaluate facts and interpretations. *(S15)*
- Identify a topic and gather relevant information. *(S16)*
- Organize their writing in a logical manner *(S17)*
- Use clear and concise language to convey information effectively *(S18)*
- Apply proper writing conventions to enhance readability. *(S19)*
- Clearly articulate a topic in written form. *(S20)*
- Organize information logically and coherently *(S21)*
- Use appropriate language and conventions for informative writing *(S22)*
- Support their ideas with relevant evidence and examples. *(S23)*

Module 3: Citing Text Evidence and Making Inferences

Draft Date	Grades	Subjects	Team
03-11-2025 @ 06:26	4	English Language Arts	Jessica Smith

Stage 1: Learning Goals

<table>
<tr><th>Established Goals</th><th colspan="2">Transfer</th></tr>
<tr><td rowspan="8"></td><th colspan="2">Long-Term Transfer Goals</th></tr>
<tr><td colspan="2">What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...</td></tr>
<tr><th colspan="2">Meaning</th></tr>
<tr><th>Big Ideas</th><th>Essential Questions</th></tr>
<tr><td>What specifically do you want students to understand? What inferences should they make? Students will understand that...</td><td>What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...</td></tr>
<tr><th colspan="2">Acquisition of Knowledge & Skill</th></tr>
<tr><th>Knowledge</th><th>Skills</th></tr>
<tr><td>What facts and basic concepts should students know and be able to recall? Students will know...</td><td>What discrete skills and processes should students be able to use? Students will be skilled at...</td></tr>
</table>

Module 3: Reading Literature/Writing

Draft Date	Course	Grades	Subjects	Team
05-30-2025 @ 12:57	English 11	11	English Language Arts	Kara McCauslin

Unit Focus

This American Literature module explores the rich literary traditions of the 19th century, focusing on three major movements: Romanticism, Transcendentalism, and Realism. Students will examine how these movements shaped American identity and responded to the social, political, and cultural changes of their time.Through key works students will analyze themes of individualism, nature, spirituality, and the complexities of society. Romanticism emphasizes emotion and imagination, Transcendentalism advocates for self-reliance and the spiritual connection to nature, while Realism focuses on portraying everyday life and social issues with authenticity.This module encourages critical thinking, close reading, and reflective writing, helping students deepen their understanding of America's literary heritage and its continuing relevance.

Prior Learnings/Connection

In this module, students will build on their knowledge of foundational literary elements such as theme, symbolism, character development, and narrative structure gained in earlier English courses. Additionally, their understanding of American history, particularly the early development of the nation, westward expansion, and the Civil War, will help provide context for the movements studied. Prior engagement with essay writing, textual analysis, and close reading skills will support students as they explore more complex and philosophical themes in Romanticism, Transcendentalism, and Realism.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 11-12 ■ Determine and analyze the relationship between two or more themes or central	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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ideas of a text, including the development and interaction of the themes; provide an objective summary of the text. *(CC.1.3.11-12.A)*

- Evaluate how an author's point of view or purpose shapes the content and style of a text. *(CC.1.3.11-12.D)*
- Evaluate the structure of texts including how specific sentences, paragraphs and larger portions of the texts relate to each other and the whole. *(CC.1.3.11-12.E)*
- Demonstrate knowledge of foundational works of literature that reflect a variety of genres in the respective major periods of literature, including how two or more texts from the same period treat similar themes or topics. *(CC.1.3.11-12.H)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.11-12.E)*
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. *(CC.1.4.11-12.V)*
- Gather relevant information from multiple authoritative print and digital sources,
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*

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using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation. *(CC.1.4.11-12.W)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding of themes and central ideas in literature. *(K1)*
- Familiarity with different authors' perspectives and writing styles. *(K2)*
- Knowledge of text structure and organization. *(K3)*
- Awareness of literary genres and periods. *(K4)*
- Awareness of research methodologies and citation formats. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Analyze and determine themes and central ideas in texts. *(S1)*
- Summarize texts objectively. *(S2)*
- Evaluate an author's point of view and purpose. *(S3)*
- Assess text structures and relationships between parts. *(S4)*
- Demonstrate knowledge of foundational literature across genres. *(S5)*
- Write with stylistic awareness and formal tone. *(S6)*
- Conduct research projects effectively. *(S7)*
- Gather and assess information from diverse sources. *(S8)*

Module 3: Writing Informational Texts

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:06	Kindergarten Writing	Day(s)	K	English Language Arts	Bryn Sporer , Josh Korb

Unit Focus

In this unit, students will explore the process of writing an informational text by focusing on one specific topic. Through a combination of drawing, dictating, and writing, students will learn how to organize and convey information clearly and effectively. They will be guided to generate ideas and details related to their chosen topic, with support in developing their thoughts and expanding on their knowledge. As they progress, students will work on making logical connections between their illustrations and written content, ensuring that their drawings support and enhance the information they are sharing. By the end of the unit, students will be able to create a simple, well-organized informational text that communicates important facts about a topic they are passionate about.

Prior Learnings/Connection

In Pre-K, students should explore basic concepts related to informative writing through guided activities where they shared knowledge about

familiar topics, often with pictures or simple verbal explanations. They should begin to understand that writing can be used to convey specific

information about a topic, even if they weren't yet able to organize or write the details themselves.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Use a combination of drawing, dictating, and writing to focus on one specific topic. *(CC.1.4.K.B)*
- With prompting and support, generate ideas and details to convey information that relates to the chosen topic. *(CC.1.4.K.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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- Make logical connections between drawing and dictation/writing. *(CC.1.4.K.D)*

Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Informational texts focus on one specific topic and provide facts and details about it. *(K1)*
- Informational writing is different from storytelling because it provides real information rather than telling a fictional narrative. *(K2)*
- A strong informational text has:
  - A clear focus on one topic.
  - Details that support the topic and provide relevant information.
  - Logical organization that connects ideas, drawings, and writing.

  (K3)

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Choosing one specific topic to write about. *(S1)*
- Organizing ideas logically, making sure all information relates to the chosen topic. *(S2)*
- Using drawing, dictation, and writing to communicate information. *(S3)*
- Ensuring that writing and illustrations work together to convey facts about the topic. *(S4)*
- Using words and labels to describe illustrations. *(S5)*

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	■ Illustrations can help explain and expand on written ideas. *(K4)* ■ Pictures should match the topic and provide visual support for the information presented. *(K5)*	■ Beginning to structure sentences that explain key details about the topic. *(S6)*

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Module 4 Understanding Biographies and Author's Perspective

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 12:55	5th Grade ELA	6.0 Weeks	5	English Language Arts	AIMEE WAKEFIELD , Marilee Durbin , TANYA HARBOLD , CHRISTOPHER KING , BONNIE MUMMERT

Unit Focus

In this unit, students read multicultural biographies to learn the impact these individuals had on our communities, focusing on textual features and authors' perspectives.

Stage 1: Learning Goals

Established Goals

Standards

Common Core

English Language Arts: 5

- Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. *(CCSS.ELA-LITERACY.SL.5.6)*

Pennsylvania Core Standards

English Language Arts: 5

- Know and apply grade level phonics and word analysis skills in decoding words. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology to read accurately unfamiliar multisyllabic words. *(CC.1.1.5.D)*
- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate,

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.5.E)*

- Determine two or more main ideas in a text and explain how they are supported by key details; summarize the text. *(CC.1.2.5.A)*
- Cite textual evidence by quoting accurately from the text to explain what the text says explicitly and make inferences. *(CC.1.2.5.B)*
- Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a text based on specific information in the text. *(CC.1.2.5.C)*
- Use text structure, in and among texts, to interpret information (e.g., chronology, comparison, cause/effect, problem/solution). *(CC.1.2.5.E)*
- Determine the meaning of words and phrases as they are used in grade level text, including interpretation of figurative language. *(CC.1.2.5.F)*
- Determine how an author supports particular points in a text through reasons and evidence. *(CC.1.2.5.H)*
- Integrate information from several texts on the same topic to demonstrate understanding of that topic. *(CC.1.2.5.I)*
- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships. *(CC.1.2.5.J)*
- Determine or clarify the meaning of unknown and multiple-meaning words and

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- Understanding key events, characters, ideas, and concepts within a text. *(U7)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- Analyzing text, identifying relationships, comparing and contrasting. *(Q7)*

phrases based on grade level reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.2.5.K)*

- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.5.L)*
- Write opinion pieces on topics or texts. *(CC.1.4.5.G)*
- Introduce the topic and state an opinion on the topic. *(CC.1.4.5.H)*
- Provide reasons that are supported by facts and details; draw from credible sources. *(CC.1.4.5.I)*
- Create an organizational structure that includes related ideas grouped to support the writer's purpose; link opinion and reasons using words, phrases, and clauses; provide a concluding statement or section related to the opinion. *(CC.1.4.5.J)*
- Write with an awareness of style. Use sentences of varying length. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. *(CC.1.4.5.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.5.L)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts. *(CC.1.4.5.S)*
- Recall relevant information from experiences or gather relevant information from print and digital sources; summarize

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Knowledge of phonics rules, syllable types, and morphemes (roots, prefixes, and suffixes). *(K1)*
- ◦ Understanding of vocabulary and context clues: familiarity with grade level text.

  (K2)
- Understanding of main ideas vs. supporting details, text structure. *(K3)*
- Understanding explicit content and making inferences from the text. *(K4)*
- Understanding of text structure, awareness of characters/events, comprehension of key ideas/concepts *(K5)*
- ◦ Understand vocabulary and language structure.

  (K6)
- Use text structure, in and among texts, to interpret information (e.g., chronology, comparison, cause/effect, problem/ solution). *(K7)*
- Understanding what constitutes reasons and evidence, recognizing different types of textual support (facts, statistics, anecdotes). *(K8)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Decoding words, recognizing letter-sound correspondences, applying syllabication patterns, and understanding morphology. *(S1)*
- ◦ Oral reading with accuracy, appropriate rate, and expression.

  (S2)
- Identifying main ideas, explaining support from key details, summarizing. *(S3)*
- ◦ Quoting accurately from a text.

  (S4)
- Analyzing relationships, comparing and contrasting ideas, identifying interactions. *(S5)*
- ◦ Identify and interpret words and phrases in context.

  (S6)
- Identify and analyze text structures (chronology, comparison, cause/effect, problem/solution). *(S7)*
- ◦ Identifying main points in a text, analyzing reasons and evidence, evaluating the effectiveness of support.

  (S8)

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or paraphrase information in notes and finished work, and provide a list of sources. *(CC.1.4.5.W)*

- Engage effectively in a range of collaborative discussions on grade level topics and texts, building on others' ideas and expressing their own clearly. *(CC.1.5.5.A)*
- Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. *(CC. 1.5.5.E)*
- Include multimedia components and visual displays in presentations when appropriate to enhance the development of main ideas or themes. *(CC.1.5.5.F)*
- Demonstrate command of the conventions of standard English when speaking based on grade 5 level and content. *(CC.1.5.5.G)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*

- Understanding of text structure, awareness of characters/events, comprehension of key ideas/concepts. *(K9)*
- ◦ Familiarity with a range of vocabulary suitable for 5th grade.

  (K10)
- Understanding of vocabulary, context clues, word parts (prefixes, suffixes, roots), and reference materials (dictionaries, thesauruses). *(K11)*
- Familiarity with different genres of non-fiction; understanding of text features (headings, captions, graphs); knowledge of author's purpose and tone. *(K12)*
- ◦ Understand the difference between facts and opinions
  ◦ ;recognize persuasive techniques in writing.

  (K13)
- ◦ Understanding the purpose of an opinion piece.

  (K14)
- Understanding of facts and details that support an argument or opinion. *(K15)*
- Understand the use of sentence structure. *(K16)*
- Understand parts of speech (nouns, verbs, adjective, adverbs), sentence structure, common spelling patterns. *(K17)*
- Familiarity with different genres and formats of texts *(K18)*
- Understand relevant information. *(K19)*
- Understand relevant information. *(K20)*

- Analyzing relationships, comparing and contrasting ideas, identifying interactions. *(S9)*
- ◦ Utilizing general academic vocabulary.

  (S10)
- Determine meanings of unknown words, clarify multiple-meaning words, select appropriate strategies and tools. *(S11)*
- Ability to read and understand literary non-fiction and informational texts; ability to identify key ideas and details; ability to analyze texts for structure and purpose. *(S12)*
- Formulate an opinion and support with reasons and evidence. *(S13)*
- ◦ Identifying a topic of interest.
  ◦ Formulating a clear opinion regarding that topic

  (S14)
- Ability to provide reasons, critical thinking, analytical skills. *(S15)*
- Understand organizational structure; how to use transition words. *(S16)*
- ◦ Varying sentence length
  ◦ Expanding sentences for clarity

  (S17)
- Use and correct proper grammar and spelling rules. *(S18)*
- ◦ Analyzing texts for themes, character development, and author's purpose.

  (S19)

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- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Use a wide range of creation techniques *(POG.CI.1)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- Understand discussion norms and roles; awareness of different perspectives. *(K21)*
- ◦ Recognizing how visuals can enhance a presentation. *(K22)*
- Know the conventions of spoken language, including tone and clarity *(K23)*

- Recall relevant information from person experience; summarize and paraphrase information. *(S20)*
- Active listening, articulating thoughts clearly, asking questions, responding to others. *(S21)*
- Selecting and integrating multimedia components (images, videos, audios). *(S22)*
- ◦ Apply appropriate vocabulary for various contexts.
  ◦ Adjust speech based on the audience and purpose. *(S23)*

Module 4: reading informational, Writing & Speaking/Listening

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 02:28	English 21st Century 1	Weeks	11 , 12	English Language Arts	SHANNON CONGLETON-PARR

Unit Focus

In this module, reading, writing, speaking and listening are focused around the big idea of independent expression. Instruction will center around an essential question: based on your own unique life experiences, what advice could you give to inspire others? What could you inform others about?

Prior Learnings/Connection

This course builds on students' prior knowledge of communication, particularly speaking, listening, reading and writing for an audience. It also connects to 21st Century skills as students learn to communicate effectively through speaking and writing while deepening their knowledge of grammar and vocabulary. Students will have an understanding of how their life experience can inspire others or inform others through public speaking/speeches.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs. *(CC.1.2.11-12.B)*
- Evaluate how an author's point of view or purpose shapes the content and style of a text. *(CC.1.2.11-12.D)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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- Evaluate how words and phrases shape meaning and tone in texts. *(CC.1.2.11-12.F)*
- Write with a sharp distinct focus identifying topic, task, and audience. *(CC.1.4.11-12.B)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.11-12.E)*
- Initiate and participate effectively in a range of collaborative discussions on grades level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. *(CC.1.5.11-12.A)*
- Evaluate how the speaker's perspective, reasoning, and use of evidence and rhetoric affect the credibility of an argument through the author's stance, premises, links among ideas, word choice, points of emphasis, and tone. *(CC.1.5.11-12.B)*
- Make strategic use of digital media in presentations to add interest and enhance understanding of findings, reasoning, and evidence. *(CC.1.5.11-12.F)*

Other Goals

- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*

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- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Textual analysis techniques *(K1)* ■ Rhetorical strategies *(K2)* ■ Stylistic elements of writing *(K3)* ■ Argument structure and evidence evaluation *(K4)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Students will read speeches from others (MLK, Amanda Gorman, Barrack Obama, Abe Lincoln, JFK, etc) and then students will use characteristics from these speeches to write their own speech or Ted Ed Talk. Students will present to class and classroom visitors. Students will learn proper presentation etiquette: how to stand, speak, body language,etc *(S1)* ■ Analyzing textual evidence *(S2)* ■ Evaluating author's perspective and style *(S3)* ■ Understanding word choice and tone *(S4)* ■ Writing with focus and clarity *(S5)* ■ Engaging in collaborative discussions *(S6)* ■ Assessing speaker's credibility *(S7)* ■ Utilizing digital media effectively *(S8)*

Drama

Draft Date	Course	Grades	Subjects	Team
10-14-2024 @ 02:00	7th Grade ELA	7	English Language Arts	Quinn Turocy

Unit Focus

This unit immerses students in the world of dramatic literature, focusing on how playwrights develop themes through character interaction, dialogue, and staging. Students will read and analyze a grade-level drama, identifying central themes and tracing how they develop throughout acts and scenes. The unit places special emphasis on how setting influences character motivations and how plot events shape or challenge those motivations. Students will also compare the written version of the play to a filmed, staged, or audio performance, analyzing how production elements like lighting, sound, costuming, and actor delivery impact the audience's understanding of the story.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 7

- Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text. *(CC.1.3.7.A)*
- Analyze how particular elements of a story or drama interact and how setting shapes the characters or plot. *(CC.1.3.7.C)*
- Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g. lighting, sound, color, or camera focus and angles in a film). *(CC.1.3.7.G)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

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- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Literary elements like setting, character, plot, and conflict are connected and influence each other. *(K1)* ■ The setting can shape characters' thoughts, actions, and decisions, and can create or influence the conflict and resolution. *(K2)* ■ Understanding how characters respond to events and settings helps explain how the plot develops. *(K3)* ■ Authors use different characters' perspectives to show how individuals view the same events differently. *(K4)* ■ Multimedia versions use visual and sound techniques (e.g., lighting, music, color, camera angles) to create mood, emphasize moments, or highlight character traits. *(K5)* ■ Students should be able to compare and contrast the original text with its adaptation and explain how specific media techniques affect meaning or experience. *(K6)* ■ They should use strategies like monitoring comprehension, asking questions, summarizing, and making inferences to understand complex	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Identify key details that contribute to the development of theme. *(S1)* ■ Distinguish between main ideas, supporting details, and minor points. *(S2)* ■ Analyze how the theme evolves from beginning to end. *(S3)* ■ Make inferences about the author's message or purpose. *(S4)* ■ Recognize implicit and explicit themes. *(S5)* ■ Write or explain objective summaries without personal opinions or unnecessary details. *(S6)* ■ Use text evidence to support identification and analysis of the theme. *(S7)* ■ Identify basic literary elements: setting, plot, conflict, characters, theme. *(S8)* ■ Explain how a change in setting impacts the mood, tone, or events. *(S9)*

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	texts. *(K7)*	■ Describe how characters respond to challenges within a specific setting. *(S10)* ■ Analyze the relationship between setting and character development. *(S11)* ■ Evaluate how the setting influences the sequence of events in the plot. *(S12)* ■ Examine how conflicts are influenced by character motivation or setting. *(S13)* ■ Trace cause-and-effect relationships between characters, plot events, and setting. *(S14)* ■ Identify similarities and differences between written and visual/audio versions of a text. *(S15)* ■ Recognize how sound, lighting, or visual effects impact mood and tone. *(S16)* ■ Evaluate how character portrayal differs across formats. *(S17)* ■ Understand and describe film/stage techniques such as camera angles, sound design, and costumes. *(S18)* ■ Analyze how the medium alters pacing, plot structure, or theme emphasis. *(S19)* ■ Cite examples of how a director's or performer's choices influence viewer interpretation. *(S20)*

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		■ Support claims about the effectiveness or impact of multimedia adaptations using specific evidence. *(S21)*

Module 2: Understanding and Summarizing Texts

Draft Date	Course	Duration	Grades	Subjects	Team
03-11-2025 @ 06:29	4th Grade ELA	35.0 Day(s)	4	English Language Arts	Jessica Smith

Unit Focus

In this unit, students will develop the skills needed to determine main ideas, summarize texts, and write informative pieces. Through reading both informational and literary texts, students will identify key details that support the main idea and analyze how themes develop in literature. They will explore vocabulary in context, including interpreting figurative language, to deepen comprehension.

Students will engage in summarizing activities that require them to distill essential information while maintaining the meaning of the original text. They will also write explanatory pieces, using facts, definitions, and concrete details to clearly convey information. Writing will focus on organization, precision in language, and the use of domain-specific vocabulary.

The unit will culminate in an oral presentation where students will report on a topic, incorporating multimedia elements such as audio recordings and visual displays to enhance their message.

Prior Learnings/Connection

Prior to this unit, students in earlier grades focused on identifying key details and main ideas in both informational and literary texts. In 2nd and 3rd grades, they practiced summarizing texts and understanding how details support the main idea. They also began to identify simple themes in stories and texts, along with recognizing and defining vocabulary words in context. In writing, students focused on creating basic informative/explanatory texts, where they conveyed ideas with simple facts and examples, and began organizing information into clear paragraphs. Speaking and listening skills involved sharing ideas in a clear and understandable manner, often with minimal support from visuals or audio.

Stage 1: Learning Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

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Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 4

- Determine the main idea of a text and explain how it is supported by key details; summarize the text. *(CC.1.2.4.A)*
- Determine the meaning of words and phrases as they are used in grade level text, including figurative language. *(CC.1.2.4.F)*
- Determine a theme of a text from details in the text; summarize the text. *(CC.1.3.4.A)*
- Determine the meaning of words and phrases as they are used in grade level text, including figurative language. *(CC.1.3.4.F)*
- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.4.A)*
- Identify and introduce the topic clearly. *(CC.1.4.4.B)*
- Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic; include illustrations and multimedia when useful to aiding comprehension. *(CC.1.4.4.C)*
- Group related information in paragraphs and sections, linking ideas within categories of information using words and phrases; provide a concluding statement or section; include formatting when useful to aiding comprehension. *(CC.1.4.4.D)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*	■ How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)* ■ What do active listeners do to create meaning? *(EQ.ELA.03.A)* ■ How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)* ■ How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Main ideas in informational texts are supported by key details. *(K1)* ■ Summarizing requires condensing information while maintaining its meaning. *(K2)* ■ Literary themes are developed through textual details. *(K3)* ■ Words and phrases, including figurative language, impact meaning in a text. *(K4)*	■ Determining the main idea of a text and explaining how key details support it. *(S1)* ■ Summarizing informational and literary texts effectively. *(S2)* ■ Identifying and analyzing themes in literature. *(S3)*

- Use precise language and domain-specific vocabulary to inform about or explain the topic. *(CC.1.4.4.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.4.F)*
- Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. *(CC.1.5.4.F)*

Other Goals

- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

- Effective informative writing requires a clear focus, logical organization, and supporting details. *(K5)*
- Writing conventions (grammar, punctuation, and spelling) enhance clarity and readability. *(K6)*
- Multimedia elements can enhance a presentation and support key ideas. *(K7)*

- Determining the meaning of words and phrases in context, including figurative language. *(S4)*
- Writing clear and well-organized informative/explanatory texts with relevant supporting details. *(S5)*
- Using domain-specific vocabulary to explain a topic. *(S6)*
- Applying grade-appropriate grammar, punctuation, and spelling conventions. *(S7)*
- Enhancing presentations with multimedia elements, speaking clearly and effectively to communicate ideas. *(S8)*

Module 3

Draft Date	Duration	Grades	Subjects	Team
10-11-2024 @ 02:10	6.0 Weeks	K	English Language Arts	Bryn Sporer , Shannon Myers

Unit Focus

In this module, students will identify and discuss the reasons an author provides to support their main points, with guidance from teachers. Students will actively engage with their peers, sharing thoughts and questions to develop a deeper understanding of the stories. As they encounter new vocabulary, they will ask questions about unfamiliar words and work collaboratively to find meanings, promoting language development. Students will make connections encouraging them to think critically about different narratives and the choices the characters make.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Demonstrate understanding of the organization and basic features of print. Follow words left to right, top to bottom, and page by page. Recognize that spoken words are represented in written language by specific sequences of letters. Understand that words are separated by spaces in print. Recognize and name all upper and lower case letters of the alphabet. *(CC.1.1.K.B)*
- Demonstrate understanding of spoken words, syllables, and sounds (phonemes). Recognize and produce rhyming words. Count, pronounce, blend, and segment syllables in spoken words. Blend and

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*

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segment onsets and rimes of single-syllable spoken words. Isolate and pronounce the initial, medial vowel, and final sound (phonemes) in the three-phoneme (CVC) words. *(CC.1.1.K.C)*

- Know and apply grade level phonics and word analysis skills in decoding words. Demonstrate basic knowledge of one-to one letter-sound correspondence. Associate the long and short sounds with common spellings for the five major vowels. Read grade level high-frequency sight words with automaticity. Distinguish between similarly spelled words by identifying the sounds of the letters that differ. *(CC.1.1.K.D)*
- With prompting and support, identify the reasons an author gives to support points in a text. *(CC.1.2.K.H)*
- Actively engage in group reading activities with purpose and understanding. *(CC.1.2.K.L)*
- Ask and answer questions about unknown words in a text. *(CC.1.3.K.F)*
- Compare and contrast the adventures and experiences of characters in familiar stories. *(CC.1.3.K.H)*
- Actively engage in group reading activities with purpose and understanding. *(CC. 1.3.K.K)*

Other Goals

- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

Module 3

Draft Date	Duration	Grades	Subjects	Team
10-14-2024 @ 12:58	4.0 Weeks	3	English Language Arts	Caitlin Schweiger

Unit Focus

Students will develop phonics, fluency, and word recognition skills, enhance comprehension of informational texts through analysis and discussion, improve writing skills through informative texts, and foster effective speaking and listening skills through collaborative discussions.

Prior Learnings/Connection

1. **Phonics and Word Recognition:**

- Basic understanding of phonics and the ability to decode simple words.
- Familiarity with common prefixes and suffixes (e.g., un-, re-, -ing, -ed) and their meanings.
- Ability to read grade-level sight words and some irregularly spelled words.

2. **Fluency:**

- Experience with reading aloud and understanding the importance of expression and pacing.
- Previous practice in self-correcting while reading and using context clues to understand text.

3. **Reading Informational Text:**

- Ability to identify main ideas and supporting details from simpler texts.
- Experience using text features (e.g., headings, captions, bullet points) to locate information.
- Familiarity with basic question-and-answer formats about texts.

4. **Writing:**

- Ability to write simple informative texts or reports with a clear topic.

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- Familiarity with basic organizational structures (e.g., beginning, middle, end) in writing.
- Experience with using complete sentences and basic grammar conventions.

5. Speaking and Listening:

- Previous participation in group discussions and the ability to share ideas verbally.
- Skills in listening to peers and responding appropriately during conversations.

By ensuring students have these foundational skills, they will be better equipped to engage with the unit's content and meet the learning objectives effectively.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 3 ■ Know and apply grade level phonics and word analysis skills in decoding words. Identify and know the meaning of the most common prefixes and derivational suffixes. Decode words with common Latin suffixes. Decode multisyllable words. Read grade-appropriate irregularly spelled words. *(CC.1.1.3.D)* ■ Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.3.E)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)* ■ Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)* ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

- Determine the main idea of a text; recount the key details and explain how they support the main idea. *(CC.1.2.3.A)*
- Ask and answer questions about the text and make inferences from text; refer to text to support responses. *(CC.1.2.3.B)*
- Explain the point of view of the author. *(CC.1.2.3.D)*
- Use text features and search tools to locate and interpret information. *(CC.1.2.3.E)*
- Use information gained from text features to demonstrate understanding of a text. *(CC.1.2.3.G)*
- Compare and contrast the most important points and key details presented in two texts on the same topic. *(CC.1.2.3.I)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.3.L)*
- Ask and answer questions about the text and make inferences from text; refer to text to support responses. *(CC.1.3.3.B)*
- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.3.A)*
- Identify and introduce the topic. *(CC.1.4.3.B)*
- Develop the topic with facts, definitions, details, and illustrations, as appropriate. *(CC.1.4.3.C)*
- Create an organizational structure that includes information grouped and connected logically with a concluding statement or section. *(CC.1.4.3.D)*
- Choose words and phrases for effect. *(CC.1.4.3.E)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

-

1. Decoding and Word Recognition

    - **Understanding Phonics:** Emphasize the importance of phonics and word analysis skills to decode multisyllabic and irregularly spelled words.
    - **Morphology Awareness:** Teach students to recognize common prefixes and suffixes, enhancing their vocabulary and comprehension.

2. Fluency

    - **Reading with Purpose:** Highlight the need for reading with accuracy and expression to support comprehension.
    - **Self-Correction Strategies:** Encourage using context to confirm understanding and foster strategies for rereading when necessary.

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken

- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.3.F)*
- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. *(CC.1.4.3.T)*
- With guidance and support, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others. *(CC.1.4.3.U)*
- Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories. *(CC.1.4.3.W)*
- Engage effectively in a range of collaborative discussions on grade level topics and texts, building on others' ideas and expressing their own clearly. *(CC.1.5.3.A)*
- Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly with adequate volume, appropriate pacing, and clear pronunciation. *(CC.1.5.3.D)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*

3. Comprehension of Informational Text

- **Main Idea Identification:** Guide students in determining the main idea and supporting details, teaching them to summarize texts effectively.
- **Questioning and Inference:** Promote critical thinking through asking and answering questions, reinforcing the ability to make inferences and refer to the text for support.
- **Text Features and Structure:** Explore how authors use text features (like headings and bullet points) and structure to convey information.

4. Analysis Across Texts

- **Comparative Analysis:** Foster skills in comparing and contrasting key points from multiple texts on the same topic, encouraging deeper understanding through diverse perspectives.

5. Writing Informative Texts

- **Organizational Skills:** Teach students to create a clear

and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

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- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

structure in their writing, emphasizing the introduction, body, and conclusion.
  - **Developing Ideas:** Focus on using facts, details, and illustrative elements to convey information effectively.
  - **Language Conventions:** Reinforce the use of standard English grammar, spelling, and vocabulary choices for impact.

6. Collaborative Discussions and Presentations

  - **Effective Communication:** Encourage participation in discussions, emphasizing the importance of building on others' ideas and articulating thoughts clearly.
  - **Presentation Skills:** Teach students how to present information clearly and engagingly, using relevant details and appropriate pacing.

7. Integration of Technology

  - **Digital Literacy:** Introduce students to tools for publishing their writing and collaborating with peers, enhancing their engagement and interaction with content.

8. Evaluating Sources

- **Source Credibility:** Teach students to identify credible sources and take notes effectively, organizing their findings to support their writing and discussions.

(U1)

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■	■

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Phonics and Word Recognition (CC.1.1.3.D)

1. Phonics and Word Decoding:
    - Recognize common prefixes (e.g., un-, re-, pre-) and suffixes (e.g., -ly, -ness, -able).
    - Understand how affixes change the meaning of a word.
    - Decode multisyllable words by identifying syllable patterns (e.g., closed syllables, open syllables, silent e).
    - Recognize and read irregularly spelled words (e.g., said, though, friend).
    - Apply Latin suffixes (e.g., -tion, -sion, -ment) in decoding words.

Fluency (CC.1.1.3.E)

1. Accuracy and Fluency:
    - Read grade-level texts with appropriate speed and smoothness, using expression and natural pauses.
    - Recognize words automatically to support comprehension.

Phonics and Word Recognition (CC.1.1.3.D)

1. Identify and Decode Words:
    - Break down words into syllables and sounds.
    - Recognize common prefixes (e.g., un-, re-, pre-) and suffixes (e.g., -ly, -ness, -able) and understand how they modify word meaning.
    - Apply knowledge of Latin suffixes (e.g., -tion, -sion, -ment) to decode words.
    - Use letter-sound correspondences to decode unfamiliar words.
2. Recognize Irregular Words:
    - Memorize and recognize irregularly spelled words (e.g., said, though, friend) and understand their meanings without needing to decode them phonetically.
3. Analyze Word Parts:
    - Break words into roots, prefixes, and suffixes to determine their meaning.
    - Apply knowledge of syllable patterns (e.g., closed syllables, open syllables) to decode multisyllabic words.

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- Reread and self-correct when a word is misread, using context and word parts to confirm word recognition.

Reading Informational Text

1. Main Idea (CC.1.2.3.A):
   - Identify the main idea of a passage.
   - Recount key details from the text that support the main idea.
2. Text Analysis and Inferences (CC. 1.2.3.B):
   - Ask questions about a text and make inferences based on the information provided.
   - Cite evidence from the text to support responses.
3. Point of View (CC.1.2.3.D):
   - Recognize and explain the author's point of view or perspective in a text.
4. Text Structure (CC.1.2.3.E):
   - Understand and use text features (headings, captions, bold text, bullet points, etc.) to find information.
   - Use search tools (indexes, glossaries, or online tools) to locate and interpret information.

Fluency (CC.1.1.3.E)

1. Read with Accuracy:
   - Recognize and read grade-appropriate words accurately the first time.
   - Correct misread words by using context clues, letter patterns, or sound-symbol relationships.
2. Read with Expression:
   - Adjust tone, volume, and pacing based on punctuation and the meaning of the text.
   - Use appropriate intonation and expression when reading aloud (e.g., rising inflection for questions, pausing at commas).
3. Self-Correction:
   - Monitor own reading and use strategies such as rereading, using context, or analyzing word parts to self-correct misread words.
4. Read with Purpose:
   - Understand the purpose of reading (e.g., to gather information, to entertain, to solve a problem).
   - Read to comprehend and make meaning from the text, rereading as necessary.

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5. Integration of Knowledge and Ideas (CC.1.2.3.G):
    - Use information from text features (charts, graphs, images, etc.) to support understanding of the content.
6. Analysis Across Texts (CC.1.2.3.I):
    - Compare and contrast important details from two texts on the same topic.
7. Range of Reading (CC.1.2.3.L):
    - Read and understand informational texts appropriate for third grade independently.

Reading Literature

1. Text Analysis (CC.1.3.3.B):
    - Ask and answer questions about literature (stories, poems) and make inferences.
    - Use specific examples from the text to support answers.

Writing

1. Informative/Explanatory Writing:
    - Purpose: Write clear, focused texts that explain a topic (CC.1.4.3.A).

Reading Informational Text

1. Determine the Main Idea (CC.1.2.3.A):
    - Identify the primary point or message of a text.
    - Summarize the key points that support the main idea.
2. Recount Key Details (CC.1.2.3.A):
    - Identify and list important facts and details that support the main idea.
    - Distinguish between major and minor details.
3. Ask and Answer Questions (CC.1.2.3.B):
    - Generate and respond to questions about the text, using evidence from the text to support answers.
    - Make inferences based on the information provided in the text.
4. Understand the Author's Point of View (CC.1.2.3.D):
    - Identify the author's perspective or opinion in the text.
    - Explain how the author's point of view shapes the content or message of the text.

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- **Topic Introduction**: Clearly introduce the topic (CC. 1.4.3.B).
- **Content**: Support the topic with facts, definitions, details, and illustrations (CC. 1.4.3.C).
- **Organization**: Organize writing logically with a beginning, middle, and conclusion (CC.1.4.3.D).
- **Style**: Use appropriate vocabulary to engage readers (CC.1.4.3.E).
- **Conventions**: Demonstrate command of grammar, punctuation, and spelling (CC.1.4.3.F).
- **Writing Process**: Plan, revise, and edit writing with guidance from peers and teachers (CC.1.4.3.T).
- **Technology**: Use technology (e.g., typing, digital tools) to produce and publish writing (CC.1.4.3.U).
- **Sources**: Gather information from print and digital sources, taking notes and sorting evidence (CC.1.4.3.W).

5. **Use Text Features and Tools** (CC. 1.2.3.E):
    - Navigate text features such as headings, captions, bullet points, and indexes to locate key information.
    - Use search tools (digital or print) to find relevant content.
6. **Analyze Across Texts** (CC.1.2.3.I):
    - Compare and contrast the main ideas and details in two texts on the same topic.
    - Identify similarities and differences in the information presented in different formats or sources.

Reading Literature

1. **Ask and Answer Questions** (CC. 1.3.3.B):
    - Ask questions about key elements of a story (characters, setting, plot) and answer them based on text evidence.
    - Make inferences based on the events, characters' actions, or dialogue in the text.
2. **Make Inferences**:
    - Draw conclusions about the text that are not explicitly stated, based on evidence within the story.

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Speaking and Listening

1. **Collaborative Discussion (CC. 1.5.3.A)**:
   - Participate in discussions on grade-level topics, sharing ideas and listening to others.
   - Build on others' ideas, ask clarifying questions, and respond thoughtfully.
2. **Presentation of Knowledge and Ideas (CC.1.5.3.D)**:
   - Present information clearly and appropriately for the audience.
   - Use relevant details and facts when reporting on a topic.
   - Speak with clear pronunciation, appropriate volume, and pacing.

(K1)

   - Use characters' actions, dialogue, and descriptions to infer emotions, motivations, and outcomes.

Writing

1. **Write Informative/Explanatory Texts** (CC.1.4.3.A):
   - Organize writing to introduce a topic, explain it with facts and details, and conclude logically.
   - Use relevant facts, definitions, and examples to explain a topic.
2. **Develop the Topic** (CC.1.4.3.C):
   - Provide supporting facts, details, and examples to expand on the topic.
   - Include definitions, illustrations, or explanations to clarify ideas.
3. **Organize Writing** (CC.1.4.3.D):
   - Organize information logically, using paragraphs or sections with appropriate transitions.
   - Begin with a clear introduction, followed by supporting details, and end with a concluding statement or section.

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4. **Use Conventions of Standard English** (CC.1.4.3.F):
    - Apply proper grammar (e.g., subject-verb agreement, proper use of tenses) in writing.
    - Use correct punctuation (e.g., commas, periods, quotation marks) and spelling.
5. **Revise and Edit** (CC.1.4.3.T):
    - Review writing to improve clarity, organization, and flow.
    - Edit for spelling, grammar, punctuation, and formatting.
6. **Use Technology for Writing** (CC. 1.4.3.U):
    - Use a computer or other digital tools to draft, revise, and publish writing.
    - Apply keyboarding skills to type and format documents.
7. **Gather and Sort Information** (CC. 1.4.3.W):
    - Collect relevant information from various sources (print, digital) and take notes.
    - Sort evidence into categories to support writing (e.g., facts, examples).

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Speaking and Listening

1. **Collaborate in Discussions** (CC. 1.5.3.A):
    - Participate in group discussions, listening actively and responding appropriately.
    - Build on others' ideas and express opinions clearly, providing reasons for those opinions.
    - Ask questions to clarify or deepen understanding of the topic.
2. **Report on a Topic or Story** (CC. 1.5.3.D):
    - Organize and present information or a narrative with clear details.
    - Use descriptive details and relevant facts to convey meaning.
    - Speak with appropriate volume, clarity, and pacing to engage the audience.
3. **Use Visuals and Other Aids** (CC. 1.5.3.D):
    - Support presentations with visuals (e.g., charts, pictures) to enhance understanding.
    - Use non-verbal cues (gestures, eye contact) to emphasize key points during presentations.

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Module 3: Building Strong Arguments in Writing

Draft Date	Course	Duration	Grades	Subjects	Team
02-18-2025 @ 06:22	1st Grade Writing	30.0 Day(s)	1	English Language Arts	Jessica Smith , Josh Korb

Unit Focus

In this module, students will learn to write opinion pieces on familiar topics by forming opinions, organizing their ideas, and supporting their viewpoints with relevant reasons. They will practice choosing a topic, stating a clear opinion, and using an organizational structure that includes supporting details and a sense of closure. Students will also work on enhancing their writing style by incorporating a variety of words and phrases to strengthen their arguments. Additionally, they will develop their command of standard English grammar and spelling to ensure their writing is clear and polished. By the end of the module, students will be able to express their thoughts effectively and persuasively in written form.

Prior Learnings/Connection

In kindergarten, students begin writing opinion pieces by using drawing, dictating, and writing to express their opinions about familiar topics or books. They are introduced to forming simple opinions and, with support, provide reasons for those opinions. Students practice organizing their thoughts, stating their opinion and offering one reason for it. They also begin to use a variety of words and phrases to express their ideas and develop early writing conventions such as capitalization and punctuation.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 1

- Write opinion pieces on familiar topics. *(CC.1.4.1.G)*
- Form an opinion by choosing among given topics. *(CC.1.4.1.H)*
- Support the opinion with reasons related to the opinion. *(CC.1.4.1.I)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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- Create an organizational structure that includes reasons and provides some sense of closure. *(CC.1.4.1.J)*
- Use a variety of words and phrases. *(CC.1.4.1.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.1.L)*

Other Goals

- Make sound judgements and decisions *(POG.CTPS.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Opinion writing expresses a viewpoint on a topic. *(K1)*
- Supporting reasons help strengthen an argument. *(K2)*
- An organized structure makes opinions clearer to the reader. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Writing opinion pieces on familiar topics. *(S1)*
- Stating a clear opinion on a chosen topic. *(S2)*
- Providing supporting reasons that connect to their opinion. *(S3)*

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	■ A strong conclusion helps wrap up their argument effectively. *(K4)* ■ Word choice and sentence variety make writing more persuasive. *(K5)* ■ Grammar, punctuation, and spelling enhance clarity in writing. *(K6)*	■ Organizing their writing with a logical structure, including an introduction, supporting details, and a conclusion. *(S4)* ■ Using a variety of words and phrases to enhance their argument. *(S5)* ■ Appling standard grammar and spelling rules, including capitalization, punctuation, and common spelling patterns. *(S6)*

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Module 3: Constructed Responses

Draft Date	Grades	Subjects	Team
10-11-2024 @ 02:40	4	English Language Arts	Shannon Myers , Quinn Turocy

Unit Focus

This unit focuses on developing students' skills in collaborative discussions and informative writing. Students will learn how to engage in meaningful conversations about grade-level topics and texts, building on each other's ideas while expressing their own clearly. Additionally, they will explore the differences between formal and informal language contexts and practice writing informative texts that clearly convey ideas supported by facts and details.

Prior Learnings/Connection

CC.1.5.4.A - Engage effectively in collaborative discussions

Prior Knowledge Needed:

1. **Listening Skills:** Ability to actively listen to others during discussions.
2. **Turn-Taking:** Understanding how to take turns and contribute in group settings.
3. **Building on Ideas:** Experience in restating and expanding on others' ideas.
4. **Expressing Opinions Clearly:** Knowledge of sentence structure and vocabulary to articulate their own thoughts clearly.
5. **Topic Knowledge:** General background on the topics or texts they will be discussing.

CC.1.5.4.E - Differentiate between formal and informal English

Prior Knowledge Needed:

1. **Basic Grammar:** Understanding of standard English conventions (e.g., subject-verb agreement, sentence structure).
2. **Context Awareness:** Some experience recognizing different social contexts (e.g., how they talk with peers vs. teachers).
3. **Formal vs. Informal Language:** Exposure to examples of formal and informal English (e.g., comparing a letter to a principal with a text message to a friend).
4. **Audience Awareness:** Understanding that the audience and purpose impact language choice.

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CC.1.4.4.A - Write informative/explanatory texts

Prior Knowledge Needed:

1. **Basic Writing Structure:** Familiarity with paragraph structure (introduction, body, conclusion).
2. **Sentence Formation:** Ability to write clear and complete sentences.
3. **Topic Knowledge:** Background knowledge or research skills to understand the topics they will write about.
4. **Vocabulary:** Basic topic-specific vocabulary related to the subject matter.
5. **Transitions:** Exposure to using transition words to link ideas.

CC.1.4.4.C - Develop the topic with facts, definitions, and details

Prior Knowledge Needed:

1. **Research Skills:** Ability to gather facts from books, articles, or online resources.
2. **Using Details:** Prior practice incorporating facts, definitions, and specific examples to support writing.
3. **Using Quotations:** Basic understanding of how to quote sources or integrate evidence into writing.
4. **Multimedia and Visual Aids:** Familiarity with using simple illustrations or multimedia to complement their writing.

CC.1.4.4.I - Provide reasons supported by facts and details

Prior Knowledge Needed:

1. **Critical Thinking:** Ability to distinguish between opinions and facts.
2. **Using Evidence:** Prior practice in supporting claims or ideas with factual details.
3. **Organizing Reasons:** Familiarity with how to organize reasons logically in a piece of writing.
4. **Writing Persuasive or Informative Texts:** Some experience in writing texts that require evidence-based reasoning.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 4

- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.4.A)*
- Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic; include illustrations and multimedia when useful to aiding comprehension. *(CC.1.4.4.C)*
- Provide reasons that are supported by facts and details. *(CC.1.4.4.I)*
- Engage effectively in a range of collaborative discussions on grade level topics and texts, building on others' ideas and expressing their own clearly. *(CC.1.5.4.A)*
- Differentiate between contexts that require formal English versus informal situations. *(CC.1.5.4.E)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*

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- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- 1. Effective Participation in Discussions (CC.1.5.4.A)
  - Collaborative discussions: Students should know how to actively participate in conversations, listen to others, and build on their ideas.
  - Clear expression: Students need to express their thoughts clearly, staying on topic and contributing meaningfully.
  - Respecting others' ideas: It's important to acknowledge others' ideas and provide feedback, while also adding their own perspectives.

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- **For CC.1.5.4.A: Collaborative Discussions**
  - **Active Listening**: Cultivate the ability to listen attentively to peers, showing understanding and respect for others' ideas.
  - **Building on Ideas**: Teach students how to respond to others' contributions, elaborating on or questioning their points.
  - **Clear Expression**: Practice articulating their own ideas clearly and respectfully, using appropriate language and structure.
  - **Discussion Etiquette**: Familiarize students with norms for

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2. **Differentiating Formal and Informal English** (CC.1.5.4.E)

- Formal vs. Informal contexts: Students should understand when it's appropriate to use formal English (e.g., writing a report, giving a presentation) and when it's okay to use informal language (e.g., talking to friends or family).
- Recognizing tone and audience: Students need to recognize that different situations and audiences require different ways of speaking or writing.

3. **Writing Informative/Explanatory Texts** (CC.1.4.4.A)

- Purpose of informative/explanatory writing: Students should understand that this type of writing is used to explain a topic or provide information clearly.
- Organizing writing: They need to know how to introduce a topic, organize their ideas logically, and conclude with a summary or final thought.

discussions, such as taking turns, staying on topic, and encouraging participation from all members.

For CC.1.5.4.E: Contexts for Language Use

- **Context Awareness**: Help students recognize different situations (formal vs. informal) and the language appropriate for each.
- **Role-Playing Activities**: Engage in role-playing scenarios where students practice using formal language in appropriate contexts, such as presentations, and informal language in casual conversations.
- **Discussion of Examples**: Analyze various examples of language use in different contexts (e.g., letters, speeches, chats) to identify differences.

For CC.1.4.4.A: Informative/Explanatory Writing

- **Topic Selection**: Guide students in selecting appropriate and engaging topics for informative writing.
- **Thesis Development**: Teach how to formulate a clear main idea or thesis statement that conveys the topic's focus.

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4. **Developing a Topic with Supporting Details** (CC.1.4.4.C)

- Facts and details: Students should be able to support their topic with facts, definitions, concrete details, and examples.
- Use of quotations and sources: They need to know how to use quotations or references to back up their explanations.
- Illustrations and multimedia: They should understand when to include pictures, charts, or multimedia to make their writing more understandable and engaging.

5. **Supporting Reasons with Facts and Details** (CC.1.4.4.I)

- Giving reasons: Students should be able to provide reasons for their opinions or explanations and back those reasons up with facts.
- Providing evidence: They need to understand the importance of supporting their reasons with concrete details or data that strengthen their argument.

(K1)

- **Organizational Skills**: Use outlines or graphic organizers to structure their writing logically, ensuring ideas flow coherently.

For CC.1.4.4.C: Developing the Topic

- **Research Skills**: Teach students how to gather relevant facts, definitions, and examples from credible sources.
- **Detail Inclusion**: Encourage the use of concrete details and quotations that support their main idea.
- **Visual Aids**: Discuss the effective use of illustrations, charts, and multimedia elements to enhance comprehension and engagement.

For CC.1.4.4.I: Providing Reasons

- **Reasoning Practice**: Practice formulating reasons to support their ideas, connecting them logically to the main topic.
- **Fact and Detail Integration**: Help students learn how to incorporate facts and details effectively to back up their reasons.
- **Persuasive Techniques**: Introduce basic persuasive writing strategies to strengthen their reasoning and argumentation skills.

(S1)

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Module 3: Extended Comprehension of Informational Texts

Draft Date	Course	Duration	Grades	Subjects	Team
02-18-2025 @ 05:41	1st Grade Reading	45.0 Day(s)	1	English Language Arts	Jessica Smith , Shannon Myers

Unit Focus

Building on foundational skills from Module 1, this module focuses on analyzing the structure of informational texts in more depth. Students will explore how authors use reasons and details to support their main points, as well as how different texts on the same topic may compare and contrast. They will also focus on identifying the purpose behind informational texts and understanding the significance of text features like graphs and diagrams. The goal is for students to develop critical thinking skills and become more independent readers of nonfiction.

Prior Learnings/Connection

In kindergarten, students begin developing vocabulary skills by asking and answering questions about unknown words with support. They learn to identify reasons an author gives to support points in a text and recognize basic similarities and differences between two texts on the same topic. Through conversation, reading, and listening, they acquire new words and phrases and use them in responses. Additionally, they practice determining the meaning of unfamiliar words, laying the foundation for more independent vocabulary development and text analysis in 1st grade.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 1

- Ask and answer questions to help determine or clarify the meaning of words and phrases in a text. *(CC.1.2.1.F)*
- Identify the reasons an author gives to support points in a text. *(CC.1.2.1.H)*
- Identify basic similarities in and differences between two texts on the same topic. *(CC.1.2.1.I)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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- Use words and phrases acquired through conversations, reading, and being read to, and responding to texts, including words that signal connections and relationships between the words and phrases. *(CC.1.2.1.J)*
- Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade level reading and content. *(CC.1.2.1.K)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Authors use reasons and details to support their main points in informational texts. *(K1)*
- Comparing and contrasting different texts on the same topic helps deepen understanding. *(K2)*
- Text features, such as graphs, maps and diagrams, provide important

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Asking and answering questions to determine or clarify the meaning of words and phrases in a text. *(S1)*
- Identifying the reasons an author gives to support points in a text. *(S2)*
- Comparing and contrasting basic similarities and differences between two texts on the same topic. *(S3)*

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	information that supports comprehension. *(K3)* ■ Asking and answering questions about words and phrases can clarify meaning. *(K4)* ■ Words and phrases signal relationships between ideas, helping readers understand connections in a text. *(K5)* ■ Some words have multiple meanings, and strategies like using context clues help determine the correct meaning. *(K6)*	■ Identify and analyze text features such as graphs, maps, and diagrams to find key information. *(S4)* ■ Using new words and phrases learned through conversation, reading, and responding to texts. *(S5)* ■ Recognizing and using words that signal relationships between ideas in a text. *(S6)* ■ Determining the meaning of unknown and multiple-meaning words using context clues and other strategies. *(S7)*

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Module 3: Integration of Knowledge and Ideas

Draft Date	Course	Duration	Grades	Subjects	Team
09-13-2024 @ 05:54	2nd Grade Reading	30.0 Day(s)	2	English Language Arts	Rachel Mleczko , Julie Hermes , Brooke Shambach

Unit Focus

In this module, students deepen their comprehension by analyzing how authors develop key ideas and characters. They explore how reasons support an author's points in informational texts and use both illustrations and words to understand story elements such as characters, setting, and plot. Through active listening, students recount key details from texts read aloud or presented through various media. Additionally, they practice asking and answering questions to clarify meaning, gather more information, and expand their understanding of a topic.

Prior Learnings/Connection

In 1st grade, students begin to understand how authors support their points in informational text through reasons that are connected to specific ideas. They also learn to use illustrations and details to describe key aspects like characters, settings, and events in literature. In speaking and listening, they focus on listening critically, asking and answering questions to ensure they comprehend the information presented aloud.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 2

- Describe how reasons support specific points the author makes in a text. *(CC.1.2.2.H)*
- Use information from illustrations and words, in print or digital text, to demonstrate understanding of characters, setting, or plot. *(CC.1.3.2.G)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

- Compare and contrast two or more versions of the same story by different authors or from different culture. *(CC.1.3.2.H)*
- Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. *(CC.1.5.2.B)*
- Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue. *(CC.1.5.2.C)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Reasons in a text support the author's points and help to strengthen the argument or message. *(K1)*
- Illustrations and words in stories work together to provide important details about the characters, setting, and plot. *(K2)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Describing how reasons in a text support the points the author makes. *(S1)*
- Using both illustrations and words to understand and explain key story elements such as characters, setting, and plot. *(S2)*

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	■ Active listening can help in recalling key details and understanding the message when texts are read aloud or presented through different media. *(K3)*	■ Recounting or describing key details and ideas from a text that has been read aloud or presented through other media. *(S3)* ■ Asking and answering questions to clarify meaning, gather additional information, or deepen understanding of a topic. *(S4)*

Module 3: Making Inferences and Author's Point of View

Draft Date	Course	Duration	Grades	Subjects	Team
02-09-2025 @ 02:55	3rd Grade ELA	35.0 Day(s)	3	English Language Arts	Jessica Smith

Unit Focus

In this module, students will develop their ability to make inferences and analyze an author's point of view across both literary and informational texts. They will ask and answer questions about a text, using evidence to support their thinking, and determine central messages or lessons in stories. Through close reading, students will examine how authors convey their perspectives and structure their writing to build meaning. Writing instruction will focus on constructing thoughtful responses, encouraging students to analyze their reading and support their ideas with textual evidence. By engaging in discussions and written reflections, students will strengthen their critical thinking skills and deepen their comprehension of texts.

Prior Learnings/Connection

In 2nd grade, prior learning has included practicing asking and answering questions about texts to make inferences and support responses with evidence. Students have also worked on identifying the point of view of authors in both informational and literary texts. They have been developing their ability to determine the central message, lesson, or moral of a story and explaining how it is conveyed through the text. Additionally, students have become familiar with referring to text parts, such as chapters or stanzas, and understanding how each section contributes to the overall structure. In writing, students have focused on creating informative/explanatory texts by identifying topics, developing them with supporting details, and organizing their writing logically, while also adhering to standard English conventions. They have also explored writing opinion pieces, introducing topics and providing supporting reasons.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 3

- Ask and answer questions about the text and make inferences from text; refer to text to support responses. *(CC.1.2.3.B)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*

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- Explain the point of view of the author. *(CC.1.2.3.D)*
- Determine the central message, lesson, or moral in literary text; explain how it is conveyed in text. *(CC.1.3.3.A)*
- Ask and answer questions about the text and make inferences from text; refer to text to support responses. *(CC.1.3.3.B)*
- Explain the point of view of the author. *(CC.1.3.3.D)*
- Refer to parts of texts when writing or speaking about a text using such terms as chapter, scene and stanza and describe how each successive part builds upon earlier sections. *(CC.1.3.3.E)*
- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.3.A)*
- Identify and introduce the topic. *(CC.1.4.3.B)*
- Develop the topic with facts, definitions, details, and illustrations, as appropriate. *(CC.1.4.3.C)*
- Create an organizational structure that includes information grouped and connected logically with a concluding statement or section. *(CC.1.4.3.D)*
- Choose words and phrases for effect. *(CC.1.4.3.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.3.F)*
- Write opinion pieces on familiar topics or texts. *(CC.1.4.3.G)*
- Introduce the topic and state an opinion on the topic. *(CC.1.4.3.H)*
- Support an opinion with reasons. *(CC.1.4.3.I)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

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Other Goals	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
■ Utilize time and manage workload efficiently *(POG.ISD.2)* ■ Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)* ■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)* ■ Communicate for a range of purposes *(POG.COM.2)*	What facts and basic concepts should students know and be able to recall? Students will know... ■ How to identify and explain the point of view of an author in both literary and informational texts. *(K1)* ■ The central message, lesson, or moral in a story and how it is conveyed through the text. *(K2)* ■ How to refer to different parts of a text (e.g., chapter, scene, stanza) and how they build upon each other. *(K3)* ■ Understanding how textual evidence supports inferences and conclusions about a text. *(K4)* ■ The components of informative/ explanatory writing (e.g., facts, definitions, details, illustrations) and how they are used to convey information clearly. *(K5)* ■ The process of writing opinion/ argumentative pieces, including stating an opinion and supporting it with reasons. *(K6)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Analyzing an author's point of view and explaining how it shapes the text. *(S1)* ■ Asking and answering questions about a text, using evidence to support their responses. *(S2)* ■ Making inferences from a text and referring to the text to support their thinking. *(S3)* ■ Referring to and explaining how different parts of a text (e.g., chapter, scene, stanza) build upon each other to develop the overall structure and meaning. *(S4)* ■ Determining and explaining the central message or lesson in a story. *(S5)* ■ Constructing thoughtful written responses that analyze reading and support ideas with textual evidence. *(S6)* ■ Organizing information logically in writing, including informative/ explanatory and opinion pieces. *(S7)*

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		■ Writing opinion/argumentative pieces that clearly state an opinion and support it with reasons. *(S8)* ■ Using appropriate language, structure, and conventions to effectively communicate ideas in writing. *(S9)*

Module 3: Understanding Informational Texts

Draft Date	Course	Duration	Grades	Subjects	Team
02-10-2025 @ 02:50	Kindergarten Reading	30.0 Day(s)	K	English Language Arts	Danielle Curzi , Jessica Smith

Unit Focus

In this module, students will begin exploring informational texts by identifying main ideas and key details with support. They will learn to recognize different parts of a book, including the title, author, beginning, and end, while also distinguishing common types of texts. Through read-alouds and discussions, students will make connections between illustrations and text to enhance comprehension. By asking and answering questions, they will develop early research and critical thinking skills, building a foundation for understanding nonfiction and storytelling structures.

Prior Learnings/Connection

In Pre-K, students should begin exploring the basic concepts of texts, such as recognizing familiar parts of a book like the cover and the title. They were also introduced to the idea that illustrations help tell the story and were encouraged to make simple connections between pictures and the text during read-alouds.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- With prompting and support, identify the main idea and retell key details of text. *(CC.1.2.K.A)*
- Identify parts of a book (title, author) and parts of a text (beginning, end, details). *(CC.1.2.K.E)*
- Answers questions to describe the relationship between illustrations and the text in which they appear. *(CC.1.2.K.G)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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- Recognize common types of text. *(CC.1.3.K.E)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- There are different types of texts, such as fiction and nonfiction. *(K1)*
- Fiction texts tell made-up stories with characters, settings, and events that are not real. *(K2)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying whether a book is fiction or nonfiction based on the cover, title, and illustrations. *(S1)*
- Explaining key differences between fiction (made-up stories) and nonfiction (real facts). *(S2)*

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	■ Nonfiction texts provide real information about people, places, animals, or events. *(K3)* ■ Stories and informational texts have a main idea, and key details support it. *(K4)* ■ Books have a title and an author. *(K5)* ■ Photographs and illustrations help explain and add information to the text. *(K6)*	■ Listening to a story or text and identifying the main idea. *(S3)* ■ Describing how photographs and illustrations relate to the text. *(S4)* ■ Answering questions to show understanding of the text and pictures. *(S5)*

Module 4: Character Development and Background Information

Draft Date	Course	Grades	Subjects	Team
09-13-2024 @ 06:03	8th Grade ELA	8	English Language Arts	LAURA HUGHES , ANGELA NEIL

Unit Focus

In this unit, students will read multiple historical fiction texts and track the development of their characters throughout the novel.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 8

- Analyze how a text makes connections among and distinctions between individuals, ideas, or events. *(CC.1.2.8.C)*
- Analyze the influence of the words and phrases in a text including figurative and connotative, and technical meanings; and how they shape meaning and tone. *(CC. 1.2.8.F)*
- Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text. *(CC. 1.3.8.A)*
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*

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word or phrase important to comprehension or expression. *(CC.1.3.8.J)*
- Acknowledge and distinguish the claim(s) from alternate or opposing claims and support claim with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic. *(CC.1.4.8.I)*
- Organize an event sequence that unfolds naturally and logically using a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another and show the relationships among experiences and events; provide a conclusion that follows from and reflects on the narrated experiences or events. *(CC.1.4.8.P)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Familiarity with various literary devices (e.g., symbolism, metaphor). *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Analyze texts for connections and distinctions. *(S1)*

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- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- Knowledge of context in which individuals, ideas, or events exist. *(K2)*
- Understanding of textual analysis techniques. *(K3)*
- Understanding of literary devices and their effects.

  (K4)
- Knowledge of tone and how it is conveyed through language. *(K5)*
- Familiarity with the context in which words are used. *(K6)*
- Understanding of literary elements (theme, character, setting, plot).

  (K7)
- Familiarity with various text types (narratives, poems, informational texts). *(K8)*
- Ability to differentiate between subjective and objective summaries. *(K9)*
- Understanding what constitutes a claim and opposing claim. *(K10)*
- Identifying logical reasoning and relevant evidence *(K11)*
- Recognizing credible sources and differentiating them from unreliable information. *(K12)*
- Understanding different types of transition words and their functions *(K13)*

- Identify and articulate relationships among individuals, ideas, or events. *(S2)*
- Critically evaluate how these connections enhance understanding. *(S3)*
- Analyze word choice and its impact on meaning.

  (S4)
- Identify figurative language (similes, metaphors, etc.).

  (S5)
- Recognize connotative meanings (emotional associations of words).

  (S6)
- Examine technical meanings (specific definitions related to a subject). *(S7)*
- Identify the theme or central idea of a text. *(S8)*
- Analyze the development of the theme throughout the text. *(S9)*
- Examine the relationship between the theme and characters, setting, and plot. *(S10)*
- Summarize the text objectively. *(S11)*
- Acknowledging and distinguishing claims. *(S12)*
- Analyzing opposing claims. *(S13)*
- Supporting claims with logical reasoning. *(S14)*

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	■ Familiarity with narrative structure (beginning, middle, end) *(K14)* ■ Recognizing how to create a logical flow in writing *(K15)* ■ Comprehension of reflective writing techniques *(K16)*	■ Evaluating and using credible sources. *(S15)* ■ Organizing event sequences *(S16)* ■ Using transition words, phrases, and clause *(S17)* ■ Conveying sequences and shifts in time or setting *(S18)* ■ Establishing relationships among experiences and events *(S19)* ■ Crafting a reflective conclusion *(S20)*

Module 4: Comparing and Contrasting Perspectives and Themes

Draft Date	Grades	Subjects	Team
03-11-2025 @ 06:27	4	English Language Arts	Jessica Smith

Stage 1: Learning Goals

Established Goals	Transfer	
	Long-Term Transfer Goals	
	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...	
	Meaning	
	Big Ideas	**Essential Questions**
	What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
	What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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Module 4: My Story, My Way: Writing with Beginning, Middle, and End

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:06	Kindergarten Writing	Day(s)	K	English Language Arts	Bryn Sporer , Josh Korb

Unit Focus

In this unit, students will learn how to write simple narratives by focusing on the structure of a story—beginning, middle, and end (BME). Through storytelling, students will describe experiences and events, recounting them in the order they happened and expressing their personal reactions to those events. As they work, they will practice using correct capitalization, punctuation, and spelling, following the conventions of standard English. Students will also collaborate with peers, sharing their writing and responding to feedback in order to add details and strengthen their stories. By the end of the unit, students will have developed a foundational understanding of narrative structure and the writing process while honing their ability to communicate their thoughts clearly and creatively.

This unit will guide students through the process of crafting their own stories, reinforcing their writing skills in a supportive and interactive environment.

Prior Learnings/Connection

In Pre-K, students should begin exploring the concept of storytelling and recounting events through drawings and simple verbal expression, often

focusing on personal experiences.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: K ■ Describe experiences and events. *(CC.1.4.K.O)* ■ Recount a single event or several loosely linked events, tell about the events in the	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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order in which they occurred and provide a reaction to what happened. *(CC.1.4.K.P)*
- Demonstrate a grade appropriate command of the conventions of standard English standard English capitalization, punctuation, and spelling. Capitalize the first word in a sentence and the pronoun I. Recognize and use end punctuation. Spell simple words phonetically. *(CC.1.4.K.R)*
- With guidance and support from adults and peers, respond to questions and suggestions from peers and add details to strengthen writing as needed. *(CC.1.4.K.T)*

Other Goals

- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- A narrative includes a beginning, middle, and end (BME) to help organize events logically. *(K1)*
- In narratives, events are told in the order they happened, and personal reactions to the events are included. *(K2)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Describing personal experiences and events clearly in writing. *(S1)*
- Recounting events in chronological order, using a beginning, middle, and end to organize the story effectively. *(S2)*
- Using correct capitalization for the first word in a sentence and the pronoun "I". *(S3)*

	■ Capitalization, punctuation, and spelling are essential in clear writing. *(K3)* ■ Sentence structure follows the rule of capitalizing the first word in a sentence and using proper punctuation at the end. *(K4)* ■ Phonetic spelling helps students express sounds they hear in words. *(K5)* ■ Writing involves drafting, revising, and sharing to improve and strengthen stories. *(K6)* ■ Feedback from peers and adults helps refine writing and add details to make it clearer and more engaging. *(K7)*	■ Applying end punctuation (period, question mark, exclamation point) appropriately. *(S4)* ■ Spelling simple words phonetically. *(S5)*

Module 4: Reading Informational, Writing, Speaking & Listening

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 03:06	English 21st Century 2	6.0 Weeks	11 , 12	English Language Arts	SHANNON CONGLETON-PARR

Unit Focus

In this module, reading, writing, speaking and listening are framed around how propaganda and satire are used in society. The module addresses: how does an author's point of view and situational use of language influence his/her argument and audience?

Prior Learnings/Connection

This course builds on students' prior knowledge of communication from English 21st Century 1, particularly speaking, listening, reading and writing for an audience. Students will have an understanding of how an authors point of view and situational use of language influences his or her arguments for the audience. Students will view propaganda examples and create their own.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs. *(CC.1.2.11-12.B)*
- Evaluate how an author's point of view or purpose shapes the content and style of a text. *(CC.1.2.11-12.D)*
- Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

the structure makes points clear, convincing, and engaging. *(CC.1.2.11-12.E)*

- Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text. (Include at least one play by Shakespeare and one play by an American dramatist.) *(CC.1.3.11-12.G)*
- Demonstrate knowledge of foundational works of literature that reflect a variety of genres in the respective major periods of literature, including how two or more texts from the same period treat similar themes or topics. *(CC.1.3.11-12.H)*
- Organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create whole; use appropriate and varied transitions and syntax to link the major sections of the text; provide a concluding statement or section that supports the information presented; include formatting when useful to aiding comprehension. *(CC.1.4.11-12.D)*
- Initiate and participate effectively in a range of collaborative discussions on grades level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. *(CC.1.5.11-12.A)*
- Present information, findings, and supporting evidence, conveying a clear and distinct perspective; organization, development, substance, and style are

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*

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appropriate to purpose, audience, and task. *(CC.1.5.11-12.D)*
- Make strategic use of digital media in presentations to add interest and enhance understanding of findings, reasoning, and evidence. *(CC.1.5.11-12.F)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding of explicit and implicit meaning in texts *(K1)*
- Familiarity with literary genres and themes. *(K2)*
- Knowledge of effective writing and presentation techniques. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Students will create a design and use their own propaganda to present to the class. Students will view, analyze examples of propaganda used in our society throughout the years *(S1)*
- Analyzing and citing textual evidence. *(S2)*
- Evaluating author's point of view and purpose. *(S3)*
- Analyzing effectiveness of structure in texts. *(S4)*
- Comparing multiple interpretations of literary works. *(S5)*
- Demonstrating knowledge of foundational literature. *(S6)*
- Organizing complex ideas and information. *(S7)*
- Initiating and participating in discussions. *(S8)*
- Presenting information and findings effectively *(S9)*
- Utilizing digital media in presentations. *(S10)*

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■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)* ■ Communicate for a range of purposes *(POG.COM.2)* ■ Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)* ■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	

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Module 4: Reading Literature/Writing

Draft Date	Course	Grades	Subjects	Team
05-30-2025 @ 12:57	English 11	11	English Language Arts	Kara McCauslin

Unit Focus

In this American Literature module, students will explore the evolving concept of the American Dream as portrayed in significant works of literature from the 17th century to the present. Students will examine how different authors and time periods have defined and critiqued the idea of the American Dream, including its promises and limitations. Themes such as freedom, opportunity, success, social mobility, and inequality will be central to discussions. The module emphasizes critical thinking, close reading, and analytical writing. Students will also interpret and express their own understanding of the American Dream in today's society. Through this journey, students will develop a deeper appreciation for American literature and the diverse voices that have shaped the nation's ideals and realities.

Prior Learnings/Connection

Students would have practiced analyzing plot, theme, character, and setting in various literary genres, forming a foundation for deeper analysis of American literature in the context of the American Dream. Prior studies in world literature or early American history might also explore themes like freedom, equality, and social structures.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs. *(CC.1.2.11-12.B)*
- Analyze the interaction and development of a complex set of ideas, sequence of

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

events, or specific individuals over the course of the text. *(CC.1.2.11-12.C)*

- Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging. *(CC.1.2.11-12.E)*
- Integrate and evaluate multiple sources of information presented in different media or formats (e.g. visually, quantitatively) as well as in words in order to address a question or solve a problem. *(CC.1.2.11-12.G)*
- Organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create whole; use appropriate and varied transitions and syntax to link the major sections of the text; provide a concluding statement or section that supports the information presented; include formatting when useful to aiding comprehension. *(CC.1.4.11-12.D)*
- Write arguments to support claims in an analysis of substantive topics. *(CC.1.4.11-12.G)*
- Write with a sharp distinct focus identifying topic, task, and audience. Introduce the precise, knowledgeable claim. *(CC.1.4.11-12.H)*
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject,

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding explicit and implicit information in texts. *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Citing textual evidence. *(S1)*

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demonstrating understanding of the subject under investigation. *(CC.1.4.11-12.V)*
- Evaluate how the speaker's perspective, reasoning, and use of evidence and rhetoric affect the credibility of an argument through the author's stance, premises, links among ideas, word choice, points of emphasis, and tone. *(CC.1.5.11-12.B)*
- Present information, findings, and supporting evidence, conveying a clear and distinct perspective; organization, development, substance, and style are appropriate to purpose, audience, and task. *(CC.1.5.11-12.D)*
- Make strategic use of digital media in presentations to add interest and enhance understanding of findings, reasoning, and evidence. *(CC.1.5.11-12.F)*

- Recognizing complex ideas and their development. *(K2)*
- Familiarity with different media formats. *(K3)*
- Knowledge of argumentation structure and techniques. *(K4)*
- Research methodologies. *(K5)*

- Analyzing interactions and developments within a text. *(S2)*
- Evaluating structural effectiveness in arguments. *(S3)*
- Integrating and evaluating multiple sources. *(S4)*
- Organizing complex ideas with coherence. *(S5)*
- Writing focused arguments. *(S6)*
- Conducting research projects. *(S7)*
- Evaluating speaker's perspective and reasoning. *(S8)*
- Presenting information effectively. *(S9)*
- Utilizing digital media strategically. *(S10)*

Other Goals

- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Demonstrate originality and inventiveness *(POG.CI.2)*

Module 5 Analyzing and Interpreting Literature

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 01:11	5th Grade ELA	3.0 Weeks	5	English Language Arts	Marilee Durbin , TANYA HARBOLD , CHRISTOPHER KING , BONNIE MUMMERT , AIMEE WAKEFIELD

Unit Focus

In this unit, students will explore how authors in both fiction and poems use details, structures, and language to convey themes, information, and purpose.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 5

- Determine a theme of a text from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. *(CC.1.3.5.A)*
- Cite textual evidence by quoting accurately from the text to explain what the text says explicitly and make inferences. *(CC.1.3.5.B)*
- Explain how a series of chapters, scenes or stanzas fits together to provide the overall structure of a particular story, drama, or poem. *(CC.1.3.5.E)*
- Determine the meaning of words and phrases as they are used in grade level text, including interpretation of figurative language. *(CC.1.3.5.F)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*

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- Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem). *(CC.1.3.5.G)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.5.M)*
- Orient the reader by establishing a situation and introducing a narrator and/or characters. *(CC.1.4.5.N)*
- Use narrative techniques such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations; use concrete words and phrases and sensory details to convey experiences and events precisely. *(CC.1.4.5.O)*
- Organize an event sequence that unfolds naturally, using a variety of transitional words and phrases to manage the sequence of events; provide a conclusion that follows from the narrated experiences and events. *(CC.1.4.5.P)*
- Write with an awareness of styles. Use sentences of varying length. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. *(CC.1.4.5.Q)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts. *(CC.1.4.5.S)*

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding literary elements (theme, character, plot), recognizing how details support the theme. *(K1)*
- Understanding the text's literal meaning, recognizing implicit messages, identifying supporting details. *(K2)*
- Recognizing key elements of narrative and poetic structure (e.g., plot development, character arcs, thematic progression). *(K3)*
- Understanding context clues, recognizing different types of figurative language (metaphors, similes, idioms). *(K4)*
- Recognizing different forms of visual and multimedia elements (images, videos, graphs, illustrations). *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying themes, analyzing character responses, summarizing texts. *(S1)*
- Quoting accurately from texts, explaining explicit content, making inferences. *(S2)*
- Analyzing structure, understanding relationships between chapters, scenes, or stanzas. *(S3)*
- Determining meanings of words and phrases, interpreting figurative language. *(S4)*
- Analyzing visual and multimedia elements, understanding their contributions to meaning and tone. *(S5)*
- Writing narratives, developing experiences or events. *(S6)*
- Orienting the reader, establishing a situation, introducing characters and narrator. *(S7)*

Other Goals		
■ Utilize time and manage workload efficiently *(POG.ISD.2)* ■ Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)* ■ Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)* ■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*	■ Understanding narrative structure (beginning, middle, end), character development, setting, and plot. *(K6)* ■ Understanding narrative perspective, character traits, and setting context. *(K7)* ■ Understanding how to develop experiences and events, showing character responses, and using sensory details. *(K8)* ■ Understanding narrative structure (beginning, middle, end) and the role of transitions in storytelling. *(K9)* ■ Understanding how sentence structure affects meaning, interest, and overall style. *(K10)* ■ Understanding how to identify and cite textual evidence, differentiating between literary and informational texts. *(K11)*	■ Using narrative techniques, incorporating dialogue and description, managing pacing. *(S8)* ■ Organizing event sequences, using transitional words and phrases, providing a logical conclusion. *(S9)* ■ Writing with stylistic awareness, using varied sentence lengths, expanding and combining sentences. *(S10)* ■ Drawing evidence from texts, supporting analysis and reflection. *(S11)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Module 5: Reading Literature & Speaking & listening

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 02:28	English 21st Century 1	Weeks	11 , 12	English Language Arts	SHANNON CONGLETON-PARR

Unit Focus

In this module, reading, writing, speaking and listening are focused around the big idea of independent expression. Instruction will center around the essential questions: How can you create a legacy? What traits will make you successful?

Prior Learnings/Connection

This course builds on students' prior knowledge of communication, particularly speaking, listening, reading and writing for an audience. It also connects to 21st Century skills as students learn to communicate effectively through speaking and writing while deepening their knowledge of grammar and vocabulary. Students will have an understanding of independent expression with how a legacy is created and what traits make a person successful.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Integrate and evaluate multiple sources of information presented in different media or formats (e.g. visually, quantitatively) as well as in words in order to address a question or solve a problem. *(CC.1.2.11-12.G)*
- Analyze seminal texts based upon reasoning, premises, purposes, and arguments. *(CC.1.2.11-12.H)*
- Write with a sharp distinct focus identifying topic, task, and audience. *(CC.1.4.11-12.B)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

- Organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create whole; use appropriate and varied transitions and syntax to link the major sections of the text; provide a concluding statement or section that supports the information presented; include formatting when useful to aiding comprehension. *(CC.1.4.11-12.D)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms of the discipline in which they are writing. *(CC.1.4.11-12.E)*
- Write with a sharp distinct focus identifying topic, task, and audience. Introduce the precise, knowledgeable claim. *(CC.1.4.11-12.H)*
- Create a smooth progression of experiences or events using a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome; provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative. *(CC.1.4.11-12.P)*
- Evaluate how the speaker's perspective, reasoning, and use of evidence and rhetoric affect the credibility of an

Meaning	
Big Ideas	**Essential Questions**
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)* ■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)* ■ Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)* ■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*	■ How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)* ■ How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)* ■ How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)* ■ How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)* ■ How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)* ■ How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)* ■ How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)* ■ What do active listeners do to create meaning? *(EQ.ELA.03.A)* ■ How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)* ■ How does the type of text influence how it is read? *(EQ.ELA.01.B)*

argument through the author's stance, premises, links among ideas, word choice, points of emphasis, and tone. *(CC.1.5.11-12.B)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Different media types (visual, quantitative, textual) *(K1)*
- how the media influences their choices and decision making *(K2)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Students will learn how they are influenced by others and how they influence others. Students will look at traits of others: leadership, friendship, courage, etc. Students will do self reflections on their own character traits and how they create their own persona. *(S1)*
- Analyze various media formats; synthesize information *(S2)*

Module 3: Citing Text Evidence and Making Inferences

Draft Date	Course	Duration	Grades	Subjects	Team
03-11-2025 @ 06:29	4th Grade ELA	20.0 Day(s)	4	English Language Arts	Jessica Smith

Unit Focus

In this unit, students will develop critical reading and thinking skills by learning to use textual evidence to support their understanding, make inferences, and form opinions. Through the close reading of both informational and literary texts, students will analyze details and examples to determine explicit meanings and draw logical conclusions. They will also expand their vocabulary by using strategies to determine the meaning of unknown and multiple-meaning words in context.

Students will engage in opinion writing, constructing well-supported arguments based on textual evidence. They will learn to introduce topics clearly, state their opinions, and provide structured reasoning with relevant facts and details. Additionally, students will practice organizing their ideas logically and using precise language to strengthen their arguments.

To deepen their comprehension and analytical skills, students will also respond to literature and informational texts by drawing evidence to support their analysis and reflections. The unit will culminate in a speaking and listening activity where students evaluate the reasoning and evidence presented by a speaker.

Prior Learnings/Connection

Prior to this unit, students in earlier grades focused on building foundational skills in analyzing texts and making inferences. In 2nd and 3rd grades, they identified key details in informational and literary texts, supported statements with evidence, and began making simple inferences based on text details. Vocabulary development included using context clues to understand the meanings of unknown words and phrases. Writing focused on opinion writing, where students began to state opinions and provide basic reasons supported by simple details, while organizing their ideas in a basic structure. Speaking and listening skills involved evaluating simple information provided by others and identifying reasons and evidence presented in discussions.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 4

- Refer to details and examples in text to support what the text says explicitly and make inferences. *(CC.1.2.4.B)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade level reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.2.4.K)*
- Cite relevant details from text to support what the text says explicitly and make inferences. *(CC.1.3.4.B)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.4.I)*
- Write opinion pieces on topics or texts. *(CC.1.4.4.G)*
- Introduce the topic and state an opinion on the topic. *(CC.1.4.4.H)*
- Provide reasons that are supported by facts and details. *(CC.1.4.4.I)*
- Create an organizational structure that includes related ideas grouped to support the writer's purpose and linked in a logical order with a concluding statement or section related to the opinion. *(CC.1.4.4.J)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

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- Choose words and phrases to convey ideas precisely. *(CC.1.4.4.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.4.L)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts. *(CC.1.4.4.S)*
- Identify the reasons and evidence a speaker provides to support particular points. *(CC.1.5.4.C)*

Other Goals

- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Textual evidence supports explicit understanding and inferences. *(K1)*
- Making inferences involves using prior knowledge and details from the text. *(K2)*
- Opinion writing requires clear reasoning supported by facts and details. *(K3)*
- Organizational structures enhance the clarity and impact of opinion pieces. *(K4)*
- Vocabulary strategies help determine the meaning of unknown and multiple-meaning words. *(K5)*
- Evaluating a speaker's reasoning and evidence strengthens comprehension and critical thinking. *(K6)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying explicit information in a text and citing relevant details as evidence. *(S1)*
- Making logical inferences by analyzing details from the text. *(S2)*
- Determining the meaning of unknown and multiple-meaning words using context clues and other strategies. *(S3)*
- Writing opinion pieces with clear introductions, opinions, and supporting reasons based on facts and details. *(S4)*
- Organizing opinion writing logically and linking ideas effectively. *(S5)*
- Using precise language to convey opinions persuasively. *(S6)*
- Drawing evidence from texts to support analysis, reflection, and research. *(S7)*
- Evaluating a speaker's reasoning and evidence to assess the strength of their argument. *(S8)*

Module 4

Draft Date	Duration	Grades	Subjects	Team
10-11-2024 @ 02:20	6.0 Weeks	K	English Language Arts	Bryn Sporer , Shannon Myers

Unit Focus

Students will learn to identify key elements of stories, such as characters, settings, and major events, with support. They will engage with texts through discussions and activities, helping them connect with the stories and understand their importance. Students will learn to identify the main idea of informational texts and retell key details. Students will compare and contrast the adventures of characters in familiar stories.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Demonstrate understanding of the organization and basic features of print. Follow words left to right, top to bottom, and page by page. Recognize that spoken words are represented in written language by specific sequences of letters. Understand that words are separated by spaces in print. Recognize and name all upper and lower case letters of the alphabet. *(CC.1.1.K.B)*
- Demonstrate understanding of spoken words, syllables, and sounds (phonemes). Recognize and produce rhyming words. Count, pronounce, blend, and segment syllables in spoken words. Blend and segment onsets and rimes of single-

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*

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syllable spoken words. Isolate and pronounce the initial, medial vowel, and final sound (phonemes) in the three-phoneme (CVC) words. *(CC.1.1.K.C)*

- Know and apply grade level phonics and word analysis skills in decoding words. Demonstrate basic knowledge of one-to one letter-sound correspondence. Associate the long and short sounds with common spellings for the five major vowels. Read grade level high-frequency sight words with automaticity. Distinguish between similarly spelled words by identifying the sounds of the letters that differ. *(CC.1.1.K.D)*
- Read emergent-reader text with purpose and understanding. *(CC.1.1.K.E)*
- With prompting and support, identify the main idea and retell key details of text. *(CC.1.2.K.A)*
- With prompting and support, make a connection between two individual, events, ideas, or pieces of information in a text. *(CC.1.2.K.C)*
- With prompting and support, identify characters, settings, and major events in a story. *(CC.1.3.K.C)*
- Use words and phrases acquired through conversations, reading, and being read to, and responding to texts. *(CC.1.3.K.J)*

Other Goals

- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*

- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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■ Communicate for a range of purposes *(POG.COM.2)*	

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Module 4

Draft Date	Duration	Grades	Subjects	Team
10-14-2024 @ 02:12	5.0 Weeks	3	English Language Arts	Caitlin Schweiger

Unit Focus

In this unit, students will engage with various texts—both informational and literary—focused on sequence, cause and effect relationships, and author's point of view. They will develop their phonics skills, improve fluency, analyze key ideas and details, and practice writing opinion pieces.

Prior Learnings/Connection

To successfully engage with the ELA unit focused on the outlined standards, students should have the following prior learning:

Phonics and Word Recognition:

- **Basic Phonics Skills:** Knowledge of letter-sound relationships and ability to decode simple one-syllable words.
- **Familiarity with Common Prefixes and Suffixes:** Understanding of basic prefixes (e.g., un-, re-, pre-) and suffixes (e.g., -ing, -ed) to help decode and understand word meanings.

Fluency:

- **Reading Strategies:** Ability to read grade-level texts with some fluency, including recognizing and correcting mispronounced words.
- **Expression in Reading:** Experience with reading aloud in a way that conveys meaning, such as varying tone and pace.

Reading Informational Text:

- **Text Features:** Awareness of common text features (headings, captions, diagrams) that help in navigating informational texts.
- **Questioning Techniques:** Ability to ask and answer basic questions about a text and make simple inferences.

Reading Literature:

- **Narrative Elements:** Familiarity with story structure (beginning, middle, end) and basic literary elements (characters, setting, plot).
- **Inferencing Skills:** Experience in making inferences based on textual clues in stories.

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Writing:

- **Basic Opinion Writing:** Prior experience writing simple opinion statements or paragraphs, including expressing a preference or belief.
- **Organizational Skills:** Understanding of how to structure a paragraph with a topic sentence and supporting details.

Vocabulary Development:

- **Context Clues:** Familiarity with using context to infer meanings of unknown words.
- **Literal vs. Figurative Language:** Basic understanding of the difference between literal meanings and figurative language (like similes and metaphors).

By ensuring students have these foundational skills and knowledge, you can better support their learning and growth as they tackle the more complex standards in this unit.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 3 ■ Know and apply grade level phonics and word analysis skills in decoding words. Identify and know the meaning of the most common prefixes and derivational suffixes. Decode words with common Latin suffixes. Decode multisyllable words. Read grade-appropriate irregularly spelled words. *(CC. 1.1.3.D)* ■ Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate,	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)* ■ Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)* ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.3.E)*

- Ask and answer questions about the text and make inferences from text; refer to text to support responses. *(CC.1.2.3.B)*
- Explain how a series of events, concepts, or steps in a procedure is connected within a text, using language that pertains to time, sequence, and cause/effect. *(CC.1.2.3.C)*
- Explain the point of view of the author. *(CC.1.2.3.D)*
- Determine the meaning of words and phrases as they are used in grade level text, distinguishing literal from non-literal meaning as well as shades of meaning among related words. *(CC.1.2.3.F)*
- Ask and answer questions about the text and make inferences from text; refer to text to support responses. *(CC.1.3.3.B)*
- Determine the meaning of words and phrases as they are used in grade level text, distinguishing literal from non-literal meaning as well as shades of meaning among related words. *(CC.1.3.3.F)*
- Write opinion pieces on familiar topics or texts. *(CC.1.4.3.G)*
- Introduce the topic and state an opinion on the topic. *(CC.1.4.3.H)*
- Support an opinion with reasons. *(CC.1.4.3.I)*
- Create an organizational structure that includes reasons linked in a logical order with a concluding statement or section. *(CC.1.4.3.J)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

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- Use a variety of words and sentence types to appeal to the audience. *(CC.1.4.3.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.3.L)*
- With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. *(CC.1.4.3.T)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

Module 4: Comparing and Contrasting Texts

Draft Date	Course	Duration	Grades	Subjects	Team
02-09-2025 @ 02:56	3rd Grade ELA	35.0 Day(s)	3	English Language Arts	Jessica Smith

Unit Focus

In this module, students will develop their ability to compare and contrast key details, themes, settings, and plots across texts. They will analyze multiple texts on the same topic to identify similarities and differences in the information presented. Additionally, students will examine stories by the same author to explore recurring characters, themes, and narrative structures. Through structured discussions and written responses, they will use grade-appropriate vocabulary to articulate their comparisons clearly. Writing instruction will focus on developing constructed responses that require students to analyze their reading, cite evidence, and communicate their insights effectively. This module strengthens critical thinking, comprehension, and analytical writing skills essential for deeper literary and informational text analysis.

Prior Learnings/Connection

In 2nd grade, students have been developing their ability to compare and contrast key points and details from two texts on the same topic. This skill helps them analyze information across texts, identifying similarities and differences in content. They have also been learning to acquire and use academic and domain-specific vocabulary, including terms that signal relationships such as spatial and temporal connections. In reading literature, students have been working on comparing and contrasting themes, settings, and plots within stories written by the same author. In writing, they continue to practice crafting informative/explanatory texts, focusing on identifying and introducing topics, supporting details, clear organization, and appropriate word choices. Students have also been developing their skills in opinion writing by providing reasons to support their opinions and using evidence from texts to support analysis and reflection.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 3 ■ Compare and contrast the most important points and key details presented in two texts on the same topic. *(CC.1.2.3.I)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships. *(CC.1.2.3.J)*
- Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters. *(CC.1.3.3.H)*
- Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships. *(CC.1.3.3.J)*
- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.3.A)*
- Identify and introduce the topic. *(CC.1.4.3.B)*
- Develop the topic with facts, definitions, details, and illustrations, as appropriate. *(CC.1.4.3.C)*
- Create an organizational structure that includes information grouped and connected logically with a concluding statement or section. *(CC.1.4.3.D)*
- Choose words and phrases for effect. *(CC.1.4.3.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.3.F)*
- Support an opinion with reasons. *(CC.1.4.3.I)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts *(CC.1.4.3.S)*

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Comparing and contrasting the most important points and key/supporting

Other Goals	Knowledge	
■ Utilize time and manage workload efficiently *(POG.ISD.2)* ■ Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)* ■ Collect, assess, and analyze relevant information *(POG.CTPS.1)* ■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*	**What facts and basic concepts should students know and be able to recall? Students will know...** ■ The similarities and differences in key details, themes, settings, and plots across texts on the same topic. *(K1)* ■ How stories by the same author share recurring characters, themes, and narrative structures. *(K2)* ■ The vocabulary and phrases that are appropriate for comparing and contrasting (including spatial and temporal relationships). *(K3)* ■ The process for writing informative/explanatory and opinion pieces, including how to develop a topic with supporting facts and details. *(K4)*	details in two texts on the same topic. *(S1)* ■ Analyzing and comparing themes, settings, and plots across stories by the same author. *(S2)* ■ Using grade-appropriate vocabulary accurately, including words that signal relationships between ideas (e.g., spatial, temporal). *(S3)* ■ Writing informative/explanatory texts that clearly examine topics, organize ideas logically, and convey information clearly. *(S4)* ■ Supporting opinions with reasons in writing. *(S5)* ■ Drawing evidence from literary and informational texts to support analysis and reflection. *(S6)* ■ Constructing written responses that cite evidence and clearly communicate insights. *(S7)*

Module 4: Extended Comprehension of Literacy Texts

Draft Date	Course	Duration	Grades	Subjects	Team
02-18-2025 @ 05:51	1st Grade Reading	45.0 Day(s)	1	English Language Arts	Jessica Smith , Shannon Myers

Unit Focus

In this module, students will delve deeper into literary texts, comparing characters, analyzing themes, and understanding the sensory and emotional language used in stories and poems. They will also work on comparing and contrasting the experiences of characters, using key details to discuss the motivations and actions of characters. This module strengthens students' ability to analyze literary texts more critically, understanding both the big ideas (themes) and the finer details (language, character development).

Prior Learnings/Connection

In kindergarten, students begin building vocabulary and comprehension skills through guided support. They ask and answer questions about unknown words in stories and poems. With prompting, they compare and contrast characters' adventures in familiar texts, developing their ability to recognize similarities and differences. Through conversations, reading, and listening, they acquire new words and phrases and apply them in their responses. Additionally, they practice determining the meaning of unfamiliar and multiple-meaning words, preparing them for more independent vocabulary development and deeper text analysis in 1st grade.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 1 ■ Identify words and phrases in stories or poems that suggest feelings or appeal to the senses. *(CC.1.3.1.F)* ■ Compare and contrast the adventures and experiences of characters in stories. *(CC. 1.3.1.H)* ■ Determine or clarify the meaning of unknown and multiple-meaning word and	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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phrases based on grade level reading and content *(CC.1.3.1.I)*
- Use words and phrases acquired through conversations, reading, and being read to, and responding to texts, including words that signal connections and relationships between the words and phrases. *(CC.1.3.1.J)*

Other Goals

- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Authors use sensory and emotional language in stories and poems to create imagery and evoke feelings. *(K1)*
- Characters' experiences, motivations, and actions can be compared and contrasted using key details. *(K2)*
- Themes in literature convey important messages or lessons that connect to real-life experiences. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying words and phrases in stories or poems that suggest feelings or appeal to the senses. *(S1)*
- Comparing and contrasting the adventures and experiences of characters in different stories. *(S2)*
- Determining the meaning of unknown and multiple-meaning words using context clues, word parts, and other

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	■ Words and phrases signal relationships between ideas, helping readers understand character development and story structure (i.e. Sequence words (first, next, then, last), comparison words (like, also, too), contrast words (but, however, unlike), cause and effect (because, so, since)) *(K4)* ■ Some words have multiple meanings, and understanding them requires using context clues and other strategies. *(K5)*	strategies. *(S3)* ■ Using newly acquired words and phrases from conversations, reading, and responding to texts. *(S4)* ■ Recognizing and using words that signal relationships and connections between ideas in a text (i.e. Sequence words (first, next, then, last), comparison words (like, also, too), contrast words (but, however, unlike), cause and effect (because, so, since)) *(S5)*

Module 4: Perspective

Draft Date	Grades	Subjects	Team
10-11-2024 @ 02:44	4	English Language Arts	Shannon Myers , Quinn Turocy

Unit Focus

This unit focuses on developing students' skills in analyzing texts, integrating information from multiple sources, and writing structured opinion pieces. Students will learn how authors use reasons and evidence to support their points, compare different perspectives on the same topic, and gather and organize relevant information. Through engaging discussions and writing activities, they will strengthen their critical thinking and communication skills.

Prior Learnings/Connection

CC.1.2.4.H

Explain how an author uses reasons and evidence to support particular points in a text.

- Understanding of Claims: Students should recognize what a claim is and how authors make assertions in their writing.
- Familiarity with Evidence Types: Knowledge of different types of evidence (facts, statistics, examples, anecdotes) and how they support claims.

CC.1.2.4.I

Integrate information from two texts on the same topic to demonstrate understanding of that topic.

- Text Comparison Skills: Students should have experience with reading multiple texts and identifying main ideas and details.
- Note-taking Strategies: Familiarity with how to extract and summarize key information from texts will help in synthesizing content.

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CC.1.3.4.D

Compare and contrast an event or topic told from two different points of view.

- Understanding Perspective: Awareness of how different viewpoints can shape the interpretation of events.
- Basic Comparison Skills: Previous practice in identifying similarities and differences between texts or events will be beneficial.

CC.1.4.4.W

Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.

- Research Skills: Students should have experience using both print and digital resources for research, including how to evaluate sources.
- Note-taking Experience: Familiarity with various note-taking methods (e.g., outlining, graphic organizers) will aid in categorizing information.

CC.1.4.4.D

Group related information in paragraphs and sections, linking ideas within categories of information using words and phrases; provide a concluding statement or section; include formatting when useful to aiding comprehension.

- Paragraph Structure Knowledge: Students should understand the basic structure of a paragraph, including topic sentences and supporting details.
- Organizational Strategies: Experience with linking ideas and using transition words to improve flow and coherence in writing.

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CC.1.4.4.G

Write opinion pieces on topics or texts.

- Opinion Formation: Students should be able to express personal opinions and provide reasons for their beliefs.
- Argumentative Writing Basics: Familiarity with the structure of opinion pieces, including the introduction, body, and conclusion.

CC.1.4.4.J

Create an organizational structure that includes related ideas grouped to support the writer's purpose and linked in a logical order with a concluding statement or section related to the opinion.

- Understanding of Logical Flow: Students should have practiced organizing ideas logically in their writing, ensuring that each point supports their overall argument or purpose.
- Concluding Strategies: Knowledge of how to effectively summarize key points and reinforce their opinion in a conclusion.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 4 ■ Explain how an author uses reasons and evidence to support particular points in a text. *(CC.1.2.4.H)* ■ Integrate information from two texts on the same topic to demonstrate understanding of that topic. *(CC.1.2.4.I)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

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- Compare and contrast an event or topic told from two different points of view. *(CC.1.3.4.D)*
- Group related information in paragraphs and sections, linking ideas within categories of information using words and phrases; provide a concluding statement or section; include formatting when useful to aiding comprehension. *(CC.1.4.4.D)*
- Write opinion pieces on topics or texts. *(CC.1.4.4.G)*
- Create an organizational structure that includes related ideas grouped to support the writer's purpose and linked in a logical order with a concluding statement or section related to the opinion. *(CC.1.4.4.J)*
- Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. *(CC.1.4.4.W)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*

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- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- 1. Understanding an Author's Use of Reasons and Evidence (CC.1.2.4.H)
  - Reasons and evidence: Students should be able to explain how an author supports their points using reasons (why the author believes something) and evidence (facts, examples, or data).
  - Evaluating arguments: They should recognize when an argument is well-supported with clear evidence and reasons.

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- **For CC.1.2.4.H: Author's Use of Evidence**
  - **Identifying Claims**: Learn to pinpoint the main claims an author makes in a text.
  - **Locating Evidence**: Practice finding specific reasons and pieces of evidence that support those claims.
  - **Analyzing Effectiveness**: Develop skills to assess how effectively the evidence supports the claims,

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2. **Integrating Information from Two Texts on the Same Topic** (CC.1.2.4.I)

- Combining information: Students should know how to read two different texts about the same topic and combine the information to demonstrate a deeper understanding of the subject.
- Synthesis: They should be able to synthesize (merge) the information from both sources and show how it contributes to their overall understanding of the topic.

3. **Comparing and Contrasting Points of View** (CC.1.3.4.D)

- Point of view: Students should understand the concept of point of view (how a story or information is presented from different perspectives).
- Compare and contrast: They should be able to compare and contrast how the same event or topic is described differently by two people or sources, recognizing biases or different interpretations.

discussing strength and relevance.

For CC.1.2.4.I: Integrating Information from Two Texts

- **Text Comparison**: Develop the ability to read two texts on the same topic and identify key similarities and differences.
- **Synthesis Skills**: Learn to synthesize information from both texts, merging insights to demonstrate a comprehensive understanding of the topic.
- **Note-Taking Techniques**: Use graphic organizers to record and categorize information from each text for easy comparison.

For CC.1.3.4.D: Comparing and Contrasting Perspectives

- **Identifying Perspectives**: Help students recognize different viewpoints presented in various texts.
- **Comparison Tools**: Use Venn diagrams or charts to organize similarities and differences clearly.
- **Discussion and Analysis**: Engage students in discussions that explore how different perspectives can affect

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4. **Gathering and Organizing Information** (CC. 1.4.4.W)

- Recalling information: Students should be able to recall relevant information from their own experiences or gather it from print and digital sources.
- Taking notes and categorizing: They need to know how to take organized notes and categorize information by topics or themes, making sure to include a list of sources they used.
- Digital and print sources: They should be proficient in gathering reliable information from books, websites, articles, and other media.

5. **Organizing Information in Writing** (CC. 1.4.4.D)

- Paragraph structure: Students should know how to group related information in paragraphs and sections, organizing ideas logically.
- Linking ideas: They should use transition words and phrases to connect their ideas within categories of information.
- Conclusion and formatting: Students need to provide a understanding of an event or topic.

For CC.1.4.4.W: Information Recall and Categorization

- **Research Methods**: Teach effective research techniques for gathering information from books, articles, and reliable digital sources.
- **Note-Taking**: Practice taking clear and organized notes, highlighting key information relevant to their topics.
- **Source Documentation**: Instruct students on how to properly cite sources used in their research.

For CC.1.4.4.D: Organizing Information

- **Paragraph Construction**: Teach students how to create clear and coherent paragraphs that group related information.
- **Linking Ideas**: Use transition words and phrases to connect ideas within and between paragraphs smoothly.
- **Conclusion Development**: Help students write strong concluding statements that summarize the main points or restate the topic's significance.

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concluding statement or section to summarize their writing, and include formatting (like headings or bullet points) when it helps make their writing clearer.

6. **Writing Opinion Pieces** (CC.1.4.4.G)

- Opinion writing: Students should understand how to express their opinions on a topic or text, making sure to clearly state their position.
- Supporting opinions: They need to back up their opinions with reasons and evidence, making a convincing case for their viewpoint.

7. **Creating Logical Organizational Structures for Opinions** (CC.1.4.4.J)

- Organizational structure: Students should be able to group related ideas logically to support their opinion.
- Linking ideas: They need to ensure that their ideas are linked in a logical order, guiding the reader from one point to the next.
- Concluding statement: Students should provide a conclusion that wraps up their opinion piece and reinforces the main points they made.

For CC.1.4.4.G: Writing Opinion Pieces

- **Opinion Formulation**: Encourage students to express their opinions on various topics confidently.
- **Supporting Evidence**: Teach students to back up their opinions with relevant facts, examples, and reasons.
- **Revision Skills**: Engage in peer review and self-assessment to refine and improve opinion writing.

For CC.1.4.4.J: Organizational Structure in Writing

- **Logical Organization**: Guide students in organizing their writing logically, ensuring that related ideas are grouped together effectively.
- **Cohesive Writing**: Practice using clear transitions to maintain a smooth flow of ideas.

Concluding Structure: Emphasize crafting a concluding statement that reinforces their main opinion or summarizes the discussion. *(S1)*

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Module 4: Understanding Stories and Words

Draft Date	Course	Duration	Grades	Subjects	Team
02-10-2025 @ 02:50	Kindergarten Reading	30.0 Day(s)	K	English Language Arts	Danielle Curzi , Jessica Smith

Unit Focus

In this module, students will deepen their comprehension skills by retelling familiar stories and identifying key details with support. They will practice asking and answering questions about texts, developing an understanding of story themes and important information. Through discussions and read-alouds, students will explore new vocabulary, using strategies to determine the meaning of unknown words. By actively listening and engaging with stories, they will build critical thinking and communication skills, laying the foundation for strong reading comprehension.

Prior Learnings/Connection

In Pre-K, students should begin developing the ability to engage in basic discussions about stories and texts, including answering simple questions about key details after a story was read aloud. They may have started identifying and clarifying some words with the help of visuals or context. Their vocabulary acquisition was primarily through exposure to read-alouds and everyday conversations.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- With prompting and support, retell familiar stories including key details. *(CC.1.3.K.A)*
- Answer questions about key details in a text. *(CC.1.3.K.B)*
- Ask and answer questions about unknown words in a text. *(CC.1.3.K.F)*
- Determine or clarify the meaning of unknown or multiple meaning words and

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

phrases based upon grade level reading and content. *(CC.1.3.K.I)*
- Ask and answer questions about key details in a text read aloud or information presented orally or through other media. *(CC.1.5.K.B)*

Other Goals

- Make sound judgements and decisions *(POG.CTPS.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Stories have a beginning, middle, and end. *(K1)*
- Key details help explain what happens in a story and answer questions (who, what, when, where, why, and how). *(K2)*
- Retelling a story includes important events and characters. *(K3)*
- Asking and answering questions about a story builds understanding. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Listening to a story and retelling it with key details in order (beginning, middle, end). *(S1)*
- Including key details when retelling a story. *(S2)*
- Using words or pictures as text evidence to support answers. *(S3)*
- Asking and answering questions to clarify meaning. *(S4)*

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	■ Some words have multiple meanings, and strategies like pictures or context clues can help determine meaning. *(K5)* ■ Stories and information can be shared in different ways (orally, visually, or through media). *(K6)*	■ Using illustrations or context clues to determine unknown words. *(S5)* ■ Engaging in discussions by listening, asking questions, and sharing thoughts. *(S6)*

Module 4: Understanding Themes and Connections

Draft Date	Course	Duration	Grades	Subjects	Team
09-13-2024 @ 05:55	2nd Grade Reading	30.0 Day(s)	2	English Language Arts	Rachel Mleczko , Julie Hermes , Brooke Shambach

Unit Focus

In this module, students develop a deeper understanding of how key ideas are presented in both fiction and nonfiction texts. They learn to identify the main idea of multi-paragraph texts and determine how individual paragraphs contribute to the overall focus. Students also analyze the connections between events, concepts, or steps in a procedure. In literature, they explore central messages, lessons, and morals by recounting stories and examining how characters respond to challenges. Through this work, students strengthen their ability to interpret texts and recognize meaningful patterns across different types of writing.

Prior Learnings/Connection

In 1st grade, students focus on identifying the main idea of simple texts and learning to ask and answer questions about key details in stories and informational texts. They begin to understand the relationship between a series of events, ideas, or steps in texts, which helps them grasp how things are connected. When analyzing literature, students recount stories and start identifying central messages or lessons in narratives. Additionally, they describe how characters respond to events or challenges.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 2

- Identify the main idea of a multi-paragraph text as well as the focus of specific paragraphs within the text. *(CC.1.2.2.A)*
- Describe the connection between a series of events, concepts, or steps in a procedure within a text. *(CC.1.2.2.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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- Recount stories and determine their central message, lesson, or moral. *(CC.1.3.2.A)*
- Describe how characters in a story respond to major events and challenges. *(CC.1.3.2.C)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Multi-paragraph texts have a main idea, and each paragraph contributes to that main focus. *(K1)*
- Events, concepts, or steps in a text are often connected in a specific way, showing how things happen or relate. *(K2)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying the main idea of a multi-paragraph text and explaining how different paragraphs contribute to it. *(S1)*
- Describing how a series of events, concepts, or steps in a text are connected and contribute to the overall meaning. *(S2)*

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	■ Stories have central messages, lessons, or morals that reflect the author's purpose. *(K3)* ■ Characters in stories respond to challenges and events, which helps to drive the plot forward. *(K4)*	■ Recounting stories and determining their central message, lesson, or moral. *(S3)* ■ Describing how characters respond to major events and challenges in a story. *(S4)*

Module 4: Using Research to Inform

Draft Date	Course	Duration	Grades	Subjects	Team
02-18-2025 @ 06:33	1st Grade Writing	45.0 Day(s)	1	English Language Arts	Jessica Smith , Josh Korb

Unit Focus

In this unit, students will practice writing informative texts based on research. They will gather information from multiple sources (books, videos, class discussions) to answer a question or provide more details about a topic. This unit complements the focus on informational texts in Modules 1 and 3 and encourages students to use a variety of digital tools and collaborate with peers as they write.

Prior Learnings/Connection

In Kindergarten, students begin to express ideas through pictures, dictation, and simple sentences with support. They develop an understanding of the writing process, including drafting and revising with guidance. Students participate in shared research projects and use illustrations or simple texts to support their ideas. They also learn to recall personal experiences and respond to questions using information from teacher-provided sources.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 1 ■ With guidance and support, use a variety of digital tools to produce and publish writing including in collaboration with peers. *(CC.1.4.1.U)* ■ Participate in individual or shared research and writing projects. *(CC.1.4.1.V)* ■ With guidance and support, recall information from experiences or gather information from provided sources to answer a question. *(CC.1.4.1.W)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)* ■ Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)* ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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Other Goals

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Narrative writing can be used to reflect on real or imagined experiences. *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Writing narratives that reflect on personal experiences or imagined events. *(S1)*

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	■ Adding details makes a story more engaging and vivid. *(K2)* ■ Transitions help connect events smoothly. *(K3)* ■ A well-structured story has a clear beginning, middle, and end. *(K4)* ■ Word choice can enhance the effect of their writing. *(K5)* ■ The writing process involves revising and strengthening ideas based on feedback. *(K6)*	■ Establishing a clear focus by identifying "who" and "what" the story is about. *(S2)* ■ Sequencing events logically using temporal words. *(S3)* ■ Using descriptive words and phrases to enhance the story's effect. *(S4)* ■ Revising their writing by adding details and responding to feedback. *(S5)* ■ Applying grade-appropriate conventions of grammar, punctuation, and spelling. *(S6)*

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Module 5: Drama

Draft Date	Course	Grades	Subjects	Team
05-30-2025 @ 12:57	English 11	11	English Language Arts	Kara McCauslin

Unit Focus

In this module, students will delve into the key elements of drama, including plot structure, character development, dialogue, setting, and theme, as they appear in both American literature and the works of William Shakespeare. By studying a selection of classic and contemporary American plays alongside one of Shakespeare's works, students will analyze how playwrights across different time periods and cultures use these elements to convey meaning, evoke emotion, and engage audiences. Emphasis will be placed on understanding dramatic techniques like tension, irony, and symbolism, and how they contribute to the development of a play's central themes. Students will participate in activities such as reading and performing scenes, discussing the motivations and conflicts of characters, and writing analytical essays. By comparing the universal appeal of Shakespeare's dramas with American plays, students will deepen their understanding of the art of drama while developing critical thinking, communication, and interpretative skills essential for literary analysis.

Prior Learnings/Connection

Students should have familiarity with identifying and analyzing literary elements such as theme, character, plot, setting, and conflict in prose and poetry. They should have knowledge of how a typical story is structured (e.g., exposition, rising action, climax, falling action, resolution) and the ability to identify these components in a text, and some previous exposure to reading and understanding plays, including how to read dialogue, stage directions, and how characters' interactions drive the plot. These foundational skills will help students engage more deeply with the dramatic elements explored in this unit and compare the styles and themes of Shakespearean and American drama effectively.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 11-12 ■ Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

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the structure makes points clear, convincing, and engaging. *(CC.1.2.11-12.E)*
- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs. *(CC.1.3.11-12.B)*
- Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama. *(CC.1.3.11-12.C)*
- Evaluate how an author's point of view or purpose shapes the content and style of a text. *(CC.1.3.11-12.D)*
- Evaluate the structure of texts including how specific sentences, paragraphs and larger portions of the texts relate to each other and the whole. *(CC.1.3.11-12.E)*
- Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text. (Include at least one play by Shakespeare and one play by an American dramatist.) *(CC.1.3.11-12.G)*
- Demonstrate knowledge of foundational works of literature that reflect a variety of genres in the respective major periods of literature, including how two or more texts from the same period treat similar themes or topics. *(CC.1.3.11-12.H)*
- Organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create whole; use appropriate and varied transitions and syntax to link the major

- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

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sections of the text; provide a concluding statement or section that supports the information presented; include formatting when useful to aiding comprehension. *(CC.1.4.11-12.D)*

- Present information, findings, and supporting evidence, conveying a clear and distinct perspective; organization, development, substance, and style are appropriate to purpose, audience, and task. *(CC.1.5.11-12.D)*
- Make strategic use of digital media in presentations to add interest and enhance understanding of findings, reasoning, and evidence. *(CC.1.5.11-12.F)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding of exposition, argument, and narrative structures. *(K1)*
- Familiarity with textual evidence and its role in analysis. *(K2)*
- Awareness of authorial choices and their impacts. *(K3)*
- Knowledge of literary periods and thematic connections across texts. *(K4)*
- Familiarity with digital presentation tools and techniques. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Analyze and evaluate text structures and effectiveness. *(S1)*
- Cite textual evidence to support analysis. *(S2)*
- Analyze author's narrative choices and develop elements. *(S3)*
- Evaluate author's point of view and purpose. *(S4)*
- Analyze the relationship between text structures and overall meaning. *(S5)*
- Interpret various presentations of literary works. *(S6)*
- Demonstrate knowledge of foundational literature across genres. *(S7)*
- Organize complex ideas and maintain coherence. *(S8)*
- Present information effectively using appropriate style and substance. *(S9)*
- Use digital media strategically in presentations. *(S10)*

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Module 5: My Opinion Matters: Writing to Share What We Think

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:06	Kindergarten Writing	Day(s)	K	English Language Arts	Bryn Sporer , Josh Korb

Unit Focus

In this unit, young writers will learn to express their opinions and provide reasons to support their preferences. The unit begins with students forming and sharing opinions orally and progresses to using sentence stems to write about their choices. Throughout the unit, students will practice selecting items they prefer, illustrating their ideas, and giving reasons for their opinions. The unit also emphasizes the use of an opinion checklist for revision, peer editing, and culminates in a writing celebration where students present their opinion pieces.

Prior Learnings/Connection

In Pre-K, students are introduced to basic forms of expression, where they should be able to share preferences or ideas through simple drawings and

verbal communication.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Use a combination of drawing, dictating, and writing to compose opinion pieces on familiar topics. *(CC.1.4.K.G)*
- Form an opinion by choosing between two given topics. *(CC.1.4.K.H)*
- Support the opinion with reasons. *(CC. 1.4.K.I)*
- Make logical connections between drawing and dictation/writing. *(CC.1.4.K.J)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

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- Demonstrate a grade appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. Capitalize the first word in a sentence and the pronoun I. Recognize and use end punctuation. Spell simple words phonetically. *(CC.1.4.K.L)*
- With guidance and support, recall information from experiences or gather information from provided sources to answer a question. *(CC.1.4.K.W)*

Other Goals

- Make sound judgements and decisions *(POG.CTPS.2)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Opinion writing involves forming and sharing a viewpoint on a topic. *(K1)*
- An opinion can be supported with reasons that help others understand why the writer feels a certain way. *(K2)*
- Students can gather information from experiences or provided sources (books, digital tools, etc.) to help

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Forming an opinion on a familiar topic and choosing between two given options. *(S1)*
- Supporting opinions with logical reasons that make sense to the reader. *(S2)*
- Using drawing, dictating, and writing to express opinions and explain the

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	answer questions or provide facts about a topic. *(K3)* ■ The goal of research is to gather facts to better understand a topic and present it clearly. *(K4)* ■ Using standard English grammar (capitalization, punctuation, spelling) is crucial for making the writing clear and understandable. *(K5)* ■ Sentence structure includes capitalizing the first word of a sentence and the pronoun "I," using appropriate end punctuation, and spelling simple words phonetically. *(K6)*	reasons behind them. *(S3)* ■ Organizing facts into a simple and clear structure that explains the topic or answers a question. *(S4)* ■ Using illustrations to enhance the understanding of the information presented in the writing. *(S5)*

Module 5: Reading Informational & Literature, Writing & Speaking/Listening

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 03:06	English 21st Century 2	6.0 Weeks	11 , 12	English Language Arts	SHANNON CONGLETON-PARR

Unit Focus

In this module, reading, writing, speaking, and listening are framed about the big idea of exploring and evaluating rhetorical choices. This module addresses: What impact do our obligations within society have on our search for happiness?

Prior Learnings/Connection

This course builds on students' prior knowledge of communication from English 21st Century 1, particularly speaking, listening, reading and writing for an audience. Students will have an understanding how obligations within society have us search for the meaning of happiness. Students will reflect on what makes them happy now and what will make them happy in the future after high school.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 11-12

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences and conclusions based on and related to an author's implicit and explicit assumptions and beliefs. *(CC.1.2.11-12.B)*
- Analyze the interaction and development of a complex set of ideas, sequence of events, or specific individuals over the course of the text. *(CC.1.2.11-12.C)*
- Analyze and evaluate the effectiveness of the structure an author uses in his or her

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*

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exposition or argument, including whether the structure makes points clear, convincing, and engaging. *(CC.1.2.11-12.E)*

- Integrate and evaluate multiple sources of information presented in different media or formats (e.g. visually, quantitatively) as well as in words in order to address a question or solve a problem. *(CC.1.2.11-12.G)*
- Analyze foundational U.S. and world documents of historical, political, and literary significance for their themes, purposes, and rhetorical features. *(CC.1.2.11-12.I)*
- Organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create whole; use appropriate and varied transitions and syntax to link the major sections of the text; provide a concluding statement or section that supports the information presented; include formatting when useful to aiding comprehension. *(CC.1.4.11-12.D)*
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. *(CC.1.4.11-12.V)*
- Evaluate how the speaker's perspective, reasoning, and use of evidence and rhetoric affect the credibility of an argument through the author's stance,

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*

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premises, links among ideas, word choice, points of emphasis, and tone. *(CC.1.5.11-12.B)*
- Present information, findings, and supporting evidence, conveying a clear and distinct perspective; organization, development, substance, and style are appropriate to purpose, audience, and task. *(CC.1.5.11-12.D)*
- Make strategic use of digital media in presentations to add interest and enhance understanding of findings, reasoning, and evidence. *(CC.1.5.11-12.F)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding rhetorical features, themes, and purposes of texts *(K1)*
- knowledge of research processes *(K2)*
- comprehension of argument structures *(K3)*
- familiarity with digital media and/or presentations *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Students will analyze documents, interview others and self reflect on what it means to be happy in society and how this notion has changed throughout society. Students will view Pursuit of Happiness before graduating and finding their own happiness after high school. Students will self reflect on what they can do to find their happiness. *(S1)*
- Analyzing documents *(S2)*
- organize ideas *(S3)*
- conducting research and evaluating credibility of findings *(S4)*
- presenting findings *(S5)*
- integrate information *(S6)*

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- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

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Module 5: Synthesis Writing

Draft Date	Course	Grades	Subjects	Team
09-13-2024 @ 06:04	8th Grade ELA	8	English Language Arts	LAURA HUGHES , ANGELA NEIL

Unit Focus

In this unit, students will use their findings from the previous unit and create a formal literary essay.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 8

- Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences, conclusions, and/or generalizations drawn from the text. *(CC.1.3.8.B)*
- Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor. *(CC.1.3.8.D)*
- Develop and analyze the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples; include graphics and multimedia when useful to aiding comprehension. *(CC.1.4.8.C)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*

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to inform about or explain the topic. • Use sentences of varying lengths and complexities • Create tone and voice. though precise language. • Establish and maintain a formal style. *(CC.1.4.8.E)*

- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.8.F)*
- Acknowledge and distinguish the claim(s) from alternate or opposing claims and support claim with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic. *(CC.1.4.8.I)*
- Organize the claim(s) with clear reasons and evidence clearly; clarify relationships among claim(s), counterclaims, reasons, and evidence by using words, phrases, and clauses to create cohesion; provide a concluding statement or section that follows from and supports the argument presented. *(CC.1.4.8.J)*
- Write with an awareness of the stylistic aspects of composition. Use precise language and domain-specific vocabulary to inform about or explain the topic. Use sentences of varying lengths and complexities Create tone and voice. though precise language. Establish and maintain a formal style. *(CC.1.4.8.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.8.L)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.8.R)*

- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understand what "textual evidence" means—specific details or quotations from a text that support an analysis or argument *(K1)*
- Understanding what the text states directly (explicit meaning) and what can be inferred (implicit meaning) through reasoning and context *(K2)*
- Understand the terms inferences, conclusions, and generalizations *(K3)*
- Understand what "point of view" means, particularly how characters'

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identify and use the most relevant and compelling textual evidence to support their analysis *(S1)*
- Analyze the text to determine both explicit information and implicit ideas, including drawing inferences *(S2)*
- Evaluate the strength and relevance of textual evidence to decide which supports their analysis most strongly *(S3)*

- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and literary non-fiction. *(CC.1.4.8.S)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

perspectives can differ from the audience's or reader's perspective *(K4)*
- Recognize dramatic irony as a situation where the audience knows something the characters do not, creating tension or humor *(K5)*
- Understand how differences in point of view can influence the emotional impact of a story, such as building suspense or adding humor *(K6)*
- Understand the difference between a claim (the main argument or position) and alternate or opposing claims (arguments against the claim) *(K7)*
- Know that strong arguments are supported by clear reasoning and evidence that is directly related to the claim *(K8)*
- Recognize what makes a source accurate and credible (e.g., expertise, lack of bias, reliability) *(K9)*
- Understand how to structure an argument, including organizing claims, counterclaims, reasons, and evidence logically *(K10)*
- Know how to use transitions, phrases, and clauses to clarify relationships between ideas and make their argument flow smoothly *(K11)*
- Recognize the importance of a strong concluding statement or section that reinforces their argument and provides closure *(K12)*
- Understand how to identify and select relevant evidence from both literary

- Analyze how characters' and readers' differing knowledge or perspectives affect the story *(S4)*
- Identify how authors create dramatic irony and other contrasts in perspective (e.g., through dialogue, narration, or events) *(S5)*
- Evaluate how these differences in point of view contribute to specific effects like suspense or humor in the text *(S6)*
- Identify and differentiate the central claim from opposing claims in a text or argument *(S7)*
- Construct arguments that are supported with logical reasoning and evidence from credible sources *(S8)*
- Integrate evidence and reasoning in a way that shows a clear and thorough understanding of the topic being discussed *(S9)*
- Organize claims and counterclaims with supporting reasons and evidence in a logical progression *(S10)*
- Use words, phrases, and clauses (e.g., *on the other hand*, *therefore*, *as a result*) to clearly connect claims, counterclaims, reasons, and evidence *(S11)*
- Craft a concluding statement or section that logically follows from the argument and supports the main claim *(S12)*
- Extract and integrate textual evidence to support their analysis or argument effectively *(S13)*

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■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	(e.g., novels, poetry) and informational (e.g., articles, essays) texts *(K13)* ■ Recognize that evidence is used to support analysis, reflection, or research and must align with the purpose of their writing *(K14)*	■ Use evidence purposefully in their writing to demonstrate thoughtful analysis, personal reflection, or in-depth research *(S14)*

Nonfiction & Informational Writing

Draft Date	Course	Grades	Subjects	Team
01-20-2025 @ 05:58	7th Grade ELA	7	English Language Arts	Quinn Turocy

Unit Focus

In this unit, students will dive into high-quality informational texts to uncover and evaluate central ideas, analyze how authors develop their arguments, and compare how different authors present the same topic. Students will strengthen their ability to cite textual evidence, analyze complex interactions within a text, and evaluate the reliability of sources. Using these skills, students will conduct short research projects and write informative/explanatory essays. They will be guided through the writing process—planning, drafting, revising, editing, and publishing—while incorporating graphics, formatting, and technology to support and enhance understanding. The unit will emphasize analytical thinking, structured writing, and responsible research practices.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 7

- Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text. *(CC.1.2.7.A)*
- Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences, conclusions, and/or generalizations drawn from the text. *(CC.1.2.7.B)*
- Analyze the interactions between individuals, events, and ideas in a text. *(CC.1.2.7.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

- Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others. *(CC.1.2.7.D)*
- Evaluate an author's argument, reasoning, and specific claims for the soundness of the argument and the relevance of the evidence. *(CC.1.2.7.H)*
- Analyze how two or more authors present and interpret facts on the same topic. *(CC.1.2.7.I)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.7.L)*
- Write informative/ explanatory texts to examine a topic and convey ideas, concepts, and information clearly. *(CC.1.4.7.A)*
- Identify and introduce the topic clearly, including a preview of what is to follow. *(CC.1.4.7.B)*
- Develop and analyze the topic with relevant facts, definitions, concrete details, quotations, or other information and examples; include graphics and multimedia when useful to aiding comprehension. *(CC.1.4.7.C)*
- Organize ideas, concepts, and information using strategies such as definition, classification, comparison/contrast, and cause/effect; use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts; provide a concluding statement or section;

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

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include formatting when useful to aiding comprehension. *(CC.1.4.7.D)*

- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to inform about or explain the topic. • Use sentences of varying lengths and complexities • Develop and maintain a consistent voice. • Establish and maintain a formal style. *(CC.1.4.7.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.7.F)*
- With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. *(CC.1.4.7.T)*
- Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources. *(CC.1.4.7.U)*
- Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation. *(CC.1.4.7.V)*
- Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and

- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding the structure of texts *(K1)*
- Differentiate between subjective and objective summaries *(K2)*
- Identify and distinguish between central ideas vs. supporting details *(K3)*
- Identify text structures *(K4)*
- Identify cause and effect *(K5)*
- Interpret and analyze the influence of ideas on events *(K6)*
- Understanding of literary elements such as tone, perspective, and bias *(K7)*
- Understanding explicit information in texts *(K8)*
- Recognizing implicit vs. explicit messages and themes *(K9)*
- Identify facts vs. opinions *(K10)*
- Distinguish between author's perspectives *(K11)*
- Utilize effective communication techniques. *(K12)*
- Understand the components of a good introduction *(K13)*
- Know how to create a preview of the content to follow *(K14)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Analyze the development of these ideas throughout the text. *(S1)*
- Identify central ideas in a text. *(S2)*
- Citing textual evidence. *(S3)*
- Analyzing texts for explicit content. *(S4)*
- Make inferences, conclusions, and generalizations. *(S5)*
- Identify relationships between individuals, events, and ideas. *(S6)*
- Identify and evaluate the author's point of view. *(S7)*
- Analyze the purpose of the text. *(S8)*
- Determine the relevance of evidence *(S9)*
- Analyze texts, comparing perspectives, interpreting facts. *(S10)*
- Write informative and explanatory texts *(S11)*
- Organize information logically *(S12)*
- Use clear and concise language. *(S13)*
- Identify and introduce a topic *(S14)*
- Integrate relevant facts and details *(S15)*
- Variation in sentence lengths and complexities. *(S16)*

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following a standard format for citation. *(CC.1.4.7.W)*
- Analyze the main ideas and supporting details presented in diverse media formats (e.g. visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study. *(CC.1.5.7.C)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*

- Understand what constitutes relevant information *(K15)*
- Recognize how to use multimedia to enhance understanding *(K16)*
- Understanding various organizational strategies *(K17)*
- Recognizing the importance of transitions in writing *(K18)*
- Knowing how to format text to enhance clarity *(K19)*
- Understanding of stylistic aspects of composition *(K20)*
- Familiarity with different types of vocabulary related to specific topics *(K21)*
- Awareness of voice and tone in writing *(K22)*
- Recognition of formal writing conventions *(K23)*
- Understanding writing purposes (e.g., to inform, persuade, entertain) *(K24)*
- Recognizing different audiences and their needs *(K25)*
- Familiarity with the writing process *(K26)*
- Understanding of various digital platforms for writing and publishing. *(K27)*
- Familiarity with citation formats (e.g., MLA, APA) *(K28)*
- Understanding how to find and evaluate credible source *(K29)*
- Knowledge of paraphrasing techniques *(K30)*

- Use of precise language and domain-specific vocabulary. *(S17)*
- Development and maintenance of a consistent voice. *(S18)*
- Establishment and maintenance of a formal style. *(S19)*
- Developing writing through planning, revising, editing, rewriting, and trying new approaches. *(S20)*
- Conducting research *(S21)*
- Formulating focused questions *(S22)*
- Gathering information from various sources. *(S23)*
- Effective use of search terms. *(S24)*
- Assessing credibility and accuracy of sources. *(S25)*
- Quoting and paraphrasing information. *(S26)*
- Proper citation to avoid plagiarism. *(S27)*

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■ Use a wide range of creation techniques *(POG.CI.1)* ■ Demonstrate originality and inventiveness *(POG.CI.2)* ■ View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)* ■ Act of creative ideas to make tangible and useful contributions *(POG.CI.4)* ■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)* ■ Communicate for a range of purposes *(POG.COM.2)* ■ Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)* ■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	

Unit #5 Author's Craft and Argumentation

Draft Date	Course	Grades	Subjects	Team
10-11-2024 @ 02:40	6th Grade ELA	6	English Language Arts	Sam Baum , Deborah Hill , Shannon Myers , Amy Miller

Unit Focus

Students will also investigate how authors approach similar themes and topics in different ways. Students will gather and interpret relevant information from multiple, diverse, print and digital sources focusing on the purpose and task in order to organize information effectively. Key outcomes include using context to understand unfamiliar and technical language, the ability to compare and contrast among and across genres in terms of their approach to similar themes and topics, and integrating information from multiple sources to develop a coherent understanding of a topic of the issue.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 6

- Describe how a particular story or drama's plot unfolds in a series of episodes, as well as how the characters respond or change as the plot moves toward a resolution. *(CC.1.3.6.C)*
- Determine the meaning of words and phrases as they are used in grade level reading and content, including interpretation of figurative language in context. *(CC.1.3.6.F)*
- Compare and contrast the experiences of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what is "seen" and "heard"

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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when reading the text to what is perceived when listening or watching. *(CC.1.3.6.G)*

Other Goals

- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- Describe the effectiveness of the point of view. *(Q1)*
- How does a story/poem/drama differ from listening to, viewing an audio, and video of the text? *(Q2)*
- How do readers identify figurative language? *(Q3)*
- How do readers interpret figurative language? *(Q4)*
- How does the author use similes, metaphors, personification and hyperboles to deepen my understanding of the text? *(Q5)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*

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		■ How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)* ■ How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)* ■ How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*
	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
	What facts and basic concepts should students know and be able to recall? Students will know... ■ Understanding of story structure, plot elements, character development. (K1) *(K1)* ■ Vocabulary, context clues, figurative language types (simile, metaphor, etc.). (K2) *(K2)* ■ Understanding of various forms of storytelling (text, audio, visual). (K3) *(K3)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Describe plot development, identify episodes, analyze character responses and changes. (S1) *(S1)* ■ Determine meaning of words and phrases, interpret figurative language. (S2) *(S2)* ■ Compare and contrast different mediums (reading vs. audio/video). (S3) *(S3)*

Unit 5: Author's Craft and Argumentation

Draft Date	Grades	Subjects	Team
03-11-2025 @ 06:27	4	English Language Arts	Jessica Smith

Stage 1: Learning Goals

<table>
<tr><th>Established Goals</th><th colspan="2">Transfer</th></tr>
<tr><td rowspan="8"></td><th colspan="2">Long-Term Transfer Goals</th></tr>
<tr><td colspan="2">What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...</td></tr>
<tr><th colspan="2">Meaning</th></tr>
<tr><th>Big Ideas</th><th>Essential Questions</th></tr>
<tr><td>What specifically do you want students to understand? What inferences should they make? Students will understand that...</td><td>What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...</td></tr>
<tr><th colspan="2">Acquisition of Knowledge & Skill</th></tr>
<tr><th>Knowledge</th><th>Skills</th></tr>
<tr><td>What facts and basic concepts should students know and be able to recall? Students will know...</td><td>What discrete skills and processes should students be able to use? Students will be skilled at...</td></tr>
</table>

Fiction and Argumentative Writing

Draft Date	Course	Grades	Subjects	Team
01-20-2025 @ 05:58	7th Grade ELA	7	English Language Arts	Quinn Turocy

Unit Focus

In this unit, students will read and analyze literary fiction, citing evidence to support their interpretations and inferences. They will engage in collaborative discussions, examine others' arguments through critical listening, and build their own arguments through structured opinion/argumentative writing. By the end of the unit, students will craft a formal argumentative essay that presents a clear claim, acknowledges opposing views, and uses logical reasoning and textual evidence to support their position. Students will also present their arguments orally, practicing speaking skills and appropriate presentation techniques.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 7

- Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences, conclusions, and/or generalizations drawn from the text. *(CC.1.3.7.B)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.7.K)*
- Write arguments to support claims. *(CC.1.4.7.G)*
- Introduce and state an opinion on a topic. *(CC.1.4.7.H)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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- Acknowledge alternate or opposing claims and support claim with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic. *(CC.1.4.7.I)*
- Organize the claim(s) with clear reasons and evidence clearly; clarify relationships among claim(s) and reasons by using words, phrases, and clauses to create cohesion; provide a concluding statement or section that follows from and supports the argument presented. *(CC.1.4.7.J)*
- Write with an awareness of the stylistic aspects of composition. Use precise language and domain-specific vocabulary to inform about or explain the topic. Use sentences of varying lengths and complexities. Develop and maintain a consistent voice. Establish and maintain a formal style. *(CC.1.4.7.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.7.L)*
- Engage effectively in a range of collaborative discussions, on grade level topics, texts, and issues, building on others' ideas and expressing their own clearly. *(CC.1.5.7.A)*
- Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence. *(CC.1.5.7.B)*
- Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

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contact, adequate volume, and clear pronunciation. *(CC.1.5.7.D)*
- Demonstrate command of the conventions of standard English when speaking based on grade 7 level and content. *(CC.1.5.7.G)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal *(POG.COL.2)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*

- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Know the difference between explicit (direct) and implicit (inferred) information in a text. *(K1)*
- Be able to support an analysis using examples from the text. *(K2)*
- Demonstrate the ability to read and comprehend fiction appropriate for 7th grade level.
  - *(K3)*
- Understand and apply reading strategies to determine meaning (e.g., predicting, summarizing, questioning). *(K4)*
- Identify literary elements such as theme, point of view, conflict, and character development. *(K5)*
- Know what a claim is in argumentative writing. *(K6)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- ◦ Cite textual evidence *(S1)*
- ◦ Make inferences *(S2)*
- ◦ Draw conclusions *(S3)*
- ◦ Form generalizations *(S4)*
- ◦ Analyze and comparing texts. *(S5)*
- ◦ Develop a clear argument *(S6)*
- ◦ Use reasoning and evidence to support claims. *(S7)*
- ◦ Address counterarguments. *(S8)*
- ◦ Structuring claims and supporting evidence *(S9)*

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- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- Understand how to use evidence and reasoning to support a claim. *(K7)*
- Distinguish between reliable and unreliable sources. *(K8)*
- Know how to write an introduction with a clear thesis or opinion statement. *(K9)*
- Understand how to engage readers from the beginning of an essay. *(K10)*
- Understand what a counterclaim is and why it is important. *(K11)*
- Be able to explain why an opposing claim is weak or less valid than your own argument. *(K12)*
- Know how to organize an argumentative essay: introduction, body paragraphs (with evidence), and conclusion. *(K13)*
- ◦ Be able to use transition words and phrases to show connections between ideas. *(K14)*
- Be able to use precise vocabulary and domain-specific terms. *(K15)*
- Use a consistent and appropriate voice throughout writing. *(K16)*
- Vary sentence structure to improve clarity and engagement. *(K17)*

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	■ Understand and apply grade-level grammar rules, including verb tense, subject-verb agreement, and punctuation. *(K18)* ■ Be able to spell grade-appropriate vocabulary correctly. *(K19)* ■ Edit writing for mechanics, usage, and clarity. *(K20)* ■ Know how to actively listen, respond thoughtfully, and build on others' ideas. *(K21)* ■ Respectfully agree or disagree using evidence and reasoning. *(K22)* ■ Understand how to evaluate the strength and logic of the argument. *(K23)* ■ Use eye contact, appropriate volume, and clear pronunciation. *(K24)* ■ Emphasize key points with facts, examples, and vivid language. *(K25)* ■ ◦ Demonstrate correct grammar, word usage, and pronunciation when speaking. *(K26)* ■ ◦ Understand how to adapt speech for different purposes and audiences. *(K27)*	

Module 4: Comparing and Contrasting Perspectives and Themes

Draft Date	Course	Duration	Grades	Subjects	Team
03-11-2025 @ 06:30	4th Grade ELA	35.0 Day(s)	4	English Language Arts	Jessica Smith

Unit Focus

In this unit, students will explore how different texts present similar ideas through varied perspectives, themes, and structures. They will analyze and compare how informational and literary texts present the same events or topics from different points of view. By examining multiple perspectives, students will deepen their understanding of author intent and how perspective shapes meaning.

Students will also compare and contrast similar themes, topics, and patterns of events in literature, including texts from different cultures. Through this analysis, they will develop critical thinking skills and learn to recognize universal themes that appear across different genres and traditions.

As part of their writing development, students will craft both informative and opinion-based pieces. They will use precise language and domain-specific vocabulary to explain key ideas clearly. In their opinion writing, they will develop well-structured arguments, providing reasons supported by facts and details. By organizing their ideas logically and using effective transitions, students will strengthen their ability to communicate their perspectives in writing.

Throughout the unit, students will engage in discussions and written responses, using textual evidence to support their analyses and arguments. By the end of the unit, they will be able to articulate how different texts present similar ideas in unique ways and effectively communicate their own perspectives through writing.

Prior Learnings/Connection

Prior to this unit, students in earlier grades focused on understanding simple perspectives and comparing basic elements in texts. In 2nd and 3rd grades, they worked on identifying key details from a single point of view and began recognizing how different characters or narrators might present the same event differently. They also practiced comparing and contrasting similar themes or events within a single text or between texts with familiar content. In writing, students focused on developing simple opinion pieces, learning to state an opinion and provide basic supporting reasons, and organizing their ideas in a clear sequence. Vocabulary and language use were less complex, with an emphasis on expressing opinions clearly using basic language.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 4

- Compare and contrast an event or topic told from two different points of view. *(CC.1.2.4.D)*
- Compare and contrast an event or topic told from two different points of view. *(CC.1.3.4.D)*
- Compare and contrast similar themes, topics, and patterns of events in literature, including texts from different cultures. *(CC.1.3.4.H)*
- Use precise language and domain-specific vocabulary to inform about or explain the topic. *(CC.1.4.4.E)*
- Write opinion pieces on topics or texts. *(CC.1.4.4.G)*
- Introduce the topic and state an opinion on the topic. *(CC.1.4.4.H)*
- Provide reasons that are supported by facts and details. *(CC.1.4.4.I)*
- Create an organizational structure that includes related ideas grouped to support the writer's purpose and linked in a logical order with a concluding statement or section related to the opinion. *(CC.1.4.4.J)*
- Choose words and phrases to convey ideas precisely. *(CC.1.4.4.K)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

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Other Goals	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
■ Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)* ■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*	What facts and basic concepts should students know and be able to recall? Students will know... ■ Authors present events and topics from different points of view to shape reader understanding. *(K1)* ■ Themes, topics, and patterns of events can be found across multiple texts and cultures. *(K2)* ■ Informative writing uses precise language and domain-specific vocabulary to clearly explain a topic. *(K3)* ■ Opinion writing requires a clear statement of opinion, supported by facts and logical reasoning. *(K4)* ■ Organizational structures help present ideas in a coherent and persuasive manner. *(K5)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Comparing and contrasting how different texts present the same event or topic from varied perspectives. *(S1)* ■ Identifying and analyzing similar themes, topics, and event patterns in literature from different cultures. *(S2)* ■ Using textual evidence to support their analysis and interpretations. *(S3)* ■ Writing clear and structured informative pieces with precise language. *(S4)* ■ Crafting opinion pieces with well-supported reasoning, logical organization, and a strong concluding statement. *(S5)* ■ Choosing words and phrases to convey ideas effectively in both informative and opinion writing. *(S6)*

Module 5

Draft Date	Duration	Grades	Subjects	Team
10-11-2024 @ 02:26	6.0 Weeks	K	English Language Arts	Bryn Sporer , Shannon Myers

Unit Focus

Students will learn to identify the parts of a book, such as the title and author, as well as the structure of a text, recognizing its beginning, middle, and end. Vocabulary will also be a focus, as students will practice asking and answering questions about unfamiliar words with support. Furthermore, they will explore the relationship between illustrations and the accompanying text, describing how visuals enhance understanding. In literature, students will name the author and illustrator of stories, understanding their distinct roles, while also recognizing various text types. Through making connections between illustrations and the story, they will deepen their comprehension and engagement with the material.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Demonstrate understanding of the organization and basic features of print. Follow words left to right, top to bottom, and page by page. Recognize that spoken words are represented in written language by specific sequences of letters. Understand that words are separated by spaces in print. Recognize and name all upper and lower case letters of the alphabet. *(CC.1.1.K.B)*
- Demonstrate understanding of spoken words, syllables, and sounds (phonemes). Recognize and produce rhyming words. Count, pronounce, blend, and segment

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does the type of text influence how it is read? *(EQ.ELA.01.B)*

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syllables in spoken words. Blend and segment onsets and rimes of single-syllable spoken words. Isolate and pronounce the initial, medial vowel, and final sound (phonemes) in the three-phoneme (CVC) words. *(CC.1.1.K.C)*

- Know and apply grade level phonics and word analysis skills in decoding words. Demonstrate basic knowledge of one-to one letter-sound correspondence. Associate the long and short sounds with common spellings for the five major vowels. Read grade level high-frequency sight words with automaticity. Distinguish between similarly spelled words by identifying the sounds of the letters that differ. *(CC.1.1.K.D)*
- Read emergent-reader text with purpose and understanding. *(CC.1.1.K.E)*
- With prompting and support, answer questions about key details in a text. *(CC. 1.2.K.B)*
- Identify parts of a book (title, author) and parts of a text (beginning, end, details). *(CC. 1.2.K.E)*
- With prompting and support, ask and answer questions about unknown words in a text. *(CC.1.2.K.F)*
- Answers questions to describe the relationship between illustrations and the text in which they appear. *(CC.1.2.K.G)*
- Name the author and illustrator of a story and define the role of each in telling the story. *(CC.1.3.K.D)*
- Recognize common types of text. *(CC.1.3.K.E)*

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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■ Make connections between the illustrations and the text in a story (read or read aloud). *(CC.1.3.K.G)*	
Other Goals	
■ Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)* ■ Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*	

Module 5

Draft Date	Duration	Grades	Subjects	Team
01-20-2025 @ 05:58	Weeks	3	English Language Arts	Caitlin Schweiger

Unit Focus

This unit aims to equip students with the foundational skills for reading fluency, decoding, and comprehension, while also deepening their ability to analyze and understand how texts are structured and how words work within those texts. Students will gain confidence in reading and become more adept at using context, structure, and their knowledge of language to interpret and understand a wide range of texts. Students will read and analyze poetry. Students will also develop narratives, in the form of "fractured" fairy tales.

Prior Learnings/Connection

- **Foundational Phonics**: Mastery of letter-sound correspondence, simple word decoding, and high-frequency word recognition.
- **Fluency**: Ability to read familiar texts smoothly with reasonable speed and accuracy, using context clues to understand words and confirm comprehension.
- **Point of View**: Understanding of narrative perspectives, which evolves into an ability to explain the author's point of view and its influence on text meaning.
- **Text Structure**: Knowledge of how different parts of a text function together, building from understanding narrative organization to recognizing how informational text elements like headings and paragraphs work.
- **Vocabulary Growth**: Previous exposure to word meanings, synonyms, and antonyms, now extended to a deeper understanding of multiple meanings, figurative language, and word relationships.

These prior learning connections lay a strong foundation for the skills addressed in the standards, ensuring that students have the background knowledge necessary to engage with more complex texts, build their vocabulary, analyze point of view, and work towards fluency and comprehension.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 3

- Know and apply grade level phonics and word analysis skills in decoding words. Identify and know the meaning of the most common prefixes and derivational suffixes. Decode words with common Latin suffixes. Decode multisyllable words. Read grade-appropriate irregularly spelled words. *(CC.1.1.3.D)*
- Read with accuracy and fluency to support comprehension: Read on-level text with purpose and understanding. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. *(CC.1.1.3.E)*
- Explain the point of view of the author. *(CC.1.3.3.D)*
- Refer to parts of texts when writing or speaking about a text using such terms as chapter, scene and stanza and describe how each successive part builds upon earlier sections. *(CC.1.3.3.E)*
- Determine the meaning of words and phrases as they are used in grade level text, distinguishing literal from non-literal meaning as well as shades of meaning among related words. *(CC.1.3.3.F)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

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- Write narratives to develop real or imagined experiences or events. *(CC.1.4.3.M)*
- Establish a situation and introduce a narrator and/or characters. *(CC.1.4.3.N)*
- Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. *(CC.1.4.3.O)*
- Organize an event sequence that unfolds naturally, using temporal words and phrases to signal event order; provide a sense of closure. *(CC.1.4.3.P)*
- Choose words and phrases for effect. *(CC.1.4.3.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.3.R)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	

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Module 5: Building Meaning Through Language

Draft Date	Course	Duration	Grades	Subjects	Team
09-13-2024 @ 05:55	2nd Grade Reading	30.0 Day(s)	2	English Language Arts	Rachel Mleczko , Julie Hermes , Brooke Shambach

Unit Focus

In this module, students explore how authors use language to shape meaning and perspective. They analyze differences in characters' points of view and how these differences are expressed within a text. Students also develop strategies for determining the meaning of unfamiliar and multiple-meaning words, using context clues, word parts, and reference tools. By examining the structure and vocabulary of both fiction and nonfiction texts, students strengthen their ability to interpret language and deepen their comprehension.

Prior Learnings/Connection

In 1st grade, students begin to focus on determining the meaning of unknown words with the help of context clues and illustrations. They are also introduced to the concept of point of view by recognizing differences in characters' perspectives, including speaking in a different voice for each character when reading dialogue aloud.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 2 ■ Determine the meaning of words and phrases as they are used in grade level text including multiple-meaning words. *(CC.1.2.2.F)* ■ Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade level reading and content, choosing from a range of strategies and tools. *(CC.1.2.2.K)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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- Acknowledge differences in the points of views of characters, including by speaking in a different voice for each character when reading dialogue aloud. *(CC.1.3.2.D)*
- Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade level reading and content, choosing from a range of strategies and tools. *(CC.1.3.2.I)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Authors use language to create meaning and influence how readers view characters and events. *(K1)*
- Characters may have different points of view, which are reflected in the text. *(K2)*
- There are strategies for determining the meaning of unfamiliar and multiple-

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Determining the meaning of words and phrases, including multiple-meaning words, within grade-level texts. *(S1)*
- Students will be skilled at identifying and comparing different characters' points of view using textual evidence. *(S2)*

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	meaning words, such as using context clues, word parts, and reference tools. *(K3)*	■ Clarifying the meaning of unknown words or phrases using strategies such as context clues and reference tools. *(S3)* ■ Understanding how language, vocabulary, and word structure contribute to a text's overall meaning. *(S4)*

Module 5: Compare and Contrast

Draft Date	Grades	Subjects	Team
10-11-2024 @ 02:48	4	English Language Arts	Shannon Myers , Quinn Turocy

Unit Focus

In this unit, 4th-grade students will deepen their understanding of how different perspectives, themes, and presentations of information shape their understanding of events, topics, and stories. Students will learn how to compare and contrast how the same event or theme is portrayed in different texts, including across different cultures. They will also explore how information is presented in different formats, such as print and digital sources, and integrate information from multiple texts to build a well-rounded understanding of a topic. The unit encourages critical thinking, analysis of varying perspectives, and the integration of knowledge across multiple sources.

Prior Learnings/Connection

1. **Understanding of Basic Story Elements (CC.1.2.4.D, CC.1.3.4.H):**

- **Familiarity with Point of View**: Students should understand that stories can be told from different perspectives, such as **first-person** ("I" or "we") and **third-person** ("he," "she," "they"). They should also know that point of view affects how the story is told and what details the reader knows.
- **Basic Comparison and Contrast Skills**: Students should have experience comparing and contrasting characters, settings, or events in a story. They should be familiar with using Venn diagrams or T-charts to organize similarities and differences.
- **Story Elements**: Students should know the basic components of a story, including characters, setting, problem, and solution, as well as how events unfold (beginning, middle, and end).
- **Themes in Literature**: Students should have been exposed to the concept of **themes** (e.g., friendship, bravery, perseverance) in literature and understand that stories often convey a message or moral.

2. **Interpreting Information in Texts (CC.1.2.4.G):**

- **Basic Text Features**: Students should be familiar with common text features in informational texts, such as headings, captions, charts, graphs, and diagrams. They should have practice using these features to locate and understand key information.
- **Digital and Visual Literacy**: Students should have basic experience navigating digital sources (e.g., educational websites, online articles) and interpreting simple visual elements (e.g., reading a bar graph or map).
- **Understanding Information Presentation**: Students should have practiced identifying how text features like charts or infographics help explain or clarify the main ideas of a text.

3. **Comparing Themes and Events in Literature (CC.1.3.4.H)**:

- Cultural Awareness in Stories: Students should have been exposed to stories from different cultures, even if they have not yet done formal comparisons. They should understand that cultures can influence how characters act, the settings of stories, and the types of problems characters face.
- Pattern Recognition: Students should have practice identifying patterns in stories, such as recurring events (e.g., a hero's journey, the rule of three in fairy tales) and be able to recognize how stories are structured.

4. **Synthesizing Information Across Texts (CC.1.2.4.I)**:

- Experience with Reading Multiple Texts on a Topic: Students should have experience reading more than one text about the same subject (e.g., two books or articles about animals or historical figures). They should understand that different texts might include different facts or focus on different aspects of the same topic.
- Note-taking and Organizing Information: Students should have practiced taking notes or identifying key details from informational texts. They should be able to identify the main idea and supporting details in a single text and use graphic organizers to organize information from multiple sources.
- Basic Summarization Skills: Students should know how to summarize a text by identifying its main ideas and key details.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 4 ■ Compare and contrast an event or topic told from two different points of view. *(CC. 1.2.4.D)* ■ Interpret various presentations of information within a text or digital source and explain how the information	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)* ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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contributes to an understanding of text in which it appears. *(CC.1.2.4.G)*
- Integrate information from two texts on the same topic to demonstrate understanding of that topic. *(CC.1.2.4.I)*
- Compare and contrast similar themes, topics, and patterns of events in literature, including texts from different cultures. *(CC.1.3.4.H)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*

Acquisition of Knowledge & Skill

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- **For CC.1.2.4.D: Compare and Contrast Perspectives**
  - **Identifying Perspectives**: Learn to recognize and articulate the

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Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- 1. **Comparing and Contrasting Points of View** (CC.1.2.4.D)
    - Understanding point of view: Students should know that different authors or characters can have distinct perspectives on the same event or topic.
    - Identifying similarities and differences: They should be able to identify and articulate the similarities and differences between how two points of view present the same event or topic.
    - Critical thinking: Students should evaluate how each point of view affects the reader's understanding of the event or topic.

2. **Interpreting Presentations of Information** (CC.1.2.4.G)

- Formats of information: Students should understand that information can be presented in various formats, including text, graphs, charts, images, and digital media.

different viewpoints presented in texts.
- **Comparison Techniques**: Use graphic organizers (e.g., Venn diagrams) to visually map out similarities and differences between the perspectives.
- **Analytical Thinking**: Practice discussing how each perspective influences the understanding of the event or topic.

For CC.1.2.4.G: Interpreting Presentations of Information

- **Analyzing Formats**: Teach students to identify and analyze various formats of information (e.g., charts, graphs, illustrations) within a text or digital source.
- **Connecting Information**: Develop skills to explain how these different presentations enhance or clarify the main ideas of the text.
- **Critical Evaluation**: Encourage students to evaluate the effectiveness of different types of information presentation and how they contribute to overall understanding.

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- Contributing to understanding: They need to explain how these different presentations help enhance their comprehension of the main text.
- Analyzing multimedia: Students should know how to analyze and interpret information from digital sources, recognizing the role of visuals and other elements in conveying meaning.

3. **Comparing Themes and Patterns in Literature** (CC.1.3.4.H)

- Identifying themes: Students should be able to identify common themes (main ideas or messages) in different literary works, including those from various cultures.
- Comparing patterns: They should compare and contrast similar events or character experiences across different texts, noting how cultural context may influence the portrayal of themes.
- Cultural awareness: Students should develop an understanding of how different cultures express similar ideas or themes through literature.

For CC.1.3.4.H: Comparing Themes and Patterns

- **Theme Identification**: Guide students in recognizing common themes and topics in literature from various cultures.
- **Literary Analysis**: Teach students to analyze how similar themes are presented differently across texts, focusing on cultural context and narrative style.
- **Discussion Skills**: Facilitate group discussions that allow students to share their insights on themes and patterns, fostering deeper understanding.

For CC.1.2.4.I: Integrating Information from Two Texts

- **Textual Comparison**: Develop the ability to read and compare two texts on the same topic, noting key points, arguments, and evidence.
- **Synthesis Skills**: Teach students how to synthesize information from both texts, merging insights to create a cohesive understanding of the topic.
- **Note-Taking and Organization**: Encourage effective note-taking strategies and the use of graphic

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	4. **Integrating Information from Multiple Texts** (CC.1.2.4.I) ◦ Synthesis of information: Students should be able to integrate information from two texts on the same topic to create a comprehensive understanding of that topic. ◦ Identifying key points: They should learn to extract and compare key points and details from both texts, determining how they complement or differ from each other. ◦ Demonstrating understanding: Students should be able to demonstrate their understanding of the topic by synthesizing information from both sources into a cohesive summary or analysis. *(K1)*	organizers to categorize and integrate information from multiple sources. *(S1)*

Module 5: Exploring Information and Ideas

Draft Date	Course	Duration	Grades	Subjects	Team
02-10-2025 @ 02:50	Kindergarten Reading	30.0 Day(s)	K	English Language Arts	Danielle Curzi , Jessica Smith

Unit Focus

In this module, students will develop their understanding of informational texts by answering questions about key details and making connections between ideas, events, or people. With support, they will explore new vocabulary, asking and answering questions about unfamiliar words to build their language skills. Students will also begin to identify reasons an author gives to support their ideas, helping them understand how information is presented in nonfiction texts. Through discussion and guided reading, this module strengthens comprehension, critical thinking, and vocabulary development.

Prior Learnings/Connection

In Pre-K, students should start answering simple questions about stories read aloud. They began making connections between events or ideas with help and used visual cues to understand new words. They also learned that authors give reasons to support their points and used context clues and pictures to figure out unfamiliar words.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- With prompting and support, answer questions about key details in a text. *(CC.1.2.K.B)*
- With prompting and support, make a connection between two individual, events, ideas, or pieces of information in a text. *(CC.1.2.K.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

- With prompting and support, ask and answer questions about unknown words in a text. *(CC.1.2.K.F)*
- With prompting and support, identify the reasons an author gives to support points in a text. *(CC.1.2.K.H)*
- Determine or clarify the meaning of unknown or multiple meaning words and phrases based upon grade level reading and content. *(CC.1.2.K.K)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Informational texts provide facts and details about a topic. *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying important details in a nonfiction text. *(S1)*

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	■ Key details help readers understand what a text is about. *(K2)* ■ Asking and answering questions helps clarify information. *(K3)* ■ Informational texts include connections between ideas, people, and events. *(K4)* ■ Words and phrases in a text show how ideas, events, and people are related. *(K5)* ■ Some words have multiple meanings depending on their use. *(K6)* ■ Strategies like context clues, pictures, and discussion help determine word meanings. *(K7)* ■ Authors include reasons to support their ideas in informational texts. *(K8)* ■ Recognizing an author's supporting points helps readers understand a topic. *(K9)* ■ Informational texts are written to explain, describe, or persuade. *(K10)*	■ Using words, pictures, and text features to answer questions about the topic. *(S2)* ■ Responding to who, what, when, where, why, and how questions. *(S3)* ■ Identifying connections between people, ideas, or events in a text. *(S4)* ■ Using illustrations or key words to explain how things are related. *(S5)* ■ Using context clues, pictures, and discussions to figure out unfamiliar words. *(S6)*

Module 5: Reflecting on Experiences

Draft Date	Course	Duration	Grades	Subjects	Team
02-18-2025 @ 06:29	1st Grade Writing	45.0 Day(s)	1	English Language Arts	Jessica Smith , Josh Korb

Unit Focus

In this unit, students will revisit narrative writing to reflect on personal experiences and imagined events. They will focus on adding more details to their stories, using transitions to connect events, and making sure their writing has a clear beginning, middle, and end. This unit encourages students to integrate reflection and revision into their writing process.

Prior Learnings/Connection

Students have developed basic writing skills, including writing simple sentences with appropriate spacing and using basic punctuation like periods. They have practiced identifying the "who" and "what" in stories and writing about familiar topics. They have been introduced to sequencing events in their own stories and using simple temporal words (like first, then, next) to describe those events. Additionally, students have begun to use phonemic awareness and spelling conventions to write simple words and phrases.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 1

- Choose words and phrases for effect. *(CC.1.4.1.E)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.1.M)*
- Establish “who” and “what” the narrative will be about. *(CC.1.4.1.N)*
- Recount two or more appropriately sequenced events using temporal words to signal event order and provide some sense of closure. *(CC.1.4.1.P)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Audience and purpose influence a writer’s choice of organizational

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

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- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. Capitalize dates and names of people. Use end punctuation; use commas in dates and words in series. Spell words drawing on common spelling patterns, phonemic awareness and spelling conventions. *(CC.1.4.1.R)*
- With guidance and support from adults and peers, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed. *(CC.1.4.1.T)*

Other Goals

- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*

pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Research involves gathering information from a variety of sources such as books, videos, and discussions. *(K1)*
- Using digital tools can enhance the process of producing and publishing writing. *(K2)*
- Collaborating with peers can help generate ideas and improve writing. *(K3)*
- Credible sources provide trustworthy information for research and writing. *(K4)*
- Organizing information from multiple sources helps to answer questions and support writing. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Using digital tools to produce and publish writing, including collaborating with peers. *(S1)*
- Participating in research projects, either individually or in groups. *(S2)*
- Gathering information from provided sources to answer a question or develop their writing. *(S3)*
- Recalling and synthesizing information from personal experiences and research sources. *(S4)*

Module 5: Research and Information Gathering

Draft Date	Course	Duration	Grades	Subjects	Team
02-09-2025 @ 02:56	3rd Grade ELA	42.0 Day(s)	3	English Language Arts	Jessica Smith

Unit Focus

In this module, students will develop essential research skills by locating, interpreting, and analyzing information from various sources. They will use text features and search tools to gather relevant details, determine an author's point of view, and synthesize information from diverse media. Students will also compare and contrast texts to deepen their understanding of recurring themes and ideas. Writing instruction will focus on opinion writing, guiding students to state opinions, support them with logical reasoning, and structure their ideas clearly. Additionally, students will learn to take notes, categorize evidence, and use technology to publish their work. By engaging in research projects, they will strengthen their ability to evaluate sources, organize information, and communicate their findings effectively.

Prior Learnings/Connection

In 2nd grade, students have begun identifying the point of view in both informational and literary texts, understanding how it affects the message. They use text features like headings and glossaries to locate important information and connect it to the main idea. In writing, they practice stating opinions and supporting them with reasons, while organizing their ideas logically. Additionally, students gather information from various sources to support their writing and begin to use technology for publishing and collaborating.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 3 ■ Explain the point of view of the author. *(CC.1.2.3.D)* ■ Use text features and search tools to locate and interpret information. *(CC.1.2.3.E)* ■ Use information gained from text features to demonstrate understanding of a text. *(CC.1.2.3.G)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)* ■ Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

- Explain the point of view of the author. *(CC.1.3.3.D)*
- Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters. *(CC.1.3.3.H)*
- Write opinion pieces on familiar topics or texts. *(CC.1.4.3.G)*
- Introduce the topic and state an opinion on the topic. *(CC.1.4.3.H)*
- Support an opinion with reasons. *(CC.1.4.3.I)*
- Create an organizational structure that includes reasons linked in a logical order with a concluding statement or section. *(CC.1.4.3.J)*
- Use a variety of words and sentence types to appeal to the audience. *(CC.1.4.3.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.3.L)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts *(CC.1.4.3.S)*
- With guidance and support, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others. *(CC.1.4.3.U)*
- Conduct short research projects that build knowledge about a topic. *(CC.1.4.3.V)*
- Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories. *(CC.1.4.3.W)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)* ■ Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)* ■ Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)* ■ Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)* ■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*	■ How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)* ■ What do active listeners do to create meaning? *(EQ.ELA.03.A)* ■ How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)* ■ How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)* ■ How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)* ■ How does a researcher best present findings? *(EQ.ELA.05.C)* ■ How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)* ■ How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)* ■ How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Other Goals	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
■ Utilize time and manage workload efficiently *(POG.ISD.2)* ■ Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)* ■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*	What facts and basic concepts should students know and be able to recall? Students will know... ■ How to locate, interpret, and analyze information from various sources using text features and search tools. *(K1)* ■ How to determine an author's point of view in both informational and literary texts. *(K2)* ■ How to synthesize information from different sources and media. *(K3)* ■ The structure and organization of opinion writing, including how to state an opinion and support it with logical reasoning. *(K4)* ■ The importance of evaluating the credibility, reliability, and validity of sources. *(K5)* ■ How to use technology to produce, publish, and share writing. *(K6)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Using text features and search tools to gather relevant information from a variety of sources. *(S1)* ■ Explaining an author's point of view and comparing it across different texts. *(S2)* ■ Drawing evidence from both literary and informational texts to support analysis and research. *(S3)* ■ Writing opinion pieces that clearly state a position, provide reasons, and are organized logically. *(S4)* ■ Using appropriate language, sentence structures, and vocabulary to appeal to an audience. *(S5)* ■ Taking notes, categorizing evidence, and organizing research findings. *(S6)* ■ Conducting research projects that build knowledge on a topic and include appropriate sources. *(S7)* ■ Using technology to produce, publish, and share written work and to interact

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		with others. *(S8)*

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Module 6 Comparing and Contrasting Perspectives and Themes

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 12:40	5th Grade ELA	4.0 Semester(s)	5	English Language Arts	Marilee Durbin , TANYA HARBOLD , CHRISTOPHER KING , BONNIE MUMMERT , AIMEE WAKEFIELD

Unit Focus

In this unit, through close reading, interpretation, and analysis of fictional novels, students synthesize their understanding of various themes and identify the narrator's point of view.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 5

- Determine a theme of a text from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. *(CC.1.3.5.A)*
- Cite textual evidence by quoting accurately from the text to explain what the text says explicitly and make inferences. *(CC.1.3.5.B)*
- Compare and contrast two or more characters, settings or events in a story or drama, drawing on specific details in the text. *(CC.1.3.5.C)*
- Explain how a series of chapters, scenes or stanzas fits together to provide the overall structure of a particular story, drama, or poem. *(CC.1.3.5.E)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*

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- Determine the meaning of words and phrases as they are used in grade level text, including interpretation of figurative language. *(CC.1.3.5.F)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.5.K)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and informational texts. *(CC.1.4.5.S)*
- Demonstrate command of the conventions of standard English when speaking based on grade 5 level and content. *(CC.1.5.5.G)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*

- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding literary elements (theme, character, plot), recognizing how details support the theme. *(K1)*
- Understanding the text's literal meaning, recognizing implicit messages, identifying supporting details. *(K2)*
- Understanding character traits, setting descriptions, and event sequences. *(K3)*
- Recognizing key elements of narrative and poetic structure (e.g., plot development, character arcs, thematic progression). *(K4)*
- Understanding context clues, recognizing different types of figurative language (metaphors, similes, idioms). *(K5)*
- Understanding literary elements (plot, character, setting, theme), recognizing narrative structures. *(K6)*
- Understanding how to identify and cite textual evidence, differentiating

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying themes, analyzing character responses, summarizing texts. *(S1)*
- Quoting accurately from texts, explaining explicit content, making inferences. *(S2)*
- Comparing and contrasting characters, settings, or events. *(S3)*
- Analyzing structure, understanding relationships between chapters, scenes, or stanzas. *(S4)*
- Determining meanings of words and phrases, interpreting figurative language. *(S5)*
- Reading independently, comprehending literary fiction. *(S6)*
- Drawing evidence from texts, supporting analysis and reflection. *(S7)*
- Speaking clearly and effectively, using standard English conventions. *(S8)*

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	between literary and informational texts. *(K7)* ■ Understanding grammar, punctuation, and sentence structure appropriate for grade 5. *(K8)*	

Module 6: Nonfiction Research Development and Formal Presentations

Draft Date	Course	Grades	Subjects	Team
09-13-2024 @ 06:04	8th Grade ELA	8	English Language Arts	LAURA HUGHES , ANGELA NEIL

Unit Focus

In this unit, students will select a research topic, develop their own questions, and collect information from a variety of sources to compile into a formal research presentation.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 8

- Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text. *(CC.1.2.8.A)*
- Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints. *(CC.1.2.8.D)*
- Analyze the structure of the text through evaluation of the author's use of specific sentences and paragraphs to develop and refine a concept. *(CC.1.2.8.E)*
- Evaluate the advantages and disadvantages of using different mediums (e.g. print or digital text, video, multimedia)

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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to present a particular topic or idea. *(CC. 1.2.8.G)*

- Analyze two or more texts that provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation. *(CC.1.2.8.I)*
- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.2.8.J)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade level reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.2.8.K)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC. 1.2.8.L)*
- Acknowledge and distinguish the claim(s) from alternate or opposing claims and support claim with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic. *(CC.1.4.8.I)*
- Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others. *(CC.1.4.8.U)*
- Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*

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questions that allow for multiple avenues of exploration. *(CC.1.4.8.V)*
- Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. *(CC.1.4.8.W)*
- Analyze the purpose of information presented in diverse media formats (e.g. visually, quantitatively, orally) and evaluate the motives (e.g. social, commercial, political) behind its presentation. *(CC.1.5.8.C)*
- Adapt speech to a variety of contexts and tasks. *(CC.1.5.8.E)*
- Integrate multimedia and visual displays into presentations to add interest, clarify information, and strengthen claims and evidence. *(CC.1.5.8.F)*
- Demonstrate command of the conventions of standard English when speaking based on grade 8 level and content. *(CC.1.5.8.G)*

Other Goals

- Balance tactical (short-term) and strategic (long-term) goals *(POG.ISD.1)*
- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*

- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding of what constitutes a central idea. *(K1)*
- Familiarity with text structure and how ideas are developed. *(K2)*
- Ability to distinguish between objective and subjective summaries. *(K3)*
- Understanding of text structures (e.g., narrative, expository, persuasive). *(K4)*
- Familiarity with literary devices (e.g., imagery, tone, syntax). *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identify the central idea of a text. *(S1)*
- Analyze the development of the central idea throughout the text. *(S2)*
- Recognize the relationship between the central idea and supporting ideas. *(S3)*
- Summarize the text objectively. *(S4)*
- Analyze text structure. *(S5)*
- Evaluate the author's sentence and paragraph usage *(S6)*
- Identify how these elements contribute to the development of concepts. *(S7)*

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Make sound judgements and decisions *(POG.CTPS.2)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Actively participate in society, as informed citizens, in a complex world *(POG.GC.2)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Promote positive change while respective the perspectives of a global society *(POG.GC.4)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Demonstrate originality and inventiveness *(POG.CI.2)*
- View failure as an opportunity to learn; understand that creativity and innovation are long-term, cyclical process *(POG.CI.3)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

- Comprehension of concepts being developed in the text. *(K6)*
- Understanding different media types and their features. *(K7)*
- Recognizing audience engagement and purpose of various media *(K8)*
- Familiarity with critical evaluation criteria for media. *(K9)*
- Understanding text structure and purpose *(K10)*
- Recognizing bias and perspective in texts *(K11)*
- Differentiating between factual statements and interpretations *(K12)*
- Understanding what a claim is *(K13)*
- Recognizing opposing viewpoints *(K14)*
- Knowledge of logical reasoning principles *(K15)*
- Familiarity with various types of sources and their credibility *(K16)*
- Understanding how to identify credible sources. *(K17)*
- Familiarity with various research methods (e.g., interviews, surveys, literature reviews). *(K18)*
- Knowledge of how to organize and present research findings. *(K19)*
- Understanding diverse media formats (visual, quantitative, oral) *(K20)*

- Analyzing various media formats (print, digital, video, multimedia). *(S8)*
- Comparing and contrasting advantages and disadvantages of each medium *(S9)*
- Evaluating the effectiveness of different media in presenting information. *(S10)*
- Critical thinking and analysis *(S11)*
- Comparative reading *(S12)*
- Synthesis of information *(S13)*
- Acknowledging and distinguishing claims and opposing claims *(S14)*
- Supporting claims with logical reasoning *(S15)*
- Using relevant evidence *(S16)*
- Identifying and utilizing accurate, credible source *(S17)*
- Demonstrating understanding of the topic *(S18)*
- Conducting research projects. *(S19)*
- Generating self-generated questions. *(S20)*
- Evaluating and synthesizing information from multiple sources. *(S21)*
- Formulating additional focused questions for exploration. *(S22)*
- Analyzing information from different media formats *(S23)*
- Evaluating motives behind the presentation of information *(S24)*

■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*	■ Recognizing various motives (social, commercial, political) influencing information presentation *(K21)*	

Module 6: Writing Our Own Research Papers

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:07	Kindergarten Writing	Day(s)	K	English Language Arts	Bryn Sporer , Josh Korb

Unit Focus

In this unit, students will learn the basics of conducting research and writing an informative/explanatory paper on a topic they are curious about. They will engage in both individual and shared research projects, gathering facts and information to better understand their topic. Using a combination of drawing, dictating, and writing, students will present their findings in a clear, descriptive manner, illustrating key details to enhance their writing. Throughout the process, they will practice using grade-appropriate conventions of grammar, punctuation, and spelling to ensure their work is clear and accurate. Students will also explore digital tools, with guidance and support, to help produce and publish their research papers. By the end of the unit, students will have completed a simple research paper, showcasing their ability to gather information, organize it effectively, and share their learning with others.

Prior Learnings/Connection

In Pre-K, students should begin laying the foundation for creating informative texts by exploring basic facts about the world around them. They should

use drawing and verbal expression to represent their understanding of simple topics, such as animals, plants, or their families. They

practiced dictating their ideas to teachers, who helped connect their spoken words to written language.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Use a combination of drawing, dictating, and writing to compose informative/explanatory texts. *(CC.1.4.K.A)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

- With prompting and support, illustrate using details and dictate/write using descriptive words. *(CC.1.4.K.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar, usage, capitalization punctuation, and spelling. Capitalize the first word in a sentence and the pronoun I. Recognize and use end punctuation. Spell simple words phonetically. *(CC.1.4.K.F)*
- With guidance and support, explore a variety of digital tools to produce and publish writing or in collaboration with peers. *(CC.1.4.K.U)*
- Participate in individual or shared research projects on a topic of interest. *(CC.1.4.K.V)*

Other Goals

- Use a wide range of creation techniques *(POG.CI.1)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Informational texts are pieces of writing that share facts about a topic. *(K1)*
- The purpose of informational writing is to explain or describe a subject the

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Selecting a topic that they know a lot about and want to share with others. *(S1)*
- Researching the topic by reading additional resources to deepen

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	writer is knowledgeable about. *(K2)* ■ Headings, labels, and tables of contents help organize and present information clearly in an informational text. *(K3)* ■ Writing should include descriptive words to explain ideas and facts in detail. *(K4)* ■ Using detailed illustrations enhances the written content, helping readers better understand the information. *(K5)* ■ Grammar, usage, capitalization, punctuation, and spelling are essential conventions for clear writing. *(K6)* ■ Sentences must start with a capital letter, and the pronoun "I" is always capitalized. *(K7)* ■ Proper end punctuation and spelling simple words phonetically are fundamental for clear communication. *(K8)* ■ Digital tools can be used to produce and publish writing, such as online platforms or document editing tools. *(K9)* ■ Collaboration with peers can be supported using digital tools. *(K10)* ■ Writing about a topic requires research to gather additional facts and information, either individually or in	knowledge. *(S2)* ■ Planning the writing by organizing ideas and drawing pictures to support key points. *(S3)* ■ Writing and describing facts about the topic using simple, clear language. *(S4)* ■ Adding key structural elements such as headings, and labels to enhance the informational writing. *(S5)* ■ Illustrating key ideas with detailed pictures to complement the text and provide visual support for the information being shared. *(S6)* ■ Applying correct grammar, punctuation, and spelling when writing to ensure clarity and coherence. *(S7)* ■ Capitalizing the first word in a sentence and the pronoun "I," and using end punctuation properly. *(S8)* ■ Spelling simple words phonetically and referencing tools like word walls or alphabet charts when needed. *(S9)* ■ Experimenting with digital tools to create and publish writing, collaborating with peers if necessary. *(S10)*

	groups. *(K11)*	

Unit #6 Understanding and Summarizing Texts

Draft Date	Course	Grades	Subjects	Team
10-11-2024 @ 12:45	6th Grade ELA	6	English Language Arts	Sam Baum , Deborah Hill , Shannon Myers , Amy Miller

Unit Focus

In this unit, reading, writing, speaking, and listening are constructed around the big idea of the impact of how society influences our perspectives. Students will read a variety of informational and literary texts, analyzing characters and events, while paying close attention to purpose and point of view. The goal is for students to become aware of how life experiences and misconceptions influence perceptions, potentially creating bias. Key outcomes in this unit include exposure to diverse media types in order to understand the impact of point of view on characters and events, in addition to writing a continuation of narrated events while maintaining logical organization, style, and tone.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 6

- Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text. *(CC.1.2.6.C)*
- Integrate information presented in different media or formats (e.g. visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue. *(CC.1.2.6.G)*
- Compare and contrast texts in different forms or genres in terms of their approaches to similar themes and topics as well as their use of additional literary elements. *(CC.1.3.6.H)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Assume shared responsibility for collaborative work, and. value individual contributions made by each team member *(POG.COL.3)*
- Communicate for a range of purposes *(POG.COM.2)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do readers connect information from the text and prior knowledge to draw conclusions based on information from the text? *(Q1)*
- How do readers use the reading process to make strong comparisons? *(Q2)*
- How does the cause/effect relationship of events lead to the climax and resolution of the conflict? *(Q3)*
- Why is identifying the problem important in understanding the story? *(Q4)*
- What message is the author trying to convey? *(Q5)*
- How does the author use the literary elements to convey the message? *(Q6)*
- How does the author develop his/her characters? *(Q7)*
- How do characters' actions, emotions, and thoughts change through the story? *(Q8)*
- How do readers compare and contrast text from different genres to identify similar themes and topics? *(Q9)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*

- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Understand how texts introduce, illustrate, and elaborate key elements. (K1) *(K1)* ■ Different media types and their contributions to understanding. (K2) *(K2)* ■ Literary elements and themes across genres. (K3) *(K3)*	■ Analyze text, identify key individuals, events, or ideas. (S1) *(S1)* ■ Integrate information from various formats (visual, quantitative, and textual). (S2) *(S2)* ■ Compare and contrast different texts. (S3) *(S3)*

Unit 6: Integrating and Evaluating Information

Draft Date	Grades	Subjects	Team
03-11-2025 @ 06:27	4	English Language Arts	Jessica Smith

Stage 1: Learning Goals

<table>
<tr><th>Established Goals</th><th colspan="2">Transfer</th></tr>
<tr><td rowspan="8"></td><th colspan="2">Long-Term Transfer Goals</th></tr>
<tr><td colspan="2">What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...</td></tr>
<tr><th colspan="2">Meaning</th></tr>
<tr><th>Big Ideas</th><th>Essential Questions</th></tr>
<tr><td>What specifically do you want students to understand? What inferences should they make? Students will understand that...</td><td>What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...</td></tr>
<tr><th colspan="2">Acquisition of Knowledge & Skill</th></tr>
<tr><th>Knowledge</th><th>Skills</th></tr>
<tr><td>What facts and basic concepts should students know and be able to recall? Students will know...</td><td>What discrete skills and processes should students be able to use? Students will be skilled at...</td></tr>
</table>

Module 5: Author's Craft and Argumentation

Draft Date	Course	Duration	Grades	Subjects	Team
03-11-2025 @ 06:30	4th Grade ELA	20.0 Day(s)	4	English Language Arts	Jessica Smith

Unit Focus

In this unit, students will analyze how authors develop arguments and structure their writing to convey meaning effectively. Through reading informational texts, students will explore various text structures, such as chronology, comparison, cause/effect, and problem/solution, to interpret information. They will evaluate how authors use reasons and evidence to support their claims and consider how word choice, including figurative language, contributes to meaning and tone.

Students will apply their understanding of argument structure by writing their own opinion pieces. They will learn to introduce a topic, state a clear opinion, and support their viewpoint with well-reasoned evidence and facts. They will practice organizing their ideas logically, using precise language to strengthen their arguments, and providing strong conclusions.

Additionally, students will incorporate technology into their writing process by drafting, revising, and publishing their work using digital tools. They will also develop keyboarding skills to produce extended written pieces efficiently.

Prior Learnings/Connection

Prior to this unit, students in earlier grades focused on understanding basic text structures and identifying key details. In 2nd and 3rd grades, they were introduced to simple text structures like cause and effect or problem/solution, and began recognizing how the organization of a text helped convey meaning. They also developed skills in understanding vocabulary, including figurative language, through context clues. Writing skills included composing basic opinion pieces where students learned to state an opinion and support it with simple facts or reasons. Technology use was introduced in early grades, where students began using basic tools to create and publish simple written works, even though keyboarding skills were still developing.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 4

- Use text structure to interpret information (e.g., chronology, comparison, cause/effect, problem/ solution). *(CC.1.2.4.E)*
- Determine the meaning of words and phrases as they are used in grade level text, including figurative language. *(CC.1.2.4.F)*
- Explain how an author uses reasons and evidence to support particular points in a text. *(CC.1.2.4.H)*
- Determine the meaning of words and phrases as they are used in grade level text, including figurative language. *(CC.1.3.4.F)*
- Write opinion pieces on topics or texts. *(CC.1.4.4.G)*
- Introduce the topic and state an opinion on the topic. *(CC.1.4.4.H)*
- Provide reasons that are supported by facts and details. *(CC.1.4.4.I)*
- Create an organizational structure that includes related ideas grouped to support the writer's purpose and linked in a logical order with a concluding statement or section related to the opinion. *(CC.1.4.4.J)*
- Choose words and phrases to convey ideas precisely. *(CC.1.4.4.K)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How do active listeners determine the validity of what they hear? *(EQ.ELA.03.B)*
- How does a researcher evaluate sources to find reliable information? *(EQ.ELA.05.A)*

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- With some guidance and support, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. *(CC.1.4.4.U)*
- Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. *(CC.1.5.4.B)*

- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Authors use different text structures (chronology, comparison, cause/effect, problem/solution) to organize information and strengthen their arguments. *(K1)*
- Reasons and evidence are essential in supporting an author's claims in an argument. *(K2)*
- Word choice, including figurative language, influences meaning and tone in a text. *(K3)*
- A strong opinion piece includes a clear topic, well-supported reasons, and a logical organization of ideas. *(K4)*
- Technology can be used to draft, revise, and publish writing effectively. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying and analyzing text structures in informational texts. *(S1)*
- Evaluating how authors use reasons and evidence to support their points. *(S2)*
- Determining the meaning of words and phrases, including figurative language, in context. *(S3)*
- Writing opinion pieces with clear claims supported by facts and details. *(S4)*
- Organizing opinion writing logically with effective transitions and strong conclusions. *(S5)*
- Using precise language to convey ideas persuasively. *(S6)*
- Using technology to produce, edit, and publish writing. *(S7)*

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		■ Demonstrating keyboarding proficiency by typing at least one page in a single sitting. *(S8)*

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Module 6

Draft Date	Duration	Grades	Subjects	Team
10-11-2024 @ 02:28	6.0 Weeks	K	English Language Arts	Bryn Sporer , Shannon Myers

Unit Focus

Students will learn to identify the reasons an author provides to support their points. Additionally, students will compare and contrast two texts on the same topic, recognizing basic similarities and differences. They will also learn strategies to clarify the meanings of unfamiliar or multi-meaning words in context. In literature, students will ask and answer questions about unknown words, further reinforcing their vocabulary skills. They will compare and contrast the adventures and experiences of characters in familiar stories, allowing them to draw connections and enhance their understanding of character development.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Demonstrate understanding of the organization and basic features of print. Follow words left to right, top to bottom, and page by page. Recognize that spoken words are represented in written language by specific sequences of letters. Understand that words are separated by spaces in print. Recognize and name all upper and lower case letters of the alphabet. *(CC.1.1.K.B)*
- Demonstrate understanding of spoken words, syllables, and sounds (phonemes). Recognize and produce rhyming words. Count, pronounce, blend, and segment syllables in spoken words. Blend and

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*

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segment onsets and rimes of single-syllable spoken words. Isolate and pronounce the initial, medial vowel, and final sound (phonemes) in the three-phoneme (CVC) words. *(CC.1.1.K.C)*

- Know and apply grade level phonics and word analysis skills in decoding words. Demonstrate basic knowledge of one-to one letter-sound correspondence. Associate the long and short sounds with common spellings for the five major vowels. Read grade level high-frequency sight words with automaticity. Distinguish between similarly spelled words by identifying the sounds of the letters that differ. *(CC.1.1.K.D)*
- Read emergent-reader text with purpose and understanding. *(CC.1.1.K.E)*
- With prompting and support, identify the reasons an author gives to support points in a text. *(CC.1.2.K.H)*
- With prompting and support, identify basic similarities and differences between two texts (read or read aloud) on the same topic. *(CC.1.2.K.I)*
- Use words and phrases acquired through conversations, reading, and being read to, and responding to texts. *(CC.1.2.K.J)*
- Determine or clarify the meaning of unknown or multiple meaning words and phrases based upon grade level reading and content. *(CC.1.2.K.K)*
- Ask and answer questions about unknown words in a text. *(CC.1.3.K.F)*

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

- Compare and contrast the adventures and experiences of characters in familiar stories. *(CC.1.3.K.H)*
- Determine or clarify the meaning of unknown or multiple meaning words and phrases based upon grade level reading and content. *(CC.1.3.K.I)*

Other Goals

- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*

Module 6

Draft Date	Duration	Grades	Subjects	Team
01-20-2025 @ 06:28	Weeks	3	English Language Arts	Caitlin Schweiger

Unit Focus

In this unit, students will understand and analyze informational texts in depth, draw connections between ideas and details in texts, compare information across texts on the same topic, and effectively convey their understanding of a topic in a structured, informative written form. By the end of the unit, students will not only have developed a deeper comprehension of non-fiction texts but also refined their ability to write clearly and persuasively, making them stronger readers and writers.

Prior Learnings/Connection

- **Basic reading comprehension skills**: Understanding the main idea and supporting details of a text.
- **Questioning and inferencing abilities**: Asking and answering questions, making inferences from the text, and supporting responses with evidence.
- **Familiarity with text structure and sequence**: Recognizing how events or ideas are connected, using time/sequence and cause/effect language.
- **Ability to use text features**: Using headings, captions, and other text features to support comprehension.
- **Comparing and contrasting texts**: Identifying similarities and differences between two texts on the same topic.
- **Writing skills**: Basic organization of informative and explanatory texts, with clear expression of ideas and supporting details.
- **Conventions of grammar and spelling**: Understanding and applying grammar, punctuation, and spelling conventions in writing.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 3 ■ Determine the main idea of a text; recount the key details and explain how they support the main idea. *(CC.1.2.3.A)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)* ■ Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*

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- Ask and answer questions about the text and make inferences from text; refer to text to support responses. *(CC.1.2.3.B)*
- Explain how a series of events, concepts, or steps in a procedure is connected within a text, using language that pertains to time, sequence, and cause/effect. *(CC.1.2.3.C)*
- Use information gained from text features to demonstrate understanding of a text. *(CC.1.2.3.G)*
- Compare and contrast the most important points and key details presented in two texts on the same topic. *(CC.1.2.3.I)*
- Read and comprehend literary non-fiction and informational text on grade level, reading independently and proficiently. *(CC.1.2.3.L)*
- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.3.A)*
- Identify and introduce the topic. *(CC.1.4.3.B)*
- Develop the topic with facts, definitions, details, and illustrations, as appropriate. *(CC.1.4.3.C)*
- Create an organizational structure that includes information grouped and connected logically with a concluding statement or section. *(CC.1.4.3.D)*
- Choose words and phrases for effect. *(CC.1.4.3.E)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling *(CC.1.4.3.F)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- What do active listeners do to create meaning? *(EQ.ELA.03.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*

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Other Goals
■ Utilize time and manage workload efficiently *(POG.ISD.2)* ■ Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)* ■ Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)* ■ Collect, assess, and analyze relevant information *(POG.CTPS.1)* ■ Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)* ■ Show empathy and respect towards a diverse global community *(POG.GC.3)* ■ Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)* ■ Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

■ How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

Module 6: Comparing Stories and Building Fluency

Draft Date	Course	Duration	Grades	Subjects	Team
02-10-2025 @ 02:50	Kindergarten Reading	30.0 Day(s)	K	English Language Arts	Danielle Curzi , Jessica Smith

Unit Focus

In this module, students will strengthen their reading fluency by engaging with emergent-reader texts with purpose and understanding. They will compare and contrast the experiences of characters in familiar stories and identify similarities and differences between two texts on the same topic. Through conversations, reading, and interactive discussions, students will expand their vocabulary and learn to use new words and phrases in context. This module helps build comprehension, analytical thinking, and confidence in reading and discussing texts.

Prior Learnings/Connection

In Pre-K, students should be introduced to comparing and contrasting familiar experiences and characters in stories. They began to explore the idea of similarities and differences with the help of their teacher, using pictures and simple text to compare two events or ideas. Through read-alouds and interactive conversations, they were encouraged to use new words and phrases they heard or used in their everyday conversations. Additionally, they started to practice using language to talk about the stories and experiences they were exposed to, helping them build vocabulary through various texts and discussions.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: K

- Read emergent-reader text with purpose and understanding. *(CC.1.1.K.E)*
- With prompting and support, identify basic similarities and differences between two texts (read or read aloud) on the same topic. *(CC.1.2.K.I)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

- Use words and phrases acquired through conversations, reading, and being read to, and responding to texts. *(CC.1.2.K.J)*
- Compare and contrast the adventures and experiences of characters in familiar stories. *(CC.1.3.K.H)*
- Use words and phrases acquired through conversations, reading, and being read to, and responding to texts. *(CC.1.3.K.J)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate for a range of purposes *(POG.COM.2)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How do critical thinkers determine the validity of what they read, hear and view? *(EQ.ELA.02.A)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Readers use context clues, illustrations, and prior knowledge to make sense of texts. *(K1)*
- Characters in stories experience different adventures and problems, and some stories have similar themes while others differ. *(K2)*
- Comparing finds similarities, and contrasting finds differences. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Demonstrating understanding by answering questions or retelling the text. *(S1)*
- Identifying and describing what happens to characters in a story and how they react to events. *(S2)*
- Finding similarities and differences between characters' experiences or actions. *(S3)*

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	■ Informational texts can present the same topic in different ways. *(K4)* ■ Words can have different meanings depending on context, and new words are learned through conversations, reading, and listening. *(K5)*	■ Comparing and contrasting two texts on the same topic, identifying similarities and differences. *(S4)* ■ Using context clues and discussions to understand and apply new words correctly. *(S5)*

Module 6: Comparing Texts and Ideas

Draft Date	Course	Duration	Grades	Subjects	Team
09-13-2024 @ 05:55	2nd Grade Reading	30.0 Day(s)	2	English Language Arts	Rachel Mleczko , Julie Hermes , Brooke Shambach

Unit Focus

In this module, students analyze how authors present key ideas across different texts and formats. They explore how graphic representations enhance understanding and compare multiple versions of the same story or topic. Students also evaluate how authors use reasons to support their points and learn strategies for determining the meaning of unfamiliar and multiple-meaning words. Through comparing and contrasting texts, students develop critical thinking skills and a deeper appreciation for how information is communicated in various ways.

Prior Learnings/Connection

In 1st grade, students focus on asking questions to help determine or clarify the meaning of words and phrases in a text. They practice identifying reasons an author gives to support points in a text. Additionally, students begin to identify basic similarities and differences between two texts on the same topic.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 2 ■ Determine the meaning of words and phrases as they are used in grade level text including multiple-meaning words. *(CC.1.2.2.F)* ■ Explain how graphic representations contribute to and clarify a text. *(CC.1.2.2.G)* ■ Describe how reasons support specific points the author makes in a text. *(CC.1.2.2.H)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)* ■ Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)* ■ Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

- Compare and contrast the most important points presented by two texts on the same topic. *(CC.1.2.2.I)*
- Compare and contrast two or more versions of the same story by different authors or from different culture. *(CC.1.3.2.H)*

Other Goals

- Collect, assess, and analyze relevant information *(POG.CTPS.1)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Authors present key ideas in different ways across texts and formats. *(K1)*
- Graphic representations, such as pictures or charts, help clarify and enhance understanding of the text. *(K2)*
- Reasons in a text support the points an author is making. *(K3)*
- Comparing and contrasting multiple texts on the same topic helps to

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Determining the meaning of words and phrases, including multiple-meaning words, in grade-level texts. *(S1)*
- Explaining how graphic representations contribute to the meaning of a text. *(S2)*
- Identifying how reasons support the author's points in a text. *(S3)*
- Comparing and contrasting key points presented by two different texts on the

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	understand different perspectives and ideas. *(K4)*	same topic. *(S4)*

Module 6: Figurative Language

Draft Date	Grades	Subjects	Team
10-11-2024 @ 02:51	4	English Language Arts	Shannon Myers , Quinn Turocy

Unit Focus

In this unit, 4th-grade students will explore how authors use language, structure, and various formats to communicate ideas and create meaning in literary texts. Students will investigate the use of figurative language in both prose and poetry, the differences between literary forms like poetry, drama, and prose, and how stories or plays come to life through different mediums such as visual or oral presentations. Through engaging reading, discussion, and writing activities, students will deepen their understanding of literary elements and develop the skills to analyze and articulate how structure and word choice shape meaning in texts.

Prior Learnings/Connection

1. Basic Understanding of Words and Context:
    - **Vocabulary**: Students should have experience determining the meaning of unfamiliar words by using context clues in sentences.
    - **Synonyms and Antonyms**: Familiarity with how words relate to each other in meaning (e.g., understanding synonyms and antonyms) will help students in interpreting word choice.
2. Introduction to Figurative Language:
    - Students should have been introduced to **basic forms of figurative language** such as similes and metaphors in 3rd grade or earlier, even if they may not have mastered them. They should understand that figurative language is a way authors describe things by comparing them to something else.
    - **Concrete Examples**: Experience recognizing simple examples of figurative language like “as fast as lightning” or “the wind whispered.”
3. Familiarity with Different Types of Texts:
    - **Narrative Text Structure**: Students should be able to identify basic elements of narrative stories (e.g., beginning, middle, end, characters, setting, problem, and solution).
    - **Types of Text**: A basic understanding that there are different kinds of texts, such as stories, poems, and informational texts, and that they look and sound different.

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4. Structural Elements of Poetry and Prose:

   - **Basic Poetic Structure**: Students should know that poems often have lines and stanzas, though they may not yet be familiar with rhyme schemes or other advanced structures.
   - **Prose Structure**: Students should know that prose (stories or articles) is written in paragraphs, with sentences that tell a story or provide information.

5. Listening and Comprehension Skills:

   - **Experience Listening to Stories or Dramas**: Students should be familiar with listening to or watching stories being told (read aloud, short plays, or dramatizations) and have experience understanding key elements such as character dialogue or actions in these formats.
   - **Basic Retelling Skills**: Students should have practice in retelling or summarizing a story or describing what happened in a book, video, or play.

6. Experience with Comparing and Contrasting:

   - Students should have practiced comparing and contrasting different objects, characters, or stories. This foundational skill will help them as they compare different versions of the same story in written, visual, and oral formats.

7. Engagement in Class Discussions and Writing:

   - Students should have experience participating in discussions about texts, explaining their thoughts, and sharing what they noticed about stories. They should also have basic writing skills to express ideas in sentences and paragraphs, even if refinement will happen in this unit.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania Core Standards English Language Arts: 4 ■ Determine the meaning of words and phrases as they are used in grade level	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*

text, including figurative language. *(CC.1.2.4.F)*
- Explain major differences between poems, drama and prose and refer to the structural elements of each when writing or speaking about a text. *(CC.1.3.4.E)*
- Determine the meaning of words and phrases as they are used in grade level text, including figurative language. *(CC.1.3.4.F)*
- Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text. *(CC.1.3.4.G)*

Other Goals

- Utilize time and manage workload efficiently *(POG.ISD.2)*
- Monitor, define, prioritize and complete tasks without direct oversight *(POG.ISD.3)*
- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Collect, assess, and analyze relevant information *(POG.CTPS.1)*
- Identify, define, and solve authentic problems and essential questions *(POG.CTPS.3)*
- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate an awareness that actions have broad implications *(POG.GC.1)*
- Show empathy and respect towards a diverse global community *(POG.GC.3)*
- Use a wide range of creation techniques *(POG.CI.1)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)*
- Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*
- An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does the type of text influence how it is read? *(EQ.ELA.01.B)*
- How does a reader's purpose influence how text should be read? *(EQ.ELA.01.C)*
- How does interaction with text provoke thinking and response? *(EQ.ELA.02.B)*
- How do task, purpose, and audience influence how speakers craft and deliver a message? *(EQ.ELA.04.A)*
- How do speakers employ language and utilize resources to effectively communicate a message? *(EQ.ELA.04.B)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

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- Demonstrate originality and inventiveness *(POG.CI.2)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Communicate and listen effectively and respectfully in diverse environments *(POG.COM.4)*

- How do learners use strategies and resources to develop and refine vocabulary? *(EQ.ELA.08.B)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- 1. Figurative Language (CC.1.2.4.F and CC.1.3.4.F):
  - Simile: A comparison using "like" or "as" (e.g., "She was as brave as a lion").
  - Metaphor: A direct comparison between two things without using "like" or "as" (e.g., "The classroom was a zoo").
  - Personification: Giving human qualities to non-human things (e.g., "The wind whispered through the trees").
  - Purpose of Figurative Language: Authors use figurative language to make their writing more vivid, create mental images, or convey emotions in a more impactful way.
  - Context Clues: Students should know how to use surrounding words and phrases to help figure out the meaning of unfamiliar words or figurative expressions.

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- **For CC.1.2.4.F: Determining Meaning of Words and Phrases**
  - **Context Clues**: Teach students to use context clues within sentences to infer the meanings of unfamiliar words.
  - **Figurative Language**: Introduce different types of figurative language (e.g., similes, metaphors, personification) and practice identifying these in texts.
  - **Word Analysis**: Develop skills in breaking down complex words (using prefixes, suffixes, and root words) to understand their meanings.

For CC.1.3.4.E: Explaining Differences Between Text Types

  - **Text Structure Awareness**: Familiarize students with the structural elements of poetry, drama, and prose (e.g., stanzas, dialogue, paragraphs).

2. **Text Structure and Literary Forms (CC. 1.3.4.E)**:

- Poetry: A form of writing that expresses ideas or emotions in a structured way using lines and stanzas. It may include rhyme and rhythm but does not have to.
  - Structural Elements of Poetry: Lines, stanzas, rhyme scheme, rhythm.
- Drama: A form of writing intended to be performed. It includes dialogue between characters and stage directions.
  - Structural Elements of Drama: Scenes, acts, dialogue, stage directions.
- Prose: Regular written language that uses paragraphs to tell a story or provide information (e.g., novels, short stories, articles).
  - Structural Elements of Prose: Sentences, paragraphs, chapters.
- Key Differences:
  - Poems often focus on emotion and imagery through condensed language.
  - Drama uses dialogue and actions to tell a story meant for performance.

- **Comparative Analysis**: Engage in activities that require students to compare and contrast the characteristics of each text type.
- **Discussion Skills**: Facilitate discussions that encourage students to articulate the differences and how these affect the reader's experience.

For CC.1.3.4.F: Meaning of Words and Phrases (Reinforcement)

- **Contextual Understanding**: Reinforce skills from CC.1.2.4.F by practicing identifying meanings of words in various contexts.
- **Engaging with Figurative Language**: Use examples from literature to practice explaining the meanings of figurative language in specific contexts.
- **Vocabulary Building**: Encourage a vocabulary-building routine, where students explore new words and their meanings in different contexts.

For CC.1.3.4.G: Making Connections Between Text and Presentations

- **Textual Analysis**: Teach students to identify key descriptions and directions in the text that may

- Prose uses full sentences and paragraphs to tell a detailed, narrative story.

3. **Connecting Texts to Visual or Oral Presentations (CC.1.3.4.G)**:

- Story/Drama and Presentation: Students should understand that a written story or play can be adapted into a visual or oral presentation (e.g., a movie, play, or reading).
- Visual Elements: In a movie or play, visuals like costumes, scenery, and acting help convey the same ideas or actions described in the text.
- Oral Elements: In an oral reading or performance, tone of voice, pacing, and emphasis help bring the story to life.
- Comparing Text and Presentation: Students should be able to identify how specific descriptions or events from the text are depicted in a visual or oral presentation, such as:
  - How a character looks in the movie compared to the description in the book.
  - How a scene in the play matches or differs from the written dialogue in the story.

translate into visual or oral presentations.
- **Visual and Oral Interpretation**: Compare a text with its visual or oral adaptations, discussing how the adaptations reflect or enhance the original text.
- **Critical Thinking**: Encourage students to analyze how different mediums (e.g., film, theater) interpret the same content and to identify specific instances where descriptions and directions align or differ.

(S1)

	4. **Critical Thinking and Communication Skills**: ◦ Analyze Word Choice: Students should be able to explain why an author chose specific words or figurative language and how it impacts the meaning of the text. ◦ Discuss Structure: Students should be able to discuss how the structure of a poem, drama, or prose affects how the story or message is delivered to the reader or audience. ◦ Compare and Contrast: Students should be able to make connections between different versions of a story (written vs. visual/oral) and explain how each medium presents the same idea in different ways. *(K1)*	

Unit #7 Grammar/Language Conventions

Draft Date	Course	Grades	Subjects	Team
10-11-2024 @ 12:45	6th Grade ELA	6	English Language Arts	Sam Baum , Deborah Hill , Shannon Myers , Amy Miller

Unit Focus

In this module, reading, writing, speaking, and listening are constructed around communicating effectively for varied purposes and audiences with the understanding that grammar, conventions, and usage help us become better readers, writers, and speakers. While reading, students will recognize and learn to appreciate the components of a well written text. Through various modes of writing, students will consider the audience by using words and phrases to convey ideas precisely while maintaining a consistent and appropriate style and tone. When speaking, students will use a grade appropriate language to communicate an idea or message effectively. Key outcomes include recognizing, understanding, and demonstrating a command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling through various modes of communication.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 6

- Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.2.6.J)*
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies and tools. *(CC.1.3.6.I)*
- Acquire and use accurately grade-appropriate general academic and domain-

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Critically engage with text and other media to recognize, understand, appreciate, and analyze multiple perspectives and cultures. *(LT.ELA.02)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*
- Listen actively to engage in a range of conversations, analyze and synthesize perspectives, and evaluate accuracy in order to learn, reflect, and respond. *(LT.ELA.05)*

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specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. *(CC.1.3.6.J)*
- Read and comprehend literary fiction on grade level, reading independently and proficiently. *(CC.1.3.6.K)*
- Write informative/ explanatory texts to examine a topic and convey ideas, concepts, and information clearly. *(CC. 1.4.6.A)*
- Identify and introduce the topic for the intended audience. *(CC.1.4.6.B)*
- Develop and analyze the topic with relevant facts, definitions, concrete details, quotations, or other information and examples; include graphics and multimedia when useful to aiding comprehension. *(CC. 1.4.6.C)*
- Organize ideas, concepts, and information using strategies such as definition, classification, comparison/contrast, and cause/effect; use appropriate transitions to clarify the relationships among ideas and concepts; provide a concluding statement or section; include formatting when useful to aiding comprehension. *(CC.1.4.6.D)*
- Write with an awareness of the stylistic aspects of composition. • Use precise language and domain-specific vocabulary to inform about or explain the topic. • Use sentences of varying lengths and complexities • Develop and maintain a consistent voice • Establish and maintain a formal style *(CC.1.4.6.E)*

Meaning	
Big Ideas	**Essential Questions**
What specifically do you want students to understand? What inferences should they make? Students will understand that... ■ Effective writers us specific writing techniques to better inform, entertain, and persuade. *(U1)* ■ Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)* ■ Critical thinkers interpret, analyze, evaluate, and synthesize information. *(BIG.ELA.02)* ■ Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)* ■ Effective speakers prepare and communicate messages to address the audience and purpose. *(BIG.ELA.04)* ■ Effective research requires the use of varied resources to gain or expand knowledge. *(BIG.ELA.05)* ■ Audience and purpose influence a writer's choice of organizational pattern, language, and literary techniques. *(BIG.ELA.06)* ■ Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)* ■ An expanded vocabulary enhances one's ability to express ideas and information. *(BIG.ELA.08)*	**What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...** ■ How are parts of speech used to write effectively and express ideas clearly? *(Q1)* ■ What is a complete thought? *(Q2)* ■ What makes an effective sentence? *(Q3)* ■ How does a writer extend a basic sentence? *(Q4)* ■ How do I write an effective paragraph? *(Q5)* ■ What details and information are necessary to support my main idea? *(Q6)* ■ What are characteristics of narrative writing? *(Q7)* ■ How do I identify and introduce the topic for the intended audience? *(Q8)* ■ How does a student write an argument to support a claim? *(Q9)* ■ What techniques can I use to influence my audience to believe, buy, or do something? *(Q10)* ■ What are the steps of the writing process? *(Q11)* ■ How do I revise a piece of writing? *(Q12)* ■ How do I edit a piece of writing? *(Q13)* ■ How do I engage my audience? *(Q14)* ■ How do writers use different wording to make their sentences more interesting? *(Q15)*

- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.6.F)*
- Write arguments to support claims. *(CC.1.4.6.G)*
- Introduce and state an opinion on a topic. *(CC.1.4.6.H)*
- Use clear reasons and relevant evidence to support claims, using credible sources and demonstrating an understanding of the topic. *(CC.1.4.6.I)*
- Organize the claim(s) with clear reasons and evidence clearly; clarify relationships among claim(s) and reasons by using words, phrases, and clauses; provide a concluding statement or section that follows from the argument presented. *(CC.1.4.6.J)*
- Write with an awareness of the stylistic aspects of composition. Use precise language and domain-specific vocabulary to inform about or explain the topic. Use sentences of varying lengths and complexities. Develop and maintain a consistent voice Establish and maintain a formal style. *(CC.1.4.6.K)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.6.L)*
- Write narratives to develop real or imagined experiences or events. *(CC.1.4.6.M)*
- Engage and orient the reader by establishing a context and introducing a narrator and/or characters. *(CC.1.4.6.N)*
- Use narrative techniques such as dialogue, description, and pacing, to develop

- What are examples of ways to organize my writing? *(Q16)*
- What are the traits for an effective listener? *(Q17)*
- How do I summarize and identify significant events of a written text read aloud? *(Q18)*
- How do I take notes when needed? *(Q19)*
- What are effective speaking techniques? *(Q20)*
- What is an appropriate pace and style for public speaking? *(Q21)*
- How can I include multimedia components and visual display for a presentation? *(Q22)*
- How do I appropriately participate in group discussions? *(Q23)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- pronoun case (e.g. subjective, possessive, objective) *(K1)*
- inappropriate shifts (pronoun number and person) *(K2)*
- vague pronouns (unclear or ambiguous antecedents) *(K3)*
- inappropriate shifts in verb tense *(K4)*
- Complete sentences (run-ons, fragments)

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- using subjective, objective, possessive, and intensive pronouns effectively *(S1)*
- identifying inappropriate pronoun and verb shifts *(S2)*
- avoiding vague pronouns *(S3)*
- writing and communicating in complete sentences *(S4)*
- using frequently used words correctly *(S5)*

experiences, events, and/or characters; use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. *(CC. 1.4.6.O)*

- Organize an event sequence that unfolds naturally and logically, using a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another; provide a conclusion that follows from the narrated experiences and events. *(CC. 1.4.6.P)*
- Write with an awareness of the stylistic aspects of writing. Vary sentence patterns for meaning, reader/listener interest, and style. Use precise language. Develop and maintain a consistent voice. *(CC.1.4.6.Q)*
- Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling. *(CC.1.4.6.R)*
- Draw evidence from literary or informational texts to support analysis, reflection, and research, applying grade level reading standards for literature and literary non-fiction. *(CC.1.4.6.S)*
- Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation. *(CC.1.5.6.D)*
- Adapt speech to a variety of contexts and tasks. *(CC.1.5.6.E)*

(K5)

- frequently confused words *(K6)*
- subject-verb agreement *(K7)*
- pronoun-antecedent agreement *(K8)*
- nonrestrictive/parenthetical elements (commas, parenthesis, and dashes) *(K9)*
- spell correctly *(K10)*
- items in a series *(K11)*
- vary sentence patterns *(K12)*
- consistency in style and tone (formal vs informal) *(K13)*
- words and phrases to convey ideas precisely *(K14)*
- how to use punctuation, words, and phrases for effect *(K15)*

- identifying the correct pronoun-antecedent and subject-verb agreement. *(S6)*
- correctly punctuating items in a series *(S7)*
- correctly punctuating items in a series *(S8)*
- writing with varying sentence patterns *(S9)*
- maintaining consistency in style and tone *(S10)*
- using precise vocabulary *(S11)*
- using words, phrases, and punctuation for effect *(S12)*

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- Include multimedia components and visual displays in presentations to clarify information. *(CC.1.5.6.F)*
- Demonstrate command of the conventions of standard English when speaking based on grade 6 level and content. *(CC.1.5.6.G)*

Other Goals

- Demonstrate commitment to learn as a lifelong process *(POG.ISD.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Act of creative ideas to make tangible and useful contributions *(POG.CI.4)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*
- Utilize multiple media and technologies, and judge their effectiveness and impact *(POG.COM.3)*

Module 6: Integrating and Evaluating Information

Draft Date	Course	Duration	Grades	Subjects	Team
03-11-2025 @ 06:30	4th Grade ELA	25.0 Day(s)	4	English Language Arts	Jessica Smith

Unit Focus

In this unit, students will develop their ability to integrate and analyze information from multiple sources, including print, digital, visual, and oral presentations. They will learn how different sources contribute to their understanding of a topic and how to compare and contrast information across texts. Students will evaluate how various presentations of information, such as charts, graphs, and multimedia, enhance comprehension. Additionally, they will examine how different versions of a story or event reflect specific details and perspectives.

Students will apply their learning by conducting short research projects on a topic of interest, gathering information from diverse sources, and organizing their findings into a clear and informative written piece. They will practice evaluating the credibility, reliability, and validity of sources while using precise language and domain-specific vocabulary to communicate their ideas effectively.

The unit will culminate in a multimedia presentation where students synthesize their research, demonstrating their ability to interpret and present information clearly.

Prior Learnings/Connection

Prior to this unit, students in earlier grades focused on identifying and integrating information from a single text or simple multimedia sources. In 2nd and 3rd grades, students were introduced to comparing information from various formats, like text and pictures, to enhance understanding. They also began making basic connections between texts and visual or oral presentations of stories. Writing tasks in earlier grades centered on developing brief informative texts with simple facts and details, but without a strong emphasis on research. Technology use was introduced, with students starting to gather and organize information, though their research skills and ability to evaluate the credibility of sources were just beginning to develop.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

English Language Arts: 4

- Interpret various presentations of information within a text or digital source and explain how the information contributes to an understanding of text in which it appears. *(CC.1.2.4.G)*
- Integrate information from two texts on the same topic to demonstrate understanding of that topic. *(CC.1.2.4.I)*
- Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text. *(CC.1.3.4.G)*
- Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. *(CC.1.4.4.A)*
- Identify and introduce the topic clearly. *(CC.1.4.4.B)*
- Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic; include illustrations and multimedia when useful to aiding comprehension. *(CC.1.4.4.C)*
- Group related information in paragraphs and sections, linking ideas within categories of information using words and phrases; provide a concluding statement or

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Comprehend and evaluate a variety of complex texts across disciplines both independently and collaboratively. *(LT.ELA.01)*
- Communicate effectively through writing and speaking for varied purposes and audiences. *(LT.ELA.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Active listeners make meaning from what they hear by questioning, reflecting, responding, and evaluating. *(BIG.ELA.03)*
- Effective readers use appropriate strategies to construct meaning. *(BIG.ELA.01)*
- Rules of grammar and language conventions support clarity of communications. *(BIG.ELA.07)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do strategic readers create meaning from informational and literary texts? *(EQ.ELA.01.A)*
- How does a researcher organize and synthesize information from various sources? *(EQ.ELA.05.B)*
- How does a researcher best present findings? *(EQ.ELA.05.C)*
- How does a writer communicate clearly and effectively? *(EQ.ELA.06.A)*
- How do grammar and the conventions of language create clarity in spoken and written communication? *(EQ.ELA.07.A)*
- How does word choice enhance the ability to communicate effectively? *(EQ.ELA.08.A)*

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section; include formatting when useful to aiding comprehension. *(CC.1.4.4.D)*
- Use precise language and domain-specific vocabulary to inform about or explain the topic. *(CC.1.4.4.E)*
- Conduct short research projects that build knowledge through investigation of different aspects of a topic. *(CC.1.4.4.V)*
- Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. *(CC.1.4.4.W)*

Other Goals

- Reflect critically on learning experiences, processes, and solutions *(POG.CTPS.4)*
- Demonstrate ability to work effectively and respectfully with diverse teams *(POG.COL.1)*
- Articulate thoughts and ideas effectively using oral, written and nonverbal communication *(POG.COM.1)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Text structures (e.g., chronology, comparison, cause/effect, problem/solution) help readers interpret and analyze information. *(K1)*
- Authors use reasons and evidence to support particular points in a text. *(K2)*
- Figurative language and vocabulary choices impact meaning and tone. *(K3)*
- Strong opinion writing includes a clear stance, logical organization, and supporting evidence. *(K4)*
- Digital tools can enhance writing, collaboration, and publication. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying and analyzing text structures in informational texts. *(S1)*
- Explaining how authors use reasons and evidence to support arguments. *(S2)*
- Determining the meaning of words and phrases, including figurative language, in context. *(S3)*
- Writing well-structured opinion pieces with clear organization, precise language, and supporting details. *(S4)*
- Using transitions to connect ideas logically. *(S5)*
- Demonstrating grade-appropriate grammar, punctuation, and spelling in writing. *(S6)*
- Publishing and sharing their writing using technology. *(S7)*
- Creating and presenting multimedia projects that effectively communicate their arguments. *(S8)*

Common Ancestry and Speciation

Draft Date	Grades	Subjects	Team
10-11-2024 @ 01:20	9 , 10 , 11 , 12	Science	Kaela Piechowicz , Josh Korb

Stage 1: Learning Goals

Established Goals	Transfer	
	Long-Term Transfer Goals	
	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...	
	Meaning	
	Big Ideas	**Essential Questions**
	What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
	What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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Module 1A Matter

Draft Date	Grades	Subjects	Team
12-09-2024 @ 06:14	2	Science	Lindsay Feeser , Josh Korb

Stage 1: Learning Goals

Established Goals	Transfer	
	Long-Term Transfer Goals	
	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...	
	Meaning	
	Big Ideas	**Essential Questions**
	What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
	What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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Untitled Unit

Draft Date	Grades	Subjects	Team
10-07-2024 @ 07:36	1	Science	Josh Korb , ROBIN SHERMAN

Stage 1: Learning Goals

Established Goals	Transfer	
	Long-Term Transfer Goals	
	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...	
	Meaning	
	Big Ideas	**Essential Questions**
	What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
	What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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Cells

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:29	6th Grade Science	8.0 Weeks	6	Science	Michael Beachy

Unit Focus

An introduction to cells, organelles, functions of organelles, photosynthesis, cell respiration, and cell transport.

Anchoring Phenomenon

A middle school student injured his foot and could not walk. Over the next 4 months, the foot healed and the student could walk again.

Prior Learnings/Connection

Characteristics of Living Things

Creating a model

Navigation to next lesson/storyline

This unit launches with students hearing about an injury that happened to a middle school student that caused him to need stitches, pins, and a cast. They analyze reports and develop an initial model for what is going on in our body when it heals. Students investigate what the different parts of our body are made of, from the macro scale to the micro scale. They figure out parts of our body are made of cells and that these cells work together for our body to function. Once students investigate what their bodies are made of and how the parts of their body work together to be able to move, they wonder how the parts of our body heal. They start by watching a time lapse of a knee scrape and notice that over time the part that was scraped is filled in with new skin cells. Students investigate what happens when cells make more cells, what cells need to make more cells, and how cells get what they need to make more cells. They apply their model for healing to explain growth at growth plates in children's bodies as they become adults.

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Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 6-8 Standards

- Conduct an investigation to provide evidence that living things are made of cells, either one cell or many different numbers and types of cells.

  Clarifying Statement: Emphasis is on developing evidence that living things are made of cells, distinguishing between living and non-living things, and understanding that living things may be made of one cell or many and varied cells.

  Assessment Boundary: N/A *(3.1.6-8.A)*
- Develop and use a model to describe the function of a cell as a whole and the ways that parts of cells contribute to the function.

  Clarifying Statement: Emphasis is on the cell functioning as a whole system and the primary role of identified parts of the cell, specifically the nucleus, chloroplasts, mitochondria, cell membrane, and cell wall.

  Assessment Boundary: Assessment of organelle structure/function relationships is limited to the cell wall and cell

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T2)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- All organisms are made of cells and can be characterized by common aspects of their structure and functioning. *(U1)*
- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with other organisms and the physical environment *(U2)*
- Photosynthesis plays a role in the cycling of matter and flow of energy into and out of organisms *(U3)*
- Cell Respiration plays a role in the cycling of matter in an ecosystem *(U4)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- What is the relationship between different types of cells and how they carry out life functions? *(Q1)*
- How do we know if something is alive? *(Q2)*
- How does life result from cellular structure and function? *(Q3)*
- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*
- How do the major organelles of cells help keep an organism alive? *(Q5)*
- What are the functions of the organelles in a cell? *(Q6)*
- What happens during the process of photosynthesis? *(Q7)*
- How do materials move in and out of a cell? *(Q8)*

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membrane. Assessment of the function of the other organelles is limited to their relationship to the whole cell. Assessment does not include the biochemical function of cells or cell parts. *(3.1.6-8.B)*

- How do the properties of water help living things? *(Q9)*
- What happens during cell respiration? *(Q10)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Characteristics of Living Things Parts of a cellFunctions of Cell Parts Process of Photosynthesis Process of Cell Respiration Cell Transport Properties of Water *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Developing and using a model *(S1)*
- Analyzing and interpreting data *(S2)*
- Conducting an investigation *(S3)*
- Constructing an explanation *(S4)*
- Using a microscope *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Ask questions that arise from careful observation of phenomena, models, or unexpected results, to clarify and/or seek additional information. *(SEP.6-8.P1.A)*
- Ask questions to clarify and/or refine a model, an explanation, or an engineering problem. *(SEP.6-8.P1.D)*
- Evaluate limitations of a model for a proposed object or tool. *(SEP.6-8.P2.A)*
- Develop or modify a model—based on evidence – to match what happens if a variable or component of a system is changed. *(SEP.6-8.P2.B)*
- Develop and/or revise a model to show the relationships among variables, including those that are not observable but predict observable phenomena. *(SEP.6-8.P2.D)*
- Construct an explanation using models or representations. *(SEP.6-8.P4.B)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- All living things are made up of cells, which is the smallest unit that can be said to be alive. An organism may consist of one single cell (unicellular) or many different numbers and types of cells (multicellular). *(DCI.6-8.LS1.A .1)*
- Within cells, special structures are responsible for particular functions, and the cell membrane forms the boundary that controls what enters and leaves the cell. *(DCI.6-8.LS1.A .2)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Models can be used to represent systems and their interactions—such as inputs, processes and outputs—and energy and matter flows within systems. *(CCC.6-8.C4.B.1)*

Vocabulary

photosynthesis

cell respiration

cell transport

nucleus

golgi body

endoplasmic reticulum

ribosome

chloroplast

mitochondria

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lysosome
adhesion
cohesion
capillary action
universal solvent
high specific heat
density
surface tension

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Ecosystem Interactions

Draft Date	Course	Grades	Subjects	Team
10-11-2024 @ 12:51	Biology	9 , 10 , 11 , 12	Science	ANGELA JEWART , Josh Korb

Unit Focus

Through investigations with complex data sets and hands-on simulations, students figure out how limiting factors impact carrying capacity, how group behavior impacts survival, and how biodiversity supports ecosystem resilience. By engaging with real-world conservation dilemmas and exploring various interest-holder perspectives, students identify the trade-offs humans make as they manage natural resources to support human society as well as the natural systems we live in.

Anchoring Phenomenon

In the anchoring phenomenon, students explore conservation in the context of the 30 by 30 Initiative which aims to conserve 30 percent of US lands and waters by 2030. This phenomenon gives students a real world context for thinking about ecosystems and their protection while at the same time helping them recognize that often, what we learn about one ecosystem can be applied to another.

Prior Learnings/Connection

- Science knowledge is based on empirical evidence.
- Science arguments are strengthened by multiple lines of evidence supporting a single explanation.
- Many decisions are not made using science alone, but rely on social and cultural contexts to resolve issues.
- Science is both a body of knowledge that represents a current understanding of natural systems and the processes used to refine, elaborate, revise, and extend this knowledge.

Navigation to next lesson/storyline

Students will first focus on the populations within an ecosystem and the different factors that affect them. They will then unravel the complexity of ecosystems as they discover the importance of keystone species in terms of ecosystem stability and resilience. Students then use their understanding of ecosystems to evaluate their conservation in the US. This unit culminates with a transfer task where they apply all of their understandings to the American Prairie and its conservation.

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Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales.

  Clarifying Statement: Emphasis is on quantitative analysis and comparison of the relationships among interdependent factors including boundaries, resources, climate, and competition. Examples of mathematical comparisons could include graphs, charts, histograms, and population changes gathered from simulations or historical data sets.

  Assessment Boundary: Assessment does not include deriving mathematical equations to make comparisons. *(3.1.9-12.I)*
- Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.

  Clarifying Statement: Emphasis is on conceptual understanding of the role of aerobic and anaerobic respiration in different environments.

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with other organisms and the physical environment *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*
- How and why do organisms interact with their environment and what are the effects of these interactions? *(EQ.SCI.LIFE.02)*
- How does variation contribute to the natural selection of advantageous traits among organisms? *(EQ.SCI.LIFE.04)*
- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

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Assessment Boundary: Assessment does not include the specific chemical processes of either aerobic or anaerobic respiration. *(3.1.9-12.J)*

- Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.

Clarifying Statement: Examples of models could include simulations and mathematical models.

Assessment Boundary: Assessment does not include the specific chemical steps of photosynthesis and respiration. *(3.1.9-12.K)*

- Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.

Clarifying Statement: Examples of mathematical representations include finding the average, determining trends, and using graphical comparisons of multiple sets of data.

Assessment Boundary: Assessment is limited to provided data. *(3.1.9-12.L)*

- Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

Clarifying Statement: Examples of human activities can include urbanization, building

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Ecosystem Interactions *(K1)* ■ Migrations *(K2)* ■ Carrying Capacity *(K3)* ■ Conservation *(K4)* ■ Biodiversity *(K5)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Predict the outcomes of predator prey, group behavior and competition interactions *(S1)* ■ Identify the driving force behind wildebeest migration by analyzing and organizing field data. *(S2)* ■ Apply knowledge of migrations patterns to other animal models *(S3)* ■ Demonstrate carrying capacity is affect by migration, food availability, predation and other factors *(S4)* ■ Develop strategies that increase commitment to conservation. *(S5)* ■ Explain how biodiversity contributed to resilience and ecosystem stability *(S6)* ■ Evaluate conservation plans by considering their impact on organisms, the overall ecosystems and other interest holders. *(S7)*

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dams, and dissemination of invasive species.

Assessment Boundary: N/A *(3.1.9-12.N)*

- Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.

Clarifying Statement: Emphasis is on: (1) distinguishing between group and individual behavior, (2) identifying evidence supporting the outcomes of group behavior, and (3) developing logical and reasonable arguments based on evidence. Examples of group behaviors could include flocking, schooling, herding, and cooperative behaviors such as hunting, migrating, and swarming.

Assessment Boundary: N/A *(3.1.9-12.O)*

- Evaluate the evidence supporting claims that changes in environmental conditions may result in (1)increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.

Clarifying Statement: Emphasis is on determining cause and effect relationships for how changes to the environment such as deforestation, fishing, application of fertilizers, drought, flood, and the rate of change of the environment affect distribution or disappearance of traits in species.

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Assessment Boundary: N/A *(3.1.9-12.X)*

- Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity.

  Clarifying Statement: Examples of factors that affect the management of natural resources include costs of resource extraction and waste management, percapita consumption, and the development of new technologies. Examples of factors that affect human sustainability include agricultural efficiency, levels of conservation, and urban planning.

  Assessment Boundary: Assessment for computational simulations is limited to using provided multi-parameter programs or constructing simplified spreadsheet calculations. *(3.3.9-12.Q)*
- Evaluate or refine a technological solution that reduces the impact of human activities on natural systems.

  Clarifying Statement: Examples of data on the impacts of human activities could include the quantities and types of pollutants released, changes to biomass and species diversity, or areal changes in land surface use (such as for urban development, agriculture and livestock, or surface mining). Examples for limiting

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future impacts could range from local efforts (such as reducing, reusing, and recycling resources) to large-scale geoengineering design solutions (such as altering global temperatures by making large changes to the atmosphere or ocean).

Assessment Boundary: N/A *(3.3.9-12.R)*

- Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems.

  Clarifying Statement: Examples of evidence, for both data and climate model outputs, are for climate changes (such as precipitation and temperature) and their associated impacts (such as on sea level, glacial ice volumes, or atmosphere and ocean composition).

  Assessment Boundary: Assessment is limited to one example of a climate change and its associated impacts. *(3.3.9-12.S)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Design, evaluate, and/or refine a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and tradeoff considerations. *(SEP.9-12.P4.E)*
- Create and/or revise a computational model or simulation of a phenomenon, designed device, process, or system. *(SEP.9-12.P6.A)*
- Use mathematical, computational, and/or algorithmic representations of phenomena or design solutions to describe and/or support claims and/or explanations. *(SEP.9-12.P6.B)*

- Evaluate the claims, evidence, and/or reasoning behind currently accepted explanations or solutions to determine the merits of arguments. *(SEP.9-12.P7.B)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Ecosystems have carrying capacities, which are limits to the numbers of organisms and populations they can support. These limits result from such factors as the availability of living and nonliving resources and from such challenges such as predation, competition, and disease. Organisms would have the capacity to produce populations of great size were it not for the fact that environments and resources are finite. This fundamental tension affects the abundance (number of individuals) of species in any given ecosystem. *(DCI.9-12.LS2.A.1)*
- A complex set of interactions within an ecosystem can keep its numbers and types of organisms relatively constant over long periods of time under stable conditions. If a modest biological or physical disturbance to an ecosystem occurs, it may return to its more or less original status (i.e., the ecosystem is resilient), as opposed to becoming a very different ecosystem. Extreme fluctuations in conditions or the size of any population, however, can challenge the functioning of ecosystems in terms of resources and habitat availability. *(DCI.9-12.LS2.C.1)*
- Group behavior has evolved because membership can increase the chances of survival for individuals and their genetic relatives. *(DCI.9-12.LS2.D.1)*
- Changes in the physical environment, whether naturally occurring or human induced, have thus contributed to the expansion of some species, the emergence of new distinct species as populations diverge under different conditions, and the decline–and sometimes the extinction–of some species. *(DCI.9-12.LS4.C.3)*
- Species become extinct because they can no longer survive and reproduce in their altered environment. If members cannot adjust to change that is too fast or drastic, the opportunity for the species' evolution is lost. *(DCI.9-12.LS4.C.5)*
- Biodiversity is increased by the formation of new species (speciation) and decreased by the loss of species (extinction). *(DCI.9-12.LS4.D.1)*
- Humans depend on the living world for the resources and other benefits provided by biodiversity. But human activity is also having adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change. Thus sustaining biodiversity so that ecosystem functioning and productivity are maintained is essential to supporting and enhancing life on Earth. Sustaining biodiversity also aids humanity by preserving landscapes of recreational or inspirational value. *(DCI.9-12.LS4.D.2)*
- The sustainability of human societies and the biodiversity that supports them requires responsible management of natural resources. *(DCI.9-12.ESS3.C.1)*
- When evaluating solutions it is important to take into account a range of constraints including cost, safety, reliability and aesthetics and to consider social, cultural and environmental impacts. *(DCI.9-12.ETS1.B.1)*
- Criteria may need to be broken down into simpler ones that can be approached systematically, and decisions about the priority of certain criteria over others (trade-offs) may be needed. *(DCI.9-12.ETS1.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Empirical evidence is required to differentiate between cause and correlation and make claims about specific causes and effects. *(CCC.9-12.C2.A)*
- The significance of a phenomenon is dependent on the scale, proportion, and quantity at which it occurs. *(CCC.9-12.C3.A)*
- Using the concept of orders of magnitude allows one to understand how a model at one scale relates to a model at another scale. *(CCC.9-12.C3.C)*
- Much of science deals with constructing explanations of how things change and how they remain stable. *(CCC.9-12.C7.A)*
- Change and rates of change can be quantified and modeled over very short or very long periods of time. Some system changes are irreversible. *(CCC.9-12.C7.B)*

Vocabulary

Biodiversity
Carrying capacity
Competition
Conservation
Ecosystem
Endangered
Endemic
Group behavior
Limiting factor
Keystone species
Migration
Predator
Population

Energy

Draft Date	Course	Duration	Grades	Subjects	Team
06-12-2025 @ 04:09	Physics I	7.0 Weeks	11 , 12	Science	John George

Unit Focus

This unit serves as an explanation of the physical phenomenon of Energy, including the different forms of energy that are commonly encountered in Physics.

Anchoring Phenomenon

A roller coaster can operate for the majority of its ride without the use of a motor. How is this possible?

Prior Learnings/Connection

Students at this point have learned about forces and how they connect to motion through Newton's Second law. This unit will expand on this concept with the concept of energy

Navigation to next lesson/storyline

When students have learned about the concept of energy and the nuances of how it connects motion and forces, the major mediating factor of kinetic energy "momentum" can be introduced as a physical concept.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Definitions of Energy *(1111319829)*
- Conservation of Energy and Energy Transfer *(1111319833)*
- Relationship Between Energy and Forces *(1111319835)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Gather and interpret measurements and data and apply to new situations. *(T1)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T2)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T3)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T4)*

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- Design an investigation or model using appropriate tools, resources, and methods. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U1)*
- Interactions between any two objects can cause changes in one or both. *(U2)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*
- How are relationships represented mathematically and effectively communicated? *(EQ.MATH.01.A)*
- How can data be organized and represented to provide insight into the relationship between quantities? *(EQ.MATH.01.B)*
- How can mathematical quantities and relationships be used to solve, model and/or analyze mathematical situations? *(EQ.MATH.02.A)*
- How can data be organized and represented to provide insight into the relationship between quantities? *(EQ.MATH.02.B)*

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Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Energy is the capacity to do work *(K1)* ■ Work is the application of a force over a distance *(K2)* ■ Energy comes broadly in two forms, kinetic and potential energy. *(K3)* ■ Kinetic Energy is the energy associated with the motion of an object *(K4)* ■ Potential Energy is associated with the position of an object within a field, whether that field be gravity, electromagnetic, or another field type. *(K5)* ■ A system is a part of the universe that we have sectioned off from the rest of the universe that we refer to as the environment. We do this to make claims about the system and to more easily do experiments on a smaller, more constrained set-up. *(K6)* ■ When a quantity is conserved, the total amount of it before and after an event is the same. *(K7)* ■ The energy of a system is conserved. *(K8)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Identifying and explaining the transformations of energy in a system *(S1)* ■ calculating the amount of energy in an object or system given knowledge about the system. *(S2)* ■ identifying the form of energy being presented when presented with information about the energy. *(S3)* ■ predicting the behavior of an object in a system when undergoing an energy transformation. *(S4)* ■ relating the forces upon an object or system when given information about the energy, and vice-versa. *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Ask questions that arise from careful observation of phenomena, or unexpected results, to clarify and/or seek additional information. *(SEP.9-12.P1.A)*
- Ask questions to determine relationships, including quantitative relationships, between independent and dependent variables. *(SEP.9-12.P1.C)*
- Analyze data using tools, technologies, and/or models (e.g., computational, mathematical) in order to make valid and reliable scientific claims or determine an optimal design solution. *(SEP.9-12.P5.A)*
- Apply concepts of statistics and probability (including determining function fits to data, slope, intercept, and correlation coefficient for linear fits) to scientific and engineering questions and problems, using digital tools when feasible. *(SEP.9-12.P5.B)*
- Consider limitations of data analysis (e.g., measurement error, sample selection) when analyzing and interpreting data. *(SEP.9-12.P5.C)*
- Use mathematical, computational, and/or algorithmic representations of phenomena or design solutions to describe and/or support claims and/or explanations. *(SEP.9-12.P6.B)*
- Apply techniques of algebra and functions to represent and solve scientific and engineering problems. *(SEP.9-12.P6.C)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- "Electrical energy" may mean energy stored in a battery or energy transmitted by electric currents. *(DCI.9-12.PS3.A.1)*
- Energy is a quantitative property of a system that depends on the motion and interactions of matter and radiation within that system. That there is a single quantity called energy is due to the fact that a system's total energy is conserved, even as, within the system, energy is continually transferred from one object to another and between its various possible forms. *(DCI.9-12.PS3.A.2)*
- At the macroscopic scale, energy manifests itself in multiple ways, such as in motion, sound, light, and thermal energy. *(DCI.9-12.PS3.A.3)*
- These relationships are better understood at the microscopic scale, at which all of the different manifestations of energy can be modeled as a combination of energy associated with the motion of particles and energy associated with the configuration (relative position of the particles). In some cases the relative position energy can be thought of as stored in fields (which mediate interactions between particles). This last concept includes radiation, a phenomenon in which energy stored in fields moves across space. *(DCI.9-12.PS3.A.4)*
- Conservation of energy means that the total change of energy in any system is always equal to the total energy transferred into or out of the system. *(DCI.9-12.PS3.B.1)*
- Energy cannot be created or destroyed, but it can be transported from one place to another and transferred between systems. *(DCI.9-12.PS3.B.2)*

- Mathematical expressions, which quantify how the stored energy in a system depends on its configuration (e.g., relative positions of charged particles, compression of a spring) and how kinetic energy depends on mass and speed, allow the concept of conservation of energy to be used to predict and describe system behavior. *(DCI.9-12.PS3.B.3)*
- The availability of energy limits what can occur in any system. *(DCI.9-12.PS3.B.4)*
- Uncontrolled systems always evolve toward more stable states—that is, toward more uniform energy distribution (e.g., water flows downhill, objects hotter than their surrounding environment cool down). *(DCI.9-12.PS3.B.5)*
- When two objects interacting through a field change relative position, the energy stored in the field is changed. *(DCI.9-12.PS3.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Different patterns may be observed at each of the scales at which a system is studied and can provide evidence for causality in explanations of phenomena. *(CCC.9-12.C1.A.1)*
- Classifications or explanations used at one scale may not be useful or need revision using a different scale; thus requiring improved investigations and experiments. *(CCC.9-12.C1.B)*
- Mathematical representations are used to identify certain patterns and analyze patterns of performance in order to reengineer and improve a designed system. *(CCC.9-12.C1.C)*
- Models (e.g., physical, mathematical, computer models) can be used to simulate systems and interactions—including energy, matter, and information flows—within and between systems at different scales. *(CCC.9-12.C4.B)*
- Models can be used to predict the behavior of a system, but these predictions have limited precision and reliability due to the assumptions and approximations inherent in models. *(CCC.9-12.C4.C)*
- The total amount of energy and matter in closed systems is conserved. *(CCC.9-12.C5.A)*
- Changes of energy and matter in a system can be described in terms of energy and matter flows into, out of, and within that system. *(CCC.9-12.C5.B)*
- Energy cannot be created or destroyed—it only moves between one place and another place, between objects and/or fields, or between systems. *(CCC.9-12.C5.C)*
- Energy drives the cycling of matter within and between systems. *(CCC.9-12.C5.D)*

Vocabulary

work

energy

potential energy
kinetic energy
conservation
system
environment
energy transformation

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Forces and Newton's Three Laws of Motion

Draft Date	Course	Duration	Grades	Subjects	Team
06-09-2025 @ 08:04	Physics I	6.0 Weeks	11 , 12	Science	John George

Unit Focus

Students will learn about the nature of Forces and how they relate to motion through Newton's Three Laws of Motion. They will learn how to express mathematically the forces they experience in their lives, such as tension, gravity, and friction.

Anchoring Phenomenon

A sled is pulled up a hill and then released. Eventually after reaching the bottom, it comes to a stop. How can we use forces to describe that is

Prior Learnings/Connection

Now with the knowledge of vectors and two-dimensional motion at hand, students will be able to describe the causes of motion via Forces. Forces can be used to explain the changes in motion that objects experience.

Navigation to next lesson/storyline

Forces as the causes of changes in motion is a useful explanation. However, if students want to know about the actual things that change for an object, its energy must be analyzed.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): 9-12 Standards ■ Analyze data to support the claim that Newton’s second law of motion describes the mathematical relationship among the net force on a macroscopic object, its	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Design an investigation or model using appropriate tools, resources, and methods. *(T1)* ■ Gather and interpret measurements and data and apply to new situations. *(T2)* ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*

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mass, and its acceleration.

Clarifying Statement: Examples of data could include tables or graphs of position or velocity as a function of time for objects subject to a net unbalanced force, such as a falling object, an object sliding down a ramp, or a moving object being pulled by a constant force.

Assessment Boundary: Assessment is limited to one-dimensional motion and to macroscopic objects moving at non-relativistic speeds. *(3.2.9-12.I)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Interactions between any two objects can cause changes in one or both. *(U1)*
- Information can be modeled and used to make inferences. *(BIG.MATH.03)*
- Spatial and visual relationships can be analyzed, described, and classified in order to evaluate situations and solve problems. *(BIG.MATH.04)*
- **Patterns exhibit relationships that can be described, extended, and generalized.** *(BIG.MATH.05)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How are relationships represented mathematically and effectively communicated? *(EQ.MATH.01.A)*
- How can data be organized and represented to provide insight into the relationship between quantities? *(EQ.MATH.01.B)*
- How can mathematical quantities and relationships be used to solve, model and/or analyze mathematical situations? *(EQ.MATH.02.A)*
- How can mathematical relationships be used to make inferences? *(EQ.MATH.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- A force is a push or a pull, and can be either caused by contact or through fields *(K1)*
- Newton made 3 laws of motion1st Law - An object in motion will stay in motion or an object at rest will stay at rest

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Calculating the mass, acceleration, or force on an object given the other two quantities *(S1)*
- identifying the forces on an object and describing them using a free-body diagram. *(S2)*

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	unless acted upon by an outside, unbalanced force.2nd Law - The mathematical relationship between an object's mass, its acceleration, and the force to move it: F = ma3rd Law - Every action has an equal and opposite reaction. *(K2)* ■ Forces can be used to describe many interactions that happen to us and the things around us in our lives. *(K3)* ■ Tension is the force of a pull transferred over a distance via cabling or ropes *(K4)* ■ Friction is a resistive force, equal to the magnitude of an object's "normal force" and the coefficient of friction that the object has with the surface it is contact with as it moves. *(K5)* ■ The normal force of an object is the reaction force that is caused by its weight pushing down onto a surface. This value can change based on the angle of the surface relative to the direction of the weight pushing into the surface. *(K6)* ■ An object's weight is determined by its mass and the acceleration due to gravity. *(K7)*	■ Finding the total force on an object when given either a written description or a free-body diagram. *(S3)* ■ calculating the friction force on an object given its mass, the coefficient of friction on the surface, and the angle of the surface relative to the object's weight *(S4)* ■ determining the force of gravity on an object given its weight *(S5)* ■ relating the total force on an object to its acceleration *(S6)* ■ predicting the two-dimensional path of an object given either a written description of the forces on an object or a free-body diagram. *(S7)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

■ Plan an investigation or test a design individually and collaboratively to produce data to serve as the basis for evidence as part of building and revising models, supporting explanations for phenomena, or testing solutions to problems. Consider possible confounding variables or effects and evaluate the investigation’s design to ensure variables are controlled. *(SEP.9-12.P3.A)*

- Select appropriate tools to collect, record, analyze, and evaluate data. *(SEP.9-12.P3.D)*
- Make a quantitative and/or qualitative claim regarding the relationship between dependent and independent variables. *(SEP.9-12.P4.A)*
- Analyze data using tools, technologies, and/or models (e.g., computational, mathematical) in order to make valid and reliable scientific claims or determine an optimal design solution. *(SEP.9-12.P5.A)*
- Apply techniques of algebra and functions to represent and solve scientific and engineering problems. *(SEP.9-12.P6.C)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Newton's second law accurately predicts changes in the motion of macroscopic objects. *(DCI.9-12.PS2.A.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Cause and effect relationships can be suggested to explain and predict behaviors in complex natural and designed systems. *(CCC.9-12.C2.B)*

Vocabulary

force

tension

friction

gravity

spring force

free-body diagram

total force/net force

normal force

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reaction force
weight
Newton's First Law
Newton's Second Law
Newton's Third Law
contact force
field force

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Genetics

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 02:44	6th Grade Science	6.0 Weeks	6	Science	Michael Beachy

Unit Focus

A study of how traits are passed on from one generation to the next.

Anchoring Phenomenon

Why do cattle and several other animals that have extra big muscles?

Prior Learnings/Connection

Genetic material creates the human body

Navigation to next lesson/storyline

Students learn how traits are passed on from one generation to the next. They survey their own observable traits as well as those of others, explore genetic variation, and learn how organisms go from one cell to a multicellular organism with trillions of specialized cells. They also study the mechanism of DNA replication and the causes and effects of mutations in genetic code. The unit starts out with students noticing and wondering about photos of two cattle, one of whom has significantly more muscle than the other. The students then observe photos of other animals with similar differences in musculature: dogs, fish, rabbits, and mice. After developing initial models for the possible causes of these differences in musculature, students explore a collection of photos showing a range of visible differences. Students investigate how muscles typically develop as a result of environmental factors such as exercise and diet. Then, students work with data about chromosomes and proteins, to study the genetic factors that influence the heavily muscled phenotype and explore selective breeding in cattle. They use what they've learned to help them explain other trait variations they've seen. Additionally, they investigate plant reproduction, including selective breeding and single parent reproduction (in plants and other organisms) and other examples of traits that are influenced by genetic and environmental factors. Students figure out that environmental and genetic factors together play a role in the differences we see among living things.

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Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 6-8 Standards

- Use arguments based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants, respectively.

  Clarifying Statement: Examples of behaviors that affect the probability of animal reproduction could include nest building to protect young from cold, herding of animals to protect young from predators, and vocalization of animals and colorful plumage to attract mates for breeding. Examples of animal behaviors that affect the probability of plant reproduction could include transferring pollen or seeds, and creating conditions for seed germination and growth. Examples of plant structures could include bright flowers attracting butterflies that transfer pollen, flower nectar and odors that attract insects that transfer pollen, and hard shells on nuts that squirrels bury.

  Assessment Boundary: N/A *(3.1.6-8.D)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Understand how traits are passed down from generation to generation *(T1)*
- Design an investigation or model using appropriate tools, resources, and methods. *(T2)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Creating models help to understand heredity *(U1)*
- Heredity refers to specific mechanisms by which characteristics or traits are passed from one generation to the next. *(U2)*
- Environmental and genetic factors influence the growth of organisms *(U3)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- What is the difference between an acquired trait and an inherited trait? *(Q1)*
- How are traits inherited? *(Q2)*
- What is the role of mutations in inhertance? *(Q3)*
- What is the role of DNA in inheritance? *(Q4)*
- How punnett squares help understand inheritance? *(Q5)*
- How are genotypes related to phenotypes? *(Q6)*
- How are traits related to genetics? *(Q7)*
- How are alleles, genotypes, phenotypes and punnett squares related to each other? *(Q8)*

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- Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

  Clarifying Statement: Examples of local environmental conditions could include availability of food, light, space, and water. Examples of genetic factors could include large breed cattle and species of grass affecting growth of organisms. Examples of evidence could include drought decreasing plant growth, fertilizer increasing plant growth, different varieties of plant seeds growing at different rates in different conditions, and fish growing larger in large ponds than they do in small ponds.

  Assessment Boundary: Assessment does not include genetic mechanisms, gene regulation, or biochemical processes. *(3.1.6-8.E)*
- Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.

  Clarifying Statement: Emphasis is on conceptual understanding that changes in genetic material may result in making different proteins.

  Assessment Boundary: Assessment does not include specific changes at the

- What is the role of chromosomes in genetics? *(Q9)*
- How do you model heredity? *(Q10)*
- What is the structure of DNA? *(Q11)*
- How is DNA unique to each organism? *(Q12)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Traits *(K1)* ■ Simple genetic models *(K2)* ■ Advanced genetic models *(K3)* ■ The role of Chromosomes in genetics *(K4)* ■ The role of DNA in genetics *(K5)* ■ The role of mutations in genetics *(K6)* ■ Genetic disorders *(K7)*	■ Constructing an explanation based on evidence *(S1)* ■ Using an argument to support an explanation *(S2)* ■ Developing and using a model *(S3)* ■ Gathering and synthesizing information *(S4)* ■ Constructing a punnett square *(S5)*

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molecular level, mechanisms for protein synthesis, or specific types of mutations. *(3.1.6-8.M)*

- Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.

  Clarifying Statement: Emphasis is on using models such as Punnett squares, diagrams, and simulations to describe the cause and effect relationship of gene transmission from parent(s) to offspring and resulting genetic variation.

  Assessment Boundary: N/A *(3.1.6-8.N)*
- Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.

  Clarifying Statement: Emphasis is on synthesizing information from reliable sources about the influence of humans on genetic outcomes in artificial selection (such as genetic modification, animal husbandry, gene therapy); and, on the impacts these technologies have on society as well as the technologies leading to these scientific discoveries.

  Assessment Boundary: N/A *(3.1.6-8.R)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Ask questions to clarify and/or refine a model, an explanation, or an engineering problem. *(SEP.6-8.P1.D)*
- Develop a model to describe unobservable mechanisms. *(SEP.6-8.P2.F)*
- Construct an explanation using models or representations. *(SEP.6-8.P4.B)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- Genetic factors as well as local conditions affect the growth of the adult plant. *(DCI.6-8.LS1.B.3)*
- Genes are located in the chromosomes of cells, with each chromosome pair containing two variants of each of many distinct genes. Each distinct gene chiefly controls the production of specific proteins, which in turn affects the traits of the individual. Changes (mutations) to genes can result in changes to proteins, which can affect the structures and functions of the organism and thereby change traits. *(DCI.6-8.LS3.A.1)*
- Variations of inherited traits between parent and offspring arise from genetic differences that result from the subset of chromosomes (and therefore genes) inherited. *(DCI.6-8.LS3.A.2)*
- In addition to variations that arise from sexual reproduction, genetic information can be altered because of mutations. Though rare, mutations may result in changes to the structure and function of proteins. Some changes are beneficial, others harmful, and some neutral to the organism. *(DCI.6-8.LS3.B.1)*
- In sexually reproducing organisms, each parent contributes half of the genes acquired (at random) by the offspring. Individuals have two of each chromosome and hence two alleles of each gene, one acquired from each parent. These versions may be identical or may differ from each other. *(DCI.6-8.LS3.B.2)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Models can be used to represent systems and their interactions. *(CCC.6-8.C4.B.2)*

Vocabulary

trait

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gene
allele
genotype
dominant allele
recessive allele
homozygous
heterozygous
DNA
chromosome
punnett square
mutation

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Hierarchy and History of Life

Draft Date	Course	Grades	Subjects	Team
05-14-2025 @ 05:46	Ecology	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Biological Organization, Earth History, Plate Techtonics

Stage 1: Learning Goals

Established Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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Measurement

Draft Date	Course	Duration	Grades	Subjects	Team
04-15-2025 @ 03:15	Chemistry	20.0 Day(s)	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Unit Conversions, Lab Techniques, Measurement, Significant Figures

What are the proper methods for measurement taking in a laboratory setting?

How are measurements used in chemistry?

Anchoring Phenomenon

NASA measuring units problem. Scientists need to communicate effectively in order to be successful. The Mar's Climate Orbiter burned up due to unit conversion error. Engineers used English units instead of metric causing a failure.

Prior Learnings/Connection

Students will need prior knowledge in: metric units, metric conversions, basic laboratory technique, basic arithmetic

Navigation to next lesson/storyline

Taking and interpreting measurements is necessary to any quantitative science. Chemistry relies on accuracy in taking and using measurements including knowing which units the measurements carry. Improper rounding or units on measurements or calculations can lead to miscommunications when publishing data. In addition, laboratory equipment has proper usage to ensure accuracy, precision, and safety. Now that students understand the language of chemistry and have reviewed what a lab science entails, they will be able to successfully begin to look into what evidence scientists used from those lab techniques to explain the chemical world. They will begin to look into how things that are so small were about to be discovered and realize what scale chemistry is operating on.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Technology & Engineering (2023): 9-12
Technology & Engineering

- Evaluate ways that technology and engineering can impact individuals, society, and the environment. *(3.5.9-12.H)*
- Assess how similarities and differences among scientific, technological, engineering, and mathematical knowledge and skills contributed to the design of a product or system. *(3.5.9-12.BB)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Interactions between any two objects can cause changes in one or both. *(U1)*
- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U2)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- measurements and calculations are rounded according to significant figures rules. *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- using laboratory equipment to make proper measurements and observations. *(S1)*
- recording quantitative observations. *(S2)*

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	■ unit analysis can allow measurements to be properly converted between units. *(K2)* ■ laboratory safety rules. *(K3)* ■ laboratory equipment has proper usage guidelines. *(K4)* ■ density is mass divided by volume. *(K5)*	■ converting measurements between units. *(S3)*

Science and Engineering Practices

Pennsylvania STEELS

Technology & Engineering (2023): 9-12 Science & Engineering Practices

- Evaluate the claims, evidence, and/or reasoning behind currently accepted explanations or solutions to determine the merits of arguments. *(SEP.9-12.P4.2)*
- Compare and evaluate competing arguments or design solutions in light of currently accepted explanations, new evidence, limitations (e.g., trade-offs), constraints, and ethical issues. *(SEP.9-12.P4.3)*

Technology & Engineering (2023): 9-12 Technology & Engineering Practices

- Assesses technological products, systems, and processes through critical analysis of their impacts and outcomes. *(TEP.9-12.A.1)*
- Demonstrates the ability to regulate and improve making and doing skills. *(TEP.9-12.F.1)*
- Designs and troubleshoots technological systems in ways that consider the multiple components of the system. *(TEP.9-12.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Technology & Engineering (2023): 9-12 Disciplinary Core Ideas

- Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity. *(DCI.9-12.HS.LS2.7)*
- Engineers use science, mathematics, and other disciplines to improve technology, while scientists use tools devised by engineers to advance knowledge in their disciplines. This interaction has deepened over the past century. *(DCI.9-12.NAEP.D.12.2)*
- Analyze cultural, social, economic, or political changes (separately or together) that may be triggered by the transfer of a specific technology from one society to another. Include both anticipated and unanticipated effects. *(DCI.9-12.NAEP.T.12.4)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Empirical evidence is required to differentiate between cause and correlation and make claims about specific causes and effects. *(CCC. 9-12.C2.A)*
- Using the concept of orders of magnitude allows one to understand how a model at one scale relates to a model at another scale. *(CCC. 9-12.C3.C)*

Vocabulary

significant figures, accuracy, precision, density, percent error, metric system

Module 1 - Matter

Draft Date	Course	Duration	Grades	Subjects	Team
10-11-2024 @ 12:19	8th Grade Science	5.0 Weeks	8	Science	Kami Greenawalt

Unit Focus

Students will explore the fundamentals of molecular movement and the effects of thermal energy on it. They will examine changes of state, the phases of matter, and the dynamic behavior of molecules.

Anchoring Phenomenon

Wood frog through the seasons.

Prior Learnings/Connection

Students have previously learned that all matter is made of particles and that these particles are in constant motion. They have observed and described physical changes such as melting, freezing, and evaporation, and have developed a basic understanding of solids, liquids, and gases. This unit builds on those ideas by introducing a deeper, particle-level explanation of how thermal energy affects molecular motion and phase changes, setting the stage for more complex concepts like energy transfer and conservation in future units.

Navigation to next lesson/storyline

After exploring how molecular motion changes with temperature and impacts phase changes in Module 1, students will now apply that understanding to the real world. In Module 2, they will investigate how thermal energy moves between objects and environments, examining the consequences for living organisms like penguins and using engineering practices to develop solutions for energy conservation in changing climates.

Stage 1: Learning Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*

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Established Goals

Standards

Pennsylvania STEELS

Science (2023): 6-8 Standards

- Develop models to describe the atomic composition of simple molecules and extended structures.

  Clarifying Statement: Emphasis is on developing models of molecules that vary in complexity. Examples of simple molecules could include ammonia and methanol. Examples of extended structures could include sodium chloride or diamonds. Examples of molecular-level models could include drawings, 3D ball and stick structures, or computer representations showing different molecules with different types of atoms.

  Assessment Boundary: Assessment does not include valence electrons and bonding energy, discussing the ionic nature of subunits of complex structures, or a complete description of all individual atoms in a complex molecule or extended structure is not required. *(3.2.6-8.A)*
- Develop a model that predicts and describes changes in the particle motion, temperature, and state of a pure substance when thermal energy is added or removed.

  Clarifying Statement: Emphasis is on qualitative molecular-level models of
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U1)*
- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U2)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Matter has 4 main states (Solid, Liquid, Gas, Plasma) *(K1)*
- Matter is made of molecules in constant motion *(K2)*
- Thermal energy is directly correlated to molecular movement *(K3)*
- Thermal energy causes matter to go through phase changes *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Create or use models to illustrate the states of matter and molecular motion in each state. *(S1)*
- Conduct experiments to observe phase changes, such as melting, freezing, or boiling, and connect these observations to changes in thermal energy. *(S2)*
- Analyze data from lab investigations to identify patterns in how temperature

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solids, liquids, and gases to show that adding or removing thermal energy increases or decreases kinetic energy of the particles until a change of state occurs. Examples of models could include drawing and diagrams. Examples of particles could include molecules or inert atoms. Examples of pure substances could include water, carbon dioxide, and helium. Assessment Boundary: N/A *(3.2.6-8.B)*		influences molecular motion and phase transitions. *(S3)* ■ Explain how thermal energy impacts molecular behavior and the phases of matter. *(S4)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Develop and/or use a model to predict and/or describe phenomena. *(SEP.6-8.P2.E)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- Substances are made from different types of atoms, which combine with one another in various ways. Atoms form molecules that range in size from two to thousands of atoms. *(DCI.6-8.PS1.A.1)*
- Solids may be formed from molecules, or they may be extended structures with repeating subunits (e.g., crystals). *(DCI.6-8.PS1.A.2)*
- Gases and liquids are made of molecules or inert atoms that are moving about relative to each other. *(DCI.6-8.PS1.A.3)*
- In a liquid, the molecules are constantly in contact with others; in a gas, they are widely spaced except when they happen to collide. In a solid, atoms are closely spaced and may vibrate in position but do not change relative locations. *(DCI.6-8.PS1.A.4)*
- The changes of state that occur with variations in temperature or pressure can be described and predicted using these models of matter. *(DCI.6-8.PS1.A.5)*
- The term “heat” as used in everyday language refers both to thermal energy (the motion of atoms or molecules within a substance) and the transfer of that thermal energy from one object to another. In science, heat is used only for this second meaning; it refers to the energy transferred due to the temperature difference between two objects. *(DCI.6-8.PS3.A.1)*
- The temperature of a system is proportional to the average internal kinetic energy and potential energy per atom or molecule (whichever is the appropriate building block for the system’s material). The details of that relationship depend on the type of atom or molecule and the interactions among the atoms in the material. Temperature is not a direct measure of a system's total thermal energy. The total

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thermal energy (sometimes called the total internal energy) of a system depends jointly on the temperature, the total number of atoms in the system, and the state of the material. *(DCI.6-8.PS3.A.2)*

- Motion energy is properly called kinetic energy; it is proportional to the mass of the moving object and grows with the square of its speed. *(DCI.6-8.PS3.A.3)*
- Temperature is a measure of the average kinetic energy of particles of matter. The relationship between the temperature and the total energy of a system depends on the types, states, and amounts of matter present. *(DCI.6-8.PS3.A.4)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Cause and effect relationships may be used to predict phenomena in natural or designed systems. *(CCC.6-8.C2.B)*
- Time, space, and energy phenomena can be observed at various scales using models to study systems that are too large or too small. *(CCC.6-8.C3.A)*

Vocabulary

- Solid – A state of matter with a definite shape and volume, where molecules are closely packed and vibrate in place.
- Liquid – A state of matter with a definite volume but no definite shape, where molecules flow past one another.
- Gas – A state of matter with no definite shape or volume, where molecules move freely and rapidly.
- Plasma – A high-energy state of matter composed of charged particles, often found in stars and lightning.
- Physical Property - A characteristic of matter that can be observed or measured without changing its chemical composition.
- Deposition – The process of changing directly from a gas to a solid without becoming a liquid.
- Kinetic Theory of Matter - A theory stating that all matter is made of particles in constant motion, and the motion increases with temperature.
- Physical Property - A characteristic of matter that can be observed or measured without changing its chemical composition.
- Heat of Vaporization – The energy required to change a substance from liquid to gas at its boiling point.
- Thermal Expansion - The increase in the volume of a substance as its temperature rises due to particle movement.
- Chemical Change - A transformation that results in the formation of new substances with different chemical properties.
- Physical Change - A change in a substance that affects its physical properties but not its chemical composition.
- Chemical Property - A characteristic of matter that describes its ability to undergo a chemical change and form a new substance.
- Heat of Fusion – The energy required to change a substance from solid to liquid at its melting point.
- Boiling Point – The temperature at which a liquid turns into a gas.
- Melting Point – The temperature at which a solid turns into a liquid.
- Freezing Point – The temperature at which a liquid turns into a solid.
- Phase Change – A transition between states of matter caused by energy changes.
- Molecule – The smallest particle of a substance that retains its chemical properties.
- Kinetic Energy – The energy of motion, which increases as molecules move faster.

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- **Thermal Energy** – The total kinetic energy of the particles in a substance, influencing phase changes.
- **Sublimation** – The process of changing directly from a solid to a gas without passing through the liquid phase.
- **Condensation** – The process of changing from a gas to a liquid as thermal energy decreases.
- **Boiling** – Rapid vaporization that occurs throughout a liquid when it reaches its boiling point.
- **Evaporation** – A type of vaporization occurring on the surface of a liquid at temperatures below boiling point.
- **Vaporization** – The process of changing from a liquid to a gas, including boiling and evaporation.
- **Freezing** – The process of changing from a liquid to a solid as thermal energy decreases.
- **Melting** – The process of changing from a solid to a liquid due to an increase in thermal energy.
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Module 1 - Solar System

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 12:07	7th Grade Science	6.0 Weeks	7	Science	KYLA CARUSO , Tracy Smith

Unit Focus

The vastness of our solar system is difficult to imagine. As we travel in vehicles to our destinations, minutes turn to hours, but the end is in sight. Space travel is a little different. The end is never in sight and this leads scientists to desire to know more about the what they cannot see. As technology advances, the curiosity of those who are seeking answers widens their horizons and pushes the boundaries of space to new levels. Earth is the only known planet that has the ability to sustain life; however, scientists are wondering if this will always hold true.

Anchoring Phenomenon

Which celestial body would be the next best option if Earth is no longer able to have the resources to sustain life?

Prior Learnings/Connection

- Names & order of the planets
- Rotation, revolution, orbits
- Milky Way galaxy
- Other celestial objects (moons, asteroids, meteoroids, comets, dwarf planets, stars, etc.)
- Phases of the moon (connect this to the relationship between the Earth, Moon, Sun system)
- Gravity and its forces
- Understanding of Resources (renewable & nonrenewable - what is needed to sustain life?)

Navigation to next lesson/storyline

The vast and mysterious Solar System serves as the backdrop for a unit that will take students on a journey through space, exploring planets, moons, gravity, and the sustainability of life beyond Earth. Through hands-on activities, research, and interactive lessons, students will gain a deeper understanding of our cosmic neighborhood and the challenges that come with space exploration and planetary colonization. Through this engaging and thought-provoking unit, students will not only deepen their understanding of the Solar System but also develop critical thinking and problem-solving skills as they consider humanity's future among the stars. In the next unit, students will dive deeper into the planet we call home by exploring the ways in which the Earth undergoes all of its processes.

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Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 6-8 Environmental Literacy & Sustainability

- Design a solution to an environmental issue in which individuals and societies can engage as stewards of the environment. *(3.4.6-8.H)*

Science (2023): 6-8 Standards

- Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

  Clarifying Statement: Examples of models can be physical, graphical, or conceptual.

  Assessment Boundary: N/A *(3.3.6-8.A)*
- Develop and use a model to describe the role of gravity in the motion within galaxies and the solar system.

  Clarifying Statement: Emphasis for the model is on gravity as the force that holds together the solar system and Milky Way galaxy and controls orbital motions within them. Examples of models can be physical (such as the analogy of distance along a football field or computer visualizations of elliptical orbits) or conceptual (such as

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Utilize critical thinking, problem-solving, creativity & innovation, communication, and collaboration. *(LT.STM.06)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T4)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T5)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T6)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Universe is composed of a variety of different objects, which are organized into systems, each of which develops according to accepted physical processes and laws. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do objects in the universe appear and behave? *(EQ.SCI.EARTH.01)*

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mathematical proportions relative to the size of familiar objects such as students' school or state).

Assessment Boundary: Assessment does not include Kepler's Laws of orbital motion or the apparent retrograde motion of the planets as viewed from Earth. *(3.3.6-8.B)*

- Analyze and interpret data to determine scale properties of objects in the solar system.

Clarifying Statement: Emphasis is on the analysis of data from Earth-based instruments, space-based telescopes, and spacecraft to determine similarities and differences among solar system objects. Examples of scale properties include the sizes of an object's layers (such as crust and atmosphere), surface features (such as volcanoes), and orbital radius. Examples of data include statistical information, drawings and photographs, and models.

Assessment Boundary: Assessment does not include recalling facts about properties of the planets and other solar system bodies. *(3.3.6-8.C)*

- Apply scientific principles to design a method for monitoring and minimizing human impact on the environment.

Clarifying Statement: Examples of the design process include examining human environmental impacts, assessing the kinds of solutions that are feasible, and

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Names of the planets *(K1)* ■ Order of the planets (placement in relation to distance from the sun) *(K2)* ■ Rotation & Revolution *(K3)* ■ Gravitational Forces *(K4)* ■ Phases of the moon *(K5)* ■ Renewable & Nonrenewable Resources *(K6)* ■ Resources to sustain life *(K7)* ■ Other celestial bodies *(K8)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Utilizing credible resources to obtain information pertaining to each guiding question. *(S1)* ■ Evaluating information found in order to create viable solutions for life on other celestial objects. *(S2)* ■ Using the CER (Claim, Evidence, Reasoning) Method to develop a persuasive response for which celestial body would be the next best option for life. *(S3)*

designing and evaluating solutions that could reduce that impact. Examples of human impacts can include water usage (such as the withdrawal of water from streams and aquifers or the construction of dams and levees), land usage (such as urban development, agriculture, or the removal of wetlands), and pollution (such as of the air, water, or land).

Assessment Boundary: N/A *(3.3.6-8.M)*

- Construct an argument supported by evidence for how increases in human population and per capita consumption of natural resources impact Earth's systems.

Clarifying Statement: Examples of evidence include grade-appropriate databases on human populations and the rates of consumption of food and natural resources (such as freshwater, mineral, and energy). Examples of impacts can include changes to the appearance, composition, and structure of Earth's systems as well as the rates at which they change. The consequences of increases in human populations and consumption of natural resources are described by science, but science does not make the decisions for the actions society takes.

Assessment Boundary: N/A *(3.3.6-8.N)*

- Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.

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Clarifying Statement: Examples of factors include human activities (such as fossil fuel combustion, cement production, and agricultural activity) and natural processes (such as changes in incoming solar radiation or volcanic activity). Examples of evidence can include tables, graphs, and maps of global and regional temperatures, atmospheric levels of gases such as carbon dioxide and methane, and the rates of human activities. Emphasis is on the major role that human activities play in causing the rise in global temperatures. **Assessment Boundary:** N/A *(3.3.6-8.O)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Ask questions that arise from careful observation of phenomena, models, or unexpected results, to clarify and/or seek additional information. *(SEP.6-8.P1.A)*
- Ask questions to identify and/or clarify evidence and/or the premise(s) of an argument. *(SEP.6-8.P1.B)*
- Ask questions to determine relationships between independent and dependent variables and relationships in models. *(SEP.6-8.P1.C)*
- Ask questions to clarify and/or refine a model, an explanation, or an engineering problem. *(SEP.6-8.P1.D)*
- Ask questions that require sufficient and appropriate empirical evidence to answer. *(SEP.6-8.P1.E)*
- Ask questions that can be investigated within the scope of the classroom, outdoor environment, and museums and other public facilities with available resources and, when appropriate, frame a hypothesis based on observations and scientific principles. *(SEP.6-8.P1.F)*
- Ask questions that challenge the premise(s) of an argument or the interpretation of a data set. *(SEP.6-8.P1.G)*
- Define a design problem that can be solved through the development of an object, tool, process or system and includes multiple criteria and constraints, including scientific knowledge that may limit possible solutions. *(SEP.6-8.P1.H)*
- Evaluate limitations of a model for a proposed object or tool. *(SEP.6-8.P2.A)*
- Develop or modify a model—based on evidence – to match what happens if a variable or component of a system is changed. *(SEP.6-8.P2.B)*
- Use and/or develop a model of simple systems with uncertain and less predictable factors. *(SEP.6-8.P2.C)*

- Develop and/or revise a model to show the relationships among variables, including those that are not observable but predict observable phenomena. *(SEP.6-8.P2.D)*
- Develop and/or use a model to predict and/or describe phenomena. *(SEP.6-8.P2.E)*
- Develop a model to describe unobservable mechanisms. *(SEP.6-8.P2.F)*
- Develop and/or use a model to generate data to test ideas about phenomena in natural or designed systems, including those representing inputs and outputs, and those at unobservable scales. *(SEP.6-8.P2.G)*
- Construct an explanation that includes qualitative or quantitative relationships between variables that predict phenomena. *(SEP.6-8.P4.A)*
- Construct an explanation using models or representations. *(SEP.6-8.P4.B)*
- Construct a scientific explanation based on valid and reliable evidence obtained from sources (including the students' own experiments) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future. *(SEP.6-8.P4.C)*
- Apply scientific ideas to construct an explanation for real-world phenomena, examples, or events. *(SEP.6-8.P4.D)*
- Apply scientific reasoning to show why the data or evidence is adequate for the explanation or conclusion. *(SEP.6-8.P4.E)*
- Apply scientific ideas or principles to design, construct, and test a design of an object, tool, process or system. *(SEP.6-8.P4.F.1)*
- Apply scientific ideas or principles to design an object, tool, process or system. *(SEP.6-8.P4.F.2)*
- Undertake a design project, engaging in the design cycle, to construct and/or implement a solution that meets specific design criteria and constraints. *(SEP.6-8.P4.G)*
- Optimize performance of a design by prioritizing criteria, making tradeoffs, testing, revising, and retesting. *(SEP.6-8.P4.H)*
- Compare and critique two arguments on the same topic and analyze whether they emphasize similar or different evidence and/or interpretations of facts. *(SEP.6-8.P7.A)*
- Respectfully provide and receive critiques about one's explanations, procedures, models, and questions by citing relevant evidence and posing and responding to questions that elicit pertinent elaboration and detail. *(SEP.6-8.P7.B)*
- Construct, use, and/or present an oral and written argument supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon or a solution to a problem. *(SEP.6-8.P7.C.)*
- Make an oral or written argument that supports or refutes the advertised performance of a device, process, or system based on empirical evidence concerning whether or not the technology meets relevant criteria and constraints. *(SEP.6-8.P7.D)*
- Use an oral and written argument supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon or a solution to a problem. *(SEP.6-8.P7.D.1)*
- Evaluate competing design solutions based on jointly developed and agreed-upon design criteria. *(SEP.6-8.P7.E)*
- Critically read scientific texts adapted for classroom use to determine the central ideas and/or obtain scientific and/or technical information to describe patterns in and/or evidence about the natural and designed world(s). *(SEP.6-8.P8.A)*
- Integrate qualitative scientific and technical information in written text with that contained in media and visual displays to clarify claims and findings. *(SEP.6-8.P8.B)*
- Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence. *(SEP.6-8.P8.C)*

- Evaluate data, hypotheses, and/or conclusions in scientific and technical texts in light of competing information or accounts. *(SEP.6-8.P8.D)*
- Communicate scientific and/or technical information (e.g. about a proposed object, tool, process, system) in writing and/or through oral presentations. *(SEP.6-8.P8.E)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- Patterns of the apparent motion of the sun, the moon, and stars in the sky can be observed, described, predicted, and explained with models. *(DCI.6-8.ESS1.A.1)*
- Earth and its solar system are part of the Milky Way galaxy, which is one of many galaxies in the universe. *(DCI.6-8.ESS1.A.2)*
- This model of the solar system can explain eclipses of the sun and the moon. Earth's spin axis is fixed in direction over the short-term but tilted relative to its orbit around the sun. The seasons are a result of that tilt and are caused by the differential intensity of sunlight on different areas of Earth across the year. *(DCI.6-8.ESS1.B.1)*
- The solar system consists of the sun and a collection of objects, including planets, their moons, and asteroids that are held in orbit around the sun by its gravitational pull on them. *(DCI.6-8.ESS1.B.2)*
- The solar system appears to have formed from a disk of dust and gas, drawn together by gravity. *(DCI.6-8.ESS1.B.3)*
- Humans depend on Earth's land, ocean, atmosphere, and biosphere for many different resources. Minerals, fresh water, and biosphere resources are limited, and many are not renewable or replaceable over human lifetimes. These resources are distributed unevenly around the planet as a result of past geologic processes. *(DCI.6-8.ESS3.A.1)*
- Human activities have significantly altered the biosphere, sometimes damaging or destroying natural habitats and causing the extinction of other species. But changes to Earth's environments can have different impacts (negative and positive) for different living things. *(DCI.6-8.ESS3.C.1)*
- Typically as human populations and per-capita consumption of natural resources increase, so do the negative impacts on Earth unless the activities and technologies involved are engineered otherwise. *(DCI.6-8.ESS3.C.2)*
- Human activities, such as the release of greenhouse gases from burning fossil fuels, are major factors in the current rise in Earth's mean surface temperature (global warming). Reducing the level of climate change and reducing human vulnerability to whatever climate changes do occur depend on the understanding of climate science, engineering capabilities, and other kinds of knowledge, such as understanding of human behavior and on applying that knowledge wisely in decisions and activities. *(DCI.6-8.ESS3.D.1)*
- The more precisely a design task's criteria and constraints can be defined, the more likely it is that the designed solution will be successful. Specification of constraints includes consideration of scientific principles and other relevant knowledge that is likely to limit possible solutions. *(DCI.6-8.ETS1.A.1)*
- There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem. *(DCI.6-8.ETS1.B.1)*
- A solution needs to be tested, and then modified on the basis of the test results, in order to improve it. *(DCI.6-8.ETS1.B.2)*

- A solution needs to be tested, and then modified on the basis of the test results in order to improve it. There are systematic processes for evaluating solutions with respect to how well they meet criteria and constraints of a problem. *(DCI.6-8.ETS1.B.3)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Patterns can be used to identify cause and effect relationships. *(CCC.6-8.C1.C.1)*
- Time, space, and energy phenomena can be observed at various scales using models to study systems that are too large or too small. *(CCC.6-8.C3.A)*
- Models can be used to represent systems and their interactions—such as inputs, processes and outputs—and energy and matter flows within systems. *(CCC.6-8.C4.B.1)*

Vocabulary

- Planets
- Asteroid
- Comet
- Crater
- Dwarf Planets
- Meteorite
- Moon
- Star
- Gravity
- Forces
- Moon Phases
- Solar & Lunar Eclipses
- Renewable & Nonrenewable Resources
- Rotation
- Revolution
- Axis
- Orbit

Module 1 - The "Nature of Science" STEM - STEAM & STEELS Connections

Draft Date	Course	Grades	Subjects	Team
10-14-2024 @ 12:15	Selected Topics in Science	9	Science	Anthony Pepoli

Unit Focus

The nature of science (NOS) is the process of generating, validating, and evolving scientific knowledge.

Understanding the nature of science is a critical component of scientific literacy that helps students understand how science works.

Understanding the Nature of Science is important in order to make informed decisions not only related to scientific issues but everyday life.

The Nature of Science relates to the connectedness between different disciplines and branches of science.

"We are made of star stuff"

- What is everything made of?
- The composition of matter and the chemistry of Life on Earth.
- The Law of Conservation of Mass.
- Where do (did) the Elements come from?
- What are the basic components or ingredients of life?

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Anchoring Phenomenon

Symphony of Science "We Are All Connected"

https://www.youtube.com/watch?v=XGK84Poeynk

Various intriguing, observable events that spark curiosity and drive students to ask questions and seek explanations will be incorporated in every unit of this course.

Teaching the Nature of science (NOS) refers to how scientific knowledge is developed, validated, and communicated and choosing the right phenomenon is essential.

Example Phenomenon: Scientists can now edit genes using CRISPR technology. This topic Opens up discussion on ethics, the tentativeness of scientific knowledge, and how technology advances science and vice versa.

Prior Learnings/Connection

The prior learning for The Nature of Science is the foundational knowledge and experiences students should ideally have before delving into more advanced or formal study of the Nature of Science (NOS). This will help scaffold new concepts more effectively.

Key Prior Knowledge for Nature of Science (NOS):

1. **Basic Scientific Vocabulary:**
    - Terms like *observation, experiment, evidence, conclusion, data*.
    - Difference between a *fact*, *theory*, and *hypothesis*.

2. **Experience with Inquiry-Based Activities:**
    - Hands-on activities where students have made observations, collected data, or tested ideas.
    - Understanding that science involves asking questions and seeking answers.

3. **Understanding of Scientific Processes:**
    - That science is not just a set of facts but a process involving testing and revising ideas.
    - Some exposure to the scientific method, even if simplified.

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4. Awareness that Science Changes Over Time:
    - Basic understanding that scientific ideas can change with new evidence (e.g., early ideas of the solar system).
    - Historical examples may have been introduced (e.g., Galileo, Newton).

5. Understanding of Human Involvement in Science:
    - Scientists are real people with diverse backgrounds.
    - Science is influenced by culture, society, and human creativity.

6. Basic Critical Thinking Skills:
    - Ability to identify questions, differentiate between opinion and evidence, and recognize simple cause-and-effect relationships.

Navigation to next lesson/storyline

This unit provides a review of what students have previously learned over their middle school years.

This unit will review as well as build on existing knowledge allowing a bridge to all of the following units.

This unit is essential and foundational in terms of moving forward and making connections.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): 9-12 Standards ■ Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells. Clarifying Statement: N/A Assessment Boundary: Assessment does not include the identification of specific	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Long Term Transfer goals related to the "Nature of Science" focus on helping the students learn to independently apply and understand how science works by asking questions, analyzing evidence and data and then making informed decisions based on logical scientific reasoning. The following is a list of the long term transfer goals for that the teacher and all students need to work toward. ◦ Evaluating scientific claims: Students can discern reliable scientific information from misinformation by assessing the source, methodology, and evidence presented in news articles, advertisements, or public discourse.

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cell or tissue types, whole body systems, specific protein structures and functions, or the biochemistry of protein synthesis. *(3.1.9-12.A)*

- Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.

  Clarifying Statement: Emphasis is on functions at the organism system level, such as nutrient uptake, water delivery, and organism movement in response to neural stimuli. An example of an interacting system could be an artery depending on the proper function of elastic tissue and smooth muscle to regulate and deliver the proper amount of blood within the circulatory system.

  Assessment Boundary: Assessment does not include interactions and functions at the molecular or chemical reaction levels. *(3.1.9-12.B)*

- Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.

  Clarifying Statement: Examples of investigations could include heart rate response to exercise, stomate response to moisture and temperature, and root development in response to water levels.

  Assessment Boundary: Assessment does

- **Understanding the tentative nature of science:** Recognizing that scientific knowledge is constantly evolving and can be revised based on new evidence, not viewing scientific facts as absolute truths.
- **Applying the scientific method:** Independently designing investigations, collecting and analyzing data, drawing conclusions based on evidence, and communicating findings effectively to different audiences.
- **Identifying bias in scientific research:** Recognizing potential biases in research design, data interpretation, and funding sources when evaluating scientific claims.
- **Engaging in scientific discourse:** Participating in discussions about scientific issues, considering multiple perspectives, and respectfully debating evidence-based arguments.
- **Making informed decisions based on science:** Using scientific knowledge to make personal and societal choices related to health, environmental issues, and technological advancements.
- **Recognizing the interconnectedness of science:** Understanding how different scientific disciplines relate to each other and how scientific knowledge can be applied across various fields.
- **Critical thinking skills:** Analyzing information from diverse sources, identifying logical fallacies, and evaluating the credibility of claims made in scientific contexts.

Example transfer goals in action:

- A student can analyze a news article about a new medical treatment and identify key factors to consider such as the study design, sample size, and potential biases before making personal health decisions based on the information.
- When presented with a debate about climate change, a student can evaluate the evidence from different perspectives and articulate a well-reasoned position based on scientific understanding.
- A student can design a simple experiment to test a hypothesis related to a real-world phenomenon, collecting and analyzing data to draw meaningful conclusions.

(T1)

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not include the cellular processes involved in the feedback mechanism. *(3.1.9-12.C)*

- Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

  Clarifying Statement: Examples of changes in ecosystem conditions could include modest biological or physical changes, such as moderate hunting or a seasonal flood; and extreme changes, such as volcanic eruption or sea level rise.

  Assessment Boundary: N/A *(3.1.9-12.M)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Use various approaches to communicate processes and procedures for using, maintaining, and assessing technological products and systems. *(3.5.9-12.A)*
- Critically assess and evaluate a technology that minimizes resource use and resulting waste to achieve a goal. *(3.5.9-12.B)*
- Develop a solution to a technological problem that has the least negative environmental and social impact. *(3.5.9-12.C)*
- Critique whether existing or proposed technologies use resources sustainably. *(3.5.9-12.D)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The "Big Ideas" related to the nature of science are concepts that should be growing, developing and changing as new evidence and information comes to light. This ongoing process is a human endeavor that is based on the natural world. Investigation is a dynamic process involving inquiry. The nature of science is not necessarily a collection of absolute truths. The nature of science relies on evidence in order to understand the world around us. Key aspects and Big Ideas realted to the nature of science include:
  - Tentativeness of scientific knowledge: Scientific ideas are not set in stone and can be revised or replaced when new evidence emerges.
  - Empirical evidence: Scientific knowledge is based on observations and data collected through experiments and investigations.
  - Scientific methods: Scientists use a systematic approach to inquiry, including forming hypotheses, designing experiments, collecting

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- Essential Questions related to the "Nature of Science" should guide thinking and investigations that lead to reliable conclusions. The role observations play in forming scientific investigations and explanations help refine our understanding via the data collected. Multiple perspectives need to be considered. Scientific knowledge differs in various ways when it comes to learning out our universe. Key aspects of the "Nature of Science" to focus on with these questions:
  - **Scientific Inquiry Process:**
    - How do scientists formulate testable questions?
    - What are the steps involved in designing and conducting an experiment?
    - How do scientists analyze data and draw conclusions based on evidence?
  - **Evidence and Explanation:**
    - What constitutes valid scientific evidence?
    - How are hypotheses tested and refined through experimentation?

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- Evaluate how technology and engineering advancements alter human health and capabilities. *(3.5.9-12.E)*
- Evaluate a technological innovation that arose from a specific society's unique need or want. *(3.5.9-12.F)*
- Evaluate a technological innovation that was met with societal resistance impacting its development. *(3.5.9-12.G)*
- Evaluate ways that technology and engineering can impact individuals, society, and the environment. *(3.5.9-12.H)*
- Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts. *(3.5.9-12.I)*
- Synthesize data and analyze trends to make decisions about technological products, systems, or processes. *(3.5.9-12.J)*
- Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem. *(3.5.9-12.K)*
- Interpret laws, regulations, policies, and other factors that impact the development and use of technology. *(3.5.9-12.L)*

data, analyzing results, and drawing conclusions.

- Scientific models and theories: Models and theories are used to explain natural phenomena and are constantly being refined based on new information.
- Scientific explanation is constructed: Explanations are built through a process of reasoning and evidence evaluation, not simply accepted as facts.
- Scientific community review: Scientific findings are subject to peer review and scrutiny by other scientists to ensure accuracy and validity.
- Science is a human endeavor: Scientists are influenced by their own perspectives and biases, and scientific progress is a collaborative effort.
- The role of creativity and imagination: Science involves creativity in developing new hypotheses and designing experiments.

(U1)

  - What is the difference between a theory and a hypothesis?
- **Scientific Community and Peer Review:**
  - Why is peer review important in the scientific process?
  - How do scientists communicate their findings to the broader scientific community?
- **Limitations and Ethical Considerations:**
  - What are the potential biases that can influence scientific research?
  - How do ethical considerations impact scientific investigations?
- **Nature of Science vs. Other Ways of Knowing:**
  - How does scientific knowledge differ from personal beliefs or opinions?
  - What are the roles of creativity and critical thinking in scientific inquiry?

(Q1)

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Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ 1. Science ■ **Knowledge**: Understanding of natural phenomena, scientific principles, and theories (e.g., biology, chemistry, physics). ■ **Skills**: ■ Experimental design and methodology ■ Data analysis and interpretation ■ Critical thinking and problem-solving ■ Research and inquiry techniques 2. Technology ■ **Knowledge**: Familiarity with technology, hardware/software applications, and digital systems. ■ **Skills**: ■ Using APPs to gather and interpret data based on lab activities inside the classroom as well as outdoors 3. Engineering ■ **Knowledge**: Fundamentals of designing, building, and	What discrete skills and processes should students be able to use? Students will be skilled at... ■ In Grade 9 Selected Topics in Science STEM (Science, Technology, Engineering, and Mathematics) and STEAM (Science, Technology, Engineering, Arts, and Mathematics), are used as the framework for instruction. Students are introduced to foundational concepts and skills across these disciplines. Students will develop these: **1. Science Skills** ◦ **Scientific Method**: Ability to formulate hypotheses, design experiments, collect and analyze data, and draw conclusions. ◦ **Lab Techniques**: Proficiency in conducting experiments safely and accurately, using tools like microscopes, beakers, and lab equipment. ◦ **Critical Thinking**: Analyzing results, questioning assumptions, and interpreting scientific data. ◦ **Environmental Awareness**: Understanding ecosystems, sustainability, and human impact on the environment.

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testing in terms of daily society
- **Skills**:
  - Design and prototyping
  - Problem-solving for real-world issues
  - Computational modeling and simulation
  - collaboration in teams
  -

4. **Mathematics**
   - **Knowledge**: Mathematical principles and theories
   - **Skills**:
     - Problem-solving and logical reasoning
     - Data analysis and statistical analysis
     - Quantitative modeling and simulation
     - Mathematical computation

(K1)

STEAM (Science, Technology, Engineering, Arts, and Mathematics)

Incorporating the **Arts** into STEM (thus forming STEAM) adds a layer of

- **Basic Chemistry & Biology**: Knowledge of chemical reactions, cell biology, genetics, and the principles of matter and energy.

2. Technology Skills

- **Software Tools**: Familiarity with tools for digital design, simulations, and analysis as well as online tools for simulations.
- **Digital Literacy**: Understanding how to use the internet responsibly.

3. Engineering Skills

- **Problem-Solving**: Using the engineering design process to identify problems and come up with practical solutions.
- **Building and Prototyping**: Developing skills to create prototypes and models (e.g., through 3D printing or basic construction materials).
- **Mathematical Modeling**: Using mathematical concepts to represent and solve engineering problems.
- **Structural Design**: Understanding basic principles of building structures and systems.

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creativity, design, and innovation to the problem-solving process.

1. Arts
    - Knowledge: An understanding of various forms of art (visual arts, music, dance, literature) related to STEM
    - Skills:
        - Creative thinking
        - Design principles
        - Communication through visual, auditory, and physical media
        - Storytelling and narrative construction
        - Collaboration in interdisciplinary projects

Benefits of STEAM vs STEM:

- STEM encourages technical and scientific expertise, while STEAM adds a creative and humanistic approach to problem-solving. STEAM integrates artistic expression and design thinking, which can lead to more innovative, inclusive, and user-centric solutions.
- Teamwork: Working in teams for various lab activities

4. Mathematics Skills

- Algebra & Geometry: Solidifying algebraic manipulation and geometric reasoning for solving problems.
- Data Analysis: Collecting, interpreting, and presenting data using tools like graphs and charts.
- Measurement: Applying concepts of measurement (units, conversions, and precision).
- Problem Solving: Using logical and mathematical approaches to solve real-world problems.
- Trigonometry & Statistics: A basic introduction to trigonometric functions and analyzing data sets.

5. Arts Skills (in STEAM)

- Creativity: Using creativity to solve problems, design prototypes, or think outside the box in engineering and technology challenges.
- Design Thinking: Learning how to design aesthetically pleasing and functional solutions.
- Visualization: Drawing or using digital tools to visualize ideas, sketches, and concepts

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Key Skills in STEM and STEAM:

1. **Critical Thinking**: The ability to evaluate and analyze problems or data logically, spotting patterns or inconsistencies.
2. **Problem-Solving**: Identifying problems and working through solutions using an organized, structured approach.
3. **Creativity** (in STEAM): The capacity to think outside the box and devise new methods, products, or processes.
4. **Collaboration**: Working effectively in teams, especially on interdisciplinary projects.
5. **Communication**: Clearly conveying complex ideas and concepts to diverse audiences, both in written and verbal formats.
6. **Adaptability**: Quickly learning new skills or adapting to changing technologies, especially as new challenges emerge.

Examples of STEAM Integration:

- Combining engineering and art
- **Environmental Science (Science + Art)**: Using artistic representations to communicate scientific issues like climate change or biodiversity loss.
-

(important in both technology and engineering).
- **Collaboration**: Working with others to integrate art and design into technical projects
- **Communication**: Presenting ideas through both technical drawings and artistic representations.

6. Critical 21st Century Skills

- **Collaboration**: Working effectively in teams to solve complex, interdisciplinary problems.
- **Communication**: Both verbal and written communication skills are crucial, especially when explaining ideas or presenting findings.
- **Adaptability**: Being open to new tools, approaches, and technologies.
- **Time Management**: Balancing multiple tasks and deadlines, often when working on group projects or experiments.
- **Global Awareness**: Understanding the broader implications of science, technology, and engineering on society and the environment.

Grade 9 students focusing on STEM or STEAM are expected to start developing and applying these skills to real-world problems, often through project-based learning and hands-on activities. *(S1)*

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	Both STEM and STEAM education are valuable in today's world, fostering future leaders who can combine scientific rigor with creative thinking, paving the way for innovation in technology, design, and society as a whole. *(K2)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Ask questions that arise from careful observation of phenomena, or unexpected results, to clarify and/or seek additional information. *(SEP.9-12.P1.A)*
- Ask questions that arise from examining models or a theory to clarify relationships. *(SEP.9-12.P1.B)*
- Ask questions to determine relationships, including quantitative relationships, between independent and dependent variables. *(SEP.9-12.P1.C)*
- Ask questions to clarify and refine a model, an explanation, or an engineering problem. *(SEP.9-12.P1.D)*
- Evaluate a question to determine if it is testable and relevant. *(SEP.9-12.P1.E)*
- Ask questions that can be investigated within the scope of the school laboratory, research facilities, or field (e.g., outdoor environment) with available resources and, when appropriate, frame a hypothesis based on a model or theory. *(SEP.9-12.P1.F)*
- Ask and/or evaluate questions that challenge the premise(s) of an argument, the interpretation of a data set, or the suitability of a design. *(SEP.9-12.P1.G)*
- Define a design problem that involves the development of a process or system with interacting components and criteria and constraints that may include social, technical, and/or environmental considerations. *(SEP.9-12.P1.H)*

Disciplinary Core Ideas

Pennsylvania STEELS

Technology & Engineering (2023): 9-12 Disciplinary Core Ideas

- Criteria and constraints also include satisfying any requirements set by society, such as taking issues of risk mitigation into account, and they should be quantified to the extent possible and stated in such a way that one can tell if a given design meets them. *(DCI.9-12.ETS1.A.1)*
- Humanity faces major global challenges today, such as the need for supplies of clean water and food or for energy sources that minimize pollution, which can be addressed through engineering. These global challenges also may have manifestations in local communities. *(DCI.9-12.ETS1.A.2)*

- Both physical models and computers can be used in various ways to aid in the engineering design process. *(DCI.9-12.ETS1.B.1)*
- Computers are useful for a variety of purposes, such as running simulations to test different ways of solving a problem or to see which one is most efficient or economical; and in making a persuasive presentation to a client about how a given design will meet their needs. *(DCI.9-12.ETS1.B.2)*
- When evaluating solutions, it is important to take into account a range of constraints, including cost, safety, reliability, and aesthetics, and to consider social, cultural, and environmental impacts. *(DCI.9-12.ETS1.B.3)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Different patterns may be observed at each of the scales at which a system is studied and can provide evidence for causality in explanations of phenomena. *(CCC.9-12.C1.A.1)*
- Empirical evidence is needed to identify patterns. *(CCC.9-12.C1.A.2)*
- Classifications or explanations used at one scale may not be useful or need revision using a different scale; thus requiring improved investigations and experiments. *(CCC.9-12.C1.B)*
- Mathematical representations are used to identify certain patterns and analyze patterns of performance in order to reengineer and improve a designed system. *(CCC.9-12.C1.C)*

Vocabulary

STEM/STEAM Vocabulary:

- Science:
  - **Experiment:** A test or procedure designed to demonstrate a scientific principle.
  - **Hypothesis:** A proposed explanation for a phenomenon.
  - **Theory:** A well-substantiated explanation of an aspect of the natural world.
  - **Observation:** The action of closely watching or noticing something.
  - **Data:** Facts and statistics collected together for analysis or reference.
  - **Variable:** An element, feature, or factor that is liable to vary or change.
  - **Scientific Method:** A systematic approach to investigation.
  - **Inquiry:** A formal request for information.
  - **Analyze:** To examine something methodically and in detail, typically for purposes of explanation or interpretation.
  - **Evaluate:** To assess or judge the value or quality of something.
  - **Evidence:** The available body of facts or information indicating whether a statement is true or false.
  - **Friction:** Resistance to motion.

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- **Pattern:** A repeated arrangement of things.
- **Balance:** A state of equilibrium.
- **Speed:** The rate at which someone or something moves.
- **Elevation:** The height of a place above sea level.

· Technology:

- **Design:** A plan or drawing produced to show the structure or workings of something.
- **Innovation:** The introduction of something new.
- **Invention:** A thing that has been invented.
- **Computational Thinking:** The thought processes involved in formulating a problem and expressing its solution in a way that a computer can follow.

· Engineering:

- **Design Process:** A systematic approach to problem-solving in engineering.
- **Prototype:** The first model of something.
- **Model:** A representation of something, often used for demonstration or study.
- **Efficient:** Achieving maximum productivity with minimal wasted effort, space, or resources.
- **Modify:** Make partial or minor changes to.
- **Manipulate:** Handle or control skillfully.

· Math:

- **Accuracy:** The quality or state of being correct or precise.
- **Analysis:** A detailed examination of the structure or nature of something.
- **Argument:** A statement of a reason or excuse.
- **Criteria:** A standard by which something is judged or decided.
-
- **Key Vocabulary**
- 1. Scientific Method - a method of problem solving by testing

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a hypothesis.
- 2. Hypothesis - an educated guess that answers your question.
- 3. Question - what it is that you want to test or find out.
- 4. Experiment - testing an idea or hypothesis through a controlled investigation.
- 5. Observation - making and recording measurements.
- 6. Qualitative Observation - using the

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senses to gather information about of something...without numbers
- 7. Quantitative Observation - using the senses to gather information about of something...with numbers.
- 8. Data - a collection of facts – usually numbers
- 9. Data table - an organized chart to record and keep data from

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the experiment.
- 10. Variable - things that change or can be changed in an experiment.
- 11. Dependent variable - the changes that are measured in an experiment. Written after the "then, _____" in the hypothesis.
- 12. Independent variable - what causes the changes measured in

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an experiment. Written in the first part of the hypothesis after the "If___"
- 13. Trial - each test performed in an experiment.
- 14. Inference - drawing a conclusion or judgment based on data.
- 15. Analysis - a study of the data

looking for patterns,

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errors
and
meaning.
- 16. Conclusion - a
judgment
that
may support or may not support the original hypothesis

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Module 1: Earth Science

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:59	4th Grade Science	6.0 Weeks	4	Science	MATTHEW ROYER

Unit Focus

This unit focuses on how Earth's processes create and change the landscape of Earth's surface over time. Earth's processes, including natural disasters(earthquakes, volcanoes, etc) occur in patterns and can impact Earth's surface quickly while erosion and weathering impact Earth's surface slowly. We can use the patterns found in rock formations (fossils, rock layers, etc) to help make predictions and explanations about how the landscape has changed over time.

Anchoring Phenomenon

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Prior Learnings/Connection

Students should have a background on earth's process including weather, bodies of water, landforms, and how each of those change Earth's landscape.

Navigation to next lesson/storyline

Students know how Earth's processes impact the planet, we will further our understanding by focusing on how Earth's processes impact living organisms.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 3-5 Environmental Literacy & Sustainability

- Examine ways you influence your local environment and community by collecting and displaying data. *(3.4.3-5.C)*
- Develop a model to demonstrate how local environmental issues are connected to larger local environment and human systems. *(3.4.3-5.D)*
- Construct an argument to support whether action is needed on a selected environmental issue and propose possible solutions. *(3.4.3-5.E)*

Science (2023): 4 Standards

- Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Gather and interpret measurements and data and apply to new situations. *(T1)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T2)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*
- The Universe is composed of a variety of different objects, which are organized into systems, each of which

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How and why is Earth constantly changing? *(EQ.SCI.EARTH.02)*
- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

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Clarifying Statement: Examples of evidence from patterns could include rock layers with marine shell fossils above rock layers with plant fossils and no shells, indicating a change from land to water over time; and, a canyon with different rock layers in the walls and a river in the bottom, indicating that over time a river cut through the rock.

Assessment Boundary: Assessment does not include specific knowledge of the mechanism of rock formation or memorization of specific rock formations and layers. Assessment is limited to relative time. *(3.3.4.A)*

- Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.

Clarifying Statement: Examples of variables to test could include angle of slope in the downhill movement of water, amount of vegetation, speed of wind, relative rate of deposition, cycles of freezing and thawing of water, cycles of heating and cooling, and volume of water flow.

Assessment Boundary: Assessment is limited to a single form of weathering or erosion.
(3.3.4.B)

- Analyze and interpret data from maps to describe patterns of Earth's features.

develops according to accepted physical processes and laws. *(U2)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- That weathering breaks up rocks and sediment. *(K1)*
- That erosion is the process of moving rocks and sediment to a new place. *(K2)*
- Earth's systems are all part of a system and interact to change Earth's surface. *(K3)*
- Rock formations hold evidence of how the landscape has changed over time. *(K4)*
- Fossils are remains of plants and animals, and they can be used as evidence to make explanations about the landscape. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Assessing a local body of water using a stream assessment tool. *(S1)*
- Testing for Turbidity in a stream. *(S2)*
- Identifying fossils. *(S3)*
- Making models. *(S4)*
- Using maps to identify patterns in Earth's processes. *(S5)*

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Clarifying Statement: Maps can include topographic maps of Earth's land and ocean floor, as well as maps of the locations of mountains, continental boundaries, volcanoes, and earthquakes. Assessment Boundary: N/A *(3.3.4.C)* ■ Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans. Clarifying Statement: Examples of solutions could include designing an earthquake resistant building and improving monitoring of volcanic activity. Assessment Boundary: Assessment is limited to earthquakes, floods, tsunamis, and volcanic eruptions. *(3.3.4.E)* Technology & Engineering (2023): 3-5 Technology & Engineering ■ Describe the properties of different materials. *(3.5.3-5.W)* ■ Describe the unique relationship between science and technology, and how the natural world can contribute to the human-made world to foster innovation. *(3.5.3-5.GG)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 4 Science & Engineering Practices

- Ask questions that can be investigated and predict reasonable outcomes based on patterns such as cause and effect relationships. *(SEP.3-5.P1.C)*
- Make observations to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution. *(SEP.3-5.P3.B1)*
- Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon. *(SEP.3-5.P3.B2)*
- Use evidence (e.g., measurements, observations, patterns) to construct an explanation. *(SEP.3-5.P4.B)*
- Generate and compare multiple solutions to a problem based on how well they meet the criteria and constraints of the design solution. *(SEP.3-5.P4.E)*
- Analyze and interpret data to make sense of phenomena using logical reasoning. *(SEP.3-5.P5.C)*

Technology & Engineering (2023): 3-5 Science & Engineering Practices

- Communicate scientific and/or technical information orally and/or in written formats, including various forms of media as well as tables, diagrams, and charts. *(SEP.3-5.P5.1)*

Technology & Engineering (2023): 3-5 Technology & Engineering Practices

- Knows how to find answers to technological questions. *(TEP.3-5.E.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 4 Disciplinary Core Ideas

- Local, regional, and global patterns of rock formations reveal changes over time due to earth forces, such as earthquakes. The presence and location of certain fossil types indicate the order in which rock layers were formed. *(DCI.4.ESS1.C.1)*
- Rainfall helps to shape the land and affects the types of living things found in a region. Water, ice, wind, living organisms, and gravity break rocks, soils, and sediments into smaller particles and move them around. *(DCI.4.ESS2.A.1)*
- The locations of mountain ranges, deep ocean trenches, ocean floor structures, earthquakes, and volcanoes occur in patterns. Most earthquakes and volcanoes occur in bands that are often along the boundaries between continents and oceans. Major mountain chains form inside continents or near their edges. Maps can help locate the different land and water features areas of Earth. *(DCI.4.ESS2.B.1)*
- A variety of hazards result from natural processes (e.g., earthquakes, tsunamis, volcanic eruptions). Humans cannot eliminate the hazards but can take steps to reduce their impacts. *(DCI.4.ESS3.B.1)*

- Testing a solution involves investigating how well it performs under a range of likely conditions. *(DCI.4.ETS1.B.1)*

Technology & Engineering (2023): 3-5 Disciplinary Core Ideas

- Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments. *(DCI.3-5.ESS3.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 4 Crosscutting Concepts

- Patterns can be used as evidence to support an explanation. *(CCC.3-5.C1.A3)*
- Cause and effect relationships are routinely identified. *(CCC.3-5.C2.A1)*
- Cause and effect relationships are routinely identified, tested, and used to explain change. *(CCC.3-5.C2.A2)*

Vocabulary

Erosion

Weathering

Landforms

Natural Disasters

Watershed

Turbidity

Fossils

Module 1: Earth: Land Changing Shape

Draft Date	Course	Duration	Grades	Subjects	Team
03-31-2025 @ 01:40	2nd Grade Science	10.0 Lesson(s)	2	Science	Jessica Smith , Lindsay Feeser

Unit Focus

Land is on the move and people and animals aren't moving it! At the beginning of this unit, students engage with a puzzling news story about land changing shape, and people and animals don't seem to be causing these changes. Students try to figure out how this land could be changing shape, and inquire with their communities and families to find examples of this happening around them. Through a series of investigations and community examples, students learn about how wind and water can change the shape of the land over various timescales. Once students have figured out how the land is changing shape, they work to solve a land change problem in their communities. Students act as engineers to design and test a solution. They compare designs and determine what solution would be most effective.

Anchoring Phenomenon



Changing Land Newscast

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The anchoring phenomenon for this unit is a puzzling newscast about land changing shape. Students have the opportunity to try and explain how land by the side of a road seemingly changed shape without people or other animals moving it and expand to related phenomena that they find of land changing shape in their communities.

Prior Learnings/Connection

In kindergarten and first grade, students build foundational knowledge of earth and space science by observing and describing patterns in their environment. They learn to recognize weather conditions, track changes over time, and understand how weather forecasting helps communities prepare for severe weather. Additionally, they explore how plants, animals, and humans interact with and modify their surroundings to meet their needs. In first grade, students extend their observations to the sky, noting predictable patterns in the sun, moon, and stars, and relating changes in daylight to the time of year. These early experiences prepare students for second-grade learning by fostering their ability to recognize and describe natural patterns and the relationships between living things and their environment.

Navigation to next lesson/storyline

Click the following link to access the Module 1 Storyline - Earth: Land Changing Shape. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding land changes caused by wind and water.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): 2 Standards ■ Use information from several sources to provide evidence that Earth events can occur quickly or slowly. Clarifying Statement: Examples of events and timescales could include volcanic explosions and earthquakes, which happen quickly and erosion of rocks, which occurs slowly.	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Design an investigation or model using appropriate tools, resources, and methods. *(T1)* ■ Gather and interpret measurements and data and apply to new situations. *(T2)* ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*

Assessment Boundary: Assessment does not include quantitative measurements of timescales. *(3.3.2.A)*

- Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.

Clarifying Statement: Examples of solutions could include different designs of dikes and windbreaks to hold back wind and water, and different designs for using shrubs, grass, and trees to hold back the land.

Assessment Boundary: N/A *(3.3.2.B)*

Technology & Engineering (2023): K-2 Technology & Engineering

- Compare simple technologies to evaluate their impacts. *(3.5.K-2.I)*
- Demonstrate essential skills of the engineering design process. *(3.5.K-2.M)*
- Analyze how things work. *(3.5.K-2.N)*
- Illustrate that there are different solutions to a design and that none are perfect. *(3.5.K-2.O)*
- Draw connections between technology and human experience. *(3.5.K-2.R)*
- Apply design concepts, principles, and processes through play and exploration. *(3.5.K-2.S)*
- Demonstrate that designs have requirements. *(3.5.K-2.T)*
- Explain that design is a response to wants and needs. *(3.5.K-2.U)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do objects in the universe appear and behave? *(EQ.SCI.EARTH.01)*
- How and why is Earth constantly changing? *(EQ.SCI.EARTH.02)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Earth events can occur quickly (e.g., earthquakes) or slowly (e.g., erosion). *(K1)*
- Wind and water can change land, but solutions exist to slow these effects. *(K2)*
- Technology impacts people and the environment. *(K3)*
- The engineering design process helps solve problems. *(K4)*
- Systems have parts that work together to achieve a goal. *(K5)*
- Designs must meet requirements and address needs. *(K6)*
- Anyone can create and solve problems through design. *(K7)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Using evidence to explain how Earth events happen at different speeds. *(S1)*
- Comparing solutions that prevent wind and water from changing land. *(S2)*
- Evaluating and analyzing simple technologies. *(S3)*
- Applying the engineering design process to solve problems. *(S4)*
- Developing and testing different design solutions. *(S5)*
- Making connections between technology and human experiences. *(S6)*
- Planning and completing tasks using engineering and design concepts. *(S7)*

- Apply concepts and skills from technology and engineering activities that reinforce concepts and skills across multiple areas. *(3.5.K-2.W)*
- Develop a plan in order to complete a task. *(3.5.K-2.X)*
- Illustrate how systems have parts or components that work together to accomplish a goal. *(3.5.K-2.Z)*
- Demonstrate that creating can be done by anyone. *(3.5.K-2.AA)*

Technology & Engineering (2023): K-2 Technology & Engineering Practices

- Learns to share technological products and ideas. *(TEP.K-2.B.1)*
- Learns that humans have many ways to communicate. *(TEP.K-2.C.1)*
- Learns that humans create products and ways of doing things. *(TEP.K-2.D.1)*
- Engages in listening, questioning, and discussing. *(TEP.K-2.E.1)*
- Learns to use tools and materials to accomplish a task. *(TEP.K-2.F.1)*
- Sees opportunities for making technologies better. *(TEP.K-2.G.1)*
- Learns that human-designed things are connected. *(TEP.K-2.H.1)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 2 Science & Engineering Practices

- Make observations from several sources to construct an evidence-based account for natural phenomena. *(SEP.K-2.P4.A.2)*

Technology & Engineering (2023): K-2 Science & Engineering Practices

- Analyze data from tests of an object or tool to determine if it works as intended. *(SEP.K-2.P1.1)*
- Ask questions based on observations to find more information about the natural and/or designed world(s). *(SEP.K-2.P2.1)*
- Define a simple problem that can be solved through the development of a new or improved object or tool. *(SEP.K-2.P2.2)*
- Use tools and/or materials to design and/or build a device that solves a specific problem or a solution to a specific problem. *(SEP.K-2.P3.1)*
- Generate and/or compare multiple solutions to a problem. *(SEP.K-2.P3.2)*
- Develop and/or use a model to represent amounts, relationships, relative scales (bigger, smaller), and/or patterns in the natural and designed world(s). *(SEP.K-2.P4.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 2 Disciplinary Core Ideas

- Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. *(DCI.2.ESS1.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 2 Crosscutting Concepts

- Things may change slowly or rapidly. *(CCC.K-2.C7.A)*

Vocabulary

Unit Specific Vocabulary (Tier 3): land, landform, rock, mangroves, windbreakers

Tier 2 Vocabulary: cause, investigate, observe/observation, model, analyze, data, interpret, effective

Module 1: Ecosystems & Matter Cycling

Draft Date	Course	Duration	Grades	Subjects	Team
05-15-2025 @ 06:36	5th Grade Science	15.0 Lesson(s)	5	Science	SYSTEM USER , CHRISTY KLEMICK , KIMBERLY METZGER , Brooke Fry , Tori Berwager

Unit Focus

Have you ever seen a fallen log in a forest? Have you wondered how plants could be growing on it or why animals might be visiting it? In this unit, students explore nurse logs to figure out just that. Students begin their exploration of nurse logs by considering how the plant life that grows on them gets the matter needed to grow. They plan, carry out, and evaluate investigations that provide them with evidence that plants get the matter they need to grow primarily from air and water and the energy they need to grow from the Sun. As students build their understanding of matter and energy transfer, they investigate how there are also many animals that live in, on, and around nurse logs. They model to explain the transfer of energy and matter between plants, animals, the nurse log, and the sun. Students figure out that decomposers are a vital component of the nurse log system. Finally, students consider how new species can disrupt that balance and flow of matter and energy, using the example of American bullfrogs that have been recently introduced to nurse log ecosystems.

Anchoring Phenomenon

The anchoring phenomenon for this unit is fallen trees known as nurse or nursery logs, which provide a home for many organisms in forest ecosystems, especially fallen Sitka spruce, hemlock, cedar, and Douglas fir trees in the Pacific Northwest and redwood forests in the western United States. Although fallen trees in many regions can act similarly to nurse logs by providing a home for other organisms, nurse logs are distinct in that they are often very large and therefore provide a significant amount of biomass to the forest ecosystem. Additionally, the moist and cool climate in which nurse logs are found means that they take many, many years to fully decompose, such that they facilitate the regeneration of forest ecosystems. Although they are a key part of the broader forest ecosystem in which they exist, nurse logs also serve as an example of a bounded system that involves plants, animals, and decomposers. Matter and energy move through this system as moss and plant seedlings that take root on the nurse log conduct photosynthesis and feed relationships between plants, animals, and decomposers that live in, on, and around the nurse log.

Prior Learnings/Connection

Students will bring a variety of ideas and experiences to this unit that will help them make meaningful connections between science learning and their everyday lives. Their personal experiences with energy—such as feeling energized after eating or saving electricity by turning off lights—can be used to deepen their understanding of energy transfer in living systems. Prior knowledge about plants needing sunlight and soil for growth will be built upon to emphasize that plants use energy from the Sun and matter from air and water to produce their own food. Students' understanding of food as a source of energy and matter for animals will be expanded to include how energy and

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matter cycle through ecosystems, with decomposers playing a key role. Additionally, students will explore scientific argumentation as a way to use evidence to explain natural phenomena, shifting from everyday ideas of arguments to a scientific context. Their prior understanding of systems as groups of interacting parts will also be developed, as they model interactions between living and nonliving components in ecosystems and explore how matter and energy flow through these systems.

Navigation to next lesson/storyline

Click the following link to access the Module 1: Ecosystems & Matter Cycling storyline. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 5 Standards

- Support an argument that plants get the materials they need for growth chiefly from air and water.

  Clarifying Statement: Emphasis is on the idea that plant matter comes mostly from air and water, not from the soil.

  Assessment Boundary: N/A *(3.1.5.A)*
- Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

  Clarifying Statement: Emphasis is on the idea that matter that is not food (air, water, decomposed materials in soil) is changed by plants into matter that is food. Examples of systems could include

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*
- Utilize critical thinking, problem-solving, creativity & innovation, communication, and collaboration. *(LT.STM.06)*
- Develop grit, persistence, self-discipline, pride, responsibility and safety. *(LT.STM.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere,

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How and why do organisms interact with their environment and what are

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organisms, ecosystems, and the Earth.

Assessment Boundary: Assessment does not include molecular explanations. *(3.1.5.B)*

- Develop a model to describe that matter is made of particles too small to be seen.

Clarifying Statement: Examples of evidence supporting a model could include adding air to expand a basketball, compressing air in a syringe, dissolving sugar in water, and evaporating salt water.

Assessment Boundary: Assessment does not include the atomic-scale mechanism of evaporation and condensation or defining the unseen particles. *(3.2.5.A)*

- Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

Clarifying Statement: Examples of models could include diagrams, and flow charts.

Assessment Boundary: N/A *(3.2.5.G)*

Technology & Engineering (2023): K-2 Technology & Engineering

- Discuss the roles of scientists, engineers, technologists, and others who work with technology. *(3.5.K-2.CC)*

biosphere) that interact over a wide range of climates and geographies. *(U1)*
- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U2)*
- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with other organisms and the physical environment *(U3)*
- Biological adaptation explains both the unity and diversity of species and provides a unifying principle for the history and diversity of life on Earth *(U4)*

the effects of these interactions? *(EQ.SCI.LIFE.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Plants get the materials they need for growth chiefly from air and water, not from soil. *(K1)*
- Matter cycles among the air, soil, plants, animals, and decomposers in an ecosystem. *(K2)*
- Energy in animals' food originally comes from the Sun, transferred through plants. *(K3)*
- Decomposers play a crucial role in ecosystems by breaking down dead organisms and recycling matter. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Developing and using models to explain how matter and energy move through ecosystems. *(S1)*
- Supporting scientific arguments with evidence, data, or models. *(S2)*
- Describing how matter and energy flow between plants, animals, decomposers, and the environment. *(S3)*
- Using observations and investigations to determine how plants and animals obtain and use matter and energy. *(S4)*

	■ Matter is made of particles too small to see, but it still exists and can be detected by its effects. *(K5)* ■ Ecosystems are systems made up of interacting parts, and new species can disrupt ecosystem balance. *(K6)*	■ Identifying patterns in how energy and matter are cycled and conserved in natural systems. *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 5 Science & Engineering Practices

- Develop a model to describe phenomena. *(SEP.3-5.P2.E.1)*
- Use models to describe phenomena. *(SEP.3-5.P2.E.2)*
- Support an argument with evidence, data, or a model. *(SEP.3-5.P7.D)*

Technology & Engineering (2023): 3-5 Science & Engineering Practices

- Communicate scientific and/or technical information orally and/or in written formats, including various forms of media as well as tables, diagrams, and charts. *(SEP.3-5.P5.1)*

Technology & Engineering (2023): 3-5 Technology & Engineering Practices

- Provides examples of how human-designed products are connected. *(TEP.3-5.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 5 Disciplinary Core Ideas

- Plants acquire their material for growth chiefly from air and water. *(DCI.5.LS1.C.1)*
- Food provides animals with the materials they need for body repair and growth and the energy they need to maintain body warmth and for motion. *(DCI.5.LS1.C.2)*
- The food of almost any kind of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plants parts and animals) and therefore operate as “decomposers.” Decomposition eventually restores (recycles) some materials back to the soil. Organisms can survive only in environments in which their particular needs are met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a relatively stable web of life. Newly introduced species can damage the balance of an ecosystem. *(DCI.5.LS2.A.1)*

- Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gases, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment. *(DCI.5.LS2.B.1)*
- Matter of any type can be subdivided into particles that are too small to see, but even then the matter still exists and can be detected by other means. A model showing that gases are made from matter particles that are too small to see and are moving freely around in space can explain many observations, including the inflation and shape of a balloon and the effects of air on larger particles or objects. *(DCI.5.PS1.A.1)*
- Measurements of a variety of properties can be used to identify materials. (Boundary: At this grade level, mass and weight are not distinguished, and no attempt is made to define the unseen particles or explain the atomicscale mechanism of evaporation and condensation.) *(DCI.5.PS1.A.2)*
- The energy released from food was once energy from the sun that was captured by plants in the chemical process that forms plant matter (from air and water). *(DCI.5.PS3.D.1)*

Technology & Engineering (2023): 3-5 Disciplinary Core Ideas

- Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. *(DCI.3-5.ETS1.B.2)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 5 Crosscutting Concepts

- Natural objects exist from the very small to the immensely large. *(CCC.3-5.C3.A)*
- A system can be described in terms of its components and their interactions. *(CCC.3-5.C4.B)*
- Matter is transported into, out of, and within systems. *(CCC.3-5.C5.A.1)*
- Energy can be transferred in various ways and between objects. *(CCC.3-5.C5.A.2)*

Vocabulary

Tier 2 Vocabulary: component, system, testable, argument, scale, absorb, producer, consumer, conservation, variables, modeling, microscopic

Tier 3 Vocabulary: nurse log, phenomenon, closed system, open system, fair test, particle, food chain, conservation of matter, organism, fungus/fungi

Module 1: Energy- Sunlight

Draft Date	Course	Duration	Grades	Subjects	Team
04-02-2025 @ 02:47	Kindergarten Science	10.0 Lesson(s)	K	Science	Jessica Smith , Emily Stambaugh , Ashley Small

Unit Focus

Have you ever wondered why some surfaces outside are hot and others are less hot? This unit begins with a shared experience of observing how surfaces feel hot and less hot outside around the schoolyard. Then students make and record observations of different surfaces in different places in their schoolyard. They compare those observations with their classmates' to identify patterns to answer their questions about what causes some surfaces to feel hot and others to feel less hot. Students use drawings to explain and share what they figure out about this phenomenon. Students then use their observations to identify the problem that blacktop can get too hot and be uncomfortable to play on. They brainstorm solutions to this problem based on their investigations, draw design solutions, and collaboratively build and test their designs. Students end the unit by creating a class consensus design based on their comparisons of the design features and materials that work best to prevent the blacktop from getting too hot.

Anchoring Phenomenon



This unit was designed using Eduplanet21 - https://eduplanet21.com/

The anchoring phenomenon for this unit is students' own observations of surfaces that are hot and less hot around their schoolyard. They have an opportunity in Lesson 1 to make and record observations around their schoolyard of surfaces that are hot or less hot and ask questions about why some may be hot and others less hot. In Lesson 6, students build on their observations from earlier lessons of surfaces getting too hot and they establish the hot blacktop being uncomfortable as a problem they can engineer solutions for. They brainstorm, plan, build, test, and share designs to prevent the blacktop from getting too hot.

Prior Learnings/Connection

Kindergarten students can connect this unit to their prior learning by recalling everyday experiences with heat, such as feeling the warmth of the sun on their skin or noticing that the playground or sidewalk is warmer than the grass. They may also have seen or touched different materials, like concrete or grass, and observed that some surfaces feel warmer than others. These experiences provide a foundation for understanding why some surfaces get hotter than others and how heat can be managed or changed.

Navigation to next lesson/storyline

Click the following link to access the Module 1: Energy-Sunlight. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): K Standards ■ Make observations to determine the effect of sunlight on Earth's surface. Clarifying Statement: Examples of Earth's surface could include sand, soil, rocks, and water. Assessment Boundary: Assessment of temperature is limited to relative measures such as warmer/cooler. *(3.2.K.C)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Design an investigation or model using appropriate tools, resources, and methods. *(T1)* ■ Gather and interpret measurements and data and apply to new situations. *(T2)* ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)* ■ Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)* ■ Understand, use, apply, and evaluate technology to become productive members of society. *(LT.TED.01)*

- Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.

  Clarifying Statement: Examples of structures could include umbrellas, canopies, and tents that minimize the warming effect of the sun.

  Assessment Boundary: N/A *(3.2.K.D)*

Technology & Engineering (2023): K-2 Technology & Engineering

- Safely use tools to complete tasks. *(3.5.K-2.K)*
- Demonstrate essential skills of the engineering design process. *(3.5.K-2.M)*
- Draw connections between technology and human experience. *(3.5.K-2.R)*
- Apply design concepts, principles, and processes through play and exploration. *(3.5.K-2.S)*
- Demonstrate that designs have requirements. *(3.5.K-2.T)*
- Explain that design is a response to wants and needs. *(3.5.K-2.U)*
- Explain that materials are selected for use because they possess desirable properties and characteristics. *(3.5.K-2.V)*
- Develop a plan in order to complete a task. *(3.5.K-2.X)*
- Discuss how the way people live and work has changed throughout history because of technology. *(3.5.K-2.Y)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*
- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U2)*
- Technology impacts core concepts, characteristics, and relationships between all fields of study. *(BIG.TED.01)*
- The development of technology allows people to design, create, and assess solutions that solve problems. *(BIG.TED.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*
- How does understanding technological concepts contribute to the built environment? *(EQ.TED.05)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*
- How and why is Earth constantly changing? *(EQ.SCI.EARTH.02)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Sunlight warms the Earth's surface *(K1)*
- Different materials (sand, soil, rocks, water) absorb sunlight differently, leading to varying temperature changes *(K2)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Observing and identifying how sunlight affects different surfaces by making comparisons *(S1)*
- Using tools and materials to design and build a structure that reduces heat from the sun *(S2)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

- Illustrate how systems have parts or components that work together to accomplish a goal. *(3.5.K-2.Z)*
- Demonstrate that creating can be done by anyone. *(3.5.K-2.AA)*

Technology & Engineering (2023): K-2 Technology & Engineering Practices

- Learns to share technological products and ideas. *(TEP.K-2.B.1)*
- Learns that humans have many ways to communicate. *(TEP.K-2.C.1)*
- Learns that humans create products and ways of doing things. *(TEP.K-2.D.1)*
- Engages in listening, questioning, and discussing. *(TEP.K-2.E.1)*
- Learns to use tools and materials to accomplish a task. *(TEP.K-2.F.1)*
- Learns that human-designed things are connected. *(TEP.K-2.H.1)*

- Engineers and scientists design structures to reduce heat from the sun, such as umbrellas, canopies, and tents *(K3)*
- Engineering design is a process that involves defining a problem, brainstorming solutions, and testing different designs *(K4)*
- Humans design and use technology to solve real-world problems, such as managing heat from sunlight *(K5)*
- Cause-and-effect relationships can be observed in how sunlight warms materials *(K6)*

- Developing models to represent concepts, such as shading a surface to reduce warming *(S3)*
- Comparing multiple solutions to determine which structure best reduces heat *(S4)*
- Collaborating and communicating ideas about their designs *(S5)*
- Exploring and using technology to solve everyday problems through play and hands-on activities *(S6)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): K Science & Engineering Practices

- Make observations (first hand or from media) to collect data that can be used to make comparisons. *(SEP.K-2.P3.D)*
- Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. *(SEP.K-2.P4.B)*

Technology & Engineering (2023): K-2 Science & Engineering Practices

- Define a simple problem that can be solved through the development of a new or improved object or tool. *(SEP.K-2.P2.2)*
- Use tools and/or materials to design and/or build a device that solves a specific problem or a solution to a specific problem. *(SEP.K-2.P3.1)*
- Generate and/or compare multiple solutions to a problem. *(SEP.K-2.P3.2)*

- Develop and/or use a model to represent amounts, relationships, relative scales (bigger, smaller), and/or patterns in the natural and designed world(s). *(SEP.K-2.P4.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): K Disciplinary Core Ideas

- Sunlight warms Earth's surface. *(DCI.K.PS3.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): K Crosscutting Concepts

- Events have causes that generate observable patterns. *(CCC.K-2.C2.B)*

Vocabulary

Unit Specific Vocabulary (Tier 3): surface, engineering

Tier 2 Vocabulary: patter, cause and effect, design, claim, evidence, observation, consensus

Module 1: Forces & Interactions

Draft Date	Course	Duration	Grades	Subjects	Team
04-02-2025 @ 02:03	3rd Grade Science	14.0 Lesson(s)	3	Science	Jessica Smith , Jill Lerew

Unit Focus

Have you ever seen something in the world that is balanced in an interesting or puzzling way? Have you wondered how it stays balanced without falling over? This unit launches with art sculptures that do just this – the sculptures balance and move in ways that make students wonder how they work. Through a series of investigations, students develop ideas about the multiple forces acting on a sculpture to keep it upright and not fall over, or to create predictable motion. Students plan and carry out investigations to test what works and does not work to design sculptures. The unit re-anchors with a new type of sculpture – one that moves in interesting ways using magnets with nothing making contact. Students learn about the size and direction of forces between magnets and between magnets and some metal objects. Students then apply these ideas about magnets to design an object and device that solves a problem.

Anchoring Phenomenon



The anchoring phenomenon for this unit is a series of sculptures that balance and move in puzzling ways. These sculptures are called balance sculptures and kinetic sculptures and are widespread in art and design. Artists design and build these sculptures to balance in odd ways to attract attention from viewers of the art. Sometimes these sculptures are built using everyday objects and are meant to be

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temporary. Other times the sculptures are built to last and may be on display in a museum or someone's personal art collection. Many times these sculptures do not use glue to hold them together, though some balance sculptures do use magnets. Magnetic sculptures may use magnets to create towers of metal art or use forces from magnets to create the appearance that an object is hovering. Artists also design and build kinetic sculptures that are meant to move in interesting ways. Kinetic sculptures are designed to move with the slightest outside force, like a light breeze or a tap of a finger. Kinetic sculptures may be found in museums, art exhibits, outdoor exhibits, homes, and offices. Artists who design and build these sculptures use their knowledge of weight, force, motion, gravity, and magnets to make their sculptures balance and move.

- Balancing Act: Building the Stack
- Exploratorium Tinker Studio

Prior Learnings/Connection

In earlier grades, students likely explored simple concepts like motion and force in everyday contexts, such as rolling objects or pushing and pulling items. This module connects to their prior knowledge by expanding on the idea of forces and motion, introducing the concepts of balanced and unbalanced forces, and demonstrating how these forces impact the movement of objects. Additionally, students' earlier experiences with magnets and electricity provide a foundation for exploring electric and magnetic forces in more depth. This module also connects to prior learning about the engineering design process, allowing students to apply their understanding of forces to solve real-world problems.

Navigation to next lesson/storyline

Click the following link to access the Module 1: Forces & Interactions. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): 3 Standards ■ Make and communicate observations and/or measurements of an object's motion to provide evidence that a pattern can be	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Design an investigation or model using appropriate tools, resources, and methods. *(T1)* ■ Gather and interpret measurements and data and apply to new situations. *(T2)* ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)* ■ Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*

used to predict future motion.

Clarifying Statement: Examples of motion with a predictable pattern could include a child swinging in a swing, a ball rolling back and forth in a bowl, and two children on a see-saw.

Assessment Boundary: Assessment does not include technical terms such as period and frequency. *(3.2.3.A)*

- Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.

Clarifying Statement: Examples could include an unbalanced force on one side of a ball can make it start moving; and, balanced forces pushing on a box from both sides will not produce any motion at all.

Assessment Boundary: Assessment is limited to one variable at a time: number, size, or direction of forces. Assessment does not include quantitative force size, only qualitative and relative. Assessment is limited to gravity being addressed as a force that pulls objects down. *(3.2.3.B)*

- Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.

Clarifying Statement: Examples of an

- Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Interactions between any two objects can cause changes in one or both. *(U1)*
- Technology impacts core concepts, characteristics, and relationships between all fields of study. *(BIG.TED.01)*
- The development of technology allows people to design, create, and assess solutions that solve problems. *(BIG.TED.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Objects move in predictable patterns, and past motion can predict future motion. *(K1)*
- Forces can be balanced or unbalanced, impacting the motion of objects. *(K2)*
- Gravity is a force that pulls objects toward Earth. *(K3)*
- Objects exert forces on each other when in contact; electric and magnetic forces act at a distance. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Make observations and record data to describe and predict object motion. *(S1)*
- Plan and conduct investigations to understand the effects of balanced and unbalanced forces. *(S2)*
- Collect evidence to explain how forces impact motion. *(S3)*
- Ask questions to explore cause-and-effect relationships of electric and magnetic forces. *(S4)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

electric force could include the force on hair from an electrically charged balloon and the electrical forces between a charged rod and pieces of paper; examples of a magnetic force could include the force between two permanent magnets, the force between an electromagnet and steel paper clips, and the force exerted by one magnet versus the force exerted by two magnets. Examples of cause and effect relationships could include how the distance between objects affects strength of the force and how the orientation of magnets affects the direction of the magnetic force.

Assessment Boundary: Assessment is limited to forces produced by objects that can be manipulated by students, and electrical interactions are limited to static electricity. *(3.2.3.C)*

- Define a simple design problem that can be solved by applying scientific ideas about magnets.

Clarifying Statement: Examples of problems could include constructing a latch to keep a door shut and creating a device to keep two moving objects from touching each other.

Assessment Boundary: N/A *(3.2.3.D)*

- The strength of magnetic and electric forces depends on the objects' properties and distance. *(K5)*
- The engineering design process helps solve problems related to forces and motion. *(K6)*
- Constraints and criteria determine the success of a solution in design. *(K7)*
- Communication and testing are essential for refining and improving designs. *(K8)*

- Test and analyze how the distance between objects affects interactions. *(S5)*
- Define simple design problems related to magnets and motion. *(S6)*
- Apply the engineering design process to create and evaluate solutions. *(S7)*
- Identify and troubleshoot problems with existing designs. *(S8)*
- Use tools and materials safely in design projects. *(S9)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Technology & Engineering (2023): 3-5 Technology & Engineering ■ Demonstrate essential skills of the engineering design process. *(3.5.3-5.M)* ■ Identify why a product or system is not working properly. *(3.5.3-5.N)* ■ Describe requirements of designing or making a product or system. *(3.5.3-5.O)* ■ Evaluate the strengths and weaknesses of existing design solutions, including their own solutions. *(3.5.3-5.P)* ■ Apply tools, techniques, and materials in a safe manner as part of the design process. *(3.5.3-5.R)* ■ Evaluate designs based on criteria, constraints, and standards. *(3.5.3-5.U)* ■ Identify the resources needed to get a technical job done, such as people, materials, capital, tools, machines, knowledge, energy, and time. *(3.5.3-5.Y)* ■ Illustrate how, when parts of a system are missing, it may not work as planned. *(3.5.3-5.BB)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 3 Science & Engineering Practices

- Ask questions that can be investigated based on patterns such as cause and effect relationships. *(SEP.3-5.P1.C)*
- Define a simple problem that can be solved through the development of a new or improved object or tool. *(SEP.3-5.P1.E)*
- Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution. *(SEP.3-5.P3.B)*
- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered. *(SEP.3-5.P3.D)*

Technology & Engineering (2023): 3-5 Science & Engineering Practices

- Use evidence (e.g., measurements, observations, patterns) to construct or support an explanation or design a solution to a problem. *(SEP.3-5.P2.1)*
- Construct an explanation of observed relationships (e.g., the distribution of plants in the back yard). *(SEP.3-5.P2.2)*
- Respectfully provide and receive critiques from peers about a proposed procedure, explanation, or model by citing relevant evidence and posing specific questions. *(SEP.3-5.P4.2)*
- Communicate scientific and/or technical information orally and/or in written formats, including various forms of media as well as tables, diagrams, and charts. *(SEP.3-5.P5.1)*
- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered. *(SEP.3-5.P6.1)*

Technology & Engineering (2023): 3-5 Technology & Engineering Practices

- Develops written and oral communication skills. *(TEP.3-5.C.1)*
- Tries new technologies and generates strategies for improving existing ideas. *(TEP.3-5.D.1)*
- Knows how to find answers to technological questions. *(TEP.3-5.E.1)*
- Safely uses grade-appropriate tools, materials, and processes to build projects. *(TEP.3-5.F.1)*
- Engages in "tinkering" to improve a design. *(TEP.3-5.G.1)*
- Provides examples of how human-designed products are connected. *(TEP.3-5.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 3 Disciplinary Core Ideas

- The patterns of an object's motion in various situations can be observed and measured; when that past motion exhibits a regular pattern, future motion can be predicted from it. *(DCI.3.PS2.A.1)*
- Each force acts on one particular object and has both strength and a direction. An object at rest typically has multiple forces acting on it, but they add to give zero net force on the object. Forces that do not sum to zero can cause changes in the object's speed or direction of motion. *(DCI.3.PS2.A.2)*
- Objects in contact exert forces on each other. *(DCI.3.PS2.B.1)*
- Electric, and magnetic forces between a pair of objects do not require that the objects be in contact. The sizes of the forces in each situation depend on the properties of the objects and their distances apart and, for forces between two magnets, on their orientation relative to each other. *(DCI.3.PS2.B.2)*

Technology & Engineering (2023): 3-5 Disciplinary Core Ideas

- Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. *(DCI.3-5.ETS1.A.1)*
- At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. *(DCI.3-5.ETS1.B.1)*
- Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. *(DCI.3-5.ETS1.B.2)*
- Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. *(DCI.3-5.ETS1.B.3)*
- Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints. *(DCI.3-5.ETS1.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 3 Crosscutting Concepts

- Patterns of change can be used to make predictions. *(CCC.3-5.C1.B)*
- Cause and effect relationships are routinely identified and used to explain change. *(CCC.3-5.C2.A1)*
- Cause and effect relationships are routinely identified, tested, and used to explain change. *(CCC.3-5.C2.A2)*

Vocabulary

Unit Specific Vocabulary (Tier 3): balance point, sculpture, force, weight, contact force, unbalanced forces, magnet, noncontact force, constraint, criteria

Tier 2 Vocabulary: investigation, procedures, scale, fair test, multiple trial, prediction, interact, model, system

Module 1: Waves- Light

Draft Date	Course	Duration	Grades	Subjects	Team
04-01-2025 @ 05:37	1st Grade Science	10.0 Lesson(s)	1	Science	Jessica Smith , Maurisa Fasick , ROBIN SHERMAN

Unit Focus

This unit begins with a shared experience of trying to read in the dark under covers made of different materials. Students plan and carry out investigations together to produce evidence that can answer their questions about the phenomenon. Through these investigations, students gather data about how transparent, translucent, opaque, and reflective materials cause light to pass through, be blocked, or change direction. As the unit progresses, students use a new model to explain how they can successfully read under covers that block light. At the end of the unit, students apply these ideas to write an informational text to communicate information about reading under covers to members of their community.

Anchoring Phenomenon



The anchoring phenomenon for this unit is the experience of reading under covers made of different materials. Students read a book under a clear shower curtain (transparent cover), a sheet (translucent cover), and a blanket or comforter (opaque cover). The transparent cover allows light in the classroom to travel through, the translucent cover allows some light to travel through, and the opaque cover blocks most of the light from traveling through. The amount of light traveling through the material affects how illuminated the book is under each cover. The book must be illuminated to be seen; therefore, it is easiest to see the book under the transparent cover and most challenging to see the book under the opaque cover.

Prior Learnings/Connection

Kindergarten students explore the concept that objects can only be seen when illuminated by a light source or when they emit their own light. They make observations in different lighting conditions to construct evidence-based explanations about visibility. Additionally, they plan and conduct simple investigations to observe how light interacts with different materials, identifying objects as transparent, translucent, or opaque. Through these activities, students develop an early understanding of how light travels and creates shadows.

Navigation to next lesson/storyline

Click the following link to access the Module 1: Waves- Light. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 1 Standards

- Make observations to construct an evidence-based account that objects can be seen only when illuminated.

  Clarifying Statement: Examples of observations could include those made in a completely dark room, a pinhole box, and a video of a cave explorer with a flashlight. Illumination could be from an external light source or by an object giving off its own light.

  Assessment Boundary: N/A *(3.2.1.B)*
- Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Waves are a repeating pattern of motion that transfers energy from place to place without the overall displacement of matter. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Clarifying Statement: Examples of materials could include those that are transparent (such as clear plastic), translucent (such as wax paper), opaque (such as cardboard), and reflective (such as a mirror).

Assessment Boundary: Assessment does not include the speed of light. *(3.2.1.C)*

- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U2)*
- Interactions between any two objects can cause changes in one or both. *(U3)*

- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Objects can only be seen when illuminated by a light source or when they give off their own light. *(K1)*
- Light interacts differently with materials, allowing it to pass through fully (transparent), partially (translucent), or not at all (opaque). *(K2)*
- Some surfaces, such as mirrors, reflect light and can redirect beams. *(K3)*
- Shadows form when an object blocks light, preventing it from reaching a surface. *(K4)*
- Light behaves predictably when it interacts with materials, creating observable cause-and-effect relationships. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Making observations and recording evidence about when and how objects are visible. *(S1)*
- Planning and conducting an investigation to determine how different materials affect the path of light. *(S2)*
- Using tools such as flashlights, mirrors, and various materials to test light interactions. *(S3)*
- Analyzing results to describe patterns and draw conclusions about how light travels and interacts with objects. *(S4)*
- Constructing explanations based on evidence to describe the effects of light on different surfaces. *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 1 Science & Engineering Practices

- Plan and conduct investigations collaboratively to produce evidence to answer a question. *(SEP.K-2.P3.B)*

- Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. *(SEP.K-2.P4.A)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 1 Disciplinary Core Ideas

- Objects can be seen if light is available to illuminate them or if they give off their own light. *(DCI.1.PS4.B.1)*
- Some materials allow light to pass through them, others allow only some light through and others block all the light and create a dark shadow on any surface beyond them, where the light cannot reach. Mirrors can be used to redirect a light beam. *(DCI.1.PS4.B.2)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 1 Crosscutting Concepts

- Simple tests can be designed to gather evidence to support or refute student ideas about causes. *(CCC.K-2.C2.B)*

Vocabulary

Unit Specific Vocabulary (Tier 3): bright, dim, light source, opaque, shadow, translucent, transparent, dark, reflect, reflective

Tier 2 Vocabulary: model, observe, cause, claim, effect, evidence, record, data, investigation, communicate

Module 2 - Energy (Thermal)

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 12:37	8th Grade Science	5.0 Weeks	8	Science	PAUL FREDERICKSEN

Unit Focus

Students will explore how thermal energy transfer affects the environment, particularly penguins' ecosystems, and apply engineering concepts to design solutions that improve energy conservation and efficiency.

Anchoring Phenomenon

Ice Melt Blocks

Prior Learnings/Connection

Students will have a foundational understanding of how particles behave in solids, liquids, and gases, as well as how matter changes from one state to another. Their prior knowledge of the properties of materials, such as metals as conductors and fabrics as insulators, will support their understanding of insulation. Previous discussions in environmental science, including ecosystems, climate change, and human impact on the environment, will provide valuable context for exploring penguins' habitats and global warming. Additionally, students will have experience with scientific investigation skills, including forming hypotheses, conducting experiments, collecting data, and drawing conclusions, which they will apply in the design challenge. Lastly, their familiarity with the engineering design process will be essential for successfully completing the final activity.

Navigation to next lesson/storyline

After exploring how thermal energy transfers between objects and environments and designing ways to conserve energy, students will now shift their focus to how energy is involved in chemical processes. In Module 3, they will investigate chemical reactions, where energy is either absorbed or released as substances change into new materials, connecting thermal energy to the conservation of mass and the formation of new substances at the molecular level.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 6-8 Environmental Literacy & Sustainability

- Design a solution to an environmental issue in which individuals and societies can engage as stewards of the environment. *(3.4.6-8.H)*

Science (2023): 6-8 Standards

- Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.

  Clarifying Statement: Examples of devices could include an insulated box, a solar cooker, and a Styrofoam cup.

  Assessment Boundary: Assessment does not include calculating the total amount of thermal energy transferred. *(3.2.6-8.M)*
- Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.

  Clarifying Statement: Examples of experiments could include comparing final

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U1)*
- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U2)*
- The development of technology allows people to design, create, and assess solutions that solve problems. *(BIG.TED.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*
- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

water temperatures after different masses of ice melted in the same volume of water with the same initial temperature, the temperature change of samples of different materials with the same mass as they cool or heat in the environment, or the same material with different masses when a specific amount of energy is added.

Assessment Boundary: Assessment does not include calculating the total amount of thermal energy transferred. *(3.2.6-8.N)*

Technology & Engineering (2023): 6-8 Technology & Engineering

- Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. *(3.5.6-8.P)*
- Refine design solutions to address criteria and constraints. *(3.5.6-8.V)*
- Defend decisions related to a design problem. *(3.5.6-8.X)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Heat and Thermal Energy
  Heat is the transfer of thermal energy from areas of higher temperature to areas of lower temperature. Temperature is a measure of how hot or cold something is and indicates the amount of thermal energy present. *(K1)*
- Insulators and ConductorsInsulators slow down the transfer of heat (e.g., wool is a better insulator than cotton). Some materials are better than others at reducing heat transfer. *(K2)*
- Climate Change and Environmental ImpactHuman activities, such as burning fossil fuels, contribute to climate change by increasing atmospheric carbon dioxide levels. Global climate change is linked to warmer temperatures and the loss of ice at the Earth’s poles. *(K3)*
- Energy Conservation and EfficiencyConserving energy helps save money and preserves Earth's limited non-renewable resources. *(K4)*
- Engineering Solutions
  Engineers must identify problems to develop effective solutions. Engineers can design energy-efficient buildings

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- ◦ Explaining Scientific Concepts
  - Explaining the relationship between global climate change, rising temperatures, and ice loss at the Earth's poles.
  - Describing how human activities contribute to climate change through increased carbon dioxide emissions.

  (S1)
- ◦ Applying Knowledge of Heat Transfer
  - Defining and distinguishing between heat and temperature.
  - Demonstrating that heat moves from areas of higher energy to lower energy until equilibrium is reached.

  (S2)
- ◦ Conducting Scientific Investigations
  - Performing demonstrations to observe heat transfer and insulation properties.

This unit was designed using Eduplanet21 - https://eduplanet21.com/

	and systems to reduce heat transfer and conserve ener *(K5)*	■ Comparing different materials to determine which are better insulators. *(S3)* ■ ◦ Engineering Design Process ■ Identifying problems related to energy loss and environmental impact. ■ Brainstorming and designing solutions to reduce heat transfer using appropriate materials. ■ Testing and evaluating materials for their effectiveness as insulators. *(S4)* ■ Critical Thinking and Problem-Solving ◦ Analyzing data from experiments to make informed conclusions. ◦ Collaborating with peers to design and improve solutions in the culminating design challenge. *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 6-8 Science & Engineering Practices

- Design, evaluate, and/or refine a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and tradeoff considerations. *(SEP.6-8.P3.1)*

Science (2023): 6-8 Science & Engineering Practices

- Plan an investigation individually and collaboratively, and in the design: identify independent and dependent variables and controls, what tools are needed to do the gathering, how measurements will be recorded, and how many data are needed to support a claim. *(SEP.6-8.P3.A)*
- Apply scientific ideas or principles to design, construct, and test a design of an object, tool, process or system. *(SEP.6-8.P4.F.1)*

Technology & Engineering (2023): 6-8 Science & Engineering Practices

- Define a design problem that can be solved through the development of an object, tool, process or system and includes multiple criteria and constraints, including scientific knowledge that may limit possible solutions. *(SEP.6-8.P2.1)*
- Evaluate competing design solutions based on jointly developed and agreed-upon design criteria. *(SEP.6-8.P5.3)*

Technology & Engineering (2023): 6-8 Technology & Engineering Practices

- Defends technological decisions based on evidence. *(TEP.6-8.E.1)*
- Exhibits safe, effective ways of producing technological products, systems, and processes. *(TEP.6-8.F.1)*
- Critiques technological products and systems to identify areas of improvement. *(TEP.6-8.G.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 6-8 Disciplinary Core Ideas

- Human activities have significantly altered the biosphere, sometimes damaging or destroying natural habitats and causing the extinction of other species. But changes to Earth's environments can have different impacts (negative and positive) for different living things. *(DCI.6-8.ESS3.C.2)*
- There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem. *(DCI.6-8.ETS1.B.1)*

Science (2023): 6-8 Disciplinary Core Ideas

- Temperature is a measure of the average kinetic energy of particles of matter. The relationship between the temperature and the total energy of a system depends on the types, states, and amounts of matter present. *(DCI.6-8.PS3.A.4)*
- Energy is spontaneously transferred out of hotter regions or objects and into colder ones. *(DCI.6-8.PS3.B.1)*
- The amount of energy transfer needed to change the temperature of a matter sample by a given amount depends on the nature of the matter, the size of the sample, and the environment. *(DCI.6-8.PS3.B.2)*

Technology & Engineering (2023): 6-8 Disciplinary Core Ideas

- Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. *(DCI.6-8.ETS1.A.1)*
- The more precisely a design task's criteria and constraints can be defined, the more likely it is that the designed solution will be successful. Specification of constraints includes consideration of scientific principles and other relevant knowledge that are likely to limit possible solutions. *(DCI.6-8.ETS1.A.2)*

- There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem. *(DCI.6-8.ETS1.B.2)*
- A solution needs to be tested, and then modified on the basis of the test results, in order to improve it. *(DCI.6-8.ETS1.B.3)*

Crosscutting Concepts

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 6-8 Crosscutting Concepts

- Scientific knowledge can describe the consequences of actions but does not necessarily prescribe the decisions that society takes. *(CCC.6-8.C6.2)*

Science (2023): 6-8 Crosscutting Concepts

- Proportional relationships (e.g., speed as the ratio of distance traveled to time taken) among different types of quantities provide information about the magnitude of properties and processes. *(CCC.6-8.C3.C)*
- The transfer of energy can be tracked as energy flows through a designed or natural system. *(CCC.6-8.C5.D)*

Vocabulary

- **Heat** – The transfer of thermal energy from an area of higher temperature to an area of lower temperature.
- **Thermal Energy** – The energy that comes from the movement of particles within a substance; the faster the particles move, the more thermal energy is present.
- **Temperature** – A measure of how hot or cold something is, indicating the amount of thermal energy in a particular area or object.
- **Insulator** – A material that slows down or resists the transfer of heat (e.g., wool, foam).
- **Conductor** – A material that allows heat to transfer easily (e.g., metal).
- **Climate Change** – A long-term change in the Earth's average temperatures and weather patterns, often linked to human activities.
- **Fossil Fuels** – Natural resources such as coal, oil, and natural gas that are burned for energy and release carbon dioxide into the atmosphere.
- **Carbon Dioxide (CO_2)** – A gas produced by burning fossil fuels that traps heat in the atmosphere, contributing to global warming.
- **Equilibrium** – A state in which energy is evenly distributed, with no net transfer of heat.
- **Energy Conservation** – The practice of reducing energy use to save resources and decrease environmental impact.
- **Energy Efficiency** – Using technology or design to reduce energy consumption while maintaining performance.
- **Engineering Design Process** – A series of steps engineers follow to identify a problem, brainstorm solutions, design, test, and improve a solution.
- **Ecosystem** – A community of living organisms interacting with their environment.
- **Global Warming** – The increase in Earth's average surface temperature due to rising greenhouse gas levels.
- **Demonstration** – An activity or experiment designed to show how a scientific concept works.

Module 2 - Integration of STEM - STEAM & STEELS

Draft Date	Course	Grades	Subjects	Team
10-14-2024 @ 01:24	Selected Topics in Science	9	Science	Anthony Pepoli

Unit Focus

Real World Science - Integrating various scientific branches and disciplines in order to understand the complex nature of our planet's history and plan sustainably for the future.

Integrating STEM - STEAM and the STEELS standards into a science class refers to incorporating elements of Science, Technology, Engineering, Art, and Mathematics into the curriculum, creating a more holistic learning experience by connecting different disciplines and encouraging creative problem-solving through hands-on projects that involve artistic expression alongside scientific concepts. Across and within the elements of STEAM, the PA STEELS which are Science, Technology & Engineering, Environmental Literacy and Sustainability can be incorporated.

Strategies for STEAM Integration

1. **Project-Based Learning (PBL)**

PBL involves real-world problems to guide investigations and projects.

- **Example:** Have students design a water filtration system using engineering principles, test different materials (science), measure effectiveness (math), code sensors to monitor water quality (tech), and present designs in creative formats (arts).

2. **Inquiry-Based Experiments with Engineering Components**

Shift from recipe-style labs to open-ended inquiries where students build or design something.

- **Example:** In a unit on forces and motion, students could design and test balloon-powered cars, using physics concepts and artistic design.

This unit was designed using Eduplanet21 - https://eduplanet21.com/

3. **Connect Art to Science Concepts**

Use artistic methods to explore or express scientific ideas.

- **Example:** Have students create anatomical drawings in biology, or model molecules using sculpture or digital design tools like Tinkercad.

4. **Mathematical Modeling and Visualization**

Go beyond calculations to explore how data and equations model real phenomena.

- **Example:** Model climate change data over time using graphs, interpret trends (math), research causes (science), and propose solutions in a visual campaign (arts + tech).

Sample STEAM Lesson: Environmental Impact Study

Topic: Human impact on ecosystems
STEAM Components:

- **Science:** Investigate local pollution sources and effects on ecosystems
- **Technology:** Use GPS and digital mapping tools to chart problem areas
- **Engineering:** Propose engineered solutions (e.g., green roofs, water catchment)
- **Arts:** Design an awareness campaign (videos, posters, infographics)
- **Math:** Collect and analyze data from local sources or simulations

Anchoring Phenomenon

Integrating **STEAM (Science, Technology, Engineering, Arts, and Mathematics)** into the science classroom enhances learning by fostering creativity, critical thinking, and real-world problem-solving.

Anchoring Phenomenon is a powerful way to spark curiosity and engage students in interdisciplinary problem-solving. An *anchoring phenomenon* is a real-world event or process that is puzzling or intriguing enough to drive inquiry across disciplines.

Prior Learnings/Connection

When introducing and integrating STEAM (Science, Technology, Engineering, Arts, and Mathematics) education, making connections to students' prior learning in science is essential to build context and engagement.

Science Prior Learning Connections for STEAM

1. **Scientific Inquiry and Method**

- **Prior Learning**: Understanding hypotheses, experiments, observation, and data collection.
- **STEAM Connection**: Students use inquiry skills in engineering design challenges or scientific investigations within projects (e.g., testing materials for bridge building or experimenting with light and color in art).

2. **Physical Science**

- **Prior Learning**:
  - Forces and motion (push, pull, gravity)
  - Energy (light, sound, heat)
  - Properties of matter (solids, liquids, gases)

- **STEAM Connection**:
  - Building machines, designing roller coasters, creating circuits, or constructing musical instruments.

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3. **Life Science**

- Prior Learning:
  - Living vs non-living things
  - Habitats and ecosystems
  - Human body systems

- STEAM Connection:
  - Designing sustainable habitats or prosthetics, or coding simulations of ecosystems.

4. **Earth and Space Science**

- Prior Learning:
  - Weather patterns
  - Planetary systems
  - Natural resources

- STEAM Connection:
  - Creating weather stations, modeling the solar system, or designing tools for space exploration.

5. **Environmental Science**

- Prior Learning:
  - Recycling, pollution, conservation

- STEAM Connection:
  - Engineering eco-friendly products, building water filters, or using recycled materials in art installations.
  -

Navigation to next lesson/storyline

Integrating **STEAM science** (Science, Technology, Engineering, Arts, and Mathematics) and STEELS (Science, Technology, Engineering, Environmental Literacy and Sustainability) connects all other areas of science can enhance interdisciplinary learning, foster creativity, and deepen understanding. Building a solid base in STEAM and STEELS unquestionably ties in to all additional units of study in this course.

Stage 1: Learning Goals

Established Goals

Standards

Next Generation Science Standards (DCI) (under review 11/2024)

Science: 9

- The sustainability of human societies and the biodiversity that supports them requires responsible management of natural resources. *(ESS3.9.C1)*
- Humanity faces major global challenges today, such as the need for supplies of clean water and food or for energy sources that minimize pollution, which can be addressed through engineering. These global challenges also may have

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their

- Long-term goals for STEM (Science, Technology, Engineering, and Mathematics) and STEAM (STEM + Arts) typically fo foundation for students. These goals often involve building skills, encouraging innovation, and ensuring that both S programs transfer real world skills to students. By setting long-term goals, STEM and STEAM education can evolve t generations, preparing students for the challenges and opportunities that will define their professional and person

(T1)

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Universe is composed of a variety of different objects, which are organized into systems, each of which develops according to accepted physical processes and laws. *(U1)*
- The Earth's processes affect and are affected by human activities. *(U2)*
- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U3)*
- Creative thinkers exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems. *(U4)*

Essential Ques

What thought-provoking questions will fos transfer? Students will keep considering...

- How does technology impact other fie
- How does technology impact society?
- How does technology allow humans t problems? *(EQ.TED.03)*
- How can technology be improved thro design process? *(EQ.TED.04)*
- How does understanding technologic built environment? *(EQ.TED.05)*
- How do environmental considerations technology? *(EQ.TED.06)*
- How do objects in the universe appea

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manifestations in local communities. *(ETS1.9.A2)*

- Species become extinct because they can no longer survive and reproduce in their altered environment. If members cannot adjust to change that is too fast or drastic, the opportunity for the species' evolution is lost. *(LS4.9.C5)*
- Biodiversity is increased by the formation of new species (speciation) and decreased by the loss of species (extinction). *(LS4.9.D1)*
- Multiple technologies based on the understanding of waves and their interactions with matter are part of everyday experiences in the modern world (e.g., medical imaging, communications, scanners) and in scientific research. They are essential tools for producing, transmitting, and

- Meeting the desired objectives for creation requires choosing the appropriate tools, soliciting and giving feedback, and clearly communicating with the intended audience. *(U5)*
- The deliberate cyclical design process of generating ideas, testing theories, and creating innovative artifacts builds problem solving skills. *(U6)*
- By analyzing perspectives and curating information from digital resources, complex, interdisciplinary, and real-world problems can be solved. *(U7)*
- Digital tools are used to plan and manage a design process by considering calculated risks and constraints. *(U8)*

- How and why is Earth constantly char
- How do Earth's processes and human *(EQ.SCI.EARTH.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- The Disciplinary Core Ideas in NGSS have 4 Science Domains That include Life Science, Physical Science, Earth and Space Science, and Technology and Engineering. The PA STEELS include Science, Technology, Engineering as well as "Environmental Literacy and Sustainability" which are organized under the following three core ideas: 1) Agricultural and Environmental Systems and Resources 2) Environmental Literacy Skills 3) Sustainability and Stewardship. **Basic Concepts:** Students should understand the fundamental principles of physics, chemistry, and biology, including the scientific method, observations, experiments, and data analysis.
  - **Skills:** Students should be able to formulate hypotheses, conduct experiments, collect and analyze data, and draw conclusions.
  - **Nature of Science:** Students should understand that scientific knowledge is tentative, subject to change, and based on evidencTechnology:
  - **Basic Concepts:** Students should understand how technology impacts society and the world around them, including the development and use of tools, devices, and systems.

Skills

What discrete skills and processes should Students will be skilled at...

- The PA Integrated Standards for Scien Environmental Literacy and Sustainab on the following foundational beliefs:
  - Every student is capable of scie and environmental literacy.
  - Science, environment, ecology, t be explored through an integrat
  - Iteration and reflection are a cri process.
  - Success depends upon the partn students, families, postseconda legislators, businesses and indu

  Basic Concepts: Students should und principles of physics, chemistry, and b method, observations, experiments, a
  - **Skills:** Students should be able formulate hypotheses, conduct analyze data, and draw conclusi

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capturing signals and for storing and interpreting the information contained in them. *(PS4.9.C1)*

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.

  Clarifying Statement: Emphasis is on conceptual understanding of the role of aerobic and anaerobic respiration in different environments.

  Assessment Boundary: Assessment does not include the specific chemical processes of either aerobic or anaerobic respiration. *(3.1.9-12.J)*
- Use a computational representation to illustrate the

- **Skills:** Students should be able to identify technological problems, design solutions, and evaluate the effectiveness of technological solutions.
- **Digital Literacy:** Students should be able to use digital tools and resources effectively and critically.Engineering:
- **Basic Concepts:** Students should understand the engineering design process, including identifying problems, brainstorming solutions, testing prototypes, and refining designs.
- **Skills:** Students should be able to design and build models, test hypotheses, and solve problems using engineering principles.
- **Problem-Solving:** Students should be able to approach problems systematically and creatively.Math:
- **Basic Concepts:** Students should have a strong foundation in arithmetic, algebra, geometry, and statistics, including understanding numbers, measurement, and data representation.
- **Skills:** Students should be able to apply mathematical concepts to solve problems, analyze data, and interpret results.
- **Critical Thinking:** Students should be able to reason logically and solve problems using mathematical principles.

(K1)

- **Nature of Science:** Students sho knowledge is tentative, subject t evidencTechnology:
- **Basic Concepts:** Students shoul impacts society and the world a development and use of tools, c
- **Skills:** Students should be able problems, design solutions, and the effectiveness of technologic
- **Digital Literacy:** Students shoul resources effectively and critica
- **Basic Concepts:** Students shoul design process, including identi solutions, testing prototypes, an
- **Skills:** Students should be able to design and build models, tes using engineering principles.
- **Problem-Solving:** Students shou systematically and creatively.Ma
- **Basic Concepts:** Students shoul in arithmetic, algebra, geometry understanding numbers, measu
- **Skills:** Students should be able to solve problems, analyze data,
- **Critical Thinking:** Students shou and solve problems using math

(S1)

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relationships among Earth systems and how those relationships are being modified due to human activity.

Clarifying Statement:
Examples of Earth systems to be considered are the hydrosphere, atmosphere, cryosphere, geosphere, and/or biosphere. An example of the far-reaching impacts from a human activity is how an increase in atmospheric carbon dioxide results in an increase in photosynthetic biomass on land and an increase in ocean acidification, with resulting impacts on sea organism health and marine populations.

Assessment Boundary:
Assessment does not include running computational representations but is limited to using the

published results of scientific computational models. *(3.3.9-12.M)*

- Construct an argument based on evidence about the simultaneous coevolution of Earth's systems and life on Earth.

Clarifying Statement: Emphasis is on the dynamic causes, effects, and feedbacks between the biosphere and Earth's other systems, whereby geoscience factors control the evolution of life, which in turn continuously alters Earth's surface. Examples include how photosynthetic life altered the atmosphere through the production of oxygen, which in turn increased weathering rates and allowed for the evolution of animal life; how microbial life on land increased the

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formation of soil, which in turn allowed for the evolution of land plants; or how the evolution of corals created reefs that altered patterns of erosion and deposition along coastlines and provided habitats for the evolution of new life forms.

Assessment Boundary: Assessment does not include a comprehensive understanding of the mechanisms of how the biosphere interacts with all of Earth's other systems. *(3.3.9-12.N)*

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Module 2 - Life Science

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 12:07	4th Grade Science	3.0 Weeks	4	Science	MATTHEW ROYER

Unit Focus

Module 2 explores animal adaptations and how they take in and use information from their environment to help them survive. This includes internal and external structures that the animals have to support survival, growth, behavior, and reproduction.

Anchoring Phenomenon

Bruce the parrot and Tieta the toucan. Questions to ask: What do you notice? What do you wonder? What does this remind you of?





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Prior Learnings/Connection

Students will need a basic understanding of how plants and animals survive in their environment, and an understanding that an animal's traits are inherited from their parents.

Navigation to next lesson/storyline

Storyline Slides

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 3-5 Environmental Literacy & Sustainability

- Analyze how living organisms, including humans, affect the environment in which they live, and how their environment affects them. *(3.4.3-5.A)*

Science (2023): 4 Standards

- Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

  Clarifying Statement: Examples of structures could include thorns, stems, roots, colored petals, heart, stomach, lung, brain, and skin.

  Assessment Boundary: Assessment is

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Collect, analyze, and evaluate evidence to support constructing arguments. *(T1)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T2)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Biological adaptation explains both the unity and diversity of species and provides a unifying principle for the history and diversity of life on Earth *(U1)*
- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How and why do organisms interact with their environment and what are the effects of these interactions? *(EQ.SCI.LIFE.02)*
- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*

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limited to macroscopic structures within plant and animal systems. *(3.1.4.A)*

- Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

  Clarifying Statement: Emphasis is on systems of information transfer.

  Assessment Boundary: Assessment does not include the mechanisms by which the brain stores and recalls information or the mechanisms of how sensory receptors function. *(3.1.4.B)*
- Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.

  Clarifying Statement: N/A

  Assessment Boundary: Assessment does not include knowledge of specific colors reflected and seen, the cellular mechanisms of vision, or how the retina works. *(3.2.4.F)*

other organisms and the physical environment *(U2)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know... ■ All animals and plants have internal and external structures to help them adapt to their environment. *(K1)* ■ All animals process information differently which is why they adapt differently. *(K2)* ■ Animals are able to see because of light reflection and internal eye structure. *(K3)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Using evidence from research to make a claim about animal adaptation. *(S1)* ■ Modeling the internal and external structures of an animal. *(S2)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 4 Science & Engineering Practices

- Use a model to test interactions concerning the functioning of a natural system. *(SEP.3-5.P2.G)*
- Use evidence (e.g., measurements, observations, patterns) to construct an explanation. *(SEP.3-5.P4.B)*
- Identify the evidence that supports particular points in an explanation. *(SEP.3-5.P4.C)*
- Construct an argument with evidence, data, and/or a model. *(SEP.3-5.P7.D)*

- Obtain and combine information from books and other reliable media to explain phenomena. *(SEP.3-5.P8.C)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 4 Disciplinary Core Ideas

- Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. *(DCI.4.LS1.A.1)*
- Different sense receptors are specialized for particular kinds of information, which may be then processed by the animal's brain. Animals are able to use their perceptions and memories to guide their actions. *(DCI.4.LS1.A.1)*
- An object can be seen when light reflected from its surface enters the eyes. *(DCI.4.PS4.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 4 Crosscutting Concepts

- Similarities and differences in patterns can be used to sort, classify, and analyze simple rates of change for natural phenomena. *(CCC.3-5.C1.A1)*
- Cause and effect relationships are routinely identified. *(CCC.3-5.C2.A1)*

Vocabulary

Adaptations

Internal Structures

External Structures

Information Processing

Light Reflection

Module 2 - Rocks, Minerals & The History of the Earth

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:34	7th Grade Science	12.0 Weeks	7	Science	KYLA CARUSO , Tracy Smith

Unit Focus

The planet we live on is both fascinating and exciting! So much beauty surrounds us and there is so much more waiting to be discovered. If we look at the inner workings of the Earth, the story begins to unfold. Alfred Wegener gave us the notion and technology enabled science to discover the rest. Scientists spend their whole lives awaiting a new discovery. With each minute detail, the words fill the pages and the story begins to fall into place. To fully comprehend Earth, we have to dig deep inside. We must understand how minerals transform into rocks and rocks are weathered, eroded and deposited to create new masterpieces. It is here that beauty that lies within the Earth's surface begins to take shape. Never be mistaken about the idea that with each mountain, each valley, and each crack in the Earth, there is a reason that it is there.

Anchoring Phenomenon

A mountain climber is exploring the top of a mountain and finds a fossil of a fish embedded within the rock.

Prior Learnings/Connection

- Types of Rocks
- Rock Cycle
- Sediment
- Plate Boundaries & surface features
- Mountains, Earthquakes, Volcanoes & Tsunamis
- Fossils
- Geologic Timeline

Navigation to next lesson/storyline

In this unit, students will explore Earth's dynamic systems, investigating the processes that shape our planet over time. Through hands-on activities and interactive lessons, they will examine rock formation, the rock cycle, and the forces that drive change on Earth's surface, such as weathering, erosion, and deposition. Delving deeper, students will uncover the structure of Earth's interior, the movement of tectonic plates, and the powerful phenomena of earthquakes and volcanoes. They will explore Earth's history by studying fossils, geologic time, and

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the events that have shaped life on our planet. By connecting past and present, students will develop a deeper understanding of Earth's ever-changing nature. The next unit will challenge students to explore how Earth's spheres interact and influence one another.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 6-8 Environmental Literacy & Sustainability

- Analyze and interpret data about how different societies (economic and social systems) and cultures use and manage natural resources differently. *(3.4.6-8.B)*
- Collect, analyze, and interpret environmental data to describe a local environment. *(3.4.6-8.E)*

Science (2023): 6-8 Standards

- Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year old history.

  Clarifying Statement: Emphasis is on how analyses of rock formations and the fossils they contain are used to establish relative ages of major events in Earth's history. Examples of Earth's major events could range from being very recent (such as the last Ice Age or the earliest fossils of homo sapiens) to very old (such as the formation of Earth or the earliest evidence of life).

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*
- Utilize critical thinking, problem-solving, creativity & innovation, communication, and collaboration. *(LT.STM.06)*
- Research and gather evidence to produce writing to address task, purpose, perspective, and intended audience. *(LT.ELA.03)*
- Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth's processes affect and are affected by human activities. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How and why is Earth constantly changing? *(EQ.SCI.EARTH.02)*

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Examples can include the formation of mountain chains and ocean basins, the evolution or extinction of particular living organisms, or significant volcanic eruptions.

Assessment Boundary: Assessment does not include recalling the names of specific periods or epochs and events within them. *(3.3.6-8.D)*

- Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.

Clarifying Statement: Emphasis is on how processes change Earth's surface at time and spatial scales that can be large (such as slow plate motions or the uplift of large mountain ranges) or small (such as rapid landslides or microscopic geochemical reactions), and how many geoscience processes (such as earthquakes, volcanoes, and meteor impacts) usually behave gradually but are punctuated by catastrophic events. Examples of geoscience processes include surface weathering and deposition by the movements of water, ice, and wind. Emphasis is on geoscience processes that shape local geographic features, where appropriate.

Assessment Boundary: N/A *(3.3.6-8.E)*

- Analyze and interpret data on the distribution of fossils and rocks,

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Types of Rocks (Igneous, Sedimentary & Metamorphic) *(K1)* ■ The Rock Cycle *(K2)* ■ How sediment is created through weathering, erosion & deposition *(K3)* ■ Plate Boundaries (Divergent, Convergent & Transform) *(K4)* ■ How Mountains, Earthquakes, Volcanoes & Tsunamis occur/are formed *(K5)* ■ Types of Fossilization *(K6)* ■ Geologic Timeline *(K7)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Identifying rocks based on their distinct characteristics. *(S1)* ■ Explaining the processes for how each type of rock is created. *(S2)* ■ Understanding plate boundaries and how they transform the surface of the Earth. *(S3)* ■ Understanding how fossils are formed and the information they provide in relationship to the environment and the Earth's history. *(S4)*

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continental shapes, and seafloor structures to provide evidence of past plate motions.

Clarifying Statement: Examples of data include similarities of rock and fossil types on different continents, the shapes of the continents (including continental shelves), and the locations of ocean structures (such as ridges, fracture zones, and trenches).

Assessment Boundary: Paleomagnetic anomalies in oceanic and continental crust are not assessed. *(3.3.6-8.G)*

- Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.

Clarifying Statement: Emphasis is on how some natural hazards, such as volcanic eruptions and severe weather, are preceded by phenomena that allow for reliable predictions, but others, such as earthquakes, occur suddenly and with no notice, and thus are not yet predictable. Examples of natural hazards can be taken from interior processes (such as earthquakes and volcanic eruptions), surface processes (such as mass wasting and tsunamis), or severe weather events (such as hurricanes, tornadoes, and floods). Examples of data can include the locations, magnitudes, and frequencies of the natural hazards. Examples of technologies can be global (such as satellite systems to monitor hurricanes or

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forest fires) or local (such as building basements in tornado-prone regions or reservoirs to mitigate droughts). Assessment Boundary: N/A *(3.3.6-8.L)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Ask questions that arise from careful observation of phenomena, models, or unexpected results, to clarify and/or seek additional information. *(SEP.6-8.P1.A)*
- Ask questions to identify and/or clarify evidence and/or the premise(s) of an argument. *(SEP.6-8.P1.B)*
- Ask questions to clarify and/or refine a model, an explanation, or an engineering problem. *(SEP.6-8.P1.D)*
- Ask questions that require sufficient and appropriate empirical evidence to answer. *(SEP.6-8.P1.E)*
- Ask questions that challenge the premise(s) of an argument or the interpretation of a data set. *(SEP.6-8.P1.G)*
- Develop and/or use a model to predict and/or describe phenomena. *(SEP.6-8.P2.E)*
- Construct an explanation using models or representations. *(SEP.6-8.P4.B)*
- Construct a scientific explanation based on valid and reliable evidence obtained from sources (including the students' own experiments) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future. *(SEP.6-8.P4.C)*
- Apply scientific ideas to construct an explanation for real-world phenomena, examples, or events. *(SEP.6-8.P4.D)*
- Apply scientific reasoning to show why the data or evidence is adequate for the explanation or conclusion. *(SEP.6-8.P4.E)*
- Apply scientific ideas or principles to design, construct, and test a design of an object, tool, process or system. *(SEP.6-8.P4.F.1)*
- Apply scientific ideas or principles to design an object, tool, process or system. *(SEP.6-8.P4.F.2)*
- Undertake a design project, engaging in the design cycle, to construct and/or implement a solution that meets specific design criteria and constraints. *(SEP.6-8.P4.G)*
- Optimize performance of a design by prioritizing criteria, making tradeoffs, testing, revising, and retesting. *(SEP.6-8.P4.H)*
- Use graphical displays (e.g., maps, charts, graphs, and/or tables) of large data sets to identify temporal and spatial relationships. *(SEP.6-8.P5.B)*
- Distinguish between causal and correlational relationships in data. *(SEP.6-8.P5.C)*
- Critically read scientific texts adapted for classroom use to determine the central ideas and/or obtain scientific and/or technical information to describe patterns in and/or evidence about the natural and designed world(s). *(SEP.6-8.P8.A)*
- Integrate qualitative scientific and technical information in written text with that contained in media and visual displays to clarify claims and findings. *(SEP.6-8.P8.B)*

- Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence. *(SEP.6-8.P8.C)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- The geologic time scale interpreted from rock strata provides a way to organize Earth's history. Analyses of rock strata and the fossil record provide only relative dates, not an absolute scale. *(DCI.6-8.ESS1.C.1)*
- Tectonic processes continually generate new ocean sea floor at ridges and destroy old sea floor at trenches. *(DCI.6-8.ESS1.C.2)*
- The planet's systems interact over scales that range from microscopic to global in size, and they operate over fractions of a second to billions of years. These interactions have shaped Earth's history and will determine its future. *(DCI.6-8.ESS2.A.1)*
- All Earth processes are the result of energy flowing and matter cycling within and among the planet's systems. This energy is derived from the sun and Earth's hot interior. The energy that flows and matter that cycles produce chemical and physical changes in Earth's materials and living organisms. *(DCI.6-8.ESS2.A.2)*
- Maps of ancient land and water patterns, based on investigations of rocks and fossils, make clear how Earth's plates have moved great distances, collided, and spread apart. *(DCI.6-8.ESS2.B.1)*
- Water's movements—both on the land and underground—cause weathering and erosion, which change the land's surface features and create underground formations. *(DCI.6-8.ESS2.C.1)*
- Mapping the history of natural hazards in a region, combined with an understanding of related geologic forces can help forecast the locations and likelihoods of future events. *(DCI.6-8.ESS3.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Patterns in rates of change and other numerical relationships can provide information about natural systems. *(CCC.6-8.C1.B)*
- Graphs, charts, and images can be used to identify patterns in data. *(CCC.6-8.C1.C.2)*
- Cause and effect relationships may be used to predict phenomena in natural or designed systems. *(CCC.6-8.C2.B)*
- Phenomena may have more than one cause, and some cause and effect relationships in systems can only be described using probability. *(CCC.6-8.C2.C)*
- Time, space, and energy phenomena can be observed at various scales using models to study systems that are too large or too small. *(CCC.6-8.C3.A)*

Vocabulary

- Rock (Igneous, Sedimentary, Metamorphic)
- Mineral
- Sediment
- Rock Cycle
- Weathering, Erosion & Deposition
- Earth's Layers (Inner Core, Outer Core, Mantle, Crust)
- Convection Currents
- Density
- Continental Drift Theory
- Alfred Wegener
- Plate Tectonics
- Plate Boundaries (Divergent, Convergent, Transform)
- Mountains (Fold & Fault-Block)
- Earthquakes
- Volcanoes (Ring of Fire, Shield, Composite, Cinder Cone)
- Tsunamis
- Paleontology
- Permineralization
- Strata

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Module 2: Waves- Sound

Draft Date	Course	Duration	Grades	Subjects	Team
04-01-2025 @ 05:38	1st Grade Science	10.0 Lesson(s)	1	Science	Jessica Smith , Maurisa Fasick , ROBIN SHERMAN

Unit Focus

This unit begins with a shared experience of observing a clocktower (dong! dong!) making and sending a sound signal that people use to communicate the time. In the first part of the unit, students plan and conduct investigations to produce evidence to answer their questions about how objects make sounds and how we can know that sounds travel and are received. Students gather evidence that vibrating objects make sound and sound can make other objects vibrate. They use this evidence to develop a model for how the clocktower makes and sends sound that people can hear. In the second part of the unit, students identify messages people send using sound signals in their communities and decide that they want a better way to send good news messages across their classroom. Students then engineer their own sound signal devices by planning, building, and testing designs they can use to communicate good news to all of their classmates!

Anchoring Phenomenon



The anchoring phenomenon for this unit is a clocktower making and sending a sound signal (dong! dong!) that people use to communicate the time.

- Mystery Sound Video
- Clocktower Sound Video

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Prior Learnings/Connection

In kindergarten, students explore cause-and-effect relationships by observing how objects move and interact with their environment. They develop foundational skills in asking questions, making observations, and using simple tools, which support their ability to investigate how sound and light can be used to communicate in first grade.

Navigation to next lesson/storyline

Click the following link to access the Module 2: Waves- Sound storyline. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 1 Standards

- Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.

  Clarifying Statement: Examples of vibrating materials that make sound could include tuning forks and plucking a stretched string. Examples of how sound can make matter vibrate could include holding a piece of paper near a speaker making sound and holding an object near a vibrating tuning fork.

  Assessment Boundary: N/A *(3.2.1.A)*
- Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Understand, use, apply, and evaluate technology to become productive members of society. *(LT.TED.01)*
- Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)*
- Gain the ability to technology and engineering concepts to other aspects of life. *(LT.TED.05)*

distance.

Clarifying Statement: Examples of devices could include a light source to send signals, paper cup and string "telephones," and a pattern of drum beats.

Assessment Boundary: Assessment does not include technological details for how communication devices work. *(3.2.1.D)*

Technology & Engineering (2023): K-2 Technology & Engineering

- Compare simple technologies to evaluate their impacts. *(3.5.K-2.I)*
- Demonstrate essential skills of the engineering design process. *(3.5.K-2.M)*
- Analyze how things work. *(3.5.K-2.N)*
- Illustrate that there are different solutions to a design and that none are perfect. *(3.5.K-2.O)*
- Draw connections between technology and human experience. *(3.5.K-2.R)*
- Apply design concepts, principles, and processes through play and exploration. *(3.5.K-2.S)*
- Demonstrate that designs have requirements. *(3.5.K-2.T)*
- Explain that design is a response to wants and needs. *(3.5.K-2.U)*
- Apply concepts and skills from technology and engineering activities that reinforce concepts and skills across multiple areas. *(3.5.K-2.W)*
- Develop a plan in order to complete a task. *(3.5.K-2.X)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Waves are a repeating pattern of motion that transfers energy from place to place without the overall displacement of matter. *(U1)*
- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U2)*
- Technology impacts core concepts, characteristics, and relationships between all fields of study. *(BIG.TED.01)*
- The development of technology allows people to design, create, and assess solutions that solve problems. *(BIG.TED.03)*
- Technology can be improved by using the engineering design process to re-evaluate and troubleshoot. *(BIG.TED.04)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*
- How can technology be improved through the use of the engineering design process? *(EQ.TED.04)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Vibrating materials can create sound, and sound can cause materials to vibrate. *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Planning and conducting investigations to show how sound and vibrations are connected. *(S1)*

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- Discuss how the way people live and work has changed throughout history because of technology. *(3.5.K-2.Y)*
- Illustrate how systems have parts or components that work together to accomplish a goal. *(3.5.K-2.Z)*
- Demonstrate that creating can be done by anyone. *(3.5.K-2.AA)*

Technology & Engineering (2023): K-2 Technology & Engineering Practices

- Learns to share technological products and ideas. *(TEP.K-2.B.1)*
- Learns that humans have many ways to communicate. *(TEP.K-2.C.1)*
- Learns that humans create products and ways of doing things. *(TEP.K-2.D.1)*
- Engages in listening, questioning, and discussing. *(TEP.K-2.E.1)*
- Learns to use tools and materials to accomplish a task. *(TEP.K-2.F.1)*
- Sees opportunities for making technologies better. *(TEP.K-2.G.1)*
- Learns that human-designed things are connected. *(TEP.K-2.H.1)*

- People use different tools and technologies to communicate using light and sound. *(K2)*
- Simple technologies can be compared based on their impact and effectiveness. *(K3)*
- Engineers use a design process to create and improve technology. *(K4)*
- Systems have parts that work together to accomplish a goal. *(K5)*

- Using observations and data to describe patterns in sound and vibration. *(S2)*
- Designing and building a simple device that uses light or sound to communicate. *(S3)*
- Comparing different technologies based on their effectiveness and impact. *(S4)*
- Following the engineering design process to identify, test, and improve a solution to a problem. *(S5)*
- Using models, sketches, and physical prototypes to communicate design ideas. *(S6)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 1 Science & Engineering Practices

- Plan and conduct investigations collaboratively to produce evidence to answer a question. *(SEP.K-2.P3.B)*
- Use tools and/or materials to design a device that solves a specific problem or a solution to a specific problem. *(SEP.K-2.P4.B)*

Technology & Engineering (2023): K-2 Science & Engineering Practices

- Analyze data from tests of an object or tool to determine if it works as intended. *(SEP.K-2.P1.1)*
- Define a simple problem that can be solved through the development of a new or improved object or tool. *(SEP.K-2.P2.2)*

- Use tools and/or materials to design and/or build a device that solves a specific problem or a solution to a specific problem. *(SEP.K-2.P3.1)*
- Generate and/or compare multiple solutions to a problem. *(SEP.K-2.P3.2)*
- Develop and/or use a model to represent amounts, relationships, relative scales (bigger, smaller), and/or patterns in the natural and designed world(s). *(SEP.K-2.P4.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 1 Disciplinary Core Ideas

- Sound can make matter vibrate, and vibrating matter can make sound. *(DCI.1.PS4.A.1)*
- People also use a variety of devices to communicate (send and receive information) over long distances. *(DCI.1.PS4.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 1 Crosscutting Concepts

- Simple tests can be designed to gather evidence to support or refute student ideas about causes. *(CCC.K-2.C2.B)*

Vocabulary

Unit Specific Vocabulary (Tier 3): communicate, signal, vibration, travel, device, engineer, message, design

Tier 2 Vocabulary: model, observation, cause, claim, effect, evidence, investigation, record, data, pattern, problem, solution, brainstorm, feedback

Module 3 - Application & Practice of science knowledge and skills to the real world

Draft Date	Course	Grades	Subjects	Team
10-14-2024 @ 01:37	Selected Topics in Science	9	Science	Anthony Pepoli

Unit Focus

The application and practice of science refers to the act of taking scientific knowledge and applying it to real-world situations to solve problems, essentially using scientific understanding in a practical way, often referred to as "applied science" where the focus is on utilizing scientific discoveries for tangible outcomes in various fields like medicine, engineering, agriculture, and environmental protection

This unit will focus on the application and practice using various tools to accomplish scientific goals.

As example students will learn to use dichotomous keys to identify various living things such as plants (trees) and animals (macro-invertebrates)

Once the tools are used tangible outcomes can be achieved for example native and invasive species could be identified. Based on the results of macro-invertebrates identified, stream health can be determined.

Anchoring Phenomenon

Applying science knowledge and skills in the classroom involves engaging students in hands-on, inquiry-based, and real-world learning experiences that help them understand scientific concepts and develop critical thinking abilities.

Hands-On Experiments

- **Purpose**: Reinforce theoretical knowledge through practice.
- **Example**: Conducting a simple chemistry experiment to observe chemical reactions (e.g., vinegar and baking soda).
- **Skills Developed**: Observation, hypothesis testing, data recording, drawing conclusions.

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Scientific Inquiry and Investigation

- **Purpose**: Encourage students to ask questions and investigate answers using the scientific method.
- **Example**: Students design their own experiments to test the effects of sunlight on plant growth.
- **Skills Developed**: Questioning, planning investigations, interpreting results, communication.

Use of Technology and Digital Tools

- **Purpose**: Integrate modern tools to enhance scientific learning.
- **Example**: Using simulations to visualize atomic structures or physics principles.
- **Skills Developed**: Data analysis, use of scientific tools, digital literacy.

Problem-Based Learning (PBL)

- **Purpose**: Apply science to solve real-world problems.
- **Example**: Creating solutions for local environmental issues like pollution or water conservation.
- **Skills Developed**: Critical thinking, creativity, collaboration, application of knowledge.

Cross-Curricular Integration

- **Purpose**: Link science with subjects like math, geography, or literature.
- **Example**: Using math to analyze experimental data, or writing reports on scientific discoveries.
- **Skills Developed**: Data interpretation, communication, interdisciplinary understanding.

Science Communication and Presentations

- **Purpose**: Help students articulate scientific ideas clearly.
- **Example**: Creating a poster or giving a presentation on renewable energy sources.
- **Skills Developed**: Communication, research, confidence in public speaking.

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Field Trips and Outdoor Learning

- **Purpose**: Observe science in real-world settings.
- **Example**: Visiting a botanical garden or a science museum.
- **Skills Developed**: Application of classroom learning, observational skills, inquiry.

Model Building and Simulations

- **Purpose**: Represent complex systems in an understandable way.
- **Example**: Building a model of the solar system or DNA.
- **Skills Developed**: Visualization, spatial awareness, creativity.

Prior Learnings/Connection

Questions

- *"What do I want to know or understand about this phenomenon?"*
- *"Can I ask a testable scientific question?"*

Planning and Carrying Out Investigations

- *"How can I design a fair test or experiment?"*
- *"What materials and steps do I need to collect reliable data?"*

Using Evidence to Support Claims

- *"What does my data tell me?*
- *"How can I use evidence to explain what happened?"*

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Analyzing and Interpreting Data

- *"What patterns do I see in the results?"*
- *"Do my findings support or challenge my original hypothesis?"*

Constructing Explanations

- *"How does science help me explain what I observed?"*
- *"Can I use scientific concepts to explain why this happened?"*

Communicating Information

- *"How can I share my results clearly with others?"*
- *"Can I use graphs, diagrams, or models to explain my thinking?"*

Using Models

- *"Can I represent this concept with a diagram, drawing or 3D model?"*
- *"How does this model help me understand the real-world system?"*

Applying Concepts to Real-World Problems

- *"How can I use this science knowledge to solve a real-world issue?"*
- *"What are the impacts of this science on people, places, or the environment?"*

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Navigation to next lesson/storyline

As student build their knowledge and add to their schema which is the way they organize knowledge, in a formal way - be it via notes or mentally which helps them understand and interpret new information. This framework from STEAM and STEELS will guide how new information is processed helping students make sense of the world.

Stage 1: Learning Goals

Established Goals	Transfer
	Long-Term Transfer Goals
	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Explore diverse agriculture careers and their connection to STEM. *(LT.AGR.05)* ■ Develop a lifetime of informed choices in the global agriculture, food, fiber, and natural resources systems. *(LT.AGR.06)* ■ Cultivate a strong work ethic that encompasses self-motivation, self-reflection, and time-management. *(LT.ART.05)* ■ Utilize critical thinking, problem-solving, creativity & innovation, communication, and collaboration. *(LT.STM.06)* ■ Understand technological systems and resources as they apply to consumer products. *(LT.STM.02)* ■ Internalize the importance of technology in our daily lives. *(LT.STM.01)* ■ Design an investigation or model using appropriate tools, resources, and methods. *(T7)* ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T8)* ■ Gather and interpret measurements and data and apply to new situations. *(T9)* ■ Apply scientific and technical knowledge to a variety of topics in a changing world. *(T10)* ■ Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T11)*

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Meaning	
Big Ideas	**Essential Questions**
What specifically do you want students to understand? What inferences should they make? Students will understand that... ■ Agriculture encompasses a diverse range of careers and opportunities, including those related to science, technology, engineering, and mathematics (STEM), contributing to innovation and advancements in the field. *(BIG.AGR.02)* ■ Agriculture is a fundamental human activity that involves the cultivation of plants and the rearing of animals for food, fiber, and other products. *(BIG.AGR.05)* ■ Creative thinkers exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems. *(U3)* ■ Create team norms and expectations focused on equitable practices, relationships, and dynamic group responsibilities toward a collaborative goal. *(U4)* ■ Meeting the desired objectives for creation requires choosing the appropriate tools, soliciting and giving feedback, and clearly communicating with the intended audience. *(U5)* ■ The deliberate cyclical design process of generating ideas, testing theories,	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering... ■ How can agriculturalists work with support agencies to secure resources that will ensure a future for our communities? *(EQ.AGR.04)* ■ How do your personal interests, talents, goals, and preferences connect with career opportunities and sustainable commodities? *(EQ.AGR.05)* ■ How can communication strategies ensure clarity, logic, purpose, and professionalism in formal and informal settings? *(EQ.AGR.01)* ■ How will we work toward a common goal to help our team and community internalize new information using an effective medium? *(EQ.STM.01)* ■ How will we use a design process to generate new ideas using technological systems to complete a task? *(EQ.STM.02)* ■ How can we decide which platform or tool is appropriate to solve real-world problems? *(EQ.STM.03.A)* ■ How can you continue to learn and stay current in the ever-evolving STEAM fields? *(EQ.STM.03.B)* ■ How do we solve problems to persevere through a task? *(EQ.STM.04)* ■ How and why is Earth constantly changing? *(EQ.SCI.EARTH.02)*

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and creating innovative artifacts builds problem solving skills. *(U6)*
- The development of technology allows people to design, create, and assess solutions that solve problems. *(BIG.TED.03)*
- Technology can be improved by using the engineering design process to re-evaluate and troubleshoot. *(BIG.TED.04)*
- The Universe is composed of a variety of different objects, which are organized into systems, each of which develops according to accepted physical processes and laws. *(U9)*
- The Earth's processes affect and are affected by human activities. *(U10)*
- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U11)*

- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ The application and practice of science knowledge and skills to real-world long-term transfer goals involve ensuring that students or individuals not only grasp scientific concepts but also develop the ability to apply them effectively in real-life situations. The	■ The application and practice of scientific knowledge and skills can be explored through various essential questions that guide inquiry and understanding. Here are some key

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idea is to bridge the gap between theoretical knowledge and practical use. This type of learning fosters critical thinking, problem-solving, and decision-making abilities, which are crucial in various fields. *(K1)*

essential questions that can help frame discussions on this topic:

1. **How do scientific theories and principles apply to real-world problems?**
    - This question encourages exploration of how scientific knowledge is used to solve practical issues in fields like medicine, engineering, and environmental science.
2. **What role do experiments and data play in advancing scientific understanding?**
    - This essential question focuses on the scientific method, emphasizing the importance of observation, hypothesis testing, and the role of data in drawing conclusions.
3. **How do scientific innovations influence society and culture?**
    - Investigating how scientific discoveries and technological advancements impact daily life, ethics, and societal values.
4. **Why is critical thinking important in the application of science?**
    - This question encourages reflection on how the ability to analyze, evaluate, and make decisions based on evidence is crucial in applying scientific

knowledge in various contexts.

5. **How does interdisciplinary collaboration enhance scientific progress?**
    - This question addresses the value of teamwork across different scientific disciplines (e.g., biology, chemistry, physics) in solving complex problems.
6. **In what ways do scientific practices shape our understanding of the natural world?**
    - Exploring how the scientific method, inquiry, and the development of new tools and techniques influence how we interpret and understand phenomena.
7. **What ethical considerations arise in the application of scientific knowledge?**
    - This question examines the moral and ethical issues that can emerge when applying scientific knowledge, especially in areas like genetic modification, artificial intelligence, and environmental conservation.

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8. How does science contribute to decision-making in public policy?
    - Investigating the role of scientific evidence in shaping policies related to health, the environment, and technology.

These essential questions encourage deeper thinking about how science functions both in theory and practice, fostering an understanding of its relevance to modern life and its broad impact on society. *(S1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Humans depend on the living world for the resources and other benefits provided by biodiversity. But human activity is also having adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change. Thus sustaining biodiversity so that ecosystem functioning and productivity are maintained is essential to supporting and enhancing life on Earth. Sustaining biodiversity also aids humanity by preserving landscapes of recreational or inspirational value. *(DCI.9-12.LS4.D.2)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Much of science deals with constructing explanations of how things change and how they remain stable. *(CCC.9-12.C7.A)*
- Change and rates of change can be quantified and modeled over very short or very long periods of time. Some system changes are irreversible. *(CCC.9-12.C7.B)*

Module 3 - The Processes & Cycles of the Earth

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:12	7th Grade Science	25.0 Day(s)	7	Science	KYLA CARUSO , Tracy Smith

Unit Focus

The Earth is a system of interacting spheres. The spheres (biosphere, atmosphere, hydrosphere & geosphere) are the interconnecting links that are driven by energy produced by the sun and the Earth's core. Each one of these spheres plays an essential role in how the Earth performs its many processes that shape the world that we live within. Each sphere has the ability to affect the other spheres and their direct relationship must work together in order to maintain balance on all levels.

Anchoring Phenomenon

Why do some areas on Earth experience droughts while others experience floods?

Prior Learnings/Connection

- Water Cycle

- Sun's Energy

- Characteristics of the Earth

- Chemical vs. Physical Change

- Earth's Minerals

- Renewable vs. Nonrenewable Resources

- Geologic Processes

Navigation to next lesson/storyline

In this unit, students will explore how Earth's four spheres—geosphere, atmosphere, hydrosphere, and biosphere—work together to influence extreme weather events like droughts and floods. They will investigate how landforms and soil types impact water absorption and runoff,

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how weather patterns such as temperature and precipitation contribute to these events, and how the movement or scarcity of water in rivers and lakes can lead to flooding or drought. Students will also examine the effects of these events on plant and animal life, as well as human communities, and consider how climate change and human activities are affecting the frequency and intensity of such events. Through this exploration, students will better understand the interconnected nature of Earth's systems and how they shape the environment around us. The next unit will allow students to explore how the Earth's systems connect to the patterns of the oceans the atmosphere.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 6-8 Standards

- Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.

  Clarifying Statement: Emphasis is on the processes of melting, crystallization, weathering, deformation, and sedimentation, which act together to form minerals and rocks through the cycling of Earth's materials.

  Assessment Boundary: Assessment does not include the identification and naming of minerals. *(3.3.6-8.F)*
- Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.

  Clarifying Statement: Emphasis is on the ways water changes its state as it moves through the multiple pathways of the

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Collect, analyze, and evaluate evidence to support constructing arguments. *(T1)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T2)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*
- The Universe is composed of a variety of different objects, which are organized into systems, each of which develops according to accepted physical processes and laws. *(U2)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

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hydrologic cycle. Examples of models can be conceptual or physical.

Assessment Boundary: A quantitative understanding of the latent heats of vaporization and fusion is not assessed. *(3.3.6-8.H)*

- Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.

Clarifying Statement: Emphasis is on how these resources are limited and typically non-renewable, and how their distributions are significantly changing as a result of removal by humans. Examples of uneven distributions of resources as a result of past processes include but are not limited to petroleum (locations of the burial of organic marine sediments and subsequent geologic traps), metal ores (locations of past volcanic and hydrothermal activity associated with subduction zones), and soil (locations of active weathering and/or deposition of rock).

Assessment Boundary: N/A *(3.3.6-8.K)*

- The Earth's processes affect and are affected by human activities. *(U3)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know... ■ The Processes of the Water Cycle *(K1)* ■ The Earth's Systems *(K2)* ■ How energy is transferred *(K3)* ■ How the Earth's systems (spheres) interact *(K4)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Identifying the various spheres represented in images and how they are presented in many forms. *(S1)* ■ Explaining the elements of the water cycle and how they intact with the spheres. *(S2)* ■ Identifying how energy from the sun is transferred to objects within the Earth's spheres. *(S3)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Develop a model to describe unobservable mechanisms. *(SEP.6-8.P2.F)*

- Construct a scientific explanation based on valid and reliable evidence obtained from sources (including the students' own experiments) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future. *(SEP.6-8.P4.C)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- All Earth processes are the result of energy flowing and matter cycling within and among the planet's systems. This energy is derived from the sun and Earth's hot interior. The energy that flows and matter that cycles produce chemical and physical changes in Earth's materials and living organisms. *(DCI.6-8.ESS2.A.2)*
- Water continually cycles among land, ocean, and atmosphere via transpiration, evaporation, condensation and crystallization, and precipitation, as well as downhill flows on land. *(DCI.6-8.ESS2.C.2)*
- Global movements of water and its changes in form are propelled by sunlight and gravity. *(DCI.6-8.ESS2.C.3)*
- Humans depend on Earth's land, ocean, atmosphere, and biosphere for many different resources. Minerals, fresh water, and biosphere resources are limited, and many are not renewable or replaceable over human lifetimes. These resources are distributed unevenly around the planet as a result of past geologic processes. *(DCI.6-8.ESS3.A.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Cause and effect relationships may be used to predict phenomena in natural or designed systems. *(CCC.6-8.C2.B)*
- Within a natural system, the transfer of energy drives the motion and/or cycling of matter. *(CCC.6-8.C5.B)*
- Explanations of stability and change in natural or designed systems can be constructed by examining the changes over time and processes at different scales, including the atomic scale. *(CCC.6-8.C7.A.2)*

Vocabulary

- Water Cycle

- Transpiration

- Evaporation

- Condensation

- Crystallization
- Precipitation
- Biosphere
- Hydrosphere
- Atmosphere
- Geosphere
- Energy
- Renewable Resource
- Nonrenewable Resource

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Module 3: Energy

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 02:37	4th Grade Science	6.0 Weeks	4	Science	MATTHEW ROYER

Unit Focus

In this unit the focus in on the different types of motion energy. Energy is either potential or kinetic. When energy is changing from potential to kinetic, this is known as transfer of energy. Students will be asking questions, and predicting outcomes about the changes of energy and motion that occurs when two or more objects collide. In this unit students will also be making observations about energy transfer by sound, light, heat, and electrical currents. They will also learn how energy can be changed from one form to another, and how technology has evolved because of the knowledge of energy transfer.

Anchoring Phenomenon

Why does a soccer ball move when we kick it?

Prior Learnings/Connection

Introduction to patterns of movement between objects.

Navigation to next lesson/storyline

Now that we know energy can be transferred from one type to another. Does this transfer of energy happen in humans?

Storyline - Energy Transfer-Collison

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): 4 Standards ■ Use evidence to construct an explanation relating the speed of an object to the	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T1)* ■ Design an investigation or model using appropriate tools, resources, and methods. *(T2)*

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energy of that object.

Clarifying Statement: N/A

Assessment Boundary: Assessment does not include quantitative measures of changes in the speed of an object or on any precise or quantitative definition of energy. *(3.2.4.A)*

- Make and communicate observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.

Clarifying Statement: N/A

Assessment Boundary: Assessment does not include quantitative measurements of energy. *(3.2.4.B)*

- Ask questions and predict outcomes about the changes in energy that occur when objects collide.

Clarifying Statement: Emphasis is on the change in the energy due to the change in speed, not on the forces, as objects interact.

Assessment Boundary: Assessment does not include quantitative measurements of energy. *(3.2.4.C)*

- Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.

Clarifying Statement: Examples of devices

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that... ■ The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U1)* ■ Interactions between any two objects can cause changes in one or both. *(U2)*	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering... ■ How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)* ■ How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know... ■ That kinetic energy is energy of movement. *(K1)* ■ potential energy is energy that is stored. *(K2)* ■ energy transfer occurs when two or more objects collide. *(K3)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Predicting the outcome of colliding objects. *(S1)* ■ Creating a model to demonstrate energy transfer. *(S2)*

could include electric circuits that convert electrical energy into motion energy of a vehicle, light, or sound; and, a passive solar heater that converts light into heat. Examples of constraints could include the materials, cost, or time to design the device.

Assessment Boundary: Devices should be limited to those that convert motion energy to electric energy or use stored energy to cause motion or produce light or sound. *(3.2.4.D)*

- Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.

Clarifying Statement: Examples of models could include diagrams, analogies, and physical models using wire to illustrate wavelength and amplitude of waves.

Assessment Boundary: Assessment does not include interference effects, electromagnetic waves, non-periodic waves, or quantitative models of amplitude and wavelength. *(3.2.4.E)*

- Generate and compare multiple solutions that use patterns to transfer information.

Clarifying Statement: Examples of solutions could include drums sending coded information through sound waves, using a grid of 1's and 0's representing black and white to send information about

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a picture, and using Morse code to send text. **Assessment Boundary:** N/A *(3.2.4.G)* **Technology & Engineering (2023): 3-5 Technology & Engineering** ■ Demonstrate how simple technologies are often combined to form more complex systems. *(3.5.3-5.DD)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 4 Science & Engineering Practices

- Ask questions that can be investigated and predict reasonable outcomes based on patterns such as cause and effect relationships. *(SEP.3-5.P1.C)*
- Develop a model to describe phenomena. *(SEP.3-5.P2.E)*
- Make observations to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution. *(SEP.3-5.P3.B1)*
- Use evidence (e.g., measurements, observations, patterns) to construct an explanation. *(SEP.3-5.P4.B)*
- Construct an argument with evidence, data, and/or a model. *(SEP.3-5.P7.D)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 4 Disciplinary Core Ideas

- The faster a given object is moving, the more energy it possesses. *(DCI.4.PS3.A.1)*
- Energy can be moved from place to place by moving objects or through sound, light, or electric currents. *(DCI.4.PS3.A.2)*
- Energy is present whenever there are moving objects, sound, light, or heat. When objects collide, energy can be transferred from one object to another, thereby changing their motion. In such collisions, some energy is typically also transferred to the surrounding air; as a result, the air gets heated and sound is produced. *(DCI.4.PS3.B.1)*
- Light also transfers energy from place to place. *(DCI.4.PS3.B.2)*
- Energy can also be transferred from place to place by electric currents, which can then be used locally to produce motion, sound, heat, or light. The currents may have been produced to begin with by transforming the energy of motion into electrical energy. *(DCI.4.PS3.B.3)*
- When objects collide, the contact forces transfer energy so as to change the objects' motions. *(DCI.4.PS3.C.1)*

- The expression “produce energy” typically refers to the conversion of stored energy into a desired form for practical use. *(DCI.4.PS3.D.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 4 Crosscutting Concepts

- Cause and effect relationships are routinely identified. *(CCC.3-5.C2.A1)*
- Cause and effect relationships are routinely identified, tested, and used to explain change. *(CCC.3-5.C2.A2)*
- Energy can be transferred in various ways and between objects. *(CCC.3-5.C5.A)*

Vocabulary

Kinetic Energy

Potential Energy

Conservation of Energy

Energy Transfer

Circuits

Waves

Module 4 - Environmental Literacy & Sustainability

Draft Date	Course	Grades	Subjects	Team
10-14-2024 @ 02:30	Selected Topics in Science	9	Science	Anthony Pepoli

Unit Focus

"An environmentally literate person is someone who, both individually and together with others, makes informed decisions concerning the environment; is willing to act on these decisions to improve the well-being of other individuals, societies, and the global environment. Environmental Literacy also involves participation in civic life. Those who are environmentally literate possess, to varying degrees, the knowledge and understanding of a wide range of environmental concepts, problems, and issues; a set of cognitive and affective dispositions; a set of cognitive skills and abilities; and the appropriate behavioral strategies to apply such knowledge and understanding in order to make sound and effective decisions in a range of environmental contexts."

Anchoring Phenomenon

For environmental literacy, anchoring phenomenon should be relevant, observable, and complex enough to support inquiry across various environmental and scientific domains.

Anchoring phenomenon can range widely and spiral within multiple branches of scientific disciplines.

Rising Temperatures and Extreme Weather

- **Phenomenon**: Why are heat waves, hurricanes, and wildfires becoming more intense and frequent?
- **Environmental Literacy Link**: Climate change, greenhouse gases, weather vs. climate, carbon footprint.
- **Driving Questions**:
  - How do human activities influence the Earth's climate?
  - What can individuals and communities do to reduce their environmental impact?

Mass Fish Die-Off in a Local River or Lake

- **Phenomenon**: What caused thousands of fish to die suddenly in a nearby water body?
- **Environmental Literacy Link**: Water pollution, eutrophication, oxygen levels, human impact on ecosystems.

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- **Driving Questions**:
    - How do pollutants enter waterways, and what are their effects?
    - What role do laws and regulations play in protecting aquatic ecosystems?

Disappearance of Native Pollinators

- **Phenomenon**: Why are bee and butterfly populations declining in certain areas?
- **Environmental Literacy Link**: Biodiversity, pesticides, food webs, ecosystem services.
- **Driving Questions**:
    - How do pollinators support ecosystems and agriculture?
    - What practices can help restore pollinator habitats?

Plastic Waste Found in Ocean Animals

- **Phenomenon**: Why are microplastics found in marine life, even in remote oceans?
- **Environmental Literacy Link**: Plastic pollution, human consumption, global waste systems.
- **Driving Questions**:
    - How does plastic waste travel and break down?
    - What policies or innovations can help reduce plastic pollution?

Urban Heat Islands

- **Phenomenon**: Why are cities often hotter than surrounding rural areas?
  Environmental Literacy Link: Land use, urban planning, energy consumption, equity in environmental health.
- **Driving Questions**:
    - How do materials and urban designs affect temperature?
    - How can cities become more sustainable and resilient?

Prior Learnings/Connection

Prior learning and connections related to the environment is interwoven with various subjects, skills, and real-world contexts. The connections go beyond simply understanding environmental issues, but connecting them to our daily lives, communities, and future actions.

"Environmental literacy" refers to the knowledge, skills, attitudes, and behaviors necessary to understand and act on environmental issues. It involves understanding ecological principles, human impact on the environment, and how individuals and communities can contribute to sustainability.

General Connections to Education

Science – Understanding ecosystems, biodiversity, climate change, pollution.

Geography – Exploring how human activity affects natural systems.

Civics and Social Studies – Studying policies, laws, and citizen responsibility in environmental protection.

Math – Analyzing environmental data, modeling climate trends, interpreting statistics.

Language Arts – Reading and writing about environmental issues; persuasive writing for advocacy.

Connections to Global Issues

Climate Change – Causes, effects, adaptation, and mitigation strategies.

Sustainable Development – Balancing economic growth, environmental protection, and social equity.

Environmental Justice – Recognizing how environmental harms disproportionately affect marginalized communities.

Global Citizenship – Promoting responsible consumption and ethical decision-making.

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Connections to Critical Thinking

Systems Thinking – Seeing how parts of the environment are interconnected.

Problem-Solving – Designing solutions for waste, energy, or water use challenges.

Media Literacy – Evaluating environmental information and misinformation.

Connections to Behavior and Action

Personal Responsibility – Reducing waste, conserving water, using public transport.

Community Engagement – Participating in cleanups, restoration projects, or local policy advocacy.

Career Paths – Environmental science, policy, education, conservation, sustainable business.

Sample Activities to Build Environmental Literacy

- School gardens or composting programs
- Water or energy audits at home or school
- Debates on environmental policies
- Citizen science projects (e.g., biodiversity counts)

Navigation to next lesson/storyline

As students begin to see the related connectedness to the various branches of science, real world examples of scientists, inventors and pioneers in various fields of science will be explored.

A case study is a research approach that is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context. It is an established research design that is used extensively in a wide variety of disciplines, particularly in the social sciences.

Using case studies can help teach scientific thinking, data analysis, ethics, and real-world applications of science.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Environmental Literacy & Sustainability (2023): 9-12 Environmental Literacy & Sustainability ■ Apply research and analytical skills to evaluate the conditions and motivations that lead to conflict, cooperation, and change among individuals, groups, and nations. *(3.4.9-12.B)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Understand the importance and variety of techniques in sustainable, urban, and family agriculture farms and the future success of the agricultural industry. *(LT.AGR.07)* ■ Explore diverse agriculture careers and their connection to STEM. *(LT.AGR.05)* ■ Develop a lifetime of informed choices in the global agriculture, food, fiber, and natural resources systems. *(LT.AGR.06)* ■ Utilize critical thinking, problem-solving, creativity & innovation, communication, and collaboration. *(LT.STM.06)* ■ Develop grit, persistence, self-discipline, pride, responsibility and safety. *(LT.STM.05)* ■ Engage in authentic hands-on experiences related to industrial and technological practices and procedures. *(LT.STM.04)* ■ Explore careers within our technological society. *(LT.STM.03)* ■ Understand technological systems and resources as they apply to consumer products. *(LT.STM.02)* ■ Internalize the importance of technology in our daily lives. *(LT.STM.01)* ■ Design an investigation or model using appropriate tools, resources, and methods. *(T10)* ■ Gather and interpret measurements and data and apply to new situations. *(T11)* ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T12)* ■ Apply scientific and technical knowledge to a variety of topics in a changing world. *(T13)* ■ Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T14)*

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- Understand, use, apply, and evaluate technology to become productive members of society. *(LT.TED.01)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ The Universe is composed of a variety of different objects, which are organized into systems, each of which develops according to accepted physical processes and laws. *(U1)* ■ The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U2)* ■ All organisms are made of cells and can be characterized by common aspects of their structure and functioning. *(U3)* ■ Biological adaptation explains both the unity and diversity of species and provides a unifying principle for the history and diversity of life on Earth *(U4)* ■ Collaboration and knowledge sharing among farmers, researchers, policymakers, and other stakeholders are essential for innovation, productivity, and the continuous improvement of agricultural practices. *(BIG.AGR.01)* ■ Agriculture is a fundamental human activity that involves the cultivation of	■ How do your personal interests, talents, goals, and preferences connect with career opportunities and sustainable commodities? *(EQ.AGR.05)* ■ How can agriculturalists work with support agencies to secure resources that will ensure a future for our communities? *(EQ.AGR.04)* ■ How will we work toward a common goal to help our team and community internalize new information using an effective medium? *(EQ.STM.01)* ■ How will we use a design process to generate new ideas using technological systems to complete a task? *(EQ.STM.02)* ■ How can we decide which platform or tool is appropriate to solve real-world problems? *(EQ.STM.03.A)* ■ How can you continue to learn and stay current in the ever-evolving STEAM fields? *(EQ.STM.03.B)* ■ How do we solve problems to persevere through a task? *(EQ.STM.04)* ■ How does technology impact other fields of study? *(EQ.TED.01)* ■ How does technology impact society? *(EQ.TED.02)*

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plants and the rearing of animals for food, fiber, and other products. *(BIG.AGR.05)*

- Agriculture practices impact the environment, and sustainable approaches are necessary to ensure long-term viability and minimize negative consequences. *(BIG.AGR.04)*
- Creative thinkers exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems. *(U8)*
- Create team norms and expectations focused on equitable practices, relationships, and dynamic group responsibilities toward a collaborative goal. *(U9)*
- Meeting the desired objectives for creation requires choosing the appropriate tools, soliciting and giving feedback, and clearly communicating with the intended audience. *(U10)*
- The deliberate cyclical design process of generating ideas, testing theories, and creating innovative artifacts builds problem solving skills. *(U11)*
- By analyzing perspectives and curating information from digital resources, complex, interdisciplinary, and real-world problems can be solved. *(U12)*
- Digital tools are used to plan and manage a design process by considering calculated risks and constraints. *(U13)*

- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*
- How can technology be improved through the use of the engineering design process? *(EQ.TED.04)*
- How does understanding technological concepts contribute to the built environment? *(EQ.TED.05)*
- How do environmental considerations affect society's acceptance of technology? *(EQ.TED.06)*

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- Technology impacts core concepts, characteristics, and relationships between all fields of study. *(BIG.TED.01)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- The application and practice of scientific knowledge and skills can be explored through various essential questions that guide inquiry and understanding. Here are some key essential questions that can help frame discussions on this topic:
    1. How do scientific theories and principles apply to real-world problems?
        - This question encourages exploration of how scientific knowledge is used to solve practical issues in fields like medicine, engineering, and environmental science.
    2. What role do experiments and data play in advancing scientific understanding?
        - This essential question focuses on the scientific method, emphasizing the importance of observation, hypothesis testing, and the role of data in drawing conclusions.

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Environmental literacy involves the understanding of key concepts related to the environment, and students should develop various skills to effectively engage with environmental issues. Here are some important skills that students should have related to environmental literacy:

1. Critical Thinking and Problem Solving

- Analyze environmental issues: Understand the causes, effects, and possible solutions to environmental problems such as climate change, pollution, and resource depletion.
- Evaluate evidence: Assess scientific data, trends, and case studies to make informed decisions about environmental challenges.
- Develop solutions: Propose practical solutions for

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3. How do scientific innovations influence society and culture?
    - Investigating how scientific discoveries and technological advancements impact daily life, ethics, and societal values.
4. Why is critical thinking important in the application of science?
    - This question encourages reflection on how the ability to analyze, evaluate, and make decisions based on evidence is crucial in applying scientific knowledge in various contexts.
5. How does interdisciplinary collaboration enhance scientific progress?
    - This question addresses the value of teamwork across different scientific disciplines (e.g., biology, chemistry, physics) in solving complex problems.
6. In what ways do scientific practices shape our understanding of the natural world?
    - Exploring how the scientific method, inquiry, and the development of new tools and techniques influence how we interpret and understand phenomena.

sustainability, taking into account social, economic, and environmental factors.

2. Scientific Understanding

- Basic Environmental Science: Grasp the fundamentals of ecosystems, biodiversity, climate systems, and human-environment interactions.
- Energy and Resources: Understand renewable vs. nonrenewable resources, energy production, and conservation methods.
- Ecosystem Dynamics: Learn about the interconnections between species, habitats, and environmental systems.

3. Sustainability Awareness

- Conservation Practices: Be aware of how to reduce waste, conserve water, and minimize carbon footprints.
- Sustainable Development: Understand the concept of sustainable development and how to balance economic growth with environmental protection.
- Waste Reduction: Learn how to practice the 3 Rs (Reduce, Reuse,

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7. **What ethical considerations arise in the application of scientific knowledge?**
    - This question examines the moral and ethical issues that can emerge when applying scientific knowledge, especially in areas like genetic modification, artificial intelligence, and environmental conservation.
8. **How does science contribute to decision-making in public policy?**
    - Investigating the role of scientific evidence in shaping policies related to health, the environment, and technology.

These essential questions encourage deeper thinking about how science functions both in theory and practice, fostering an understanding of its relevance to modern life and its broad impact on society. *(K1)*

Recycle) and incorporate them into daily life.

4. Environmental Communication Skills

- **Articulate Environmental Issues**: Ability to communicate complex environmental issues in clear, concise language for diverse audiences.
- **Advocacy**: Use persuasive communication to advocate for policies and practices that protect the environment.
- **Public Awareness Campaigns**: Create and participate in campaigns or initiatives that promote environmental awareness and action.

5. Global Perspective and Local Action

- **Understand Global Issues**: Recognize the global nature of environmental challenges (such as climate change, deforestation, or pollution) and their impact on different regions.
- **Local Environmental Practices**: Understand how local actions (e.g., reducing waste or using sustainable resources) contribute

to broader global environmental goals.

6. Ethical Decision-Making

- **Environmental Ethics**: Explore the ethical responsibilities humans have toward the environment, including concerns related to justice, equity, and the treatment of non-human life.
- **Cultural Sensitivity**: Recognize how different cultures perceive and engage with environmental issues and solutions.

7. Collaboration and Teamwork

- **Work in Teams**: Collaborate with peers, community members, and organizations to address environmental problems.
- **Engage with Stakeholders**: Develop skills to engage with government bodies, NGOs, and businesses in discussions about environmental policy and practices.

8. Technological and Digital Literacy

- **Use of Environmental Tools**: Use environmental data tools (e.g., Geographic Information Systems

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or GIS) to track and analyze environmental patterns.
- **Sustainable Technologies**: Understand the role of technology in sustainability, such as renewable energy solutions, green architecture, and smart agriculture.
- **Social Media Advocacy**: Use digital platforms to raise awareness and advocate for environmental issues.

9. Field Observation and Data Collection

- **Conduct Field Research**: Learn how to collect, record, and analyze environmental data through fieldwork (e.g., water sampling, wildlife monitoring).
- **Understand Environmental Indicators**: Identify and interpret key indicators of environmental health, such as air and water quality, soil conditions, and biodiversity.

10. Adaptability and Resilience

- **Climate Change Adaptation**: Understand how communities and ecosystems adapt to changes in climate and how to build

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		resilience to environmental stresses. ◦ **Problem-Solving in Crisis Situations**: Develop the ability to respond to and manage environmental crises, such as natural disasters or environmental pollution incidents. By equipping students with these skills, they can become informed, engaged, and proactive citizens capable of addressing environmental challenges in their communities and beyond. *(S1)*

Module 4 - Weather & Climate

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:32	7th Grade Science	25.0 Day(s)	7	Science	KYLA CARUSO , Tracy Smith

Unit Focus

This unit will uncover how weather and climate are two ways we describe atmospheric conditions, but they differ in time scale and scope. Students will also see how the ocean plays a significant role in shaping both weather and climate. It acts as a massive heat reservoir, absorbing solar energy and regulating global temperatures. Ocean currents distribute heat and moisture around the globe, influencing weather systems and climate patterns. Additionally, the ocean's evaporation contributes to cloud formation, affecting precipitation and storm development. Understanding the relationship between the ocean, weather, and climate is essential, as it helps explain the patterns we observe in our daily weather and the long-term climatic trends that impact ecosystems and human societies.

Anchoring Phenomenon

A rubber duck was dropped into the middle of the Pacific Ocean. It was later found thousands of miles away washed up on the shores of another continent. How was this journey possible?

Prior Learnings/Connection

- Currents (Patterns & Types)
- Density
- Temperature Changes
- Convection Currents
- Circulation
- Salinity
- Gravity

Navigation to next lesson/storyline

In this unit, students will explore the interactions between Earth's atmosphere, oceans, and climate systems, examining the forces that drive weather and ocean patterns. They will investigate how Earth's rotation, gravity, and the Sun's energy influence global winds, ocean currents, and tides. Concepts such as the Coriolis Effect, gyres, and upwelling will help students understand how air and water move across the planet, shaping climate and ecosystems. Through the study of density, convection currents, and thermohaline circulation, students will explore how temperature and salinity differences drive deep ocean currents and impact global climate regulation. By analyzing the connections between these processes, students will develop a deeper understanding of how Earth's systems work together to influence weather patterns, ocean movement, and climate change.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 6-8 Standards

- Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.

  Clarifying Statement: Emphasis is on how patterns vary by latitude, altitude, and geographic land distribution. Emphasis of atmospheric circulation is on the sunlight-driven latitudinal banding, the Coriolis effect, and resulting prevailing winds; emphasis of ocean circulation is on the transfer of heat by the global ocean convection cycle, which is constrained by the Coriolis effect and the outlines of continents. Examples of models can be diagrams, maps and globes, or digital

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Collect, analyze, and evaluate evidence to support constructing arguments. *(T1)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T2)*
- Gather and interpret measurements and data and apply to new situations. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*
- The Universe is composed of a variety of different objects, which are

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

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representations.

Assessment Boundary: Assessment does not include the dynamics of the Coriolis effect. *(3.3.6-8.I)*

- Collect data to provide evidence for how the motion and complex interactions of air masses result in changes in weather conditions.

Clarifying Statement: Emphasis is on how air masses flow from regions of high pressure to low pressure, causing weather (defined by temperature, pressure, humidity, precipitation, and wind) at a fixed location to change over time, and how sudden changes in weather can result when different air masses collide. Emphasis is on how weather can be predicted within probabilistic ranges. Examples of data can be provided to students (such as weather maps, diagrams, and visualizations) or obtained through laboratory experiments (such as with condensation).

Assessment Boundary: Assessment does not include recalling the names of cloud types or weather symbols used on weather maps or the reported diagrams from weather stations. *(3.3.6-8.J)*

- Apply scientific principles to design a method for monitoring and minimizing human impact on the environment.

Clarifying Statement: Examples of the

organized into systems, each of which develops according to accepted physical processes and laws. *(U2)*
- The Earth's processes affect and are affected by human activities. *(U3)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know... ■ How currents circulate various elements around the world *(K1)* ■ How ocean currents and climates are driven by multiple factors *(K2)* ■ How patterns play a role in the directional movement of currents and climate *(K3)* ■ That the ocean currents are a part of a constant cycle that is a part of a global scale *(K4)* ■ How the Coriolis Effect contributes to the giant rotating system of the ocean currents (gyres) and wind patterns *(K5)* ■ How cold and warm water interact to form convection currents within the ocean *(K6)*	**What discrete skills and processes should students be able to use? Students will be skilled at...** ■ Identifying circulation patterns and their role *(S1)* ■ Explaining the connection between ocean temperatures and wind patterns that contribute to the weather on a global scale *(S2)* ■ Applying the contributing factors that lead to the development of convection currents *(S3)* ■ Understanding how the Coriolis Effect develops these circular patterns found within the oceans and the atmosphere *(S4)*

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design process include examining human environmental impacts, assessing the kinds of solutions that are feasible, and designing and evaluating solutions that could reduce that impact. Examples of human impacts can include water usage (such as the withdrawal of water from streams and aquifers or the construction of dams and levees), land usage (such as urban development, agriculture, or the removal of wetlands), and pollution (such as of the air, water, or land).

Assessment Boundary: N/A *(3.3.6-8.M)*

- Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.

Clarifying Statement: Examples of factors include human activities (such as fossil fuel combustion, cement production, and agricultural activity) and natural processes (such as changes in incoming solar radiation or volcanic activity). Examples of evidence can include tables, graphs, and maps of global and regional temperatures, atmospheric levels of gases such as carbon dioxide and methane, and the rates of human activities. Emphasis is on the major role that human activities play in causing the rise in global temperatures.

Assessment Boundary: N/A *(3.3.6-8.O)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Ask questions to identify and/or clarify evidence and/or the premise(s) of an argument. *(SEP.6-8.P1.B)*
- Develop and/or use a model to predict and/or describe phenomena. *(SEP.6-8.P2.E)*
- Collect data to produce data to serve as the basis for evidence to answer scientific questions or test design solutions under a range of conditions. *(SEP.6-8.P3.D)*
- Apply scientific ideas or principles to design an object, tool, process or system. *(SEP.6-8.P4.F.2)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- Variations in density due to variations in temperature and salinity drive a global pattern of interconnected ocean currents. *(DCI.6-8.ESS2.C.4)*
- The complex patterns of the changes and the movement of water in the atmosphere, determined by winds, landforms, and ocean temperatures and currents, are major determinants of local weather patterns. *(DCI.6-8.ESS2.C.5)*
- Weather and climate are influenced by interactions involving sunlight, the ocean, the atmosphere, ice, landforms, and living things. These interactions vary with latitude, altitude, and local and regional geography, all of which can affect oceanic and atmospheric flow patterns. *(DCI.6-8.ESS2.D.1)*
- The ocean exerts a major influence on weather and climate by absorbing energy from the sun, releasing it over time, and globally redistributing it through ocean currents. *(DCI.6-8.ESS2.D.2)*
- Because these patterns are so complex, weather can only be predicted probabilistically. *(DCI.6-8.ESS2.D.3)*
- Human activities have significantly altered the biosphere, sometimes damaging or destroying natural habitats and causing the extinction of other species. But changes to Earth's environments can have different impacts (negative and positive) for different living things. *(DCI.6-8.ESS3.C.1)*
- Typically as human populations and per-capita consumption of natural resources increase, so do the negative impacts on Earth unless the activities and technologies involved are engineered otherwise. *(DCI.6-8.ESS3.C.2)*
- Human activities, such as the release of greenhouse gases from burning fossil fuels, are major factors in the current rise in Earth's mean surface temperature (global warming). Reducing the level of climate change and reducing human vulnerability to whatever climate changes do occur depend on the understanding of climate science, engineering capabilities, and other kinds of knowledge, such as understanding of human behavior and on applying that knowledge wisely in decisions and activities. *(DCI.6-8.ESS3.D.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Relationships can be classified as causal or correlational, and correlation does not necessarily imply causation. *(CCC.6-8.C2.A)*
- Cause and effect relationships may be used to predict phenomena in natural or designed systems. *(CCC.6-8.C2.B)*
- Models can be used to represent systems and their interactions—such as inputs, processes and outputs—and energy and matter flows within systems. *(CCC.6-8.C4.B.1)*
- Stability might be disturbed either by sudden events or gradual changes that accumulate over time. *(CCC.6-8.C7.B.2)*

Vocabulary

- Ocean Currents
- Circulation
- Coriolis Effect
- Northern Hemisphere
- Southern Hemisphere
- Gyres
- Whirlpools
- Salinity
- Density
- Thermohaline Circulation
- Convection Currents

Module 4: Waves and Information Transfer

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 02:57	4th Grade Science	3.0 Weeks	4	Science	MATTHEW ROYER

Unit Focus

In this unit students will connect their knowledge with sound waves or other energy waves to how light reflection impacts our vision. Students will explore how our eyes take in light to see.

Anchoring Phenomenon

Mysterious Glowing Ball Video

Prior Learnings/Connection

The introduction of energy transfer and sound waves.

Navigation to next lesson/storyline

In this lesson we learned how energy can be transferred from one from to another through the use of waves, and how light can be used for vision in animals and humans. In the next lesson we will focus on how conservation of energy impacts how humans use resources on Earth.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): 4 Standards ■ Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move. **Clarifying Statement:** Examples of models	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T1)* ■ Design an investigation or model using appropriate tools, resources, and methods. *(T2)*

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could include diagrams, analogies, and physical models using wire to illustrate wavelength and amplitude of waves.

Assessment Boundary: Assessment does not include interference effects, electromagnetic waves, non-periodic waves, or quantitative models of amplitude and wavelength. *(3.2.4.E)*

- Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.

Clarifying Statement: N/A

Assessment Boundary: Assessment does not include knowledge of specific colors reflected and seen, the cellular mechanisms of vision, or how the retina works. *(3.2.4.F)*

- Generate and compare multiple solutions that use patterns to transfer information.

Clarifying Statement: Examples of solutions could include drums sending coded information through sound waves, using a grid of 1's and 0's representing black and white to send information about a picture, and using Morse code to send text.

Assessment Boundary: N/A *(3.2.4.G)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Waves are a repeating pattern of motion that transfers energy from place to place without the overall displacement of matter. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- That light reflected from a surface enters the eyes and allows objects to be seen. *(K1)*
- Waves are patterns of motion and have amplitude and wavelength. *(K2)*
- Waves can cause objects to move. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Modeling how different waves travel through the air or other objects. *(S1)*
- Explaining how light reflection impacts how we see the world around us. *(S2)*

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Technology & Engineering (2023): 3-5 Technology & Engineering ■ Use appropriate symbols, numbers, and words to communicate key ideas about technological products and systems. *(3.5.3-5.A)* ■ Determine factors that influence changes in a society's technological systems or infrastructure. *(3.5.3-5.H)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 4 Science & Engineering Practices

- Develop a model using an analogy, example, or abstract representation to describe a scientific principle. *(SEP.3-5.P2.D)*
- Use evidence (e.g., measurements, observations, patterns) to construct an explanation. *(SEP.3-5.P4.B)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 4 Disciplinary Core Ideas

- Waves, which are regular patterns of motion, can be made in water by disturbing the surface. When waves move across the surface of deep water, the water goes up and down in place; there is no net motion in the direction of the wave except when the water meets a beach. *(DCI.4.PS4.A.1)*
- Waves of the same type can differ in amplitude (height of the wave) and wavelength (spacing between wave peaks). *(DCI.4.PS4.A.2)*
- An object can be seen when light reflected from its surface enters the eyes. *(DCI.4.PS4.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 4 Crosscutting Concepts

- Patterns can be used as evidence to support an explanation. *(CCC.3-5.C1.A3)*
- Cause and effect relationships are routinely identified. *(CCC.3-5.C2.A1)*

Vocabulary
Light Energy
Reflection
Refraction
Amplitude
Wavelength

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Module 5 - Investigations & Case Studies

Draft Date	Course	Grades	Subjects	Team
10-14-2024 @ 03:05	Selected Topics in Science	9	Science	Anthony Pepoli

Unit Focus

Incorporating case studies is an approach that generates an in-depth, multi-faceted understanding of a complex issue in its real-life context.

Case studies provide an established research design that can relate to a wide variety of disciplines within scientific disciplines.

Anchoring Phenomenon

Anchoring phenomena tied to scientific case studies would be real-world events or processes that spark curiosity and drive students to explore scientific concepts.

These anchors form the foundation of a storyline or unit (aligned with NGSS – Next Generation Science Standards as well as our PA state STEELS standards and the concepts of STEAM).

The Peppered Moth and Natural Selection

- **Concepts:** Evolution, natural selection, industrial melanism
- **Case Summary:** Explore how the color of peppered moths changed during the Industrial Revolution due to changes in environmental conditions.
- **Teaching Focus:** Evidence for evolution, adaptation, data interpretation.

DDT and the Decline of Bald Eagles

- **Concepts:** Biomagnification, pesticide use, ecology
- **Case Summary:** Examines the effects of DDT on bird populations, particularly eggshell thinning.
- **Teaching Focus:** Ecosystem impact, bioaccumulation, environmental policy.

Climate Change and Coral Reefs

- **Concepts:** Ocean acidification, climate change, biodiversity
- **Case Summary:** How rising CO_2 levels are bleaching and killing coral reefs.
- **Teaching Focus:** Greenhouse gases, pH, marine ecology.

Prior Learnings/Connection

"Case studies in science" involve in-depth analyses of specific scientific phenomena, experiments, or events. When approaching case studies, having **prior knowledge** in key areas enhances understanding and critical thinking.

Scientific Method

Most case studies follow or analyze the steps of the scientific method—hypothesis formation, experimentation, observation, and conclusion.
What students need to understand:
* Hypothesis vs. theory vs. law
* Independent vs. dependent variables
* Control and experimental groups
* Example: In a case study on antibiotic resistance, understanding experimental design helps analyze how bacteria were tested under different conditions.

Domain-Specific Content Knowledge

Why it matters:

* Deep knowledge of the subject area allows better interpretation of data and findings.
* Examples by discipline:
  - Biology: Cell structure, genetics, evolution, ecosystems
  - Chemistry: Chemical reactions, periodic table, bonding
  - Physics: Newton's laws, electricity and magnetism, thermodynamics
  - Earth Science: Plate tectonics, climate systems, rock cycle
* Example: A case study on coral bleaching requires prior knowledge of marine ecosystems and climate change.

Data Interpretation and Analysis
Why it matters:

* Many case studies include graphs, tables, and raw data.
What to know:
* How to read graphs (bar, line, scatter plots)
* Mean, median, standard deviation
* Identifying trends and outliers
* Example: In a case study on population growth, interpreting a logistic growth curve is crucial.

Critical Thinking and Ethics
Why it matters: Many case studies include ethical dilemmas or controversial findings.
What to know:
* Logical reasoning
* Recognizing bias and assumptions
* Ethical principles in research (e.g., informed consent, animal welfare)

Historical Context or Scientific Milestones
Why it matters: Some case studies focus on the discovery process or scientific breakthroughs.
What to know:
*Major historical experiments (e.g., Pasteur's germ theory, Mendel's genetics)
* The evolution of scientific theories over time
* Example: In a case study on the development of the atomic model, knowledge of Dalton, Thomson, Rutherford, and Bohr is helpful.

Navigation to next lesson/storyline

Case studies are important because they offer a valuable way to understand complex issues and apply knowledge to real world situations. Case studies build trust and credibility. They can be used in various contexts, to engage students, stimulate new research, and demonstrate the effectiveness of science as a discipline.

Case studies are invaluable especially when it relates to biology, geology and ecology (environmental science) as they connect and create meaning.

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Taking students outside of the classroom to participate in hands on science in and around the school grounds creates a Meaningful Watershed Educational Experience (MWEE)

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania Core Standards

Science and Technology and Engineering: 9

- Compare and contrast scientific theories. Know that both direct and indirect observations are used by scientists to study the natural world and universe. Identify questions and concepts that guide scientific investigations. Formulate and revise explanations and models using logic and evidence. Recognize and analyze alternative explanations and models. Explain the importance of accuracy and precision in making valid measurements. *(3.1.8.B6)*
- Explain how reproductive success coupled with advantageous traits over many generations contributes to natural selection. *(3.1.8.C1)*
- Compare and contrast scientific theories. Know that both direct and indirect observations are used by scientists to study the natural world and universe. Identify questions and concepts that guide scientific investigations. Formulate and revise explanations and models using logic and evidence. Recognize and analyze alternative explanations and models.

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Creative thinkers exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems. *(U1)*
- Create team norms and expectations focused on equitable practices, relationships, and dynamic group responsibilities toward a collaborative goal. *(U2)*
- Society's acceptance of technology directly impacts the built and natural environment. *(BIG.TED.06)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do we solve problems to persevere through a task? *(EQ.STM.04)*
- How can you continue to learn and stay current in the ever-evolving STEAM fields? *(EQ.STM.03.B)*
- How does technology impact other fields of study? *(EQ.TED.01)*
- How does technology impact society? *(EQ.TED.02)*
- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

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Explain the importance of accuracy and precision in making valid measurements. *(3.1.8.C4)* ■ Compare and contrast scientific theories. Know that both direct and indirect observations are used by scientists to study the natural world and universe. Identify questions and concepts that guide scientific investigations. Formulate and revise explanations and models using logic and evidence. Recognize and analyze alternative explanations and models. Explain the importance of accuracy and precision in making valid measurements. *(3.2.8.A6)*	

Module 5: Humans' and Earth's Resources

Draft Date	Course	Grades	Subjects	Team
12-09-2024 @ 06:57	4th Grade Science	4	Science	MATTHEW ROYER

Unit Focus

In this unit students will be exploring how humans interact, consume, and conserve the renewable and nonrenewable resources on Earth. They will also learn what those resources are used for and their importance for our survival.

Anchoring Phenomenon

Fry Oil as Fuel

Prior Learnings/Connection

Students have prior knowledge to energy transfer between different types of sources that support their knowledge for renewable versus nonrenewable resources.

Navigation to next lesson/storyline

In this unit students will begin to explore how humans impact our environment through the use of nonrenewable and renewable resources. They will learn to critique how systems use create and use these resources, as well as discuss how the environment is impacted by our own decisions and actions.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Environmental Literacy & Sustainability (2023): 3-5 Environmental Literacy & Sustainability ■ Analyze how living organisms, including humans, affect the environment in which	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Apply scientific and technical knowledge to a variety of topics in a changing world. *(T1)*

they live, and how their environment affects them. *(3.4.3-5.A)*

- Make a claim about the environmental and social impacts of design solutions and civic actions, including their own actions. *(3.4.3-5.B)*
- Critique ways that people depend on and change the environment. *(3.4.3-5.F)*
- Investigate how perspectives over the use of resources and the development of technology have changed over time and resulted in conflict over the development of societies and nations. *(3.4.3-5.G)*

Science (2023): 4 Standards

- Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

  Clarifying Statement: Examples of renewable energy resources could include wind energy, water behind dams, and sunlight; non-renewable energy resources are fossil fuels and fissile materials. Examples of environmental effects could include loss of habitat due to dams, loss of habitat due to mining, and air pollution from burning of fossil fuels.

  Assessment Boundary: N/A *(3.3.4.D)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that... ■ The Earth's processes affect and are affected by human activities. *(U1)*	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering... ■ How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know... ■ Renewable resources can be reused or revitalized in a generation. *(K1)* ■ Nonrenewable resources are resources that don't naturally replenish themselves. *(K2)* ■ Sustainability is using resources to maximize yield but lower their impact on the environment. *(K3)* ■ Human agriculture is depended on energy and fuels that derive from natural resources. *(K4)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Comparing and contrasting the benefits and detriments of different natural resources. *(S1)* ■ Designing solutions for lowering the consumption of natural resources. *(S2)*

Technology & Engineering (2023): 3-5 Technology & Engineering ■ Classify resources used to create technologies as either renewable or nonrenewable. *(3.5.3-5.F)* ■ Explain how technologies are developed or adapted when individual or societal needs and wants change. *(3.5.3-5.J)* ■ Interpret how good design improves the human condition. *(3.5.3-5.V)* ■ Compare how things found in nature differ from things that are human-made, noting differences and similarities in how they are produced and used. *(3.5.3-5.FF)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 4 Science & Engineering Practices

- Apply scientific ideas to solve design problems. *(SEP.3-5.P4.D)*
- Construct an argument with evidence, data, and/or a model. *(SEP.3-5.P7.D)*
- Obtain and combine information from books and other reliable media to explain phenomena. *(SEP.3-5.P8.C)*

Technology & Engineering (2023): 3-5 Technology & Engineering Practices

- Engages in “tinkering” to improve a design. *(TEP.3-5.G.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 4 Disciplinary Core Ideas

- The expression “produce energy” typically refers to the conversion of stored energy into a desired form for practical use. *(DCI.4.PS3.D.1)*
- Energy and fuels that humans use are derived from natural sources, and their use affects the environment in multiple ways. Some resources are renewable over time, and others are not. *(DCI.4.ESS3.A.1)*

- Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. *(DCI.4.ETS1.A.1)*

Technology & Engineering (2023): 3-5 Disciplinary Core Ideas

- Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints. *(DCI.3-5.ETS1.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 4 Crosscutting Concepts

- Cause and effect relationships are routinely identified. *(CCC.3-5.C2.A1)*

Vocabulary

renewable resources

nonrenewable resources

agriculture

sustainability

Module 6 - Meaningful Watershed Experiences (MWEE)

Draft Date	Course	Grades	Subjects	Team
10-14-2024 @ 03:11	Selected Topics in Science	9	Science	Anthony Pepoli

Unit Focus

Meaningful watershed experiences are important because they provide students with a deep understanding of their local environment, fostering a sense of connection and responsibility towards their watershed, leading to informed action and potentially sustainable practices to protect and even restore their local ecosystem.

Meaningful Watershed Experiences essentially promote environmental literacy through hands-on, inquiry-based learning focused on real-world issues within their community.

Anchoring Phenomenon

In the context of **Meaningful Watershed Educational Experiences (MWEEs)**, an anchoring phenomenon is a real-world event, problem, or scenario that captures students' attention and drives their inquiry-based learning process. It's a central element used to spark curiosity and frame investigations in environmental education, particularly those related to watershed systems.

What is an Anchoring Phenomenon in a MWEE?

MWEE anchoring phenomenon:

- **Engages students** by presenting a puzzling or observable environmental issue or event.
- **Connects to students' local watershed** or community.
- **Drives student inquiry** by prompting them to ask questions and seek explanations.
- **Guides the development** of a sequence of learning activities and investigations.

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Examples of MWEE Anchoring Phenomena

1. Local Stream Pollution
   Phenomenon: Students notice a fish kill or algae bloom in a nearby stream.
   Driving Question: What caused the fish to die, and what can be done to prevent it?
2. Increased Flooding in Neighborhoods
   Phenomenon: Streets flood more often after rainstorms.
   Driving Question: Why is flooding increasing, and how does land use affect water flow?
3. Erosion of Riverbanks
   Phenomenon: A local park's riverbank is visibly eroding each year.
   Driving Question: What causes the riverbank to erode, and how can we slow it down?
4. Decline in Local Biodiversity
   Phenomenon: Fewer frogs or native species are being observed in a local wetland.
   Driving Question: What factors are impacting biodiversity in our watershed?

Prior Learnings/Connection

Prior learning in the context of a MWEE refers to the knowledge and skills that students should already have before beginning the MWEE.

This foundational knowledge ensures that students can fully engage in the inquiry-based learning and outdoor experiences that make up a MWEE.

Key Components of MWEE Prior Learning:

1. Environmental Literacy Foundations
   - Basic understanding of ecosystems, watersheds, and the water cycle.
   - Awareness of local environmental issues.
   - Knowledge of human impacts on the environment.

2. Science and Inquiry Skills
   - Ability to ask scientific questions.
   - Experience collecting and analyzing data.

- Understanding of cause-and-effect relationships in natural systems.

3. Civic Engagement Concepts
   - Familiarity with community structures and how change can occur.
   - Exposure to examples of citizen science or community action.
   - Understanding personal responsibility and stewardship.

4. Interdisciplinary Connections
   - Connections to social studies (e.g., geography, civics).
   - Integration with English Language Arts (e.g., reading nonfiction texts, writing about environmental topics).

Navigation to next lesson/storyline

The **spiraling science curriculum**—also known as a **spiral curriculum**—is a teaching approach where key scientific concepts are revisited and built upon over time, increasing in complexity with each revisit. This method is particularly valuable in science education for several reasons:

1. Reinforcement of Learning

- Revisiting topics multiple times helps **reinforce prior knowledge**, reducing the likelihood of students forgetting earlier material.
- It encourages **long-term retention** by shifting learning from short-term memorization to deeper understanding.

2. Cognitive Readiness

- Young learners may not be ready to understand abstract scientific concepts fully.
- A spiral curriculum introduces foundational ideas early, then **revisits them when students are cognitively ready** to grasp more complex aspects.

3. Progressive Deepening

- Each return to a topic adds new layers—like moving from understanding the water cycle in basic terms to analyzing weather systems and climate change.
- This helps students **connect concepts across grade levels** and disciplines.

4. Promotes Inquiry and Critical Thinking

- Spiraling encourages students to **ask deeper questions** and explore topics in more nuanced ways as they mature.
- They build scientific thinking progressively, from observation and description to analysis and evaluation.

5. Better Alignment with Real-World Science

- Science in the real world is **not learned all at once**; understanding evolves through continuous inquiry and revisiting ideas.
- A spiral curriculum mirrors this authentic process of learning.

6. Supports Differentiated Learning

- Since students revisit topics at multiple stages, they get **multiple entry points to understanding**.
- This benefits learners who may struggle initially but catch on in later cycles.

In Conclusion, a spiraling science curriculum is crucial for **developing scientific literacy** in a meaningful, developmentally appropriate, and enduring way.

A spiraling science curirculum ensures students **don't just learn science—they understand and apply it** over time.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.

Clarifying Statement: Emphasis is on using a mathematical model of stored energy in biomass to describe the transfer of energy from one trophic level to another and that matter and energy are conserved as matter cycles and energy flows through ecosystems. Emphasis is on atoms and molecules such as carbon, oxygen, hydrogen, and nitrogen being conserved as they move through an ecosystem.

Assessment Boundary: Assessment is limited to proportional reasoning to describe the cycling of matter and flow of energy. *(3.1.9-12.H)*

- Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales.

Clarifying Statement: Emphasis is on quantitative analysis and comparison of the relationships among interdependent factors including boundaries, resources, climate, and competition. Examples of mathematical comparisons could include graphs, charts, histograms, and population changes gathered from simulations or historical data sets.

Assessment Boundary: Assessment does not include deriving mathematical equations to make comparisons. *(3.1.9-12.I)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*
- Society's acceptance of technology directly impacts the built and natural environment. *(BIG.TED.06)*
- The development of technology allows people to design, create, and assess solutions that solve problems. *(BIG.TED.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How will we work toward a common goal to help our team and community internalize new information using an effective medium? *(EQ.STM.01)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

Disciplinary Core Ideas

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 6-8 Disciplinary Core Ideas

- Water continually cycles among land, ocean, and atmosphere via transpiration, evaporation, condensation and crystallization, and precipitation, as well as downhill flows on land. *(DCI.6-8.ESS2.C.1)*
- Typically as human populations and per-capita consumption of natural resources increase, so do the negative impacts on Earth unless the activities and technologies involved are engineered otherwise. *(DCI.6-8.ESS3.C.1)*
- Human activities have significantly altered the biosphere, sometimes damaging or destroying natural habitats and causing the extinction of other species. But changes to Earth's environments can have different impacts (negative and positive) for different living things. *(DCI.6-8.ESS3.C.2)*
- Organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with nonliving factors. *(DCI.6-8.LS2.A.1)*
- In any ecosystem, organisms and populations with similar requirements for food, water, oxygen, or other resources may compete with each other for limited resources, access to which consequently constrains their growth and reproduction. *(DCI.6-8.LS2.A.2)*

Crosscutting Concepts

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Crosscutting Concepts

- Cause and effect relationships can be suggested and predicted for complex natural and human designed systems by examining what is known about smaller scale mechanisms within the system. *(CCC.9-12.C1.1)*
- Empirical evidence is required to differentiate between cause and correlation and make claims about specific causes and effects. *(CCC.9-12.C1.2)*
- Feedback (negative or positive) can stabilize or destabilize a system. *(CCC.9-12.C2.1)*

Momentum

Draft Date	Course	Duration	Grades	Subjects	Team
06-12-2025 @ 04:46	Physics I	7.0 Weeks	11 , 12	Science	John George

Unit Focus

This unit is on momentum, the quantity associated with an object's mass and velocity. This is a useful term in both energy and forces, and is a conserved quantity.

Anchoring Phenomenon

Two cars collide, one being more massive than the other but moving at a slower velocity. Can we predict what will happen to the cars after the collision?

Prior Learnings/Connection

Students have learned in previous units about the concepts of forces, velocity, vectors, and energy. Momentum connects to all of these concepts, being a vector derived from an object's mass and velocity that is used to calculate the energy of an object and the forces that it undergoes in collisions.

Navigation to next lesson/storyline

Momentum is the last of the linear motion that we can learn in this class, and thus we are introduced to the problem of how objects move in circular motion.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): 9-12 Standards ■ Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Design an investigation or model using appropriate tools, resources, and methods. *(T1)* ■ Gather and interpret measurements and data and apply to new situations. *(T2)* ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*

net force on a macroscopic object, its mass, and its acceleration.

Clarifying Statement: Examples of data could include tables or graphs of position or velocity as a function of time for objects subject to a net unbalanced force, such as a falling object, an object sliding down a ramp, or a moving object being pulled by a constant force.

Assessment Boundary: Assessment is limited to one-dimensional motion and to macroscopic objects moving at non-relativistic speeds. *(3.2.9-12.I)*

- Use mathematical representations to support the claim that the total momentum of a system of objects is conserved when there is no net force on the system.

Clarifying Statement: Emphasis is on the quantitative conservation of momentum in interactions and the qualitative meaning of this principle.

Assessment Boundary: Assessment is limited to systems of two macroscopic bodies moving in one dimension. *(3.2.9-12.J)*

- Apply scientific and engineering ideas to design, evaluate and refine a device that minimizes the force on a macroscopic object during a collision.

Clarifying Statement: Examples of

- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Apply mathematical knowledge to analyze and model scenarios using multiple representations and appropriate tools. *(LT.MATH.02)*

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
■ Interactions between any two objects can cause changes in one or both. *(U1)* ■ The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U2)*	■ How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)* ■ How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)* ■ How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Momentum is a vector quantity that all objects in motion have *(K1)* ■ Momentum is the product of an object's mass and velocity *(K2)* ■ The total momentum of a system is conserved *(K3)* ■ Force is defined as the change in an object's momentum over time *(K4)* ■ An object's kinetic energy can be expressed in terms of its momentum *(K5)*	■ calculating the momentum of an object given its mass and velocity *(S1)* ■ predicting the motion of an object when it collides with another object *(S2)* ■ identifying the type of collision that an object undergoes *(S3)* ■ determining the force needed to cause an object to come to a stop if given a time constraint *(S4)*

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evaluation and refinement could include determining the success of the device at protecting an object from damage and modifying the design to improve it. Examples of a device could include a football helmet or a parachute. **Assessment Boundary:** Assessment is limited to qualitative evaluations and/or algebraic manipulations. *(3.2.9-12.K)*	■ an elastic collision is a collision where the total kinetic energy is conserved *(K6)* ■ a perfectly inelastic collision is one where the objects collide and stick together after a collision *(K7)* ■ an inelastic collision is when two objects collide and the total kinetic energy of the system is not conserved, with some of the energy being transferred to the environment in the forms of sound, light, and heat energy. *(K8)*	■ predicting the distance an object will need to travel before it comes to a rest if given the object's initial momentum. *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Ask questions that arise from careful observation of phenomena, or unexpected results, to clarify and/or seek additional information. *(SEP.9-12.P1.A)*
- Ask questions to determine relationships, including quantitative relationships, between independent and dependent variables. *(SEP.9-12.P1.C)*
- Evaluate a question to determine if it is testable and relevant. *(SEP.9-12.P1.E)*
- Define a design problem that involves the development of a process or system with interacting components and criteria and constraints that may include social, technical, and/or environmental considerations. *(SEP.9-12.P1.H)*
- Develop, revise, and/or use a model based on evidence to illustrate and/or predict the relationships between systems or between components of a system. *(SEP.9-12.P2.C)*
- Develop and/or use multiple types of models to provide mechanistic accounts and/or predict phenomena, and move flexibly between model types based on merits and limitations. *(SEP.9-12.P2.D)*
- Make directional hypotheses that specify what happens to a dependent variable when an independent variable is manipulated. *(SEP.9-12.P3.E)*
- Analyze data using tools, technologies, and/or models (e.g., computational, mathematical) in order to make valid and reliable scientific claims or determine an optimal design solution. *(SEP.9-12.P5.A)*
- Apply concepts of statistics and probability (including determining function fits to data, slope, intercept, and correlation coefficient for linear fits) to scientific and engineering questions and problems, using digital tools when feasible. *(SEP.9-12.P5.B)*

- Use mathematical, computational, and/or algorithmic representations of phenomena or design solutions to describe and/or support claims and/or explanations. *(SEP.9-12.P6.B)*
- Apply techniques of algebra and functions to represent and solve scientific and engineering problems. *(SEP.9-12.P6.C)*
- Apply ratios, rates, percentages, and unit conversions in the context of complicated measurement problems involving quantities with derived or compound units (such as mg/mL, kg/m3, acre-feet, etc.). *(SEP.9-12.P6.E)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Newton's second law accurately predicts changes in the motion of macroscopic objects. *(DCI.9-12.PS2.A.1)*
- Momentum is defined for a particular frame of reference; it is the mass times the velocity of the object. *(DCI.9-12.PS2.A.2)*
- If a system interacts with objects outside itself, the total momentum of the system can change; however, any such change is balanced by changes in the momentum of objects outside the system. *(DCI.9-12.PS2.A.3)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Mathematical representations are used to identify certain patterns and analyze patterns of performance in order to reengineer and improve a designed system. *(CCC.9-12.C1.C)*
- Cause and effect relationships can be suggested to explain and predict behaviors in complex natural and designed systems. *(CCC.9-12.C2.B)*
- Algebraic thinking is used to examine scientific data and predict the effect of a change in one variable on another (e.g., linear growth vs. exponential growth). *(CCC.9-12.C3.D)*
- When investigating or describing a system, the boundaries and initial conditions of the system need to be defined. *(CCC.9-12.C4.A)*
- Models (e.g., physical, mathematical, computer models) can be used to simulate systems and interactions—including energy, matter, and information flows—within and between systems at different scales. *(CCC.9-12.C4.B)*
- Models can be used to predict the behavior of a system, but these predictions have limited precision and reliability due to the assumptions and approximations inherent in models. *(CCC.9-12.C4.C)*
- Systems can be designed to cause a desired effect. *(CCC.9-12.C4.D)*
- The total amount of energy and matter in closed systems is conserved. *(CCC.9-12.C5.A)*
- Change and rates of change can be quantified and modeled over very short or very long periods of time. Some system changes are irreversible. *(CCC.9-12.C7.B)*

Vocabulary
momentum
conservation of momentum
inelastic collision
elastic collision
perfectly inelastic collision
impulse
stopping distance

This unit was designed using Eduplanet21 - https://eduplanet21.com/

One-Dimensional Motion

Draft Date	Course	Duration	Grades	Subjects	Team
05-30-2025 @ 01:28	Physics I	6.0 Weeks	11 , 12	Science	John George

Unit Focus

This unit is about one-dimensional motion and the relationship between position, velocity, and acceleration.

Anchoring Phenomenon

Vehicle driving in a straight line from rest, speeding up, slowing down, and then coming to a stop.

Prior Learnings/Connection

Now that students have learned about units and how to convert between them, they will now use these units in a more "real" application. Algebra and pre-algebra skills will be necessary for the math in this unit.

Navigation to next lesson/storyline

Building on the concepts of one-dimensional motion, students will have a strong basis for motion in two dimensions. Before moving to two-dimensional motion, a tangent into trigonometry and vectors will be necessary.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration.

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Gather and interpret measurements and data and apply to new situations. *(T1)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T2)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Clarifying Statement: Examples of data could include tables or graphs of position or velocity as a function of time for objects subject to a net unbalanced force, such as a falling object, an object sliding down a ramp, or a moving object being pulled by a constant force.

Assessment Boundary: Assessment is limited to one-dimensional motion and to macroscopic objects moving at non-relativistic speeds. *(3.2.9-12.I)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Interactions between any two objects can cause changes in one or both. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- how to describe an object's position *(K1)*
- how to describe an object's velocity *(K2)*
- how to describe an object's acceleration *(K3)*
- relate position, velocity, and acceleration of an object using kinematic equations *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- deriving an object's position, velocity, or acceleration based on a set of given criteria using kinematic equations *(S1)*
- selecting which kinematic equation or sets of kinematic equations are best suited to solve for the criteria *(S2)*
- designing an experiment to predict and then measure the acceleration/velocity/change in position of an object *(S3)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Ask questions to determine relationships, including quantitative relationships, between independent and dependent variables. *(SEP.9-12.P1.C)*
- Select appropriate tools to collect, record, analyze, and evaluate data. *(SEP.9-12.P3.D)*

- Make directional hypotheses that specify what happens to a dependent variable when an independent variable is manipulated. *(SEP.9-12.P3.E)*
- Make a quantitative and/or qualitative claim regarding the relationship between dependent and independent variables. *(SEP.9-12.P4.A)*
- Use mathematical, computational, and/or algorithmic representations of phenomena or design solutions to describe and/or support claims and/or explanations. *(SEP.9-12.P6.B)*
- Apply techniques of algebra and functions to represent and solve scientific and engineering problems. *(SEP.9-12.P6.C)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Newton's second law accurately predicts changes in the motion of macroscopic objects. *(DCI.9-12.PS2.A.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Algebraic thinking is used to examine scientific data and predict the effect of a change in one variable on another (e.g., linear growth vs. exponential growth). *(CCC.9-12.C3.D)*
- Models (e.g., physical, mathematical, computer models) can be used to simulate systems and interactions—including energy, matter, and information flows—within and between systems at different scales. *(CCC.9-12.C4.B)*

Vocabulary

position, velocity, speed, acceleration, one-dimensional, kinematic equations, average velocity, instantaneous velocity

Rotational Motion

Draft Date	Course	Duration	Grades	Subjects	Team
06-19-2025 @ 04:08	Physics I	7.0 Weeks	11 , 12	Science	John George

Unit Focus

This unit is all about the motion of an object along a circular path. This includes the motion of objects in orbit as well and objects spinning.

Prior Learnings/Connection

Students will need to recall the properties of vectors for this unit. Furthermore, an understanding of kinematics is necessary as the formulas for rotational kinematics mirror the formulas for linear kinematics. Lastly, understanding forces will be needed to describe the causes of circular mo

Navigation to next lesson/storyline

This unit is intended to be the last unit for the year. However, it easily sets up the first unit for Physics II, Astronomy. Astronomy uses many of the concepts of circular motion.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Forces and Motion *(1111319821)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Analyze and use relevant and appropriate design thinking processes to solve technological and engineering problems. *(3.5.9-12.N)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Gather and interpret measurements and data and apply to new situations. *(T1)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T2)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T3)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T4)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

- Apply a broad range of design skills to a design thinking process. *(3.5.9-12.P)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Interactions between any two objects can cause changes in one or both. *(U1)*
- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U2)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Objects that move along circular paths can be more easily described if we use variables related to rotational motion as opposed to traditional Cartesian variables. *(K1)*
- Rotational kinematics can be used to calculate the motion of an object in a circular path. *(K2)*
- An object moving in a circular path has a tangential velocity and an angular velocity. *(K3)*
- An object moving in a circular path has a centripetal acceleration, and may also

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- predicting the motion of an object moving in a circular path, for example calculating how many revolutions it can make in a second. *(S1)*
- determining the force needed to maintain circular motion for an object. *(S2)*
- identifying which rotational kinematic formula would be best used for any gives problem. *(S3)*
- determining the desired quantity when given a situation involving an object moving in a circular path. *(S4)*

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	have a tangential acceleration and angular acceleration. *(K4)* ■ For an object to maintain circular motion, a centripetal force is needed. *(K5)* ■ There is no such thing as centrifugal force, as this is just inertia. *(K6)*	■ identifying and explaining the causes of circular motion for given scenarios. *(S5)* ■ identifying and explaining the differences between tangential and angular velocity. *(S6)* ■ identifying and explaining the differences between angular acceleration, tangential acceleration, and centripetal acceleration. *(S7)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Ask questions that arise from careful observation of phenomena, or unexpected results, to clarify and/or seek additional information. *(SEP.9-12.P1.A)*
- Ask questions that arise from examining models or a theory to clarify relationships. *(SEP.9-12.P1.B)*
- Ask questions to determine relationships, including quantitative relationships, between independent and dependent variables. *(SEP.9-12.P1.C)*
- Plan an investigation or test a design individually and collaboratively to produce data to serve as the basis for evidence as part of building and revising models, supporting explanations for phenomena, or testing solutions to problems. Consider possible confounding variables or effects and evaluate the investigation's design to ensure variables are controlled. *(SEP.9-12.P3.A)*
- Analyze data using tools, technologies, and/or models (e.g., computational, mathematical) in order to make valid and reliable scientific claims or determine an optimal design solution. *(SEP.9-12.P5.A)*
- Consider limitations of data analysis (e.g., measurement error, sample selection) when analyzing and interpreting data. *(SEP.9-12.P5.C)*
- Use mathematical, computational, and/or algorithmic representations of phenomena or design solutions to describe and/or support claims and/or explanations. *(SEP.9-12.P6.B)*
- Apply techniques of algebra and functions to represent and solve scientific and engineering problems. *(SEP.9-12.P6.C)*
- Use simple limit cases to test mathematical expressions, computer programs, algorithms, or simulations of a process or system to see if a model "makes sense" by comparing the outcomes with what is known about the real world. *(SEP.9-12.P6.D)*
- Apply ratios, rates, percentages, and unit conversions in the context of complicated measurement problems involving quantities with derived or compound units (such as mg/mL, kg/m3, acre-feet, etc.). *(SEP.9-12.P6.E)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Newton's second law accurately predicts changes in the motion of macroscopic objects. *(DCI.9-12.PS2.A.1)*
- Developing Possible Solutions *(DCI.9-12.ETS1.B)*

Technology & Engineering (2023): 9-12 Disciplinary Core Ideas

- Both physical models and computers can be used in various ways to aid in the engineering design process. *(DCI.9-12.ETS1.B.1)*
- When evaluating solutions, it is important to take into account a range of constraints, including cost, safety, reliability, and aesthetics, and to consider social, cultural, and environmental impacts. *(DCI.9-12.ETS1.B.3)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Algebraic thinking is used to examine scientific data and predict the effect of a change in one variable on another (e.g., linear growth vs. exponential growth). *(CCC.9-12.C3.D)*
- When investigating or describing a system, the boundaries and initial conditions of the system need to be defined. *(CCC.9-12.C4.A)*
- Models (e.g., physical, mathematical, computer models) can be used to simulate systems and interactions—including energy, matter, and information flows—within and between systems at different scales. *(CCC.9-12.C4.B)*
- Models can be used to predict the behavior of a system, but these predictions have limited precision and reliability due to the assumptions and approximations inherent in models. *(CCC.9-12.C4.C)*
- Systems can be designed to cause a desired effect. *(CCC.9-12.C4.D)*

Vocabulary

rotational kinematics

angular displacement

angular velocity

angular acceleration

tangential velocity
tangential acceleration
centripetal acceleration
centripetal force

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The Human Body

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 01:54	6th Grade Science	3.0 Weeks	6	Science	Michael Beachy

Unit Focus

An introduction to the human body: major organs, major organ systems and how the major organ systems interact with each other.

Anchoring Phenomenon

What is going on inside M'Kenna's body that is making her feel the way she does?

Prior Learnings/Connection

Cells

Navigation to next lesson/storyline

This unit on the human body starts out with students exploring a real case study of a middle-school girl named M'Kenna, who reported some alarming symptoms to her doctor. Her symptoms included an inability to concentrate, headaches, stomach issues when she eats, and a lack of energy for everyday activities and sports that she used to play regularly. She also reported noticeable weight loss over the past few months, in spite of consuming what appeared to be a healthy diet. Her case sparks questions and ideas for investigations around trying to figure out which pathways and processes in M'Kenna's body might be functioning differently than a healthy system and why. Students investigate data specific to M'Kenna's case. They also explore how food is transported, transformed, stored, and used across different body systems in all people. Through this work of figuring out what is causing M'Kenna's symptoms, the class discovers what happens to the food we eat after it enters our bodies and how M'Kenna's different symptoms are connected.

Stage 1: Learning Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Collect, analyze, and evaluate evidence to support constructing arguments. *(T1)*

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 6-8 Standards

- Use arguments supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.

  Clarifying Statement: Emphasis is on the conceptual understanding that cells form tissues and tissues form organs specialized for particular body functions. Examples could include the interaction of subsystems within a system and the normal functioning of those systems.

  Assessment Boundary: Assessment does not include the mechanism of one body system independent of others. Assessment is limited to the circulatory, excretory, digestive, respiratory, muscular, and nervous systems. *(3.1.6-8.C)*
- Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.

  Clarifying Statement: Emphasis is on describing that molecules are broken apart and put back together and that in this process, energy is released.

  Assessment Boundary: Assessment does
- Design an investigation or model using appropriate tools, resources, and methods. *(T2)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with other organisms and the physical environment *(U1)*
- All organisms are made of cells and can be characterized by common aspects of their structure and functioning. *(U2)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*
- How do the body systems work together to carry out specific functions? *(Q2)*
- How do the parts of the human body work together to carry specific functions? *(Q3)*
- How do body systems within the human body help it survive? *(Q4)*
- What are functions of the major organs of the human body? *(Q5)*
- How are the major organs of the human body related to the organ systems? *(Q6)*
- How can the human body be kept healthy? *(Q7)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Major organs of the human body *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Gathering and synthesizing information *(S1)*

not include details of the chemical reactions for photosynthesis or respiration. *(3.1.6-8.G)* ■ Gather and synthesize information about how sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories. Clarifying Statement: N/A Assessment Boundary: Assessment does not include mechanisms for the transmission of this information. *(3.1.6-8.H)*	■ Functions of major organs in the human body *(K2)* ■ Major organ systems of the human body *(K3)* ■ The synergy of organ systems *(K4)*	■ Analyzing systems *(S2)* ■ Using arguments supported by evidence *(S3)* ■ Developing a model *(S4)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Ask questions that arise from careful observation of phenomena, models, or unexpected results, to clarify and/or seek additional information. *(SEP.6-8.P1.A)*
- Ask questions to identify and/or clarify evidence and/or the premise(s) of an argument. *(SEP.6-8.P1.B)*
- Ask questions that challenge the premise(s) of an argument or the interpretation of a data set. *(SEP.6-8.P1.G)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- In multicellular organisms, the body is a system of multiple interacting subsystems. These subsystems are groups of cells that work together to form tissues and organs that are specialized for particular body functions. *(DCI.6-8.LS1.A .3)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Systems may interact with other systems; they may have sub-systems and be a part of larger complex systems. *(CCC.6-8.C4.A)*

Vocabulary
cell
organ
organ system
digestive system
circulatory system
nervous system
immune system
excretory system
respiratory system
muscular system
endocrine system

This unit was designed using Eduplanet21 - https://eduplanet21.com/

The Science of Physics

Draft Date	Course	Duration	Grades	Subjects	Team
05-22-2025 @ 04:31	Physics I	5.0 Weeks	11 , 12	Science	John George

Unit Focus

An introduction to the SI unit system, dimensional analysis, experimental measurements, trigonometry, and significant figures.

Anchoring Phenomenon

Moving to Europe and adjusting to a whole new system of measurements.

Prior Learnings/Connection

Geometry

Algebra

Scientific Method

Navigation to next lesson/storyline

With the creation of the International System of Units in the 19th century, scientists had a standardized system with which to talk about measurement. With the ability to convert between different unit systems, units, and unit magnitudes, students will be equipped to talk about measuring actual one-dimensional and two-dimensional motion. Furthermore, the understanding of the scientific method will allow students to construct experiments to answer questions based on observed quantities in one and two dimensional motion.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Technology & Engineering (2023): 9-12 Technology & Engineering

- Analyze and use relevant and appropriate design thinking processes to solve technological and engineering problems. *(3.5.9-12.N)*
- Apply a broad range of design skills to a design thinking process. *(3.5.9-12.P)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Interactions between any two objects can cause changes in one or both. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Quantities in science are expressed in terms of *units (K1)*
- Equivalent Units can be interchanged through a process called *dimensional analysis (K2)*
- Science is an iterative and well-defined process of refinement to gain knowledge *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- identifying the correct units for specific measurements *(S1)*
- converting between equivalent units from Imperial to Metric or different representations in Metric *(S2)*
- creating theories based on the observation of phenomena *(S3)*

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	■ Science uses the International System of Units *(K4)* ■ A theory is an explanation for an observed phenomenon *(K5)* ■ A law is an observation of a process or even in nature that accurately describes or predicts the phenomenon *(K6)* ■ The difference between precision and accuracy *(K7)* ■ How to represent numbers in scientific notation *(K8)* ■ How to report data collected in significant figures *(K9)* ■ How to manipulate significant figures in calculations *(K10)*	■ designing and conducting an experiment to test theories based on observation and measurement *(S4)* ■ identifying the differences between accuracy and precision *(S5)* ■ reporting measurements in Significant Figures, as well as doing math with Significant Figures *(S6)* ■ using scientific notation in mathematics *(S7)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Analyze data using tools, technologies, and/or models (e.g., computational, mathematical) in order to make valid and reliable scientific claims or determine an optimal design solution. *(SEP.9-12.P5.A)*
- Apply ratios, rates, percentages, and unit conversions in the context of complicated measurement problems involving quantities with derived or compound units (such as mg/mL, kg/m3, acre-feet, etc.). *(SEP.9-12.P6.E)*

Disciplinary Core Ideas

Pennsylvania STEELS

Technology & Engineering (2023): 9-12 Disciplinary Core Ideas

- Analyze cultural, social, economic, or political changes (separately or together) that may be triggered by the transfer of a specific technology from one society to another. Include both anticipated and unanticipated effects. *(DCI.9-12.NAEP.T.12.4)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Mathematical representations are used to identify certain patterns and analyze patterns of performance in order to reengineer and improve a designed system. *(CCC.9-12.C1.C)*
- Algebraic thinking is used to examine scientific data and predict the effect of a change in one variable on another (e.g., linear growth vs. exponential growth). *(CCC.9-12.C3.D)*

Vocabulary

units, dimensional analysis, laws, theories, significant figures, imperial system of units, metric system, international system of units, scientific method, scientific notation, accuracy, precision, phenomenon

Two-Dimensional Motion and Vectors

Draft Date	Course	Duration	Grades	Subjects	Team
06-09-2025 @ 07:27	Physics I	7.0 Weeks	11 , 12	Science	John George

Unit Focus

This unit describes how the motion of an object can be predicted in two dimensions using vectors, trigonometry, and kinematic equations

Anchoring Phenomenon

Robin Hood and the Archery Contest

Based on the story of Robin Hood, we will learn how to predict the path Robin Hood's arrow will take given some information on the starting conditions.

Prior Learnings/Connection

Now that students have learned how to describe the motion of an object in one dimension, we will use this as a basis to describe the motion of an object in two dimensions. This will require recalling information from geometry, and so we will spend time reviewing those concepts before getting into the main topic of the unit.

Navigation to next lesson/storyline

Now that students are able to describe the path that objects take in two dimensions, they are equipped to learn what is the cause of motion is: Force. Students will be asked to brainstorm at first what they think the cause of motion is and see if they can derive an answer from base principles.

Stage 1: Learning Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Gather and interpret measurements and data and apply to new situations. *(T1)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration.

  Clarifying Statement: Examples of data could include tables or graphs of position or velocity as a function of time for objects subject to a net unbalanced force, such as a falling object, an object sliding down a ramp, or a moving object being pulled by a constant force.

  Assessment Boundary: Assessment is limited to one-dimensional motion and to macroscopic objects moving at non-relativistic speeds. *(3.2.9-12.I)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Analyze and use relevant and appropriate design thinking processes to solve technological and engineering problems. *(3.5.9-12.N)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T2)*
- Utilize critical thinking, problem-solving, creativity & innovation, communication, and collaboration. *(LT.STM.06)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Interactions between any two objects can cause changes in one or both. *(U1)*
- Mathematical relationships can be represented, modeled, compared, and communicated in various situations to allow for inquiry-based solutions. *(BIG.MATH.01)*
- Information can be modeled and used to make inferences. *(BIG.MATH.03)*
- Quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies, units, and tools. *(BIG.MATH.02)*
- Patterns exhibit relationships that can be described, extended, and generalized. *(BIG.MATH.05)*
- Spatial and visual relationships can be analyzed, described, and classified in order to evaluate situations and solve problems. *(BIG.MATH.04)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How can data be organized and represented to provide insight into the relationship between quantities? *(EQ.MATH.02.B)*
- How can mathematical quantities and relationships be used to solve, model and/or analyze mathematical situations? *(EQ.MATH.02.A)*
- How precise do measurements and calculations need to be? *(EQ.MATH.02.E)*
- How can patterns be used to describe relationships in mathematics? *(EQ.MATH.05.A)*

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Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Vectors are mathematical quantities that have both a magnitude and a direction *(K1)* ■ Displacement, velocity, and acceleration are all vectors *(K2)* ■ When describing the motion of an object in more than one dimensions, we must use a combination of techniques involving vectors, trigonometry, and kinematic equations to solve for desired values. *(K3)* ■ Sine, cosine, and tangent can all be used to relate the lengths of the sides of a triangle to the angles of a triangle, which can then be applied to our vectors (or vice-versa). *(K4)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Analyzing a vector and determining its angle and magnitude *(S1)* ■ Finding the x- and y-components of a given vector if given its angle and magnitude, or vice-versa. *(S2)* ■ using the knowledge of the x- and y-components of a vector to make predictions of an object's motion *(S3)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Ask questions that arise from careful observation of phenomena, or unexpected results, to clarify and/or seek additional information. *(SEP.9-12.P1.A)*
- Plan an investigation or test a design individually and collaboratively to produce data to serve as the basis for evidence as part of building and revising models, supporting explanations for phenomena, or testing solutions to problems. Consider possible confounding variables or effects and evaluate the investigation's design to ensure variables are controlled. *(SEP.9-12.P3.A)*
- Make a quantitative and/or qualitative claim regarding the relationship between dependent and independent variables. *(SEP.9-12.P4.A)*
- Use mathematical, computational, and/or algorithmic representations of phenomena or design solutions to describe and/or support claims and/or explanations. *(SEP.9-12.P6.B)*

- Apply techniques of algebra and functions to represent and solve scientific and engineering problems. *(SEP.9-12.P6.C)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Newton's second law accurately predicts changes in the motion of macroscopic objects. *(DCI.9-12.PS2.A.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Mathematical representations are used to identify certain patterns and analyze patterns of performance in order to reengineer and improve a designed system. *(CCC.9-12.C1.C)*
- Changes in systems may have various causes that may not have equal effects. *(CCC.9-12.C2.D)*
- Using the concept of orders of magnitude allows one to understand how a model at one scale relates to a model at another scale. *(CCC.9-12.C3.C)*
- Algebraic thinking is used to examine scientific data and predict the effect of a change in one variable on another (e.g., linear growth vs. exponential growth). *(CCC.9-12.C3.D)*
- When investigating or describing a system, the boundaries and initial conditions of the system need to be defined. *(CCC.9-12.C4.A)*

Vocabulary

vector, sine, cosine, tangent, angle, component, magnitude

Atomic Theory

Draft Date	Course	Duration	Grades	Subjects	Team
04-15-2025 @ 03:20	Chemistry	30.0 Day(s)	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Atomic History, Atomic Structure, Matter, Elements, Periodic Table Layout

What are some similarities and differences between the different classifications of matter?

What are the changes that matter can undergo?

What is the basis for the study of matter?

How would you describe the structure of an atom?

Where does the mass on the periodic table come from?

How is the periodic table used to classify elements?

Anchoring Phenomenon

Demonstrate a chemical reaction. Show students the indicators that a chemical reaction has taken place: energy change, precipitate, effervescence, color change. How did scienctists use this evidence to discover what was happening at the atomic level?

Prior Learnings/Connection

Scientists made the switch from qualitative to quantitative observations in order to discover the structure of the atom. Quantitative observations show more about the results of an investigation and are able to put numbers to what is happening. Once the switch was made, early chemists were able to express their observations more effectively to prove their theories of the structure of the atom.

Navigation to next lesson/storyline

Throughout history, chemistry was not thoroughly researched due to the fact that the human eye cannot see things at the atomic level. Scientists developed current laboratory procedures by attempting to discover the answers to scientific questions and studying

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pseudoscience. Real chemistry discoveries were able to occur after proving the pseudoscience incorrect and beginning the process of quantitative observation. Scientists were able to analyze the properties of matter and explain the structure of an atom leading to the creation of the periodic table. The structure of the atomic nucleus explains some atomic properties but stops short of explaining how elements interact. This explanation come from the study and understanding of the electronic structure of the atom.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.

  Clarifying Statement: Examples of properties that could be predicted from patterns could include reactivity of metals, types of bonds formed, numbers of bonds formed, and reactions with oxygen.

  Assessment Boundary: Assessment is limited to main group elements. Assessment does not include quantitative understanding of ionization energy beyond relative trends. *(3.2.9-12.A)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Conduct research to inform intentional inventions and innovations that address specific needs and wants. *(3.5.9-12.S)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Gather and interpret measurements and data and apply to new situations. *(T1)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T2)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T3)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*

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- Apply principles of human-centered design. *(3.5.9-12.V)*
- Recognize and explain how their community and the world around them informs technological development and engineering design. *(3.5.9-12.Z)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- matter is classified as either a mixture or a pure substance. *(K1)*
- physical changes do not change the identity of a substances while chemical changes do. *(K2)*
- the four indicators of a chemical change are effervescence, precipitate, color change, energy change. *(K3)*
- all elements in the known universe are contained on the periodic table organized in rows and columns. *(K4)*
- elements are either metals, nonmetals, or metalloids. *(K5)*
- atoms were first thought of during ancient times but modern discoveries were not made until the eighteenth century due to pseudoscience. *(K6)*
- scientific discoveries led to the discovery of the electron, then proton, then neutron. *(K7)*
- modern atomic structure is governed by quantum mechanics. *(K8)*
- changing the number of electrons in an atom results in an ion. *(K9)*
- changing the number of neutrons in an atom results in an isotope. *(K10)*
- average atomic mass is calculated by taking the weighted average of all isotopes of an element. *(K11)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- describing the behavior of matter at the atomic and molecular level. *(S1)*
- decribing the difference between a mixture and a pure substance. *(S2)*
- comparing and contrasting physical and chemical changes. *(S3)*
- explaining the set up of the periodic table. *(S4)*
- describing the characteristics of the elements. *(S5)*
- identifying the events that led to the discovery of the atom. *(S6)*
- citing evidence used to create today's atomic model. *(S7)*
- comparing early atomic theory to modern atomic theory. *(S8)*
- applying the structure of an atom to information given in the periodic table. *(S9)*
- describing what occurs when atoms gain or lose electrons. *(S10)*
- describing how to calculate average atomic mass. *(S11)*

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Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Develop, revise, and/or use a model based on evidence to illustrate and/or predict the relationships between systems or between components of a system. *(SEP.9-12.P2.C)*

Technology & Engineering (2023): 9-12 Science & Engineering Practices

- Design, evaluate, and/or refine a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and trade-off considerations. *(SEP.9-12.P2.2)*
- Compare, integrate and evaluate sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a scientific question or solve a problem. *(SEP.9-12.P5.2)*
- Gather, read, and evaluate scientific and/or technical information from multiple authoritative sources, assessing the evidence and usefulness of each source. *(SEP.9-12.P5.3)*

Technology & Engineering (2023): 9-12 Technology & Engineering Practices

- Assesses technological products, systems, and processes through critical analysis of their impacts and outcomes. *(TEP.9-12.A.1)*
- Elaborates and articulates novel ideas and aesthetics. *(TEP.9-12.D.1)*
- Uses evidence to better understand and solve problems in technology and engineering, including applying computational thinking. *(TEP.9-12.E.1)*
- Designs and troubleshoots technological systems in ways that consider the multiple components of the system. *(TEP.9-12.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Each atom has a charged substructure consisting of a nucleus, which is made of protons and neutrons, surrounded by electrons. *(DCI.9-12.PS1.A.1)*
- The periodic table orders elements horizontally by the number of protons in the atom's nucleus and places those with similar chemical properties in columns. The repeating patterns of this table reflect patterns of outer electron states. *(DCI.9-12.PS1.A.2)*
- Electric and magnetic (electromagnetic) forces can be attractive or repulsive, and their sizes depend on the magnitudes of the charges, currents, or magnetic strengths involved and on the distances between the interacting objects. *(DCI.9-12.PS2.B.1)*

Technology & Engineering (2023): 9-12 Disciplinary Core Ideas

- Criteria and constraints also include satisfying any requirements set by society, such as taking issues of risk mitigation into account, and they should be quantified to the extent possible and stated in such a way that one can tell if a given design meets them. *(DCI.9-12.ETS1.A.1)*
- Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions. *(DCI.9-12.ISTE.3D)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Different patterns may be observed at each of the scales at which a system is studied and can provide evidence for causality in explanations of phenomena. *(CCC.9-12.C1.A.1)*

Vocabulary

matter, mass, physical change, chemical change, proton, neutron, electron, atom, mixture, heterogeneous, homogeneous, element, period, family, atomic number, average atomic mass, mass number, nuclide, cation, anion, isotope

Conservation and Sustainability

Draft Date	Course	Grades	Subjects	Team
05-14-2025 @ 05:46	Ecology	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Human Impacts, Pollution, Conservation, Water Quality, Environmental Justice

Stage 1: Learning Goals

Established Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

Matter and Energy

Draft Date	Course	Grades	Subjects	Team
10-11-2024 @ 01:03	Biology	9 , 10 , 11 , 12	Science	Kaela Piechowicz , Josh Korb

Unit Focus

What causes fires in ecosystems to burn, and how should we manage them? This unit is designed to help students build a deeper understanding of the flow of matter and energy within ecosystems and the cycling of carbon on a global scale due to increased fires. Students read about mysterious arctic fires popping up near the burn scars of old fires and do a visual inquiry to obtain more information about what is happening with matter and energy in these arctic fire systems.

Anchoring Phenomenon

fires are burning under ice and snow in the Arctic. Scientists in Alaska discovered burn scars from fires appearing very close to each other, and that spring fires were starting very early in the year. Locals discovered smoke emerging from under the snow and ice in Yakutia. Siberia. At the same time, scientists and local people noticed changes in the permafrost. It was thawing, cracking, and falling apart. Once living things that had been trapped in ice for thousands of years became exposed to air and warmth. As these overwinter, or zombie fires burn, scientists measured massive amounts of carbon dioxide and other gasses being released into the atmosphere. This phenomenon provides the context in which to investigate the relationship between matter and energy within smaller-scale systems, ecosystems, and global-scale systems.

The zombie fire phenomenon was chosen from a group of phenomena aligned with the target performance expectations based on the results of a survey administered to almost 3,000 students from across the country and in consultation with external advisory panels that include teachers, subject matter experts, and state science administrators. The zombie fire phenomenon was chosen for the following reasons

Prior Learnings/Connection

- Scientific Investigations Use a Variety of Methods. Science investigations use diverse methods and do not always use the same set of procedures to obtain data.
- Scientific Knowledge is Based on Empirical Evidence. Science knowledge is based on empirical evidence.
- Scientific Knowledge is Open to Revision in Light of New Evidence. Most scientific knowledge is quite durable but is, in principle, subject to change based on new evidence and/or reinterpretation of existing evidence.
- Scientific Knowledge Assumes an Order and Consistency in Natural Systems. Scientific knowledge is based on the assumption that natural laws operate today as they did in the past and they will continue to do so in the future.

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- Science is a Human Endeavor. Science and engineering are influenced by society and society is influenced by science and engineering.

Navigation to next lesson/storyline

Students will first investigate what is happening when zombie fires burn in the peat/permafrost system, what peat/permafrost is, why there is so much peat, and how there can be so many plants in the Arctic that could become peat. They will then apply their new ideas about the matter and energy flow in the peat/permafrost system to other fire-vulnerable carbon sinks and then to the global effects of increased carbon due to fires. The unit culminates by instilling hope in students through investigations of successful fire management and designing a system for fire management in a community they care about

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.

  Clarifying Statement: Emphasis is on illustrating inputs and outputs of matter and the transfer and transformation of energy in photosynthesis by plants and other photosynthesizing organisms. Examples of models could include diagrams, chemical equations, and conceptual models.

  Assessment Boundary: Assessment does not include specific biochemical steps. *(3.1.9-12.E)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T1)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Gather and interpret measurements and data and apply to new situations. *(T4)*
- Design an investigation or model using appropriate tools, resources, and methods. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How and why do organisms interact with their environment and what are the effects of these interactions? *(EQ.SCI.LIFE.02)*

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- Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.

  Clarifying Statement: Emphasis is on using evidence from models and simulations to support explanations.

  Assessment Boundary: Assessment does not include the details of specific chemical reactions or identification of macromolecules. *(3.1.9-12.F)*
- Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.

  Clarifying Statement: Emphasis is on using a mathematical model of stored energy in biomass to describe the transfer of energy from one trophic level to another and that matter and energy are conserved as matter cycles and energy flows through ecosystems. Emphasis is on atoms and molecules such as carbon, oxygen, hydrogen, and nitrogen being conserved as they move through an ecosystem.

  Assessment Boundary: Assessment is limited to proportional reasoning to describe the cycling of matter and flow of energy. *(3.1.9-12.H)*

other organisms and the physical environment *(U1)*

- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*
- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Sources of carbon in the ecosystem *(K1)*
- Cellular respiration *(K2)*
- Photosynthesis *(K3)*
- Energy transformations *(K4)*
- Climate human impacts on flow of energy *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Explain puzzling observations using energy and matter concepts. *(S1)*
- Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy. *(S2)*
- Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules. *(S3)*
- Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed, resulting in a net transfer of energy. *(S4)*
- Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions. *(S5)*

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- Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales.

  Clarifying Statement: Emphasis is on quantitative analysis and comparison of the relationships among interdependent factors including boundaries, resources, climate, and competition. Examples of mathematical comparisons could include graphs, charts, histograms, and population changes gathered from simulations or historical data sets.

  Assessment Boundary: Assessment does not include deriving mathematical equations to make comparisons. *(3.1.9-12.I)*
- Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.

  Clarifying Statement: Emphasis is on conceptual understanding of the role of aerobic and anaerobic respiration in different environments.

  Assessment Boundary: Assessment does not include the specific chemical processes of either aerobic or anaerobic respiration. *(3.1.9-12.J)*
- Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable

- Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem. *(S6)*
- Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere. *(S7)*
- Develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere. *(S8)*
- Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. *(S9)*

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conditions, but changing conditions may result in a new ecosystem.

Clarifying Statement: Examples of changes in ecosystem conditions could include modest biological or physical changes, such as moderate hunting or a seasonal flood; and extreme changes, such as volcanic eruption or sea level rise.

Assessment Boundary: N/A *(3.1.9-12.M)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. *(3.5.9-12.Y)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Construct and revise an explanation based on valid and reliable evidence obtained from a variety of sources (including students' own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future. *(SEP.9-12.P4.B)*
- Design, evaluate, and/or refine a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and tradeoff considerations. *(SEP.9-12.P4.E)*
- Apply concepts of statistics and probability (including determining function fits to data, slope, intercept, and correlation coefficient for linear fits) to scientific and engineering questions and problems, using digital tools when feasible. *(SEP.9-12.P5.B)*
- Create and/or revise a computational model or simulation of a phenomenon, designed device, process, or system. *(SEP.9-12.P6.A)*
- Evaluate the claims, evidence, and/or reasoning behind currently accepted explanations or solutions to determine the merits of arguments. *(SEP.9-12.P7.B)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Natural selection occurs only if there is both (1) variation in the genetic information between organisms in a population and (2) variation in the expression of that genetic information—that is, trait variation—that leads to differences in performance among individuals. *(DCI.9-12.LS4.B.1)*
- The traits that positively affect survival are more likely to be reproduced, and thus are more common in the population. *(DCI.9-12.LS4.B.2)*
- Evolution is a consequence of the interaction of four factors: (1) the potential for a species to increase in number, (2) the genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for an environment's limited supply of the resources that individuals need in order to survive and reproduce, and (4) the ensuing proliferation of those organisms that are better able to survive and reproduce in that environment. *(DCI.9-12.LS4.C.1)*
- Natural selection leads to adaptation, that is, to a population dominated by organisms that are anatomically, behaviorally, and physiologically well suited to survive and reproduce in a specific environment. That is, the differential survival and reproduction of organisms in a population that have an advantageous heritable trait leads to an increase in the proportion of individuals in future generations that have the trait and to a decrease in the proportion of individuals that do not. Adaptation also means that the distribution of traits in a population can change when conditions change. *(DCI.9-12.LS4.C.2)*
- Changes in the physical environment, whether naturally occurring or human induced, have thus contributed to the expansion of some species, the emergence of new distinct species as populations diverge under different conditions, and the decline–and sometimes the extinction–of some species. *(DCI.9-12.LS4.C.3)*
- Natural selection leads to adaptation, that is, to a population dominated by organisms that are anatomically, behaviorally, and physiologically well suited to survive and reproduce in a specific environment. That is, the differential survival and reproduction of organisms in a population that have an advantageous heritable trait leads to an increase in the proportion of individuals in future generations that have the trait and to a decrease in the proportion of individuals that do not. *(DCI.9-12.LS4.C.4)*
- Species become extinct because they can no longer survive and reproduce in their altered environment. If members cannot adjust to change that is too fast or drastic, the opportunity for the species' evolution is lost. *(DCI.9-12.LS4.C.5)*
- Humans depend on the living world for the resources and other benefits provided by biodiversity. But human activity is also having adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change. Thus sustaining biodiversity so that ecosystem functioning and productivity are maintained is essential to supporting and enhancing life on Earth. Sustaining biodiversity also aids humanity by preserving landscapes of recreational or inspirational value. *(DCI.9-12.LS4.D.2)*
- When evaluating solutions it is important to take into account a range of constraints including cost, safety, reliability and aesthetics and to consider social, cultural and environmental impacts. *(DCI.9-12.ETS1.B.1)*
- Both physical models and computers can be used in various ways to aid in the engineering design process. Computers are useful for a variety of purposes, such as running simulations to test different ways of solving a problem or to see which one is most efficient or economical; and in making a persuasive presentation to a client about how a given design will meet his or her needs. *(DCI.9-12.ETS1.B.2)*

- Criteria may need to be broken down into simpler ones that can be approached systematically, and decisions about the priority of certain criteria over others (trade-offs) may be needed. *(DCI.9-12.ETS1.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Different patterns may be observed at each of the scales at which a system is studied and can provide evidence for causality in explanations of phenomena. *(CCC.9-12.C1.A.1)*
- Empirical evidence is required to differentiate between cause and correlation and make claims about specific causes and effects. *(CCC.9-12.C2.A)*

Vocabulary

Atmosphere
Biosphere
Carbon sink
Consumer
Cultural burn
Decomposer
Energy
Eutrophication
Hydrosphere
Matter
Photosynthesis
(Positive) feedback effect
Prescribed burn
Producer

Module 2: Matter Properties

Draft Date	Course	Duration	Grades	Subjects	Team
05-15-2025 @ 06:37	5th Grade Science	15.0 Lesson(s)	5	Science	SYSTEM USER , CHRISTY KLEMICK , KIMBERLY METZGER , Brooke Fry , Tori Berwager

Unit Focus

Water is essential for all living things, leading many cultures to proclaim, “Water Is Life.” In this unit, students investigate natural water systems to determine whether they are healthy or unhealthy, considering different species' needs and exploring ways to improve water quality. Students begin by analyzing four water samples (Lake, Pool, Metallic, and Rain Water) and creating models to explain what might make them healthy or unhealthy. They observe properties to identify materials in the water and design a filter to remove visible contaminants. However, they realize that some unhealthy particles remain. To further purify the water, students explore heating methods. They test boiling and analyze second-hand data, discovering that boiling works for only one sample. They then investigate solar stills as another separation method, but the process proves slow. Looking at large-scale solutions, students research water treatment methods and experiment with adding substances to remove contaminants. Finally, students apply their knowledge of science and engineering to design solutions for a real-world water issue, with opportunities to address local concerns. Through hands-on investigation, they develop strategies to improve water quality for different purposes.

Anchoring Phenomenon

The anchoring phenomenon for this unit is determining if different types of water are healthy or unhealthy and how the unhealthy waters could become healthy again. Students are presented with five simulated samples of water: Lake Water, Pool Water, Rusty Water, Rain Water, and Drinking Water. Each of the first four samples contains a soluble and insoluble substance, which students will work over the course of the unit to remove or change to be more healthy, for a purpose that can be determined by students. As a localizable unit, you are encouraged to, if possible, add a sixth water sample from a source that is local and significant to your students such as a school water fountain or a nearby beach, pond, or lake. Students are also encouraged to explore their relationships with water as well as relationships that other cultures and living things have with the water that surrounds us all. Students investigate what it means for water to be healthy and for whom it is healthy. Students learn that our observations and measurements of matter (like the water samples) are known as properties, and the properties can help to identify materials that are present in the water samples. Students will also explore and engineer ways for water that is unhealthy to become healthy again such as filtering, heating slowly and quickly, or adding a substance. Throughout the unit, students are encouraged to consider the importance of having healthy water available and the implications of when healthy water is not accessible.

Prior Learnings/Connection

Students will bring a variety of personal experiences, curiosities, and observations that will support their learning in this unit and help them make connections between classroom investigations and the real world. Their prior knowledge about matter—including its properties, weight, and conservation—will be expanded as they explore how materials can be identified and changed through physical and chemical processes. Many students will have experiences with filtering, whether through everyday activities or prior science lessons, which will serve as a foundation for understanding water treatment and designing their own filters. Experiences with chemical reactions, such as mixing household items like baking soda and vinegar, will also be used to deepen their understanding of substances and their interactions. Throughout the unit, students will build on their ability to plan and carry out investigations, moving from simply conducting experiments to thoughtfully designing, analyzing, and improving them. Additionally, students' understanding of cause and effect relationships, grounded in their everyday experiences, will be further developed as they examine how changes in materials and design choices influence outcomes in their scientific investigations.

Navigation to next lesson/storyline

Click the following link to access the Module 2: Matter Properties storyline. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): 5 Standards ■ Make and communicate observations and measurements to identify materials based on their properties. **Clarifying Statement:** Examples of materials to be identified could include baking soda and other powders, metals, minerals, and liquids. Examples of properties could include color, hardness, reflectivity, electrical conductivity, thermal conductivity, response to magnetic forces,	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Design an investigation or model using appropriate tools, resources, and methods. *(T1)* ■ Gather and interpret measurements and data and apply to new situations. *(T2)* ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)* ■ Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)* ■ Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)* ■ Utilize critical thinking, problem-solving, creativity & innovation, communication, and collaboration. *(LT.STM.06)* ■ Develop grit, persistence, self-discipline, pride, responsibility and safety. *(LT.STM.05)* ■ Engage in authentic hands-on experiences related to industrial and technological practices and procedures. *(LT.STM.04)*

and solubility; density is not intended as an identifiable property.

Assessment Boundary: Assessment does not include density or distinguishing mass and weight. *(3.2.5.B)*

- Interpret and analyze data to make decisions about how to utilize materials based on their properties.

Clarifying Statement: N/A

Assessment Boundary: N/A *(3.2.5.C)*

- Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.

Clarifying Statement: Examples of reactions or changes could include phase changes, dissolving, and mixing that form new substances.

Assessment Boundary: Assessment does not include distinguishing mass and weight. *(3.2.5.D)*

- Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

Clarifying Statement: N/A

Assessment Boundary: N/A *(3.2.5.E)*

- Obtain and combine information about ways individual communities use science

- Understand, use, apply, and evaluate technology to become productive members of society. *(LT.TED.01)*
- Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)*
- Demonstrate proficient communication and application of industry-standard practices. *(LT.TED.03)*
- Assess the impact technology and engineering has on their own lives, their community, the society, and the environment. *(LT.TED.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U1)*
- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U2)*
- Interactions between any two objects can cause changes in one or both. *(U3)*
- Meeting the desired objectives for creation requires choosing the appropriate tools, soliciting and giving feedback, and clearly communicating with the intended audience. *(U4)*
- The deliberate cyclical design process of generating ideas, testing theories, and creating innovative artifacts builds problem solving skills. *(U5)*
- By analyzing perspectives and curating information from digital resources,

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we decide which platform or tool is appropriate to solve real-world problems? *(EQ.STM.03.A)*
- How do we solve problems to persevere through a task? *(EQ.STM.04)*
- How does technology impact other fields of study? *(EQ.TED.01)*
- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*
- How can technology be improved through the use of the engineering design process? *(EQ.TED.04)*
- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

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ideas to protect the Earth's resources and environment.

Clarifying Statement: N/A

Assessment Boundary: N/A *(3.3.5.E)*

Technology & Engineering (2023): 3-5 Technology & Engineering

- Use appropriate symbols, numbers, and words to communicate key ideas about technological products and systems. *(3.5.3-5.A)*
- Examine information to assess the trade-offs to using a product or system. *(3.5.3-5.B)*
- Follow directions to complete a technological task. *(3.5.3-5.C)*
- Explain why responsible use of technology requires sustainable management of resources. *(3.5.3-5.E)*
- Classify resources used to create technologies as either renewable or nonrenewable. *(3.5.3-5.F)*
- Design solutions by safely using tools, materials, and skills. *(3.5.3-5.I)*
- Explain how technologies are developed or adapted when individual or societal needs and wants change. *(3.5.3-5.J)*
- Judge technologies to determine the best one to use to complete a given task or meet a need. *(3.5.3-5.K)*
- Demonstrate how tools and machines extend human capabilities, such as holding, lifting, carrying, fastening, separating, and computing. *(3.5.3-5.L)*

complex, interdisciplinary, and real-world problems can be solved. *(U6)*

- Technology impacts core concepts, characteristics, and relationships between all fields of study. *(BIG.TED.01)*
- The development of technology allows people to design, create, and assess solutions that solve problems. *(BIG.TED.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Properties of materials (such as color, hardness, solubility, magnetism, conductivity, etc.) can be used to identify substances. *(K1)*
- Matter is conserved when it changes form—whether through heating, cooling, or mixing. *(K2)*
- Mixing substances may result in the formation of new substances with different properties. *(K3)*
- Water quality is determined by its physical and chemical properties and its impact on different organisms and uses. *(K4)*
- Technology and engineering solutions can be used to address water quality issues, and trade-offs and constraints are part of design processes. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Making observations and measurements to identify materials based on their properties. *(S1)*
- Graphing and analyzing data to show conservation of matter during physical and chemical changes. *(S2)*
- Planning and conducting investigations to determine if new substances form when materials are combined. *(S3)*
- Designing, building, and improving water filters or treatment systems using the engineering design process. *(S4)*
- Evaluating solutions based on criteria and constraints (effectiveness, efficiency, feasibility). *(S5)*
- Using models, written explanations, and peer feedback to support scientific claims and improve designs. *(S6)*

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- Demonstrate essential skills of the engineering design process. *(3.5.3-5.M)*
- Identify why a product or system is not working properly. *(3.5.3-5.N)*
- Describe requirements of designing or making a product or system. *(3.5.3-5.O)*
- Evaluate the strengths and weaknesses of existing design solutions, including their own solutions. *(3.5.3-5.P)*
- Practice successful design skills. *(3.5.3-5.Q)*
- Apply tools, techniques, and materials in a safe manner as part of the design process. *(3.5.3-5.R)*
- Illustrate that there are multiple approaches to design. *(3.5.3-5.S)*
- Apply universal principles and elements of design. *(3.5.3-5.T)*
- Evaluate designs based on criteria, constraints, and standards. *(3.5.3-5.U)*
- Describe the properties of different materials. *(3.5.3-5.W)*
- Explain how various relationships can exist between technology and engineering and other content areas. *(3.5.3-5.X)*
- Create a new product that improves someone's life. *(3.5.3-5.Z)*
- Differentiate between the role of scientists, engineers, technologists, and others in creating and maintaining technological systems. *(3.5.3-5.HH)*

- Human impact and resource use affect natural systems and the environment. *(K6)*

- Communicating findings clearly through multiple formats, including data tables, diagrams, and presentations. *(S7)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 3 Science & Engineering Practices

- Represent data in tables and various graphical displays (bar graphs and pictographs) to reveal patterns that indicate relationships. *(SEP.3-5.P5.B)*

Science (2023): 5 Science & Engineering Practices

- Make observations and measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon. *(SEP.3-5.P3.B)*
- Conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered. *(SEP.3-5.P3.D)*
- Measure and graph quantities such as weight to address scientific and engineering questions and problems. *(SEP.3-5.P6.C.1)*

Technology & Engineering (2023): 3-5 Science & Engineering Practices

- Analyze data to refine a problem statement or the design of a proposed object, tool, or process. *(SEP.3-5.P1.1)*
- Use evidence (e.g., measurements, observations, patterns) to construct or support an explanation or design a solution to a problem. *(SEP.3-5.P2.1)*
- Construct and/or support an argument with evidence, data, and/or a model. *(SEP.3-5.P4.1)*
- Respectfully provide and receive critiques from peers about a proposed procedure, explanation, or model by citing relevant evidence and posing specific questions. *(SEP.3-5.P4.2)*
- Distinguish among facts, reasoned judgment based on research findings, and speculation in an explanation. *(SEP.3-5.P4.3)*
- Communicate scientific and/or technical information orally and/or in written formats, including various forms of media as well as tables, diagrams, and charts. *(SEP.3-5.P5.1)*
- Obtain and combine information from books and/or other reliable media to explain phenomena or solutions to a design problem. *(SEP.3-5.P5.3)*
- Compare and/or combine across complex texts and/or other reliable media to support the engagement in other scientific and/or engineering practices. *(SEP.3-5.P5.4)*
- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered. *(SEP.3-5.P6.1)*

Technology & Engineering (2023): 3-5 Technology & Engineering Practices

- Explains ethical dilemmas involving technology, such as tradeoffs. *(TEP.3-5.A.1)*
- Works in small groups to complete design-based projects. *(TEP.3-5.B.1)*
- Develops written and oral communication skills. *(TEP.3-5.C.1)*

- Tries new technologies and generates strategies for improving existing ideas. *(TEP.3-5.D.1)*
- Knows how to find answers to technological questions. *(TEP.3-5.E.1)*
- Safely uses grade-appropriate tools, materials, and processes to build projects. *(TEP.3-5.F.1)*
- Engages in "tinkering" to improve a design. *(TEP.3-5.G.1)*
- Provides examples of how human-designed products are connected. *(TEP.3-5.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 5 Disciplinary Core Ideas

- Measurements of a variety of properties can be used to identify materials. (Boundary: At this grade level, mass and weight are not distinguished, and no attempt is made to define the unseen particles or explain the atomicscale mechanism of evaporation and condensation.) *(DCI.5.PS1.A.2)*
- Measurements of a variety of properties can be used to identify materials. *(DCI.5.PS1.A.3)*
- The amount (weight) of matter is conserved when it changes form, even in transitions in which it seems to vanish. *(DCI.5.PS1.A.4)*
- No matter what reaction or change in properties occurs, the total weight of the substances does not change. *(DCI.5.PS1.B.1)*
- When two or more different substances are mixed, a new substance with different properties may be formed. *(DCI.5.PS1.B.2)*

Technology & Engineering (2023): 3-5 Disciplinary Core Ideas

- Energy and fuels that humans use are derived from natural sources, and their use affects the environment in multiple ways. Some resources are renewable over time, and others are not. *(DCI.3-5.ESS3.A.1)*
- Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments. *(DCI.3-5.ESS3.C.1)*
- Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. *(DCI.3-5.ETS1.A.1)*
- At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. *(DCI.3-5.ETS1.B.1)*
- Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. *(DCI.3-5.ETS1.B.2)*
- Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. *(DCI.3-5.ETS1.B.3)*
- Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints. *(DCI.3-5.ETS1.C.1)*
- Matter of any type can be subdivided into particles that are too small to see, but even then the matter still exists and can be detected by other means. A model showing that gases are made from matter particles that are too small to see and are moving freely around in

space can explain many observations, including the inflation and shape of a balloon and the effects of air on larger particles or objects. *(DCI.3-5.PS1.A.1)*

- Science is the systematic investigation of the natural world. Technology is any modification of the environment to satisfy people's needs and wants. Engineering is the process of creating or modifying technologies and is constrained by physical laws and cultural norms, and economic resources. *(DCI.3-5.NAEP.D.8.1)*
- Engineering design is a systematic and creative process for meeting challenges. Often there are several solutions to a design challenge. Each one might be better in some way than the others. For example, one solution might be safer, while another might cost less. *(DCI.3-5.NAEP.D.4.6)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 5 Crosscutting Concepts

- Cause and effect relationships are routinely identified and used to explain change. *(CCC.3-5.C2.A)*
- Standard units are used to measure and describe physical quantities such as weight, time, temperature, and volume. *(CCC.3-5.C3.B)*

Vocabulary

Tier 2 Vocabulary: mixture, property, constraint, criteria, evidence, optimize, substance

Tier 3 Vocabulary: particle, solar still, water treatment

Module 2: Structure & Properties of Matter

Draft Date	Course	Duration	Grades	Subjects	Team
03-31-2025 @ 01:40	2nd Grade Science	10.0 Lesson(s)	2	Science	Jessica Smith , Lindsay Feeser

Unit Focus

Have you ever stopped playing with a toy because it did not interest you anymore? At the beginning of the unit, students learn that they have the opportunity to add new toys to their classroom. Students use the engineering design process to design and build a new toy for their classroom as well as for a kindergarten classroom. They begin by exploring toys and what it means to use engineering to solve problems and make things better. To inform their toy designs, students plan and carry out investigations to determine the properties of different materials, the purpose of those properties, and how materials can change when disassembling, reassembling, heating, or cooling. Students then find out that kindergartners want new toys for their classroom too! They continue their engineering design by interviewing kindergartners to determine the needs for the toy design. Students build on what they figured out about materials, properties, and how materials can change, to build, test, gather peer feedback, and revise the toys they are making for the kindergartners. Finally, students give their toys to the kindergarteners to enjoy!

Anchoring Phenomenon



This unit was designed using Eduplanet21 - https://eduplanet21.com/

In this Anchoring Phenomenon lesson, we read a book about toys around the world. We share noticings and wonderings about how we would play with the toys and what they are made of. We begin building a toy for ourclassroom. We discover we need to learn more about other objects that we could use to improve our toys. The anchoring phenomenon for this unit is investigating how a toy can be made out of a set of classroom materials. It is not uncommon for children to get bored or grow out of old toys. In this unit, second grade students use the engineering design process to design, build, test, and revise a new toy for their classroom. They use materials provided by their teacher and/or reuse materials from home and/or around the school. In Lesson 7 students find out that the kindergartners would also like new toys for their classroom. Students interview the kindergarteners to find out what types of toys they like to play with and then work with a partner to apply the science ideas from the first part of the unit and the engineering process to build a kindergartner a new toy.

Prior Learnings/Connection

In kindergarten and first grade, students develop foundational physical science concepts through hands-on exploration and investigation. They experiment with pushes and pulls, exploring how force affects an object's speed and direction. They also observe how sunlight impacts Earth's surface and design solutions to reduce its warming effects. In first grade, their understanding expands to include the relationship between sound and vibration, as well as how light interacts with different materials. These early experiences prepare second graders to explore more complex concepts of motion, energy, and the properties of materials by building on their skills in observation, experimentation, and problem-solving.

Navigation to next lesson/storyline

Click the following link to access the Module 2 Storyline: Structure & Properties of Matter. This document outlines the lesson sequence, including investigations, material testing, and engineering design challenges to help students create and refine their own toy prototypes.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): 2 Standards ■ Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. **Clarifying Statement:** Observations could	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Understand, use, apply, and evaluate technology to become productive members of society. *(LT.TED.01)* ■ Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)* ■ Design an investigation or model using appropriate tools, resources, and methods. *(T3)* ■ Gather and interpret measurements and data and apply to new situations. *(T4)*

include color, texture, hardness, and flexibility. Patterns could include the similar properties that different materials share.

Assessment Boundary: N/A *(3.2.2.A)*

- Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.

Clarifying Statement: Examples of properties could include, strength, flexibility, hardness, texture, and absorbency.

Assessment Boundary: Assessment of quantitative measurements is limited to length. *(3.2.2.B)*

- Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.

Clarifying Statement: Examples of pieces could include blocks, building bricks, or other assorted small objects.

Assessment Boundary: N/A *(3.2.2.C)*

- Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.

Clarifying Statement: Examples of reversible changes could include materials such as water and butter at different

- Collect, analyze, and evaluate evidence to support constructing arguments. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U1)*
- Interactions between any two objects can cause changes in one or both. *(U2)*
- The built environment is created by humans who understand and utilize energy, information, communication, manufacturing, and construction technologies. *(BIG.TED.05)*
- Technology can be improved by using the engineering design process to re-evaluate and troubleshoot. *(BIG.TED.04)*
- The development of technology allows people to design, create, and assess solutions that solve problems. *(BIG.TED.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*
- How can technology be improved through the use of the engineering design process? *(EQ.TED.04)*
- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Materials have different properties that determine their uses. *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Investigating and classifying materials based on their properties. *(S1)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

temperatures. Examples of irreversible changes could include cooking an egg, freezing a plant leaf, and heating paper.

Assessment Boundary: N/A *(3.2.2.D)*

Technology & Engineering (2023): K-2 Technology & Engineering

- Describe qualities of everyday products. *(3.5.K-2.B)*
- Explain the needs and wants of individuals and societies. *(3.5.K-2.H)*
- Compare simple technologies to evaluate their impacts. *(3.5.K-2.I)*
- Demonstrate essential skills of the engineering design process. *(3.5.K-2.M)*
- Analyze how things work. *(3.5.K-2.N)*
- Illustrate that there are different solutions to a design and that none are perfect. *(3.5.K-2.O)*
- Draw connections between technology and human experience. *(3.5.K-2.R)*
- Apply design concepts, principles, and processes through play and exploration. *(3.5.K-2.S)*
- Demonstrate that designs have requirements. *(3.5.K-2.T)*
- Explain that design is a response to wants and needs. *(3.5.K-2.U)*
- Apply concepts and skills from technology and engineering activities that reinforce concepts and skills across multiple areas. *(3.5.K-2.W)*
- Develop a plan in order to complete a task. *(3.5.K-2.X)*

- Objects can be taken apart and reassembled into new objects. *(K2)*
- Heating and cooling can cause reversible or irreversible changes. *(K3)*
- Technology and engineering solve problems and impact daily life. *(K4)*
- Designs must meet requirements and address needs. *(K5)*
- Systems have parts that work together to achieve a goal. *(K6)*
- Anyone can create and improve designs. *(K7)*

- Analyzing data to determine the best materials for a purpose. *(S2)*
- Observing and explaining how objects can be changed and reused. *(S3)*
- Using evidence to explain reversible and irreversible changes. *(S4)*
- Evaluating and improving simple technologies. *(S5)*
- Applying the engineering design process to solve problems. *(S6)*
- Planning and testing different design solutions. *(S7)*

- Illustrate how systems have parts or components that work together to accomplish a goal. *(3.5.K-2.Z)*
- Demonstrate that creating can be done by anyone. *(3.5.K-2.AA)*

Technology & Engineering (2023): K-2 Technology & Engineering Practices

- Learns to share technological products and ideas. *(TEP.K-2.B.1)*
- Learns that humans have many ways to communicate. *(TEP.K-2.C.1)*
- Learns that humans create products and ways of doing things. *(TEP.K-2.D.1)*
- Engages in listening, questioning, and discussing. *(TEP.K-2.E.1)*
- Learns to use tools and materials to accomplish a task. *(TEP.K-2.F.1)*
- Sees opportunities for making technologies better. *(TEP.K-2.G.1)*
- Learns that human-designed things are connected. *(TEP.K-2.H.1)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 2 Science & Engineering Practices

- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. *(SEP.K-2.P3.B)*
- Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. *(SEP.K-2.P4.A.1)*
- Analyze data from tests of an object or tool to determine if it works as intended. *(SEP.K-2.P5.E)*
- Construct an argument with evidence to support a claim. *(SEP.K-2.P7.F)*

Technology & Engineering (2023): K-2 Science & Engineering Practices

- Analyze data from tests of an object or tool to determine if it works as intended. *(SEP.K-2.P1.1)*
- Ask questions based on observations to find more information about the natural and/or designed world(s). *(SEP.K-2.P2.1)*
- Define a simple problem that can be solved through the development of a new or improved object or tool. *(SEP.K-2.P2.2)*

- Use tools and/or materials to design and/or build a device that solves a specific problem or a solution to a specific problem. *(SEP.K-2.P3.1)*
- Generate and/or compare multiple solutions to a problem. *(SEP.K-2.P3.2)*
- Develop and/or use a model to represent amounts, relationships, relative scales (bigger, smaller), and/or patterns in the natural and designed world(s). *(SEP.K-2.P4.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 2 Disciplinary Core Ideas

- Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties. *(DCI.2.PS1.A.1)*
- Different properties are suited to different purposes. *(DCI.2.PS1.A.2)*
- A great variety of objects can be built up from a small set of pieces. *(DCI.2.PS1.A.3)*
- Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not. *(DCI.2.PS1.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 2 Crosscutting Concepts

- Patterns in the natural world can be observed. *(CCC.K-2.C1.A)*
- Events have causes that generate observable patterns. *(CCC.K-2.C2.A)*
- Simple tests can be designed to gather evidence to support or refute student ideas about causes. *(CCC.K-2.C2.B)*
- Objects may break into smaller pieces and be put together into larger pieces, or change shapes. *(CCC.K-2.C5.A)*
- The shape and stability of structures of natural and designed objects are related to their function(s). *(CCC.K-2.C6.A)*

Vocabulary

Unit Specific Vocabulary: engineer, flexible, materials, property, strength, texture, assembly, disassemble , reversible, irreversible

Tier 2 Vocabulary: claims, evidence, pattern, model, argumentation, feedback, revise

Module 2: Weather

Draft Date	Course	Duration	Grades	Subjects	Team
04-02-2025 @ 02:47	Kindergarten Science	10.0 Lesson(s)	K	Science	Jessica Smith , Emily Stambaugh , Ashley Small

Unit Focus

Have you ever wondered what the weather is like so you can get ready to go outside and be comfortable? This unit begins with a shared experience of observing what it looks and feels like outside and a discussion of how we got ready and were (or were not) comfortable outside. Students' noticings and questions about different weather conditions lead them to make and use data collection tools to observe temperature, cloud cover, rain and/or snow amounts, and wind speed. As they look across class data, they use counting tools such as tally charts to identify consensus observations, which they record on a class Weather Calendar. In the middle of the unit, students use the data they have collected over time to identify patterns and describe what the weather is usually like. Building on these patterns, students read about how meteorologists use weather patterns to make weather forecasts, and that sometimes these forecasts are for severe (unsafe) weather. Students then obtain information about how we can prepare and respond to severe weather to keep ourselves and others safe, and create Community Service Announcements to communicate what they have figured out.

Anchoring Phenomenon



This unit was designed using Eduplanet21 - https://eduplanet21.com/

The anchoring phenomenon for this unit is how and why we prepare for local weather conditions. Although local weather conditions are not a singular event, weather is a natural occurrence that students can observe and investigate, working to figure out how various weather conditions cause us to prepare to stay safe and comfortable.

Prior Learnings/Connection

Kindergarten students can connect this unit to their daily experiences with weather, such as noticing if it's sunny, rainy, or cold and choosing what to wear based on the conditions. They may have observed seasonal changes, like snow in winter or leaves falling in autumn, and heard adults check the weather forecast. Additionally, students may recall times when severe weather, like thunderstorms, affected their plans, helping them understand why weather predictions are important for staying safe.

Navigation to next lesson/storyline

Click the following link to access the Module 2: Weather Storyline. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): K Standards ■ Use and share observations of local weather conditions to describe patterns over time. **Clarifying Statement:** Examples of qualitative observations could include descriptions of the weather (such as sunny, cloudy, rainy, and warm); examples of quantitative observations could include numbers of sunny, windy, and rainy days in a month. Examples of patterns could include that it is usually cooler in the	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Design an investigation or model using appropriate tools, resources, and methods. *(T1)* ■ Gather and interpret measurements and data and apply to new situations. *(T2)* ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)* ■ Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*

morning than in the afternoon and the number of sunny days versus cloudy days in different months.

Assessment Boundary: Assessment of quantitative observations limited to whole numbers and relative measures such as warmer/cooler. *(3.3.K.A)*

- Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.

Clarifying Statement: Emphasis is on local forms of severe weather.

Assessment Boundary: N/A *(3.3.K.D)*

Technology & Engineering (2023): K-2 Technology & Engineering

- Identify and use everyday symbols. *(3.5.K-2.A)*
- Explain the tools and techniques that people use to help them do things. *(3.5.K-2.G)*
- Safely use tools to complete tasks. *(3.5.K-2.K)*
- Explain that materials are selected for use because they possess desirable properties and characteristics. *(3.5.K-2.V)*

Technology & Engineering (2023): K-2 Technology & Engineering Practices

- Learns that humans have many ways to communicate. *(TEP.K-2.C.1)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*
- The Earth's processes affect and are affected by human activities. *(U2)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How and why is Earth constantly changing? *(EQ.SCI.EARTH.02)*
- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Weather is a combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. *(K1)*
- Weather conditions can be measured and recorded to describe patterns over time. *(K2)*
- Some kinds of severe weather are more likely than others in a given region. *(K3)*
- Weather scientists (meteorologists) forecast severe weather so communities can prepare and respond. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Making observations of local weather conditions and describing them using qualitative (sunny, rainy, warm) and quantitative (number of sunny days per month) descriptions. *(S1)*
- Identifying patterns in weather conditions over time (e.g., cooler in the morning, more sunny days in summer). *(S2)*
- Asking questions to gather information about weather forecasting and its role in preparing for severe weather. *(S3)*
- Using media and texts to obtain scientific information about weather and patterns in the natural world. *(S4)*

■ Engages in listening, questioning, and discussing. *(TEP.K-2.E.1)* ■ Learns to use tools and materials to accomplish a task. *(TEP.K-2.F.1)*	■ Patterns in weather can be observed and used as evidence to understand climate trends. *(K5)*	■ Recognizing cause-and-effect relationships between weather events and their impacts on people. *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): K Science & Engineering Practices

- Ask questions based on observations to find more information about the designed world. *(SEP.K-2.P1.A)*
- Read grade-appropriate texts and/or use media to obtain scientific to determine patterns in the natural world. *(SEP.K-2.P8.A)*

Technology & Engineering (2023): K-2 Science & Engineering Practices

- Analyze data from tests of an object or tool to determine if it works as intended. *(SEP.K-2.P1.1)*
- Define a simple problem that can be solved through the development of a new or improved object or tool. *(SEP.K-2.P2.2)*
- Use tools and/or materials to design and/or build a device that solves a specific problem or a solution to a specific problem. *(SEP.K-2.P3.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): K Disciplinary Core Ideas

- Some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events. *(DCI.K.ESS3.B.1)*
- Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. *(DCI.K.ESS2.D.1)*
- Asking questions, making observations, and gathering information are helpful in thinking about problems. *(DCI.K.EST1.A.2)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): K Crosscutting Concepts

- Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. *(CCC.K-2.C1.B)*
- Events have causes that generate observable patterns. *(CCC.K-2.C2.B)*

Vocabulary

Unit Specific Vocabulary (Tier 3): meteorologist, temperature, thermometer, cloudy, partly cloudy, sunny, blizzard, extreme heat, flood, hurricane, severe weather, thunderstorm, tornado, weather forecast, rain, snow, wind

Tier 2 Vocabulary: observations, claim, evidence, pattern, cause, effect, communicate

Module 2: Weather & Hazards

Draft Date	Course	Duration	Grades	Subjects	Team
04-02-2025 @ 02:04	3rd Grade Science	12.0 Lesson(s)	3	Science	Jessica Smith , Jill Lerew

Unit Focus

At the start of the unit, students reflect on their favorite fruits and examine school menus to explore how these fruits are available year-round. They ask, How can we get these fruits all year at our school? Through investigations, students analyze precipitation and temperature data to determine where and when fruits grow best. Using weather patterns and climate data, they predict where other fruits and vegetables might thrive. They gather evidence to support an argument for how apples, bananas, and oranges remain available throughout the year. Later, students shift focus to how storms can damage fruit plants. They research weather-related hazards and explore engineering solutions to protect crops. By designing, building, and testing windbreaks, they collect data on effectiveness. Finally, they evaluate multiple designs and use evidence to argue for the best windbreak solutions, applying their findings to help address real-world weather challenges.

Anchoring Phenomenon



This unit was designed using Eduplanet21 - https://eduplanet21.com/

The anchoring phenomenon for this unit is observations from school lunch menus, showing that students can get apples, oranges, and bananas throughout the year. Students also contribute personal stories and experiences with fruits they and their families enjoy throughout the year. Fruits and other plants are commonly associated with important cultural experiences or special events. Where fruits can grow, based on local weather and climate factors, and when they are available is an everyday phenomenon that students may not have considered before. For farmers and gardeners, it is central to deciding what to grow in a place, how to grow it, and when to harvest and sell it. Weather and climate heavily influence these decisions. Only some crops grow well in certain regions or times of the year, and weather patterns can influence how farmers and gardeners care for their plants to maximize production. Growing and harvesting crops also influences the local culture and economy. Gardening and farming are widespread practices among communities, including hobbyists and gardeners growing potted plants, patio gardens, small backyard gardens, and family farms. Large-scale crop industries are also in and around communities and significantly impact culture, community, and economy. It is for all these reasons that this anchoring phenomenon makes the everyday phenomena of getting fruits and vegetables all year, all the more phenomenal.

The unit also has a second related anchoring phenomenon, hazardous weather affecting fruit plants. Weather-related hazards are a key problem that farmers and gardeners must deal with to protect crops and minimize damage. Weather-related hazards also impact the price and availability of fruits and other food crops. During the second anchoring phenomenon, students observe storm damage to fruit trees that motivates an engineering design challenge in the latter half of the unit. Investigating where and how crops are impacted by hazardous weather develops not only an understanding of the science behind food cultivation and protection, but also an appreciation for this influential part of our lives.

Prior Learnings/Connection

In K-2, students build foundational knowledge about weather and the environment through direct observation and basic data collection. They learn to recognize and describe weather conditions (e.g., sunny, rainy, cloudy) and seasonal changes, focusing on patterns in temperature and precipitation. Students also explore the basic needs of plants and animals, understanding how weather and seasons affect living organisms. By the end of second grade, they are familiar with simple weather phenomena and can observe changes in the environment, setting the stage for deeper exploration in later grades.

Navigation to next lesson/storyline

Click the following link to access the Module 2: Weather & Hazards. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 3 Standards

- Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.

  Clarifying Statement: Examples of data could include average temperature, precipitation, and wind direction.

  Assessment Boundary: Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change. *(3.3.3.A)*
- Obtain and combine information to describe climates in different regions of the world.

  Clarifying Statement: N/A

  Assessment Boundary: N/A *(3.3.3.B)*
- Make a claim supported by evidence about the merit of a design solution that reduces the impacts of a weather-related hazard.

  Clarifying Statement: Examples of design solutions to weather-related hazards could include barriers to prevent flooding, wind

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*
- Assess the impact technology and engineering has on their own lives, their community, the society, and the environment. *(LT.TED.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*
- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U2)*
- The built environment is created by humans who understand and utilize energy, information, communication,

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does technology impact other fields of study? *(EQ.TED.01)*
- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*
- How can technology be improved through the use of the engineering design process? *(EQ.TED.04)*
- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

resistant roofs, and lightning rods.

Assessment Boundary: N/A *(3.3.3.C)*

Technology & Engineering (2023): 3-5 Technology & Engineering

- Judge technologies to determine the best one to use to complete a given task or meet a need. *(3.5.3-5.K)*
- Evaluate the strengths and weaknesses of existing design solutions, including their own solutions. *(3.5.3-5.P)*
- Practice successful design skills. *(3.5.3-5.Q)*
- Illustrate that there are multiple approaches to design. *(3.5.3-5.S)*
- Apply universal principles and elements of design. *(3.5.3-5.T)*

manufacturing, and construction technologies. *(BIG.TED.05)*

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*
- How and why is Earth constantly changing? *(EQ.SCI.EARTH.02)*
- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding weather patterns and how to represent them (e.g., temperature, precipitation, wind direction). *(K1)*
- Understanding the difference between weather and climate. *(K2)*
- Recognizing how human activities can influence or be influenced by weather and climate patterns. *(K3)*
- Understanding the impact of natural hazards and how to design technological solutions to reduce their impact. *(K4)*
- Recognizing that data can be used to make predictions and construct evidence-based arguments. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Collecting and interpreting weather data through graphical displays (e.g., bar graphs, pictographs). *(S1)*
- Evaluating and proposing design solutions to mitigate weather-related hazards. *(S2)*
- Engaging in argumentation based on evidence to justify design decisions. *(S3)*
- Applying the engineering design process to improve or create solutions to weather-related problems. *(S4)*
- Using scientific data to predict weather patterns and the impact of natural hazards. *(S5)*
- Collaborating in groups to combine information from different sources and communicate findings effectively. *(S6)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 3 Science & Engineering Practices

- Represent data in tables and various graphical displays (bar graphs and pictographs) to reveal patterns that indicate relationships. *(SEP.3-5.P5.B)*
- Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem. *(SEP.3-5.P7.F)*
- Obtain and combine information from books and other reliable media to explain phenomena. *(SEP.3-5.P8.C)*

Technology & Engineering (2023): 3-5 Science & Engineering Practices

- Use evidence (e.g., measurements, observations, patterns) to construct or support an explanation or design a solution to a problem. *(SEP.3-5.P2.1)*
- Respectfully provide and receive critiques from peers about a proposed procedure, explanation, or model by citing relevant evidence and posing specific questions. *(SEP.3-5.P4.2)*

Technology & Engineering (2023): 3-5 Technology & Engineering Practices

- Explains ethical dilemmas involving technology, such as tradeoffs. *(TEP.3-5.A.1)*
- Tries new technologies and generates strategies for improving existing ideas. *(TEP.3-5.D.1)*
- Knows how to find answers to technological questions. *(TEP.3-5.E.1)*
- Safely uses grade-appropriate tools, materials, and processes to build projects. *(TEP.3-5.F.1)*
- Engages in “tinkering” to improve a design. *(TEP.3-5.G.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 3 Disciplinary Core Ideas

- Scientists record patterns of the weather across different times and areas so that they can make predictions about what kind of weather might happen next. *(DCI.3.ESS2.D.1)*
- Climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over years. *(DCI.3.ESS2.D.2)*
- A variety of natural hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts. *(DCI.3.ESS3.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 3 Crosscutting Concepts

- Patterns of change can be used to make predictions. *(CCC.3-5.C1.B)*
- Cause and effect relationships are routinely identified, tested, and used to explain change. *(CCC.3-5.C2.A2)*

Vocabulary

Unit Specific Vocabulary (Tier 3): weather, growing season, life cycle, reproduction, temperature, precipitation, thermometer, climate, forecast, meteorologist

Tier 2 Vocabulary: investigation, claim, evidence, pattern, predict, argument, model, fair test

Module 3 - Chemical Reactions

Draft Date	Grades	Subjects	Team
10-14-2024 @ 12:45	8	Science	Kami Greenawalt , Josh Korb

Stage 1: Learning Goals

Established Goals	Transfer	
	Long-Term Transfer Goals	
	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...	
	Meaning	
	Big Ideas	**Essential Questions**
	What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...
	Acquisition of Knowledge & Skill	
	Knowledge	**Skills**
	What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

Module 3 - Chemical Reactions

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 12:49	8th Grade Science	5.0 Weeks	8	Science	Kami Greenawalt , Josh Korb

Unit Focus

Students will be able to identify evidence of chemical reactions, explain how substances combine or break apart to form new substances with different properties, use the periodic table to predict element behavior in reactions, balance chemical equations, and explore the role of energy in chemical reactions.

Anchoring Phenomenon

Steel Wool and Explanation of Mass.

Prior Learnings/Connection

Students have previously learned that all matter is made of atoms and that substances can be mixed or changed through physical processes. They have explored basic properties of matter, including states of matter and conservation of mass during physical changes. This unit builds on those foundations by introducing chemical changes, where substances are transformed into new materials, and by using the periodic table as a tool to predict how elements interact, connecting prior concepts of matter and energy to the deeper structure and behavior of atoms in chemical reactions.

Navigation to next lesson/storyline

Having explored how substances change and how energy is involved in chemical reactions, students are now ready to investigate how energy also plays a vital role in motion and forces. In Module 4, they will extend their understanding of energy by examining how it transfers and transforms through physical systems, using phenomena like Newton's Cradle to explore the laws of motion, force interactions, and conservation of energy in the physical world.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 6-8 Environmental Literacy & Sustainability

- Gather, read, and synthesize information from multiple sources to investigate how Pennsylvania environmental issues affect Pennsylvania's human and natural systems. *(3.4.6-8.D)*
- Collect, analyze, and interpret environmental data to describe a local environment. *(3.4.6-8.E)*
- Construct an explanation that describes regional environmental conditions and their implications on environmental justice and social equity. *(3.4.6-8.I)*

Science (2023): 6-8 Standards

- Gather and make sense of information to describe how synthetic materials come from natural resources and impact society.

  Clarifying Statement: Emphasis is on natural resources that undergo a chemical process to form the synthetic material. Examples of new materials could include new medicine, foods, and alternative fuels.

  Assessment Boundary: Assessment is limited to qualitative information. *(3.2.6-8.C)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T2)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T3)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U1)*
- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U2)*
- Interactions between any two objects can cause changes in one or both. *(U3)*
- Technology can be improved by using the engineering design process to re-evaluate and troubleshoot. *(BIG.TED.04)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How can technology be improved through the use of the engineering design process? *(EQ.TED.04)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

- Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.

  Clarifying Statement: Examples of reactions could include burning sugar or steel wool, fat reacting with sodium hydroxide, and mixing zinc with hydrogen chloride.

  Assessment Boundary: Assessment is limited to analysis of the following properties: density, melting point, boiling point, solubility, flammability, and odor. *(3.2.6-8.D)*
- Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved.

  Clarifying Statement: Emphasis is on law of conservation of matter and on physical models or drawings, including digital forms, that represent atoms.

  Assessment Boundary: Assessment does not include the use of atomic masses, balancing symbolic equations, or intermolecular forces. *(3.2.6-8.E)*
- Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.

  Clarifying Statement: Emphasis is on the

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know... ■ The characteristics of chemical reactions, including observable evidence such as gas production, color change, and temperature change. *(K1)* ■ The difference between physical and chemical changes. *(K2)* ■ The concept of reactants and products in a chemical equation. *(K3)* ■ The Law of Conservation of Mass and how it applies to chemical reactions. *(K4)* ■ The role of energy in chemical reactions, distinguishing between endothermic and exothermic processes. *(K5)* ■ How to classify different types of chemical reactions such as synthesis, decomposition, single replacement, and double replacement. *(K6)* ■ The function of catalysts and inhibitors in reaction rates. *(K7)* ■ The role of acids, bases, and pH in chemical processes. *(K8)* ■ How to identify the difference between natural and synthetic resources. *(K9)*	**What discrete skills and processes should students be able to use? Students will be skilled at...** ■ Identifying and describing evidence of chemical reactions. *(S1)* ■ Classifying chemical reactions based on observable characteristics. *(S2)* ■ Measuring and calculating mass before and after reactions to demonstrate the Law of Conservation of Mass. *(S3)* ■ Using the periodic table to predict element behavior in chemical reactions. *(S4)* ■ Carrying out investigations to explore reaction rates and energy changes. *(S5)* ■ Communicating findings through lab reports, presentations, and class discussions. *(S6)* ■ Gather and make sense of information to describe how synthetic materials are derived from natural resources and effect society *(S7)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

design, controlling the transfer of energy to the environment, and modification of a device using factors such as type and concentration of a substance. Examples of designs could involve chemical reactions such as dissolving ammonium chloride or calcium chloride.

Assessment Boundary: Assessment is limited to the criteria of amount, time, and temperature of substance in testing the device. *(3.2.6-8.F)*

Technology & Engineering (2023): 6-8 Technology & Engineering

- Examine the ways that technology can have both positive and negative effects at the same time. *(3.5.6-8.I)*
- Consider historical factors that have contributed to the development of technologies and human progress. *(3.5.6-8.CC)*
- Explain how technology and engineering are closely linked to creativity, which can result in both intended and unintended innovations. *(3.5.6-8.KK)*

Science and Engineering Practices

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 6-8 Science & Engineering Practices

- Analyze and interpret data to determine similarities and differences in findings. *(SEP.6-8.P1.1)*
- Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence. *(SEP.6-8.P6.1)*

Science (2023): 6-8 Science & Engineering Practices

- Develop a model to describe unobservable mechanisms. *(SEP.6-8.P2.F)*
- Undertake a design project, engaging in the design cycle, to construct and/or implement a solution that meets specific design criteria and constraints. *(SEP.6-8.P4.G)*
- Analyze and interpret data to determine similarities and differences in findings. *(SEP.6-8.P5.G)*
- Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence. *(SEP.6-8.P8.C)*

Technology & Engineering (2023): 6-8 Science & Engineering Practices

- Define a design problem that can be solved through the development of an object, tool, process or system and includes multiple criteria and constraints, including scientific knowledge that may limit possible solutions. *(SEP.6-8.P2.1)*
- Critically read scientific texts adapted for classroom use to determine the central ideas and/or obtain scientific and/or technical information to describe patterns in and/or evidence about the natural and designed world(s). *(SEP.6-8.P6.2)*
- Communicate scientific and/or technical information (e.g., about a proposed object, tool, process, system) in writing and/or through oral presentations. *(SEP.6-8.P6.3)*

Technology & Engineering (2023): 6-8 Technology & Engineering Practices

- Shows an understanding of ways to regulate technologies and the reasons for doing so. *(TEP.6-8.A.1)*
- Defends technological decisions based on evidence. *(TEP.6-8.E.1)*
- Exhibits safe, effective ways of producing technological products, systems, and processes. *(TEP.6-8.F.1)*
- Critiques technological products and systems to identify areas of improvement. *(TEP.6-8.G.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 6-8 Disciplinary Core Ideas

- Weather and climate are influenced by interactions involving sunlight, the ocean, the atmosphere, ice, landforms, and living things. These interactions vary with latitude, altitude, and local and regional geography, all of which can affect oceanic and atmospheric flow patterns. *(DCI.6-8.ESS2.D.1)*
- Human activities have significantly altered the biosphere, sometimes damaging or destroying natural habitats and causing the extinction of other species. But changes to Earth's environments can have different impacts (negative and positive) for different living things. *(DCI.6-8.ESS3.C.2)*
- Organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with nonliving factors. *(DCI.6-8.LS2.A.1)*

- Ecosystems are dynamic in nature; their characteristics can vary over time. Disruptions to any physical or biological component of an ecosystem can lead to shifts in all its populations. *(DCI.6-8.LS2.C.1)*
- Changes in biodiversity can influence humans' resources, such as food, energy, and medicines, as well as ecosystem services that humans rely on—for example, water purification and recycling. *(DCI.6-8.LS4.D.1)*

Science (2023): 6-8 Disciplinary Core Ideas

- Each pure substance has characteristic physical and chemical properties (for any bulk quantity under given conditions) that can be used to identify it. *(DCI.6-8.PS1.A.6)*
- Substances react chemically in characteristic ways. In a chemical process, the atoms that make up the original substances are regrouped into different molecules, and these new substances have different properties from those of the reactants. *(DCI.6-8.PS1.B.1)*
- The total number of each type of atom is conserved, and thus the mass does not change. *(DCI.6-8.PS1.B.2)*
- Some chemical reactions release energy, others store energy. *(DCI.6-8.PS1.B.3)*

Technology & Engineering (2023): 6-8 Disciplinary Core Ideas

- Models of all kinds are important for testing solutions. *(DCI.6-8.ETS1.B.1)*
- A solution needs to be tested, and then modified on the basis of the test results, in order to improve it. *(DCI.6-8.ETS1.B.3)*
- The iterative process of testing the most promising solutions and modifying what is proposed on the basis of the test results leads to greater refinement and ultimately to an optimal solution. *(DCI.6-8.ETS1.C.1)*
- Although one design may not perform the best across all tests, identifying the characteristics of the design that performed the best in each test can provide useful information for the redesign process—that is, some of those characteristics may be incorporated into the new design. *(DCI.6-8.ETS1.C.2)*
- Technological systems are designed to achieve goals. They incorporate various processes that transform inputs into outputs. They all use energy in some form. These processes may include feedback and control. *(DCI.6-8.NAEP.D.8.11)*
- Describe and analyze positive and negative impacts on society from the introduction of a new or improved technology, including both expected and unanticipated effects. *(DCI.6-8.NAEP.T.8.3)*

Crosscutting Concepts

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 6-8 Crosscutting Concepts

- Cause and effect relationships may be used to predict phenomena in natural or designed systems. *(CCC.6-8.C1.1)*
- Patterns in rates of change and other numerical relationships can provide information about natural systems. *(CCC.6-8.C2.1)*
- Small changes in one part of a system might cause large changes in another part. *(CCC.6-8.C3.1)*

Science (2023): 6-8 Crosscutting Concepts

- Macroscopic patterns are related to the nature of microscopic and atomic-level structure. *(CCC.6-8.C1.A)*

- Matter is conserved because atoms are conserved in physical and chemical processes. *(CCC.6-8.C5.A)*
- The transfer of energy can be tracked as energy flows through a designed or natural system. *(CCC.6-8.C5.D)*
- Structures can be designed to serve particular functions by taking into account properties of different materials, and how materials can be shaped and used. *(CCC.6-8.C6.C)*

Vocabulary

- **Reactants:** Substances present before a chemical reaction occurs.
- **Products:** Substances formed as a result of a chemical reaction.
- **Conservation of Mass:** The principle that mass is neither created nor destroyed in a chemical reaction.
- **Endothermic:** A reaction that absorbs heat energy.
- **Exothermic:** A reaction that releases heat energy.
- **Catalyst:** A substance that speeds up a chemical reaction without being consumed.
- **Precipitate:** A solid that forms from a liquid solution during a chemical reaction.
- **Combustion:** A chemical reaction involving oxygen that releases energy in the form of heat and light.
- **Synthesis:** A chemical reaction in which two or more simple substances combine to form a more complex product.
- **Decomposition:** A reaction in which a compound breaks down into simpler substances.
- **Activation Energy:** The minimum amount of energy needed for a chemical reaction to occur.
- **Chemical Bond:** A force that holds atoms together in a molecule.
- **Molecule:** A group of atoms bonded together representing the smallest unit of a chemical compound.
- **Element:** A pure substance made of only one type of atom.
- **Compound:** A substance formed when two or more elements are chemically bonded.
- **Acid:** A substance with a pH below 7 that can donate hydrogen ions.
- **Base:** A substance with a pH above 7 that can accept hydrogen ions.
- **pH Scale:** A scale used to measure the acidity or alkalinity of a substance.
- **Oxidation:** A reaction where a substance loses electrons, often involving oxygen.
- **Indicators:** Substances that change color in the presence of an acid or base.
- **Law of Conservation of Energy:** Energy cannot be created or destroyed, only transferred or transformed.
- **Enzyme:** A protein that speeds up biological reactions.
- **Inhibitor:** A substance that slows down or prevents a chemical reaction.
- **Natural Resource:** anything found in nature that humans can use, such as water, minerals, plants, and animals.
- **Synthetic Resource:** made from chemicals or artificial substances rather than from natural ones.

Module 3: Space- Sky Patterns

Draft Date	Course	Duration	Grades	Subjects	Team
04-01-2025 @ 05:38	1st Grade Science	Day(s)	1	Science	Jessica Smith , Maurisa Fasick , ROBIN SHERMAN

Unit Focus

In this unit, 1st-grade students will explore the observable patterns of celestial objects—such as the sun, moon, and stars—across the sky. They will investigate how the sun rises and sets, how the moon changes phases, and why we can only see stars at night. Students will learn to observe and record these patterns and predict when they will occur.

Anchoring Phenomenon

Students will observe a time-lapse video or simulation showing the sun setting and stars appearing in the night sky. The challenge is to explain why the sun disappears at night and how stars are visible only after dark. This leads to questions such as: What causes the sun to set and the stars to appear? Why can we only see the sun during the day?

Prior Learnings/Connection

Kindergarten students observe and describe patterns in local weather conditions over time. They recognize how the amount of daylight changes throughout the seasons and how weather patterns repeat. Additionally, they explore how plants, animals, and humans can change their environment to meet their needs. These experiences help them develop foundational observation skills and an understanding of patterns in nature, which will support their ability to track and predict the movement of the sun, moon, and stars in first grade.

Navigation to next lesson/storyline

Click the following link to access the Module 3: Space- Sky Patterns storyline. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 1 Standards

- Use observations of the sun, moon, and stars to describe patterns that can be predicted.

  Clarifying Statement: Examples of patterns could include that the sun and moon appear to rise in one part of the sky, move across the sky, and set; and stars other than our sun are visible at night but not during the day.

  Assessment Boundary: Assessment of star patterns is limited to stars being seen at night and not during the day. *(3.3.1.A)*
- Make observations at different times of year to relate the amount of daylight to the time of year.

  Clarifying Statement: Emphasis is on relative comparisons of the amount of daylight in the winter to the amount in the spring or fall.

  Assessment Boundary: Assessment is limited to relative amounts of daylight, not quantifying the hours or time of daylight. *(3.3.1.B)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Universe is composed of a variety of different objects, which are organized into systems, each of which develops according to accepted physical processes and laws. *(U1)*
- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U2)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How do objects in the universe appear and behave? *(EQ.SCI.EARTH.01)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ The sun, moon, and stars follow observable patterns in their movement across the sky. *(K1)* ■ The amount of daylight changes throughout the year, following predictable seasonal patterns. *(K2)* ■ Observations can be used to describe and predict celestial patterns, such as sunrise and sunset times. *(K3)* ■ Stars are visible at night but not during the day due to the presence of sunlight. *(K4)* ■ Patterns in nature, such as the motion of celestial bodies, can serve as evidence for scientific explanations. *(K5)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Observing and recording the positions of the sun, moon, and stars at different times of day and night. *(S1)* ■ Identifying patterns in the movement of celestial objects and using them to make predictions. *(S2)* ■ Comparing daylight duration across different seasons using firsthand observations or media resources. *(S3)* ■ Using data and evidence to explain why stars are visible at night but not during the day. *(S4)* ■ Engaging in investigations to track and interpret changes in the sky over time. *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 1 Science & Engineering Practices

- Make observations (firsthand or from media) to collect data that can be used to make comparisons. *(SEP.K-2.P3.D)*
- Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. *(SEP.K-2.P5.C)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 1 Disciplinary Core Ideas

- Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted. *(DCI.1.ESS1.A.1)*

■ Seasonal patterns of sunrise and sunset can be observed, described, and predicted. *(DCI.1.ESS1.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 1 Crosscutting Concepts

■ Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. *(CCC.K-2.C1.A)*

Vocabulary

Unit Specific Vocabulary (Tier 3): Sunrise, sunset, daylight, full moon, new moon, celestial

Tier 2 Vocabulary: Pattern, rise, set, phase, change, observe

Theory of Evolution

Draft Date	Course	Duration	Grades	Subjects	Team
12-09-2024 @ 06:14	6th Grade Science	4.0 Weeks	6	Science	Michael Beachy , Josh Korb

Unit Focus

An introduction to adaptions, natural selection, and comparative anatomy.

Anchoring Phenomenon

How could penguins and other things living today be connected to the things that lived long ago?

Prior Learnings/Connection

genetics

Navigation to next lesson/storyline

Students hear about the surprising fossil of an ancient penguin (nicknamed “Pedro”) from the researchers who found and identified the fossil. Students analyze data to develop initial explanations for how these penguins could be connected. They brainstorm about where did all the ancient penguins go and where did all the different species of modern penguins come from? Furthermore, students explore the question, what other organisms alive today might also be connected to organisms that lived long ago? After exploring variations in body structures and behaviors in ancient organisms, they also analyze data from ancient and modern species of organisms to see whether these organisms have similar patterns. Then, to figure out the cause of the changes they have observed in populations, students explore more recent cases of changing heritable trait distribution in populations and explain them by developing a model for natural selection. In the last part of the unit, students use their model for natural selection to explain how some body structure variations in different species could result from natural selection and how they could descend from a common ancient population. They analyze embryological data to their argument supporting how different species may be connected. Finally, students take stock of all the questions they answered in this unit and previous units and identify questions they look forward to figuring out in more advanced courses.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 6-8 Standards

- Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.

  Clarifying Statement: Emphasis is on finding patterns of changes in the level of complexity of anatomical structures in organisms and the chronological order of fossil appearance in the rock layers.

  Assessment Boundary: Assessment does not include the names of individual species or geological eras in the fossil record. *(3.1.6-8.O)*
- Apply scientific ideas to construct an explanation for anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.

  Clarifying Statement: Emphasis is on explanations of the evolutionary relationships among organisms in terms of similarity or differences of the gross appearance of anatomical structures.

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T2)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T3)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Biological adaptation explains both the unity and diversity of species and provides a unifying principle for the history and diversity of life on Earth *(U1)*
- Anatomical similarities and differences can help identify common ancestors *(U2)*
- The fossil record can be analyzed to show patterns *(U3)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- What are there similarities and differences in the body structures of modern and ancient organisms? *(Q1)*
- Why do some species survive while others go extinct? *(Q2)*
- How does natural selection play a role in the theory of evolution? *(Q3)*
- How do mutations play a role in the theory of evolution? *(Q4)*
- How do adaptations help organisms survive? *(Q5)*
- How do adaptations play a role in the theory of evolution? *(Q6)*
- How does variation contribute to the natural selection of advantageous traits among organisms? *(EQ.SCI.LIFE.04)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Assessment Boundary: N/A *(3.1.6-8.P)*

- Analyze displays of pictorial data to compare patterns of similarities in anatomical structures across multiple species to identify relationships not evident in the fully formed anatomy.

Clarifying Statement: Emphasis is on inferring general patterns of relatedness among embryos of different organisms by comparing the macroscopic appearance of diagrams or pictures.

Assessment Boundary: Assessment of comparisons is limited to gross appearance of anatomical structures in embryological development. *(3.1.6-8.Q)*

- Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.

Clarifying Statement: Emphasis is on using simple probability statements and proportional reasoning to construct explanations.

Assessment Boundary: N/A *(3.1.6-8.S)*

- Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know... ■ The connection between traits and natural selection *(K1)* ■ How adaptations help organisms survive *(K2)* ■ Structure of DNA *(K3)* ■ Three Kinds of Mutations *(K4)* ■ Four building blocks of DNA *(K5)* ■ Geologic Time Scale *(K6)* ■ Natural Selection *(K7)* ■ Fossil Record *(K8)* ■ Comparative Anatomy *(K9)* ■ Embryological Development *(K10)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Identifying patterns *(S1)* ■ Analyzing the anatomy of organisms *(S2)* ■ Identifying the kinds of mutations *(S3)* ■ Asking a clarifying question *(S4)* ■ Analyzing and interpreting data *(S5)* ■ Applying scientific ideas to construct an explanation *(S6)* ■ Constructing an explanation based on evidence *(S7)* ■ Using mathematical representations to support explanations *(S8)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Clarifying Statement: Emphasis is on using mathematical models, probability statements, and proportional reasoning to support explanations of trends in changes to populations over time. Assessment Boundary: Assessment does not include Hardy Weinberg calculations. *(3.1.6-8.T)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Ask questions to clarify and/or refine a model, an explanation, or an engineering problem. *(SEP.6-8.P1.D)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- The collection of fossils and their placement in chronological order (e.g., through the location of the sedimentary layers in which they are found or through radioactive dating) is known as the fossil record. It documents the existence, diversity, extinction, and change of many life forms throughout the history of life on Earth. *(DCI.6-8.LS4.A.1)*
- Anatomical similarities and differences between various organisms living today and between them and organisms in the fossil record, enable the reconstruction of evolutionary history and the inference of lines of evolutionary descent. *(DCI.6-8.LS4.A.2)*
- Comparison of the embryological development of different species also reveals similarities that show relationships not evident in the fullyformed anatomy. *(DCI.6-8.LS4.A.3)*
- In artificial selection, humans have the capacity to influence certain characteristics of organisms by selective breeding. One can choose desired parental traits determined by genes, which are then passed on to offspring. *(DCI.6-8.LS4.B.1)*
- Natural selection leads to the predominance of certain traits in a population, and the suppression of others. *(DCI.6-8.LS4.B.2)*
- Adaptation by natural selection acting over generations is one important process by which species change over time in response to changes in environmental conditions. Traits that support successful survival and reproduction in the new environment become more common; those that do not become less common. Thus, the distribution of traits in a population changes. *(DCI.6-8.LS4.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Patterns in rates of change and other numerical relationships can provide information about natural systems. *(CCC.6-8.C1.B)*

Vocabulary

trait

natural selection

geologic time scale

fossil record

anatomy

paleontology

hypothesis

eon

era

period

epoch

relative dating

absolute dating

Climate

Draft Date	Course	Grades	Subjects	Team
05-14-2025 @ 05:46	Ecology	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Biomes, Weather, Climate Patterns

Stage 1: Learning Goals

Established Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Ecology

Draft Date	Course	Duration	Grades	Subjects	Team
12-09-2024 @ 06:22	6th Grade Science	6.0 Weeks	6	Science	Michael Beachy , Josh Korb

Unit Focus

A study of interactions between organisms and their environment.

Anchoring Phenomenon

How could buying candy affect orangutan populations in the wild?

Prior Learnings/Connection

genetics and theory of evolution

Navigation to next lesson/storyline

The unit starts with students reading headlines that claim that the future of orangutans is in peril and that the purchasing of chocolate may be the cause. Students then examine the ingredients in popular chocolate candies and learn that one of these ingredients--palm oil--is grown on farms near the rainforest where orangutans live. This prompts students to develop initial models to explain how buying candy could impact orangutans. Students spend the first lesson set better understanding the complexity of the problem, which cannot be solved with simple solutions. They investigage that palm oil is derived from the oil palm trees that grow near the equator, and that these trees are both land-efficient and provide stable income for farmers, factors that make finding a solution to the palm oil problem more challenging. Students will establish the need for a better design to solve the problem. Some of the lessons engage students in investigations of alternative approaches to growing food. Students work to design solutions that could solve the problem.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 6-8 Standards

- Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.

  Clarifying Statement: Emphasis is on tracing movement of matter and flow of energy.

  Assessment Boundary: Assessment does not include the biochemical mechanisms of photosynthesis. *(3.1.6-8.F)*
- Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

  Clarifying Statement: Emphasis is on cause and effect relationships between resources and growth of individual organisms and the numbers of organisms in ecosystems during periods of abundant and scarce resources.

  Assessment Boundary: N/A *(3.1.6-8.I)*
- Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Understand how organisms in an ecosystem are dependent upon each other *(T1)*
- Design an investigation or model using appropriate tools, resources, and methods. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with other organisms and the physical environment *(U1)*
- Physical and biological components of an ecosystem affect populations *(U2)*
- Ecosystem services can impact biodiversity *(U3)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How and why do organisms interact with their environment and what are the effects of these interactions? *(EQ.SCI.LIFE.02)*
- What is the relationship between habitat and niche? *(Q2)*
- How do ecologists define the biomes of the world? *(Q3)*
- How do you show the energy flow in an ecosystem? *(Q4)*
- How do the major cycles in nature help organisms survive? *(Q5)*
- How are biomes related to habitat? *(Q6)*
- What are the factors used to classify biomes? *(Q7)*
- How do organisms relate to each other? *(Q8)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Clarifying Statement: Emphasis is on predicting consistent patterns of interactions in different ecosystems in terms of the relationships among and between organisms and abiotic components of ecosystems. Examples of types of interactions could include competitive, predatory, and mutually beneficial.

Assessment Boundary: N/A *(3.1.6-8.J)*

- Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

Clarifying Statement: Emphasis is on describing the conservation of matter and flow of energy into and out of various ecosystems, and on defining the boundaries of the system.

Assessment Boundary: Assessment does not include the use of chemical reactions to describe the processes. *(3.1.6-8.K)*

- Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

Clarifying Statement: Emphasis is on recognizing patterns in data and making warranted inferences about changes in populations, and on evaluating empirical evidence supporting arguments about changes to ecosystems.

- What role do symbiotic relationships play in an ecosystem? *(Q9)*
- How does energy flow through an ecosystem? *(Q10)*
- How can energy flow be modeled? *(Q11)*
- What are the similarities and differences between the energy flow models? *(Q12)*
- How does matter move through an ecosystem? *(Q13)*
- How do limiting factors affect a population? *(Q14)*
- How does changing an ecosystem affect what lives there? *(Q15)*
- How are organisms classified? *(Q16)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Four elements of habitat *(K1)* ■ Niche vs Habitat *(K2)* ■ Major biomes of the world *(K3)* ■ Symbiotic relationships *(K4)* ■ Energy flow *(K5)* ■ Cycles in Nature *(K6)* ■ Population Ecology *(K7)*	■ Constructing an explanation that predicts patterns *(S1)* ■ Developing a model *(S2)* ■ Using an argument based on empirical evidence and scientific reasoning to support an explanation *(S3)* ■ Analyzing and interpreting data *(S4)* ■ Constructing an argument supported by empirical evidence *(S5)* ■ Evaluating competing design solutions *(S6)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Assessment Boundary: N/A *(3.1.6-8.L)* ■ Evaluate competing design solutions for maintaining biodiversity and ecosystem services. Clarifying Statement: Examples of ecosystem services could include water purification, nutrient recycling, and prevention of soil erosion. Examples of design solution constraints could include scientific, economic, and social considerations. Assessment Boundary: N/A *(3.1.6-8.U)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Ask questions that arise from careful observation of phenomena, models, or unexpected results, to clarify and/or seek additional information. *(SEP.6-8.P1.A)*
- Develop or modify a model—based on evidence – to match what happens if a variable or component of a system is changed. *(SEP.6-8.P2.B)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- Organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with nonliving factors. *(DCI.6-8.LS2.A.1)*
- In any ecosystem, organisms and populations with similar requirements for food, water, oxygen, or other resources may compete with each other for limited resources, access to which consequently constrains their growth and reproduction. *(DCI.6-8.LS2.A.2)*
- Growth of organisms and population increases are limited by access to resources. *(DCI.6-8.LS2.A.3)*

- Similarly, predatory interactions may reduce the number of organisms or eliminate whole populations of organisms. Mutually beneficial interactions, in contrast, may become so interdependent that each organism requires the other for survival. Although the species involved in these competitive, predatory, and mutually beneficial interactions vary across ecosystems, the patterns of interactions of organisms with their environments, both living and nonliving, are shared. *(DCI.6-8.LS2.A.4)*
- Food webs are models that demonstrate how matter and energy is transferred between producers, consumers, and decomposers as the three groups interact within an ecosystem. Transfers of matter into and out of the physical environment occur at every level. Decomposers recycle nutrients from dead plant or animal matter back to the soil in terrestrial environments or to the water in aquatic environments. The atoms that make up the organisms in an ecosystem are cycled repeatedly between the living and nonliving parts of the ecosystem. *(DCI.6-8.LS2.B.1)*
- Ecosystems are dynamic in nature; their characteristics can vary over time. Disruptions to any physical or biological component of an ecosystem can lead to shifts in all its populations. *(DCI.6-8.LS2.C.1)*
- Biodiversity describes the variety of species found in Earth's terrestrial and oceanic ecosystems. The completeness or integrity of an ecosystem's biodiversity is often used as a measure of its health. *(DCI.6-8.LS2.C.2)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Systems may interact with other systems; they may have sub-systems and be a part of larger complex systems. *(CCC.6-8.C4.A)*
- Models can be used to represent systems and their interactions—such as inputs, processes and outputs—and energy and matter flows within systems. *(CCC.6-8.C4.B.1)*
- Within a natural system, the transfer of energy drives the motion and/or cycling of matter. *(CCC.6-8.C5.B)*
- The transfer of energy can be tracked as energy flows through a designed or natural system. *(CCC.6-8.C5.D)*

Vocabulary

habitat

niche

biome

biodiversity

competition

predation

symbiosis

mutualism

commensalism

parasitism

water cycle

nitrogen cycle

carbon cycle

energy flow

food chain

food web

energy pyramid

organism

community

ecosystem

population

biosphere

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Inheritance and Variation of Traits

Draft Date	Course	Grades	Subjects	Team
10-11-2024 @ 01:08	Biology	9 , 10 , 11 , 12	Science	Kaela Piechowicz , Josh Korb

Unit Focus

Who gets cancer and why? What can we do about it? This unit is designed to deepen student understanding of inheritance and variation of traits through an exploration of cancer as a phenomenon. Students explore the genetic basis of cancer by investigating what cancer is and how mutations that can increase risk for cancer occur. Students investigate cancer caused by mutations that occur throughout our lifetimes, inherited mutations, and how the environment can cause mutations. Finally, students investigate additional factors that explain differences across the US in both instances of cancer and mortality, access and feasibility of treatment options, and explore the role of health navigator as a way to advocate for and help support friends and family that may be experiencing cancer.

Anchoring Phenomenon

In the anchoring phenomenon, students explore cancer statistics, including rates of new cases by cancer and state. They notice some differences that are hard to explain. Then, they investigate factors such as age and height and determine that people in different demographic groups have higher and lower cancer risks. This phenomenon was chosen as the anchor because it generated high student interest across racial and gender identities in a national survey.

Prior Learnings/Connection

- Scientific Investigations Use a Variety of Methods. Science investigations use diverse methods and do not always use the same set of procedures to obtain data.
- Science knowledge is based on empirical evidence.
- Science is a Human Endeavor. Scientific knowledge is a result of human endeavor, imagination, and creativity.

Navigation to next lesson/storyline

First students will focus on the genetic basis of cancer, exploring the different causes of the mutations that lead to cancer, including mutations accumulated through our lifetimes, inherited mutations, and environmental mutations caused by interactions with the environment. Students will explore treatment for cancer and the social systems that affect healthcare outcomes.

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.

  Clarifying Statement: N/A

  Assessment Boundary: Assessment does not include the identification of specific cell or tissue types, whole body systems, specific protein structures and functions, or the biochemistry of protein synthesis. *(3.1.9-12.A)*
- Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.

  Clarifying Statement: Emphasis is on functions at the organism system level, such as nutrient uptake, water delivery, and organism movement in response to neural stimuli. An example of an interacting system could be an artery depending on the proper function of elastic tissue and smooth muscle to regulate and deliver the proper amount of

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Heredity refers to specific mechanisms by which characteristics or traits are passed from one generation to the next. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*
- How are the characteristics of one generation passed to the next? *(EQ.SCI.LIFE.03)*
- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

blood within the circulatory system.

Assessment Boundary: Assessment does not include interactions and functions at the molecular or chemical reaction levels. *(3.1.9-12.B)*

- Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.

Clarifying Statement: N/A

Assessment Boundary: Assessment does not include specific gene control mechanisms or rote memorization of the steps of mitosis. *(3.1.9-12.D)*

- Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.

Clarifying Statement: N/A

Assessment Boundary: Assessment does not include the phases of meiosis or the biochemical mechanism of specific steps in the process. *(3.1.9-12.P)*

- Make and defend a claim based on evidence that inheritable genetic variations may result from (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ Causes of cancer *(K1)* ■ Structural differences between cancerous cells and noncancerous cells *(K2)* ■ Mitosis *(K3)* ■ DNA Structure and Replication *(K4)* ■ Gene expression *(K5)* ■ Hierarchal organization of living things *(K6)*	**What discrete skills and processes should students be able to use? Students will be skilled at...** ■ Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins, which carry out the essential functions of life through systems of specialized cells. *(S1)* ■ Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. *(S2)* ■ Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms. *(S3)* ■ Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring *(S4)* ■ Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors. *(S5)* ■ Apply concepts of statistics and probability to explain the variation and

Clarifying Statement: Emphasis is on using data to support arguments for the way variation occurs.

Assessment Boundary: Assessment does not include the phases of meiosis or the biochemical mechanism of specific steps in the process. *(3.1.9-12.Q)*

- Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.

Clarifying Statement: Emphasis is on the use of mathematics to describe the probability of traits as it relates to genetic and environmental factors in the expression of traits.

Assessment Boundary: Assessment does not include Hardy-Weinberg calculations. *(3.1.9-12.R)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. *(3.5.9-12.Y)*

distribution of expressed traits in a population. *(S6)*

- valuate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts. *(S7)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Ask questions that arise from examining models or a theory to clarify relationships. *(SEP.9-12.P1.B)*
- Develop, revise, and/or use a model based on evidence to illustrate and/or predict the relationships between systems or between components of a system. *(SEP.9-12.P2.C)*

- Construct and revise an explanation based on valid and reliable evidence obtained from a variety of sources (including students' own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future. *(SEP.9-12.P4.B)*
- Design, evaluate, and/or refine a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and tradeoff considerations. *(SEP.9-12.P4.E)*
- Apply concepts of statistics and probability (including determining function fits to data, slope, intercept, and correlation coefficient for linear fits) to scientific and engineering questions and problems, using digital tools when feasible. *(SEP.9-12.P5.B)*
- Make and defend a claim based on evidence about the natural world or the effectiveness of a design solution that reflects scientific knowledge and student-generated evidence. *(SEP.9-12.P7.E)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Systems of specialized cells within organisms help them perform the essential functions of life. *(DCI.9-12.LS1.A.1)*
- All cells contain genetic information in the form of DNA molecules. Genes are regions in the DNA that contain the instructions that code for the formation of proteins, which carry out most of the work of cells. *(DCI.9-12.LS1.A.2)*
- Multicellular organisms have a hierarchical structural organization, in which any one system is made up of numerous parts and is itself a component of the next level. *(DCI.9-12.LS1.A.3)*
- In multicellular organisms individual cells grow and then divide via a process called mitosis, thereby allowing the organism to grow. The organism begins as a single cell (fertilized egg) that divides successively to produce many cells, with each parent cell passing identical genetic material (two variants of each chromosome pair) to both daughter cells. Cellular division and differentiation produce and maintain a complex organism, composed of systems of tissues and organs that work together to meet the needs of the whole organism. *(DCI.9-12.LS1.B.1)*
- Each chromosome consists of a single very long DNA molecule, and each gene on the chromosome is a particular segment of that DNA. The instructions for forming species' characteristics are carried in DNA. All cells in an organism have the same genetic content, but the genes used (expressed) by the cell may be regulated in different ways. Not all DNA codes for a protein; some segments of DNA are involved in regulatory or structural functions, and some have no as-yet known function. *(DCI.9-12.LS3.A.1)*
- In sexual reproduction, chromosomes can sometimes swap sections during the process of meiosis (cell division), thereby creating new genetic combinations and thus more genetic variation. Although DNA replication is tightly regulated and remarkably accurate, errors do occur and result in mutations, which are also a source of genetic variation. Environmental factors can also cause mutations in genes, and viable mutations are inherited. *(DCI.9-12.LS3.B.1)*
- Environmental factors also affect expression of traits, and hence affect the probability of occurrences of traits in a population. Thus the variation and distribution of traits observed depends on both genetic and environmental factors. *(DCI.9-12.LS3.B.2)*
- Criteria may need to be broken down into simpler ones that can be approached systematically, and decisions about the priority of certain criteria over others (trade-offs) may be needed. *(DCI.9-12.ETS1.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Empirical evidence is required to differentiate between cause and correlation and make claims about specific causes and effects. *(CCC.9-12.C2.A)*
- Algebraic thinking is used to examine scientific data and predict the effect of a change in one variable on another (e.g., linear growth vs. exponential growth). *(CCC.9-12.C3.D)*
- Models (e.g., physical, mathematical, computer models) can be used to simulate systems and interactions—including energy, matter, and information flows—within and between systems at different scales. *(CCC.9-12.C4.B)*
- Investigating or designing new systems or structures requires a detailed examination of the properties of different materials, the structures of different components, and connections of components to reveal its function and/or solve a problem. *(CCC.9-12.C6.A)*

Vocabulary

Amino acid
Cancer
Chromosome
Crossing over
Gene
DNA replication
Gene expression
Genetic variation
Meiosis
Melanin
Mitosis
Mutation
Pedigree
Protein
Tumor

Module 3: Earth Systems

Draft Date	Course	Duration	Grades	Subjects	Team
05-15-2025 @ 06:37	5th Grade Science	10.0 Lesson(s)	5	Science	SYSTEM USER , CHRISTY KLEMICK , KIMBERLY METZGER , Brooke Fry , Tori Berwager

Unit Focus

Have you ever wondered why certain parts of the Earth experience extreme weather, while others remain mild year-round? Or why some areas are prone to floods, while others face drought? In this unit, students will explore how Earth's systems—the geosphere, hydrosphere, atmosphere, and biosphere—interact to shape our planet. By modeling Earth system interactions, students will develop explanations for natural events and phenomena, such as erosion, flooding, and climate patterns. They will also consider how water is distributed on Earth and how communities can use science to solve environmental problems.

Anchoring Phenomenon



This unit was designed using Eduplanet21 - https://eduplanet21.com/

After several days of heavy rain, a quiet valley town becomes overwhelmed by fast-moving floodwaters. Streets vanish underwater, homes are damaged, and hillsides begin to crumble. What caused this sudden change? What forces are at work when a natural event like this transforms a landscape in such a dramatic way?

In this unit, students will investigate how interactions among Earth's systems — the geosphere, hydrosphere, atmosphere, and biosphere — can create powerful effects like flooding, erosion, and shifting weather. By exploring real-world phenomena, they will uncover the roles of water, land, air, and living things in shaping the surface of our planet. The flooded town serves as a starting point to model and explain how Earth's systems are connected — and how changes in one system can cause ripple effects across others.

Prior Learnings/Connection

Students bring valuable experiences and ideas to this unit from their everyday lives—such as witnessing floods, storms, or droughts—that can serve as stepping stones for understanding how Earth's systems interact. They may already have background knowledge about the water cycle, landforms, and weather patterns, as well as awareness of environmental issues like pollution or conservation efforts. These ideas can be leveraged to explore how the geosphere, hydrosphere, atmosphere, and biosphere work together to shape Earth's surface and climate. By connecting their personal observations to scientific investigations, students deepen their understanding of how natural events occur and how people use science to protect Earth's systems.

Navigation to next lesson/storyline

Click the following link to access the Module 3: Earth Systems storyline. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): 5 Standards ■ Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. **Clarifying Statement:** Examples could	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Design an investigation or model using appropriate tools, resources, and methods. *(T1)* ■ Gather and interpret measurements and data and apply to new situations. *(T2)* ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)* ■ Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)* ■ Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*

include the influence of the ocean on ecosystems, landform shape, and climate; the influence of the atmosphere on landforms and ecosystems through weather and climate; and the influence of mountain ranges on winds and clouds in the atmosphere. The geosphere, hydrosphere, atmosphere, and biosphere are each a system.

Assessment Boundary: Assessment is limited to the interactions of two systems at a time. *(3.3.5.C)*

- Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.

Clarifying Statement: N/A

Assessment Boundary: Assessment is limited to oceans, lakes, rivers, glaciers, ground water, and polar ice caps, and does not include the atmosphere. *(3.3.5.D)*

- Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

Clarifying Statement: N/A

Assessment Boundary: N/A *(3.3.5.E)*

- Generate and design possible solutions to a current environmental issue, threat, or concern.

- Utilize critical thinking, problem-solving, creativity & innovation, communication, and collaboration. *(LT.STM.06)*
- Develop grit, persistence, self-discipline, pride, responsibility and safety. *(LT.STM.05)*
- Understand technological systems and resources as they apply to consumer products. *(LT.STM.02)*
- Understand, use, apply, and evaluate technology to become productive members of society. *(LT.TED.01)*
- Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)*
- Assess the impact technology and engineering has on their own lives, their community, the society, and the environment. *(LT.TED.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*
- The Earth's processes affect and are affected by human activities. *(U2)*
- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U3)*
- Create team norms and expectations focused on equitable practices, relationships, and dynamic group responsibilities toward a collaborative goal. *(U4)*
- The deliberate cyclical design process of generating ideas, testing theories,

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do we solve problems to persevere through a task? *(EQ.STM.04)*
- How does technology impact other fields of study? *(EQ.TED.01)*
- How does technology impact society? *(EQ.TED.02)*
- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*
- How does understanding technological concepts contribute to the built environment? *(EQ.TED.05)*
- How do environmental considerations affect society's acceptance of technology? *(EQ.TED.06)*
- How and why is Earth constantly changing? *(EQ.SCI.EARTH.02)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Clarifying Statement: This could include but is not limited to topics such as biodiversity, watersheds, invasive species, natural resources, etc.

Assessment Boundary: N/A *(3.3.5.F)*

Technology & Engineering (2023): 3-5 Technology & Engineering

- Predict how certain aspects of their daily lives would be different without given technologies. *(3.5.3-5.D)*
- Describe the helpful and harmful effects of technology. *(3.5.3-5.G)*
- Determine factors that influence changes in a society's technological systems or infrastructure. *(3.5.3-5.H)*
- Identify the resources needed to get a technical job done, such as people, materials, capital, tools, machines, knowledge, energy, and time. *(3.5.3-5.Y)*
- Explain how solutions to problems are shaped by economic, political, and cultural forces. *(3.5.3-5.EE)*

and creating innovative artifacts builds problem solving skills. *(U5)*
- By analyzing perspectives and curating information from digital resources, complex, interdisciplinary, and real-world problems can be solved. *(U6)*
- Technology impacts core concepts, characteristics, and relationships between all fields of study. *(BIG.TED.01)*
- The development of technology allows people to design, create, and assess solutions that solve problems. *(BIG.TED.03)*
- Technology can be improved by using the engineering design process to re-evaluate and troubleshoot. *(BIG.TED.04)*
- Society's acceptance of technology directly impacts the built and natural environment. *(BIG.TED.06)*

- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Earth is made up of four major systems: geosphere, hydrosphere, atmosphere, and biosphere. *(K1)*
- These systems interact in many ways, shaping landforms and affecting climate and ecosystems. *(K2)*
- Most of Earth's water is salt water in oceans, with only a small portion available as freshwater. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Developing models to describe Earth system interactions. *(S1)*
- Using graphs and data to describe water distribution. *(S2)*
- Obtaining and communicating information about environmental protection efforts. *(S3)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

	■ Scientific understanding helps communities solve problems related to natural resources and the environment. *(K4)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 5 Science & Engineering Practices

- Develop a model using an example to describe a scientific principle. *(SEP.3-5.P2.D)*
- Describe and graph quantities such as area and volume to address scientific questions. *(SEP.3-5.P6.C.2)*
- Obtain and combine information from books and/or other reliable media to explain phenomena or solutions to a design problem. *(SEP.3-5.P8.C)*
- At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. *(SEP.3-5.P9.A)*

Technology & Engineering (2023): 3-5 Science & Engineering Practices

- Construct and/or support an argument with evidence, data, and/or a model. *(SEP.3-5.P4.1)*
- Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem. *(SEP.3-5.P4.4)*
- Read and comprehend grade-appropriate complex texts and/or other reliable media to summarize and obtain scientific and technical ideas and describe how they are supported by evidence. *(SEP.3-5.P5.2)*
- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered. *(SEP.3-5.P6.1)*

Technology & Engineering (2023): 3-5 Technology & Engineering Practices

- Explains ethical dilemmas involving technology, such as tradeoffs. *(TEP.3-5.A.1)*
- Knows how to find answers to technological questions. *(TEP.3-5.E.1)*
- Provides examples of how human-designed products are connected. *(TEP.3-5.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 5 Disciplinary Core Ideas

- Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gases, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment. *(DCI.5.LS2.B.1)*

- Earth's major systems are the geosphere (solid and molten rock, soil, and sediments), the hydrosphere (water and ice), the atmosphere (air), and the biosphere (living things, including humans). These systems interact in multiple ways to affect Earth's surface materials and processes. The ocean supports a variety of ecosystems and organisms, shapes landforms, and influences climate. Winds and clouds in the atmosphere interact with the landforms to determine patterns of weather. *(DCI.5.ESS2.A.1)*
- Nearly all of Earth's available water is in the ocean. Most fresh water is in glaciers or underground; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere. *(DCI.5.ESS2.C.1)*
- Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments. *(DCI.5.ESS3.C.1)*

Technology & Engineering (2023): 3-5 Disciplinary Core Ideas

- Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. *(DCI.3-5.ETS1.A.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 5 Crosscutting Concepts

- Standard units are used to measure and describe physical quantities such as weight, time, temperature, and volume. *(CCC.3-5.C3.B)*
- A system can be described in terms of its components and their interactions. *(CCC.3-5.C4.B)*

Vocabulary

Tier 2 - system, interaction, model, component, observe, evidence, cause, effect, analyze, compare

Tier 3 - geosphere, hydrosphere, atmosphere, biosphere, erosion, runoff, precipitation, floodplain, conservation, reservoir

Module 3: Forces & Motion

Draft Date	Course	Duration	Grades	Subjects	Team
04-02-2025 @ 02:47	Kindergarten Science	Day(s)	K	Science	Jessica Smith , Emily Stambaugh , Ashley Small

Unit Focus

In this unit, students will explore the concepts of force and motion through hands-on investigations. They will learn how pushing and pulling can change the speed and direction of objects. By observing and experimenting with various objects, students will understand how different strengths and directions of pushes and pulls affect motion. They will also work on engineering solutions to solve problems involving movement.

Anchoring Phenomenon

Students will be introduced to a video or demonstration where a ball is rolling and then suddenly stops. The challenge is to figure out why the ball stopped moving and how to make it go faster or in a different direction. This leads to the exploration of pushes and pulls, and how they can change the motion of the ball or other objects.

Prior Learnings/Connection

Kindergarten students can connect this unit to their everyday experiences with movement, such as pushing a toy car, pulling a wagon, or stopping a rolling ball. Many will have explored these concepts naturally through play, like using slides, swings, or building ramps for toy cars. Additionally, they may have prior knowledge from storybooks or classroom discussions about how objects move and interact with each other.

Navigation to next lesson/storyline

Click the following link to access the Module 3: Forces & Motion (Link coming soon). This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): K Standards

- Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.

  Clarifying Statement: Examples of problems requiring a solution could include having a marble or other object move a certain distance, follow a particular path, and knock down other objects. Examples of solutions could include tools such as a ramp to increase the speed of the object and a structure that would cause an object such as a marble or ball to turn.

  Assessment Boundary: Assessment does not include friction as a mechanism for change in speed. *(3.2.K.A)*
- Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.

  Clarifying Statement: Examples of pushes or pulls could include a string attached to an object being pulled, a person pushing an object, a person stopping a rolling ball,

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Interactions between any two objects can cause changes in one or both. *(U1)*
- Technology impacts core concepts, characteristics, and relationships between all fields of study. *(BIG.TED.01)*
- The development of technology allows people to design, create, and assess solutions that solve problems. *(BIG.TED.03)*
- Technology can be improved by using the engineering design process to re-evaluate and troubleshoot. *(BIG.TED.04)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*
- How can technology be improved through the use of the engineering design process? *(EQ.TED.04)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

and two objects colliding and pushing on each other.

Assessment Boundary: Assessment is limited to different relative strengths or different directions, but not both at the same time. Assessment does not include non-contact pushes or pulls such as those produced by magnets. *(3.2.K.B)*

Technology & Engineering (2023): K-2 Technology & Engineering

- Compare simple technologies to evaluate their impacts. *(3.5.K-2.I)*
- Demonstrate essential skills of the engineering design process. *(3.5.K-2.M)*
- Analyze how things work. *(3.5.K-2.N)*
- Illustrate that there are different solutions to a design and that none are perfect. *(3.5.K-2.O)*
- Draw connections between technology and human experience. *(3.5.K-2.R)*
- Apply design concepts, principles, and processes through play and exploration. *(3.5.K-2.S)*
- Demonstrate that designs have requirements. *(3.5.K-2.T)*
- Explain that design is a response to wants and needs. *(3.5.K-2.U)*
- Apply concepts and skills from technology and engineering activities that reinforce concepts and skills across multiple areas. *(3.5.K-2.W)*
- Develop a plan in order to complete a task. *(3.5.K-2.X)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Pushes and pulls can have different strengths and directions. *(K1)*
- Pushing or pulling on an object can change its speed or direction and can start or stop it. *(K2)*
- When objects touch or collide, they push on one another and can change motion. *(K3)*
- A bigger push or pull makes things speed up or slow down more quickly. *(K4)*
- A problem can be solved through engineering and may have multiple acceptable solutions. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Planning and conducting investigations to compare different strengths or directions of pushes and pulls. *(S1)*
- Analyzing data to determine if a design solution successfully changes an object's speed or direction. *(S2)*
- Defining simple problems that can be solved by creating or improving a tool or object. *(S3)*
- Using tools and materials to design and build a solution to a problem. *(S4)*
- Developing and using models to represent patterns in forces and motion. *(S5)*
- Demonstrating essential skills of the engineering design process through play and exploration. *(S6)*
- Evaluating and comparing simple technologies to determine their impact. *(S7)*
- Explaining how technology is created in response to human wants and needs. *(S8)*
- Making connections between how technology and engineering impact daily life. *(S9)*
- Engaging in questioning, listening, and discussion to think critically about forces and motion. *(S10)*

- Illustrate how systems have parts or components that work together to accomplish a goal. *(3.5.K-2.Z)*
- Demonstrate that creating can be done by anyone. *(3.5.K-2.AA)*

Technology & Engineering (2023): K-2 Technology & Engineering Practices

- Learns to share technological products and ideas. *(TEP.K-2.B.1)*
- Learns that humans have many ways to communicate. *(TEP.K-2.C.1)*
- Learns that humans create products and ways of doing things. *(TEP.K-2.D.1)*
- Engages in listening, questioning, and discussing. *(TEP.K-2.E.1)*
- Learns to use tools and materials to accomplish a task. *(TEP.K-2.F.1)*
- Sees opportunities for making technologies better. *(TEP.K-2.G.1)*
- Learns that human-designed things are connected. *(TEP.K-2.H.1)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): K Science & Engineering Practices

- With guidance, plan and conduct an investigation in collaboration with peers (for kindergarten). *(SEP.K-2.P3.A)*
- Analyze data from tests of an object or tool to determine if it works as intended. *(SEP.K-2.P5.E)*

Technology & Engineering (2023): K-2 Science & Engineering Practices

- Analyze data from tests of an object or tool to determine if it works as intended. *(SEP.K-2.P1.1)*
- Define a simple problem that can be solved through the development of a new or improved object or tool. *(SEP.K-2.P2.2)*
- Use tools and/or materials to design and/or build a device that solves a specific problem or a solution to a specific problem. *(SEP.K-2.P3.1)*
- Generate and/or compare multiple solutions to a problem. *(SEP.K-2.P3.2)*

- Develop and/or use a model to represent amounts, relationships, relative scales (bigger, smaller), and/or patterns in the natural and designed world(s). *(SEP.K-2.P4.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): K Disciplinary Core Ideas

- Pushes and pulls can have different strengths and directions. *(DCI.K.PS2.A.1)*
- Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it. *(DCI.K.PS2.A.2)*
- When objects touch or collide, they push on one another and can change motion. *(DCI.K.PS2.B.1)*
- A bigger push or pull makes things speed up or slow down more quickly. *(DCI.K.PS3.C.1)*
- A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable solutions. *(DCI.K.EST1.A.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): K Crosscutting Concepts

- Simple tests can be designed to gather evidence to support or refute student ideas about causes. *(CCC.K-2.C2.A)*

Vocabulary

Unit Specific Vocabulary (Tier 3): Ramp, path, speed up, slow down, test

Tier 2 Vocabulary: direction, strength, collide, force, object

Module 3: Habitats & Biodiversity

Draft Date	Course	Duration	Grades	Subjects	Team
03-31-2025 @ 01:40	2nd Grade Science	Day(s)	2	Science	Jessica Smith , Lindsay Feeser

Unit Focus

Plants and animals live in all kinds of places—some are cold and snowy, others are hot and dry, and many are somewhere in between. In this unit, students explore a puzzling situation in which different places have very different living things. Why can some animals survive in one area but not another? What makes each habitat special? Students make observations of plants and animals in different environments, investigate patterns in how organisms survive and thrive, and compare the biodiversity found in various local and global habitats. By creating models and examining evidence, students begin to understand that organisms depend on their surroundings to meet their needs and that the diversity of life is tied to the characteristics of those environments.

Anchoring Phenomenon



Students are shown side-by-side images of different habitats (e.g., a desert, a wetland, and a forest). They observe that the plants and animals are not the same, even though all the places are on Earth. This prompts the question: Why do different places have such different living things?

Prior Learnings/Connection

In kindergarten and first grade, students develop an understanding of how plants, animals, and humans meet their basic needs for survival. They observe patterns in how living things depend on their environment and how they can change it to meet their needs. First graders extend this learning by exploring how animals use their external parts for survival and how young plants and animals resemble their parents. They also investigate how parents help their offspring survive and relate season changes to daylight patterns. These foundational experiences prepare second graders to explore deeper connections between living things, their environments, and the adaptations that help them thrive.

Navigation to next lesson/storyline

Click the following link to access the Module 3: Habitats & Biodiversity(link comin. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals	Transfer
Standards	**Long-Term Transfer Goals**
Pennsylvania STEELS Science (2023): 2 Standards ■ Make observations of plants and animals to compare the diversity of life in different habitats. Clarifying Statement: Emphasis is on the diversity of living things in each of a variety of different habitats. Assessment Boundary: Assessment does not include specific animal and plant names in specific habitats. *(3.1.2.C)*	What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to... ■ Design an investigation or model using appropriate tools, resources, and methods. *(T1)* ■ Gather and interpret measurements and data and apply to new situations. *(T2)* ■ Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)* ■ Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)* ■ Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)* ■ Understand, use, apply, and evaluate technology to become productive members of society. *(LT.TED.01)* ■ Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)* ■ Assess the impact technology and engineering has on their own lives, their community, the society, and the environment. *(LT.TED.04)*

- Develop a model to represent the shapes and kinds of land and bodies of water in an area.

  Clarifying Statement: N/A

  Assessment Boundary: Assessment does not include quantitative scaling in models. *(3.3.2.C)*
- Obtain information to identify where water is found on Earth and that it can be solid or liquid.

  Clarifying Statement: N/A

  Assessment Boundary: N/A *(3.3.2.D)*

- Gain the ability to technology and engineering concepts to other aspects of life. *(LT.TED.05)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*
- The Earth's processes affect and are affected by human activities. *(U2)*
- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with other organisms and the physical environment *(U3)*
- All organisms are made of cells and can be characterized by common aspects of their structure and functioning. *(U4)*
- Biological adaptation explains both the unity and diversity of species and provides a unifying principle for the history and diversity of life on Earth *(U5)*
- Technology impacts core concepts, characteristics, and relationships between all fields of study. *(BIG.TED.01)*
- The development of technology allows people to design, create, and assess solutions that solve problems. *(BIG.TED.03)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does technology impact other fields of study? *(EQ.TED.01)*
- How does technology impact society? *(EQ.TED.02)*
- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*
- How can technology be improved through the use of the engineering design process? *(EQ.TED.04)*
- How does understanding technological concepts contribute to the built environment? *(EQ.TED.05)*
- How do environmental considerations affect society's acceptance of technology? *(EQ.TED.06)*
- How and why do organisms interact with their environment and what are the effects of these interactions? *(EQ.SCI.LIFE.02)*
- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

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- Technology can be improved by using the engineering design process to re-evaluate and troubleshoot. *(BIG.TED.04)*
- The built environment is created by humans who understand and utilize energy, information, communication, manufacturing, and construction technologies. *(BIG.TED.05)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ Different habitats support a variety of plant and animal life. *(K1)* ■ Earth has different landforms and bodies of water. *(K2)* ■ Water exists on Earth in both solid and liquid forms. *(K3)*	■ Observing and comparing the diversity of life in different habitats. *(S1)* ■ Creating models to represent landforms and bodies of water. *(S2)* ■ Gathering and interpreting information about where water is found and its different states. *(S3)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 2 Science & Engineering Practices

- Develop a model to represent patterns in the natural world. *(SEP.K-2.P2.C.2)*
- Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. *(SEP.K-2.P4.A.1)*
- Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering a scientific question. *(SEP.K-2.P8.C)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 2 Disciplinary Core Ideas

- There are many different kinds of living things in any area, and they exist in different places on land and in water. *(DCI.2.LS4.D.1)*
- Maps show where things are located. One can map the shapes and kinds of land and water in any area. *(DCI.2.ESS2.B.1)*
- Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. *(DCI.2.ESS2.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 2 Crosscutting Concepts

- Patterns in the natural world can be observed. *(CCC.K-2.C1.A)*

Vocabulary

Unit Specific Vocabulary: habitat, biodiversity, adaptation, organism, environment, survival, model, and observation.

Tier 2 Vocabulary: compare, pattern, change, need, problem, solution, and describe.

Module 3: Trait Variations

Draft Date	Course	Duration	Grades	Subjects	Team
04-02-2025 @ 02:04	3rd Grade Science	Day(s)	3	Science	Jessica Smith , Jill Lerew

Unit Focus

In this unit, students will explore how organisms, including plants and animals, have traits that help them survive in their environments. Students will observe and compare inherited traits and variations among individuals of the same species, developing an understanding of how these differences can affect survival and reproduction. Through hands-on investigations, data collection, and analysis, students will examine real-world examples of trait variation and its impact on ecosystems. The unit emphasizes scientific inquiry, environmental awareness, and the role of biodiversity in sustaining ecosystems. Students will engage in collaborative discussions, engineering design challenges, and problem-solving activities that connect life science concepts to environmental sustainability and real-life applications.

Anchoring Phenomenon

The anchor phenomenon for this unit is one of the most successful kinds of animals on Earth: ants! How can such small creatures survive in so many places with such a huge population of individuals?

During the introduction, students generate observations and questions about the phenomenon and create a list of possible explanations for the phenomenon.

Students will gather clues during and after each lesson in this unit to help them improve their understanding and explanations. It is important to encourage students to recognize that even if they don't know the perfect answer yet, they are going to learn a lot throughout the unit and will have an opportunity to revisit the phenomenon over time.

Anchor Phenomenon Linked Here: Click Here!

Prior Learnings/Connection

In K-2, students begin to explore the concepts of growth, change, and basic life cycles, laying the foundation for understanding the more complex ideas in Unit 3. In Kindergarten, students observe and describe the growth and changes in plants and animals, learning about the stages of life (e.g., baby animals grow into adults). In first grade, they start to understand that living things have different characteristics and that these characteristics can be observed in various species. By second grade, students focus on the basic needs of plants and animals and may be introduced to simple concepts of inheritance, such as the idea that offspring resemble their parents. These early concepts build the foundation for understanding more detailed ideas about life cycles, traits, and natural selection in later grades.

Navigation to next lesson/storyline

Click the following link to access the Module 3: Trait Variations storyline. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 3 Standards

- Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.

  Clarifying Statement: Changes organisms go through during their life form a pattern.

  Assessment Boundary: Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction. *(3.1.3.A)*
- Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.

  Clarifying Statement: Patterns are the similarities and differences in traits shared between offspring and their parents, or among siblings. Emphasis is on organisms

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*
- Understand, use, apply, and evaluate technology to become productive members of society. *(LT.TED.01)*
- Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)*
- Assess the impact technology and engineering has on their own lives, their community, the society, and the environment. *(LT.TED.04)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*

other than humans.

Assessment Boundary: Assessment does not include genetic mechanisms of inheritance and prediction of traits. Assessment is limited to non-human examples. *(3.1.3.C)*

- Use evidence to support the explanation that traits can be influenced by the environment.

Clarifying Statement: Examples of the environment affecting a trait could include normally tall plants grown with insufficient water are stunted; and, a pet dog that is given too much food and little exercise may become overweight.

Assessment Boundary: N/A *(3.1.3.D)*

- Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.

Clarifying Statement: Examples of data could include type, size, and distributions of fossil organisms. Examples of fossils and environments could include marine fossils found on dry land, tropical plant fossils found in Arctic areas, and fossils of extinct organisms.

Assessment Boundary: Assessment does not include identification of specific fossils or present plants and animals. Assessment

other organisms and the physical environment *(U1)*

- All organisms are made of cells and can be characterized by common aspects of their structure and functioning. *(U2)*
- Heredity refers to specific mechanisms by which characteristics or traits are passed from one generation to the next. *(U3)*
- Biological adaptation explains both the unity and diversity of species and provides a unifying principle for the history and diversity of life on Earth *(U4)*
- Technology impacts core concepts, characteristics, and relationships between all fields of study. *(BIG.TED.01)*
- The built environment is created by humans who understand and utilize energy, information, communication, manufacturing, and construction technologies. *(BIG.TED.05)*

- How and why do organisms interact with their environment and what are the effects of these interactions? *(EQ.SCI.LIFE.02)*
- How are the characteristics of one generation passed to the next? *(EQ.SCI.LIFE.03)*
- How does variation contribute to the natural selection of advantageous traits among organisms? *(EQ.SCI.LIFE.04)*
- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*
- How do objects in the universe appear and behave? *(EQ.SCI.EARTH.01)*
- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understand that organisms go through life cycles (birth, growth, reproduction, death) and that these cycles differ among species but share common characteristics. *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Developing models to represent life cycles, inheritance of traits, and how natural selection works. *(S1)*
- Using evidence from observations and data to explain how traits are inherited, how environmental factors influence

is limited to major fossil types and relative ages. *(3.1.3.E)* ■ Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. Clarifying Statement: Examples of cause and effect relationships could be plants that have larger thorns than other plants may be less likely to be eaten by predators; and, animals that have better camouflage coloration than other animals may be more likely to survive and therefore more likely to leave offspring. Assessment Boundary: N/A *(3.1.3.F)*	■ Recognize that traits can be inherited from parents and can vary within a species. *(K2)* ■ Comprehend how environmental factors influence traits and how those traits affect an organism's survival. *(K3)* ■ Understand the role of fossils in providing evidence of past organisms and environments. *(K4)* ■ Recognize the concept of natural selection and how variations in traits may provide advantages for survival and reproduction. *(K5)*	traits, and how natural selection operates. *(S2)* ■ Analyzing and interpreting data from fossils, life cycle observations, and genetic traits to make conclusions about the relationships between organisms and their environments. *(S3)* ■ Identifying and explaining patterns of inheritance and environmental influence on traits. *(S4)* ■ Constructing evidence-based explanations for how natural selection contributes to the diversity of species. *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 3 Science & Engineering Practices

- Develop models to describe phenomena. *(SEP.3-5.P2.E)*
- Use evidence (e.g., observations, patterns) to support an explanation. *(SEP.3-5.P4.B)*
- Analyze and interpret data to make sense of phenomena using logical reasoning. *(SEP.3-5.P5.C)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 3 Disciplinary Core Ideas

- Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. *(DCI.3.LS1.B.1)*
- Many characteristics of organisms are inherited from their parents. *(DCI.3.LS3.A.1)*
- Other characteristics result from individuals' interactions with the environment, which can range from diet to learning. Many characteristics involve both inheritance and environment. *(DCI.3.LS3.A.2)*

- Different organisms vary in how they look and function because they have different inherited information. *(DCI.3.LS3.B.1)*
- The environment also affects the traits that an organism develops. *(DCI.3.LS3.B.2)*
- Some kinds of plants and animals that once lived on Earth are no longer found anywhere. *(DCI.3.LS4.A.1)*
- Fossils provide evidence about the types of organisms that lived long ago and also about the nature of their environments. *(DCI.3.LS4.A.2)*
- Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing. *(DCI.3.LS4.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 3 Crosscutting Concepts

- Similarities and differences in patterns can be used to sort and classify natural phenomena. *(CCC.3-5.C1.A)*
- Patterns of change can be used to make predictions. *(CCC.3-5.C1.B)*
- Cause and effect relationships are routinely identified and used to explain change. *(CCC.3-5.C2.A1)*
- Natural objects and observable phenomena exist from the very small to the immensely large. Observable phenomena exist from very short to very long time periods. *(CCC.3-5.C3.A)*
- A system can be described in terms of its components and their interactions. *(CCC.3-5.C4.B)*

Vocabulary

Core Concept: Inherited Traits and Variation

1. Trait – A characteristic of a living thing (e.g., eye color, leaf shape).
2. Variation – A difference in a trait among individuals of the same species.
3. Inherited – A trait that is passed from parents to offspring.
4. Offspring – The young of a person, animal, or plant.
5. Heredity – The passing of traits from parents to offspring.
6. Genes – Parts of a cell that control traits (simplified definition for 3rd grade).
7. Species – A group of living things that are the same kind and can reproduce.
8. Generation – A group of offspring born and living around the same time.

Environmental Influences

1. Environment – Everything around a living thing that can affect it.

2. **Adaptation** – A trait that helps a living thing survive in its environment.
3. **Survival** – The ability to stay alive and grow.
4. **Habitat** – The place where an animal or plant lives.

Observation and Comparison

1. **Compare** – To find how things are alike or different.
2. **Observe** – To look at something closely to learn about it.
3. **Record** – To write down or draw what you see.
4. **Model** – A drawing or object that shows how something works or looks.

Application to Real-World Phenomena

1. **Behavior** – The way a living thing acts.
2. **Selection** – Choosing a trait or feature, often related to survival.
3. **Population** – A group of the same kind of living things living in one place.
4. **Predator** – An animal that hunts other animals.
5. **Prey** – An animal that is hunted by a predator.

Module 4 - Forces & Motion

Draft Date	Grades	Subjects	Team
10-14-2024 @ 12:46	8	Science	Kami Greenawalt , Josh Korb

Stage 1: Learning Goals

<table>
<tr><th>Established Goals</th><th colspan="2">Transfer</th></tr>
<tr><td rowspan="8"></td><th colspan="2">Long-Term Transfer Goals</th></tr>
<tr><td colspan="2">What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...</td></tr>
<tr><th colspan="2">Meaning</th></tr>
<tr><th>Big Ideas</th><th>Essential Questions</th></tr>
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<tr><th colspan="2">Acquisition of Knowledge & Skill</th></tr>
<tr><th>Knowledge</th><th>Skills</th></tr>
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</table>

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Module 4 - Forces & Motion

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 12:49	8th Grade Science	5.0 Weeks	8	Science	Kami Greenawalt , Josh Korb

Unit Focus

Students will explore fundamental concepts of physics, including motion, forces, energy, and their interactions. Through investigations, models, and problem-solving, they will build an understanding of how physical principles govern the natural world.

Anchoring Phenomenon

Newton's Cradle

Prior Learnings/Connection

Students have observed and described the motion of objects and have learned that pushes and pulls can change an object's speed or direction. They have explored basic ideas about energy, such as how it can cause movement or change. This unit builds on those foundational ideas by introducing quantitative relationships between force, mass, and acceleration, and by connecting motion and forces to energy transfer, setting the stage for more advanced physics concepts and real-world applications.

Navigation to next lesson/storyline

After developing an understanding of how motion, forces, and energy interact in physical systems, students will now apply those principles to explore electric forces and energy in electrical systems. In Module 5, they will investigate how electricity flows, how it can be controlled through circuits, and how electrical energy behaves similarly to other forms of energy, connecting concepts of force, motion, and energy to real-world electrical phenomena like the levitating washer.

Stage 1: Learning Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*

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Established Goals

Standards

Pennsylvania STEELS

Science (2023): 6-8 Standards

- Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects.

  Clarifying Statement: Examples of practical problems could include the impact of collisions between two cars, between a car and stationary objects, and between a meteor and a space vehicle.

  Assessment Boundary: Assessment is limited to vertical or horizontal interactions in one dimension. *(3.2.6-8.G)*
- Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.

  Clarifying Statement: Emphasis is on balanced (Newton's First Law) and unbalanced forces in a system, qualitative comparisons of forces, mass and changes in motion (Newton's Second Law), frame of reference, and specification of units.

  Assessment Boundary: Assessment is limited to forces and changes in motion in one-dimension in an inertial reference frame and to change in one variable at a

- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Interactions between any two objects can cause changes in one or both. *(U1)*
- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U2)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Forces cause objects to move or change motion. *(K1)*
- Forces can be pushes or pulls, measured in newtons (N). *(K2)*
- First Law (Inertia) states that objects stay at rest or in motion unless acted upon by an external force. *(K3)*
- Second Law states that force equals mass times acceleration (F = ma). *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Describing motion using concepts like speed, velocity, and acceleration. *(S1)*
- Applying Newton's Laws of Motion to explain how forces affect the motion of objects. *(S2)*
- Analyzing energy transformations and explaining how energy changes form and is conserved. *(S3)*
- Building and testing models to simulate motion, force, and energy interactions. *(S4)*

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time. Assessment does not include the use of trigonometry. *(3.2.6-8.H)*

- Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.

  Clarifying Statement: Examples of evidence for arguments could include data generated from simulations or digital tools; and charts displaying mass, strength of interaction, distance from the Sun, and orbital periods of objects within the solar system.

  Assessment Boundary: Assessment does not include Newton's Law of Gravitation or Kepler's Laws. *(3.2.6-8.J)*
- Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass and speed of an object.

  Clarifying Statement: Emphasis is on descriptive relationships between kinetic energy and mass separately from kinetic energy and speed. Examples could include riding a bicycle at different speeds, rolling different sizes of rocks downhill, and getting hit by a wiffle ball versus a tennis ball.

  Assessment Boundary: N/A *(3.2.6-8.L)*
- Construct, use, and present arguments to support the claim that when the kinetic

- Third Law states that for every action, there is an equal and opposite reaction. *(K5)*
- Potential Energy is stored energy based on an object's position. *(K6)*
- Kinetic Energy is energy an object has due to its motion. *(K7)*
- Law of Conservation of Energy states that energy cannot be created or destroyed, only transformed. *(K8)*
- Mass is the amount of matter in an object, measured in kilograms (kg). *(K9)*
- Weight is the force exerted by gravity on an object's mass, measured in newtons (N). *(K10)*
- Momentum is the product of mass and velocity (p = mv). *(K11)*
- Momentum is conserved in a closed system, meaning it remains constant unless acted upon by an external force. *(K12)*

- Solving problems by applying mathematical equations to calculate force, velocity, acceleration, or energy. *(S5)*
- Interpreting motion graphs to understand position, velocity, and time relationships. *(S6)*
- Explaining the relationship between work and energy, and how energy is transferred. *(S7)*
- Investigating how different forces, like friction, affect motion and energy. *(S8)*
- Using critical thinking and the scientific method to solve problems involving forces and energy. *(S9)*

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energy of an object changes, energy is transferred to or from the object.

Clarifying Statement: Examples of empirical evidence used in arguments could include an inventory or other representation of the energy before and after the transfer in the form of temperature changes or motion of object.

Assessment Boundary: Assessment does not include calculations of energy. *(3.2.6-8.O)*

- Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.

Clarifying Statement: Emphasis is on relative amounts of potential energy, not on calculations of potential energy. Examples of objects within systems interacting at varying distances could include: the Earth and either a roller coaster cart at varying positions on a hill or objects at varying heights on shelves, changing the direction/orientation of a magnet, and a balloon with static electrical charge being brought closer to a classmate's hair. Examples of models could include representations, diagrams, pictures, and written descriptions of systems.

Assessment Boundary: Assessment is limited to two objects and electric,

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magnetic, and gravitational interactions. *(3.2.6-8.P)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Develop a model to describe unobservable mechanisms. *(SEP.6-8.P2.F)*
- Plan an investigation individually and collaboratively, and in the design: identify independent and dependent variables and controls, what tools are needed to do the gathering, how measurements will be recorded, and how many data are needed to support a claim. *(SEP.6-8.P3.A)*
- Apply scientific ideas or principles to design, construct, and test a design of an object, tool, process or system. *(SEP.6-8.P4.F.1)*
- Analyze and interpret data to determine similarities and differences in findings. *(SEP.6-8.P5.G)*
- Construct, use, and/or present an oral and written argument supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon or a solution to a problem. *(SEP.6-8.P7.C.)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- For any pair of interacting objects, the force exerted by the first object on the second object is equal in strength to the force that the second object exerts on the first, but in the opposite direction (Newton's third law). *(DCI.6-8.PS2.A.1)*
- The motion of an object is determined by the sum of the forces acting on it; if the total force on the object is not zero, its motion will change. The greater the mass of the object, the greater the force needed to achieve the same change in motion. For any given object, a larger force causes a larger change in motion. *(DCI.6-8.PS2.A.2)*
- All positions of objects and the directions of forces and motions must be described in an arbitrarily chosen reference frame and arbitrarily chosen units of size. In order to share information with other people, these choices must also be shared. *(DCI.6-8.PS2.A.3)*
- Gravitational forces are always attractive. There is a gravitational force between any two masses, but it is very small except when one or both of the objects have large mass—e.g., Earth and the sun. *(DCI.6-8.PS2.B.2)*
- Motion energy is properly called kinetic energy; it is proportional to the mass of the moving object and grows with the square of its speed. *(DCI.6-8.PS3.A.3)*
- A system of objects may also contain stored (potential) energy, depending on their relative positions. *(DCI.6-8.PS3.A.5)*
- When the motion energy of an object changes, there is inevitably some other change in energy at the same time. *(DCI.6-8.PS3.B.3)*
- When two objects interact, each one exerts a force on the other that can cause energy to be transferred to or from the object. *(DCI.6-8.PS3.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Proportional relationships (e.g., speed as the ratio of distance traveled to time taken) among different types of quantities provide information about the magnitude of properties and processes. *(CCC.6-8.C3.C)*
- Models can be used to represent systems and their interactions—such as inputs, processes and outputs—and energy and matter flows within systems. *(CCC.6-8.C4.B.1)*
- Energy may take different forms (e.g. energy in fields, thermal energy, energy of motion). *(CCC.6-8.C5.C)*
- Explanations of stability and change in natural or designed systems can be constructed by examining the changes over time and forces at different scales. *(CCC.6-8.C7.A.1)*

Vocabulary

- **Force -** A push or pull on an object that can change its motion. Measured in newtons (N).
- **Newton's First Law of Motion (Law of Inertia) -** An object at rest stays at rest, and an object in motion stays in motion unless acted upon by an external force.
- **Newton's Second Law of Motion -** The acceleration of an object is directly proportional to the net force acting on the object and inversely proportional to its mass (F = ma).
- **Newton's Third Law of Motion -** For every action, there is an equal and opposite reaction.
- **Mass -** The amount of matter in an object, measured in kilograms (kg).
- **Weight -** The force exerted by gravity on an object's mass, measured in newtons (N). Weight = mass × gravity.
- **Acceleration -** The rate at which an object's velocity changes, which can involve a change in speed or direction.
- **Velocity -** The speed of an object in a specific direction.
- **Speed -** The distance an object travels in a certain amount of time. Measured in meters per second (m/s).
- **Friction -** A force that opposes the motion of an object, occurring when two surfaces come into contact.
- **Gravity -** A force of attraction between two masses, most commonly felt as the force that pulls objects toward the Earth.
- **Inertia -** The tendency of an object to resist changes in its state of motion (whether at rest or moving).
- **Momentum -** The quantity of motion an object has, calculated as the product of its mass and velocity (p = mv).
- **Balanced Forces -** Forces that are equal in size but opposite in direction, resulting in no change in motion.
- **Unbalanced Forces -** Forces that are not equal in size or opposite in direction, causing a change in an object's motion.
- **Net Force -** The overall force acting on an object, taking both magnitude and direction into account.
- **Contact Forces -** Forces that require physical contact between objects, such as friction, tension, and normal force.
- **Non-contact Forces -** Forces that act at a distance, without physical contact, such as gravity, magnetic, and electrostatic forces.
- **Circular Motion -** Motion of an object along a circular path, involving centripetal force.
- **Centripetal Force -** The force that keeps an object moving in a circular path, directed toward the center of the circle.

- **Potential Energy -** The energy stored in an object due to its position or condition. It is energy that has the potential to do work, such as an object held at a height or a compressed spring.
- **Kinetic Energy -** The energy an object has due to its motion. It is calculated using the formula: KE=12mv2KE = \frac{1}{2} mv^2KE=21mv2, where m is mass and v is velocity.
- **Law of Conservation of Energy -** The principle that energy cannot be created or destroyed, only transformed from one form to another. The total energy in a closed system remains constant.
- **Law of Conservation of Momentum -** The principle that the total momentum of a closed system is conserved, meaning it remains constant if no external forces are acting on it. Momentum before and after an interaction remains the same.

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Waves and Energy

Draft Date	Course	Duration	Grades	Subjects	Team
04-15-2025 @ 05:09	Chemistry	20.0 Day(s)	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Light, Electromagnetic Radiation, Wave Motion, Electron Structure

What is light?

How did atomic models change through time?

How are electrons arranged in an atom?

What is the motion of electrons within orbitals?

Anchoring Phenomenon

Students will use spectroscopes to view various element lightbulbs. This will show spetral lines. Discuss how spectral lines are like fingerprints by showing the spectrum of various planets that have different atmospheres. Show how looking at space through various wavelenths of electromagnetic radiation show completely different things about the object.

Prior Learnings/Connection

The structure of an atom consists of the nucleus and the electron cloud. In a stable atom, the nucleus is set, but the electrons in the cloud are constantly moving. This leads to the chemical behaviors of the elements. Knowing how the electrons are arranged and how they move can allow for the explanation of many Earth phenomena.

Navigation to next lesson/storyline

Electrons in the electron cloud are arranged by the energy that they possess. Electrons moving around between the energy levels causes the atom to emit and absorb certain wavelengths of light. This means the the color of glowing material can give an indication as to its elemental makeup. This can explain the electromagnetic radiation that exists around the universe at all times and explain its use. Light can be used to study atoms. Once an understanding as to the electronic structure of an atom is reached, one can begin naming the compounds that form when the elements begin to combine.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.

  Clarifying Statement: Emphasis is on explaining the meaning of mathematical expressions used in the model.

  Assessment Boundary: Assessment is limited to basic algebraic expressions or computations; to systems of two or three components; and to thermal energy, kinetic energy, and/or the energies in gravitational, magnetic, or electric fields. *(3.2.9-12.O)*
- Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics).

  Clarifying Statement: Emphasis is on

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Universe is composed of a variety of different objects, which are organized into systems, each of which develops according to accepted physical processes and laws. *(U1)*
- Waves are a repeating pattern of motion that transfers energy from place to place without the overall displacement of matter. *(U2)*
- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U3)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

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analyzing data from student investigations and using mathematical thinking to describe the energy changes both quantitatively and conceptually. Examples of investigations could include mixing liquids at different initial temperatures or adding objects at different temperatures to water.

Assessment Boundary: Assessment is limited to investigations based on materials and tools provided to students. *(3.2.9-12.R)*

- Use mathematical representations to support a claim regarding relationships among the frequency, wavelength, and speed of waves traveling in various media.

Clarifying Statement: Examples of data could include electromagnetic radiation traveling in a vacuum and glass, sound waves traveling through air and water, and seismic waves traveling through the Earth.

Assessment Boundary: Assessment is limited to algebraic relationships and describing those relationships qualitatively. *(3.2.9-12.T)*

- Evaluate the validity and reliability of claims in published materials of the effects that different frequencies of electromagnetic radiation have when absorbed by matter.

Clarifying Statement: Emphasis is on the idea that photons associated with different

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ the electromagetic spectrum consists of all types of electromagnetic radiation and is emitted from all stars in the universe at all times. *(K1)* ■ the different types of electromagnetic radiation are used for different scientific studys. *(K2)* ■ waves can be decribed by wavelength, amplitude, and frequency. *(K3)* ■ the speed of light is the speed that all electromagnetic radiation travels at. *(K4)* ■ a quantum of light is called a photon. *(K5)* ■ elements all have a unique emission spectrum that corresponds to their eletrons like a fingerprint. *(K6)* ■ spectroscopy can be used to study composition of unknown substances. *(K7)* ■ the Bohr model of an atom only applies to Hydrogen, and the real model of the atom is the quantum mechanical model which places electrons in areas of space where they are likely to be found. *(K8)* ■ electron location in each atom can be described by electron configuration	■ describing electromagnetic radiation and the factors that determine the electromagnetic spectrum. *(S1)* ■ discussing the bahavior of light. *(S2)* ■ describing early planetary models of an atom. *(S3)* ■ decribing and calculating wave motion in terms of electrons. *(S4)* ■ decribing the electron conigurations of atoms using correct notations. *(S5)* ■ modeling the shape of atomic orbitals. *(S6)* ■ modeling electron spin. *(S7)* ■ identifying quantum numbers for electrons. *(S8)*

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frequencies of light have different energies, and the damage to living tissue from electromagnetic radiation depends on the energy of the radiation. Examples of published materials could include trade books, magazines, web resources, videos, and other passages that may reflect bias.

Assessment Boundary: Assessment is limited to qualitative descriptions. *(3.2.9-12.W)*

- Construct an explanation of the Big Bang theory based on astronomical evidence of light spectra, the motion of distant galaxies, and the composition of matter in the universe.

Clarifying Statement: Emphasis is on the astronomical evidence of the red shift of light from galaxies as an indication that the universe is currently expanding, the cosmic microwave background as the remnant radiation from the Big Bang, and the observed composition of ordinary matter of the universe, primarily found in stars and interstellar gases (from the spectra of electromagnetic radiation from stars), which matches that predicted by the Big Bang theory (3/4 hydrogen and 1/4 helium).

Assessment Boundary: N/A *(3.3.9-12.B)*

- Analyze geoscience data to make the claim that one change to Earth's surface can create feedback that causes changes to other Earth systems.

with each electron being given an "address". *(K9)*

- orbital notation can more accurately describe what electrons are doing in an atom. *(K10)*

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Clarifying Statement: Examples should include climate feedbacks, such as how an increase in greenhouse gases causes a rise in global temperatures that melts glacial ice, which reduces the amount of sunlight reflected from Earth's surface, increasing surface temperatures and further reducing the amount of ice. Examples could also be taken from other system interactions, such as how the loss of ground vegetation causes an increase in water runoff and soil erosion; how dammed rivers increase groundwater recharge, decrease sediment transport, and increase coastal erosion; or how the loss of wetlands causes a decrease
in local humidity that further reduces the wetland extent.

Assessment Boundary: N/A *(3.3.9-12.H)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Evaluate how technology and engineering advancements alter human health and capabilities. *(3.5.9-12.E)*
- Assess how similarities and differences among scientific, technological, engineering, and mathematical knowledge and skills contributed to the design of a product or system. *(3.5.9-12.BB)*
- Connect technological and engineering progress to the advancement of other areas of knowledge and vice versa. *(3.5.9-12.EE)*

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■ Relate how technological and engineering developments have been evolutionary, often the result of a series of refinements to basic inventions or technological knowledge. *(3.5.9-12.KK)*	

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Plan and conduct an investigation individually and collaboratively to produce data to serve as the basis for evidence, and in the design: decide on types, how much, and accuracy of data needed to produce reliable measurements and consider limitations on the precision of the data (e.g., number of trials, cost, risk, time), and refine the design accordingly. *(SEP.9-12.P3.B)*
- Construct and revise an explanation based on valid and reliable evidence obtained from a variety of sources (including students' own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future. *(SEP.9-12.P4.B)*
- Analyze data using tools, technologies, and/or models (e.g., computational, mathematical) in order to make valid and reliable scientific claims or determine an optimal design solution. *(SEP.9-12.P5.A)*
- Create and/or revise a computational model or simulation of a phenomenon, designed device, process, or system. *(SEP.9-12.P6.A)*
- Use mathematical, computational, and/or algorithmic representations of phenomena or design solutions to describe and/or support claims and/or explanations. *(SEP.9-12.P6.B)*
- Evaluate the validity and reliability of and/or synthesize multiple claims, methods, and/or designs that appear in scientific and technical texts or media reports, verifying the data when possible. *(SEP.9-12.P8.D)*

Technology & Engineering (2023): 9-12 Science & Engineering Practices

- Evaluate the claims, evidence, and/or reasoning behind currently accepted explanations or solutions to determine the merits of arguments. *(SEP.9-12.P4.2)*
- Critically read scientific literature adapted for classroom use to determine the central ideas or conclusions and/or to obtain scientific and/or technical information to summarize complex evidence, concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. *(SEP.9-12.P5.1)*

Technology & Engineering (2023): 9-12 Technology & Engineering Practices

- Uses evidence to better understand and solve problems in technology and engineering, including applying computational thinking. *(TEP.9-12.E.1)*
- Demonstrates the ability to regulate and improve making and doing skills. *(TEP.9-12.F.1)*
- Shows persistence in addressing technological problems and finding solutions to those problems. *(TEP.9-12.G.1)*

- Designs and troubleshoots technological systems in ways that consider the multiple components of the system. *(TEP.9-12.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Energy is a quantitative property of a system that depends on the motion and interactions of matter and radiation within that system. That there is a single quantity called energy is due to the fact that a system's total energy is conserved, even as, within the system, energy is continually transferred from one object to another and between its various possible forms. *(DCI.9-12.PS3.A.2)*
- Conservation of energy means that the total change of energy in any system is always equal to the total energy transferred into or out of the system. *(DCI.9-12.PS3.B.1)*
- Energy cannot be created or destroyed, but it can be transported from one place to another and transferred between systems. *(DCI.9-12.PS3.B.2)*
- Mathematical expressions, which quantify how the stored energy in a system depends on its configuration (e.g., relative positions of charged particles, compression of a spring) and how kinetic energy depends on mass and speed, allow the concept of conservation of energy to be used to predict and describe system behavior. *(DCI.9-12.PS3.B.3)*
- The availability of energy limits what can occur in any system. *(DCI.9-12.PS3.B.4)*
- Uncontrolled systems always evolve toward more stable states—that is, toward more uniform energy distribution (e.g., water flows downhill, objects hotter than their surrounding environment cool down). *(DCI.9-12.PS3.B.5)*
- Although energy cannot be destroyed, it can be converted to less useful forms—for example, to thermal energy in the surrounding environment. *(DCI.9-12.PS3.D.2)*
- The wavelength and frequency of a wave are related to one another by the speed of travel of the wave, which depends on the type of wave and the medium through which it is passing. *(DCI.9-12.PS4.A.1)*
- When light or longer wavelength electromagnetic radiation is absorbed in matter, it is generally converted into thermal energy (heat). Shorter wavelength electromagnetic radiation (ultraviolet, X-rays, gamma rays) can ionize atoms and cause damage to living cells. *(DCI.9-12.PS4.B.2)*
- Atoms of each element emit and absorb characteristic frequencies of light. These characteristics allow identification of the presence of an element, even in microscopic quantities. *(DCI.9-12.PS4.B.4)*
- The study of stars' light spectra and brightness is used to identify compositional elements of stars, their movements, and their distances from Earth. *(DCI.9-12.ESS1.A.2)*
- The Big Bang theory is supported by observations of distant galaxies receding from our own, of the measured composition of stars and non-stellar gases, and of the maps of spectra of the primordial radiation (cosmic microwave background) that still fills the universe. *(DCI.9-12.ESS1.A.3)*
- Other than the hydrogen and helium formed at the time of the Big Bang, nuclear fusion within stars produces all atomic nuclei lighter than and including iron, and the process releases electromagnetic energy. Heavier elements are produced when certain massive stars achieve a supernova stage and explode. *(DCI.9-12.ESS1.A.4)*

- Earth's systems, being dynamic and interacting, cause feedback effects that can increase or decrease the original changes. *(DCI.9-12.ESS2.A.2)*
- The foundation for Earth's global climate systems is the electromagnetic radiation from the sun, as well as its reflection, absorption, storage, and redistribution among the atmosphere, ocean, and land systems, and this energy's re-radiation into space. *(DCI.9-12.ESS2.D.1)*

Technology & Engineering (2023): 9-12 Disciplinary Core Ideas

- Criteria and constraints also include satisfying any requirements set by society, such as taking issues of risk mitigation into account, and they should be quantified to the extent possible and stated in such a way that one can tell if a given design meets them. *(DCI.9-12.ETS1.A.1)*
- Advances in science have been applied by engineers to design new products, processes, and systems, while improvements in technology have enabled breakthroughs in scientific knowledge. *(DCI.9-12.NAEP.D.12.1)*
- Engineers use science, mathematics, and other disciplines to improve technology, while scientists use tools devised by engineers to advance knowledge in their disciplines. This interaction has deepened over the past century. *(DCI.9-12.NAEP.D.12.2)*
- Changes caused by the introduction and use of a new technology can range from gradual to rapid and from subtle to obvious, and can change over time. These changes may vary from society to society as a result of differences in a society's economy, politics, and culture. *(DCI.9-12.NAEP.T.12.2)*
- Disparities in the technologies available to different groups of people have consequences for public health and prosperity, but deciding whether to introduce a new technology should consider local resources and the role of culture in acceptance of the new technology. *(DCI.9-12.NAEP.T.12.13)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Empirical evidence is required to differentiate between cause and correlation and make claims about specific causes and effects. *(CCC.9-12.C2.A)*
- Cause and effect relationships can be suggested and predicted for complex natural and human designed systems by examining what is known about smaller scale mechanisms within the system. *(CCC.9-12.C2.C)*
- When investigating or describing a system, the boundaries and initial conditions of the system need to be defined. *(CCC.9-12.C4.A)*
- Models can be used to predict the behavior of a system, but these predictions have limited precision and reliability due to the assumptions and approximations inherent in models. *(CCC.9-12.C4.C)*
- Energy cannot be created or destroyed—it only moves between one place and another place, between objects and/or fields, or between systems.
  (CCC.9-12.C5.C)
- Feedback (negative or positive) can stabilize or destabilize a system. *(CCC.9-12.C7.C)*

Vocabulary

electromagnetic radiation, electromagetic spectrum, wavelength, frequency, photon, spectrum, quantum, orbital, electron configuration, Aufbau principle, Pauli exclusion principle, Hund's rule

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Biogeochemical Cycles

Draft Date	Course	Grades	Subjects	Team
05-14-2025 @ 05:46	Ecology	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Water, Nitrogen, Carbon, Phosphorus, Sulfur, Nutrient Cycling, Food Webs

Stage 1: Learning Goals

Established Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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Module 4: Animal & Plant Traits

Draft Date	Course	Duration	Grades	Subjects	Team
04-01-2025 @ 05:38	1st Grade Science	Day(s)	1	Science	Jessica Smith , Maurisa Fasick , ROBIN SHERMAN

Unit Focus

In this unit, 1st-grade students will explore how both animals and plants have special traits or body parts that help them survive and grow. They will learn about the different ways animals use their traits (such as claws, wings, or tails) for protection, movement, and obtaining food. Similarly, they will observe how plant parts like roots, stems, leaves, and flowers help plants survive in their environments. Students will design solutions by mimicking these traits to solve human problems.

Anchoring Phenomenon

Students will be introduced to a scenario where they observe an animal or plant that has a unique trait (such as a turtle's hard shell, a bird's wings, or a plant's thorns). The challenge is to figure out how these traits help the plant or animal survive in its environment. This leads to questions such as: How do animals use their body parts to find food or protect themselves? How do plant parts help them grow and survive? What can we learn from these traits to help solve human problems?

Prior Learnings/Connection

In Kindergarten, students learned about the basic needs of living things, such as how animals and plants need food, water, and shelter to survive. They began observing and recognizing patterns in nature, like how plants grow in specific environments or how animals use their body parts to survive. They also started to understand the concept of life cycles, noticing that baby animals and plants resemble their parents but are not exactly the same. These early experiences help 1st-grade students build on their observation skills and understand how traits and behaviors support survival.

Navigation to next lesson/storyline

Click the following link to access the Module 4: Animal & Plant Traits storyline. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 1 Standards

- Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.

  Clarifying Statement: Examples of human problems that can be solved by mimicking plant or animal solutions could include designing clothing or equipment to protect bicyclists by mimicking turtle shells, acorn shells, and animal scales; stabilizing structures by mimicking animal tails and roots on plants; keeping out intruders by mimicking thorns on branches and animal quills; and, detecting intruders by mimicking eyes and ears.

  Assessment Boundary: N/A *(3.1.1.A)*
- Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.

  Clarifying Statement: Examples of patterns of behaviors could include the signals that offspring make (such as crying, cheeping, and other vocalizations) and the responses of the parents (such as feeding,

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T2)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with other organisms and the physical environment *(U1)*
- Heredity refers to specific mechanisms by which characteristics or traits are passed from one generation to the next. *(U2)*
- Biological adaptation explains both the unity and diversity of species and provides a unifying principle for the history and diversity of life on Earth *(U3)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*
- How and why do organisms interact with their environment and what are the effects of these interactions? *(EQ.SCI.LIFE.02)*
- How are the characteristics of one generation passed to the next? *(EQ.SCI.LIFE.03)*

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comforting, and protecting the offspring).

Assessment Boundary: N/A *(3.1.1.B)*

- Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

Clarifying Statement: Examples of patterns could include features plants or animals share. Examples of observations could include leaves from the same kind of plant are the same shape but can differ in size; and, a particular breed of dog looks like its parents but is not exactly the same.

Assessment Boundary: Assessment does not include inheritance or animals that undergo metamorphosis or hybrids. *(3.1.1.C)*

Technology & Engineering (2023): K-2 Technology & Engineering

- Demonstrate essential skills of the engineering design process. *(3.5.K-2.M)*
- Draw connections between technology and human experience. *(3.5.K-2.R)*
- Apply design concepts, principles, and processes through play and exploration. *(3.5.K-2.S)*
- Demonstrate that designs have requirements. *(3.5.K-2.T)*
- Explain that design is a response to wants and needs. *(3.5.K-2.U)*
- Develop a plan in order to complete a task. *(3.5.K-2.X)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Key animal and plant traits: such as claws, wings, roots, leaves, shells, and how these traits help organisms survive. *(K1)*
- Functions of plant and animal body parts and how animals use their traits (e.g., claws for protection, wings for movement, etc.) and how plants use parts like roots, stems, and leaves for survival and growth. *(K2)*
- How traits are passed from one generation to the next, with the understanding that offspring are similar to their parents but not identical. *(K3)*
- How biological adaptation explains the survival and growth of different species, using traits to meet the needs of organisms. *(K4)*
- Patterns in nature, recognizing that organisms, though similar to their parents, can show differences. *(K5)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Making careful observations of plants and animals, noting how their traits contribute to survival. *(S1)*
- Using traits observed in animals and plants to design models or solutions to human problems (e.g., mimicking animal traits for protective clothing). *(S2)*
- Drawing connections between the structure and function of natural and designed objects. *(S3)*
- Designing simple investigations or models to solve problems, using scientific tools and materials. *(S4)*
- Recognizing patterns in the natural world and using those patterns as evidence in scientific inquiry. *(S5)*
- Using understanding of biological traits to create practical solutions or designs, such as mimicking natural traits for human technology or safety. *(S6)*

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- Illustrate how systems have parts or components that work together to accomplish a goal. *(3.5.K-2.Z)*
- Demonstrate that creating can be done by anyone. *(3.5.K-2.AA)*
- Compare the natural world and human-made world. *(3.5.K-2.BB)*

Technology & Engineering (2023): K-2 Technology & Engineering Practices

- Learns to share technological products and ideas. *(TEP.K-2.B.1)*
- Learns that humans have many ways to communicate. *(TEP.K-2.C.1)*
- Learns that humans create products and ways of doing things. *(TEP.K-2.D.1)*
- Engages in listening, questioning, and discussing. *(TEP.K-2.E.1)*
- Learns to use tools and materials to accomplish a task. *(TEP.K-2.F.1)*
- Learns that human-designed things are connected. *(TEP.K-2.H.1)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 1 Science & Engineering Practices

- Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. *(SEP.K-2.P4.A)*
- Use tools and/or materials to design a device that solves a specific problem or a solution to a specific problem. *(SEP.K-2.P4.B)*
- Read grade-appropriate texts and use media to obtain scientific information to determine patterns in the natural world. *(SEP.K-2.P8.A)*

Technology & Engineering (2023): K-2 Science & Engineering Practices

- Define a simple problem that can be solved through the development of a new or improved object or tool. *(SEP.K-2.P2.2)*
- Use tools and/or materials to design and/or build a device that solves a specific problem or a solution to a specific problem. *(SEP.K-2.P3.1)*
- Generate and/or compare multiple solutions to a problem. *(SEP.K-2.P3.2)*

- Develop and/or use a model to represent amounts, relationships, relative scales (bigger, smaller), and/or patterns in the natural and designed world(s). *(SEP.K-2.P4.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 1 Disciplinary Core Ideas

- All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. *(DCI.1.LS1.A.1)*
- Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. *(DCI.1.LS1.B.1)*
- Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. *(DCI.1.LS1.D.1)*
- Young animals are very much, but not exactly like, their parents. Plants also are very much, but not exactly, like their parents. *(DCI.1.LS3.A.1)*
- Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways. *(DCI.1.LS3.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 1 Crosscutting Concepts

- Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. *(CCC.K-2.C1.A)*
- The shape and stability of structures of natural and designed objects are related to their function(s). *(CCC.K-2.C6.A)*

Vocabulary

Unit Specific Vocabulary (Tier 3): claws, wings, roots, leaves, shell, offspring

Tier 2 Vocabulary: trait, grow, protect, behavior

Module 4: Earth in the Universe

Draft Date	Course	Duration	Grades	Subjects	Team
05-15-2025 @ 06:38	5th Grade Science	10.0 Lesson(s)	5	Science	SYSTEM USER , CHRISTY KLEMICK , KIMBERLY METZGER , Brooke Fry , Tori Berwager

Unit Focus

Have you ever wondered why stars twinkle at night but the Sun doesn't, or why shadows change length during the day? In this unit, students explore Earth's place in the universe by examining observable patterns in the sky. They investigate the Sun's brightness compared to other stars, the forces that keep us grounded, and the patterns of shadows, daylight, and stars. Through hands-on modeling and data collection, students figure out how Earth's rotation and revolution explain what we see in the sky and how gravity plays a critical role in our understanding of motion in space.

Anchoring Phenomenon

Each morning, the Sun rises in the east and sets in the west. Stars appear to shift positions throughout the year. And on some nights, you can see the moon in daylight! Why does the sky change in such predictable ways?

To anchor this unit, students observe a time-lapse video showing the movement of shadows throughout the day and another showing the night sky changing over several weeks. These observations spark questions about what causes these repeating patterns and how Earth's motion and position in space help explain them.

Prior Learnings/Connection

Students come to this unit with experiences of watching the Sun move across the sky, seeing the Moon in different phases, and wondering why some stars appear brighter than others. Many will have informal ideas about gravity—like things falling "down"—and may not yet understand that "down" means toward Earth's center. Students likely associate night with darkness and stars, and may already have been introduced to simple models of day and night. This unit builds on those ideas by helping students explain these phenomena using Earth's rotation and revolution, and by distinguishing between the apparent and actual movement of celestial bodies.

Navigation to next lesson/storyline

Click the following link to access the Module 4: Earth in the Universe storyline. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 5 Standards

- Support an argument that the gravitational force exerted by Earth on objects is directed down.

  Clarifying Statement: "Down" is a local description of the direction that points toward the center of the spherical Earth.

  Assessment Boundary: Assessment does not include mathematical representation of gravitational force. *(3.2.5.F)*
- Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.

  Clarifying Statement: N/A

  Assessment Boundary: Assessment is limited to relative distances, not sizes, of stars. Assessment does not include other factors that affect apparent brightness (such as stellar masses, age, stage). *(3.3.5.A)*
- Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Utilize critical thinking, problem-solving, creativity & innovation, communication, and collaboration. *(LT.STM.06)*
- Develop grit, persistence, self-discipline, pride, responsibility and safety. *(LT.STM.05)*
- Design an investigation or model using appropriate tools, resources, and methods. *(T3)*
- Gather and interpret measurements and data and apply to new situations. *(T4)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T5)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T6)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T7)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Universe is composed of a variety of different objects, which are organized into systems, each of which develops according to accepted physical processes and laws. *(U1)*
- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U2)*
- Digital tools are used to plan and manage a design process by

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How will we work toward a common goal to help our team and community internalize new information using an effective medium? *(EQ.STM.01)*
- How do we solve problems to persevere through a task? *(EQ.STM.04)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Clarifying Statement: Examples of patterns could include the position and motion of Earth with respect to the sun and selected stars that are visible only in particular months.

Assessment Boundary: Assessment does not include causes of seasons. *(3.3.5.B)*

considering calculated risks and constraints. *(U3)*
- Technology impacts core concepts, characteristics, and relationships between all fields of study. *(BIG.TED.01)*

- How do objects in the universe appear and behave? *(EQ.SCI.EARTH.01)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- The Sun appears brighter than other stars because it is much closer to Earth. *(K1)*
- Earth rotates on its axis, causing patterns of day and night and the movement of shadows. *(K2)*
- Earth revolves around the Sun, resulting in seasonal changes and visibility of different stars throughout the year. *(K3)*
- Gravity is a force that pulls objects toward the center of Earth and keeps celestial bodies in orbit. *(K4)*
- "Down" means toward the center of Earth, not a single fixed direction in space. *(K5)*
- The length and direction of shadows change in predictable ways based on the position of the Sun. *(K6)*
- Data and patterns from observations of the sky can be represented in graphs and models to explain phenomena. *(K7)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Making and recording observations of shadows, celestial objects, and sky patterns. *(S1)*
- Representing data in graphical displays to reveal patterns (e.g., bar graphs of sunset times or shadow lengths). *(S2)*
- Developing and using models to describe Earth's rotation, revolution, and the apparent motion of celestial bodies. *(S3)*
- Supporting arguments with evidence about gravity, brightness of stars, and Earth's place in space. *(S4)*
- Interpreting and explaining cause-and-effect relationships between Earth's motion and sky observations. *(S5)*
- Communicating scientific ideas through visual models, diagrams, and oral/written explanations. *(S6)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 5 Science & Engineering Practices

- Represent data in graphical displays (bar graphs, pictographs and/or pie charts) to reveal patterns that indicate relationships. *(SEP.3-5.P5.B)*
- Support an argument with evidence, data, or a model. *(SEP.3-5.P7.D)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 5 Disciplinary Core Ideas

- The gravitational force of Earth acting on an object near Earth's surface pulls that object toward the planet's center. *(DCI.5.PS2.B.1)*
- The sun is a star that appears larger and brighter than other stars because it is closer. Stars range greatly in their distance from Earth. *(DCI.5.ESS1.A.1)*
- The orbits of Earth around the sun and of the moon around Earth, together with the rotation of Earth about an axis between its North and South poles, cause observable patterns. These include day and night; daily changes in the length and direction of shadows; and different positions of the sun, moon, and stars at different times of the day, month, and year. *(DCI.5.ESS1.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 5 Crosscutting Concepts

- Similarities and differences in patterns can be used to sort, classify, communicate and analyze simple rates of change for natural phenomena. *(CCC.3-5.C1.A)*
- Cause and effect relationships are routinely identified and used to explain change. *(CCC.3-5.C2.A)*
- Natural objects exist from the very small to the immensely large. *(CCC.3-5.C3.A)*

Vocabulary

Tier 2 Vocabulary - pattern, model, observe, evidence, cause, effect, direction, argument, position, data

Tier 3 Vocabulary - rotation, revolution, gravity, axis, orbit, celestial, apparent motion, brightness, star, shadow

Module 4: Ecosystem Change & Survival

Draft Date	Course	Duration	Grades	Subjects	Team
04-02-2025 @ 02:04	3rd Grade Science	Day(s)	3	Science	Jessica Smith , Jill Lerew

Unit Focus

In this unit, students will explore how living things interact with each other and with the nonliving parts of their environment. They will learn that ecosystems can change over time due to natural events or human actions, and that these changes can affect the survival of plants and animals. Students will investigate how some organisms survive better than others in changing environments because of their traits and behaviors. Through observation, data collection, and modeling, students will develop an understanding of the relationships within ecosystems and the importance of balance in nature.

Anchoring Phenomenon

The anchor phenomenon for this unit is a water-filled cave that contains footprints, fossils, and ancient fire pits. How can these things be found deep underwater?

During the introduction, students generate observations and questions about the phenomenon and create an initial conceptual model to explain how and why they think this is happening.

Students will gather clues during and after each lesson in this unit to help them improve their explanations. It is important to encourage students to recognize that even if they don't know the perfect answer yet, they are going to learn a lot throughout the unit and will have an opportunity to change or add to their first explanation.

To access anchor phenomenon, click here!

Prior Learnings/Connection

In Kindergarten through 2nd grade, students build foundational knowledge about living organisms and their environments, which directly connects to the Unit 4 standards. In Kindergarten, students learn about basic needs of animals and plants, and how they depend on their environment for survival, laying the groundwork for understanding adaptation and survival . In 1st grade, students explore simple interactions between organisms and their environments, including how animals live in groups and how these interactions help them survive, which connects to concepts in group behavior. By 2nd grade, students deepen their understanding of habitats and the effects of

environmental changes on living things, preparing them to tackle more complex discussions on biodiversity and survival in changing environments. These early lessons provide students with the necessary background to analyze and argue how environmental changes impact ecosystems and species survival in Unit 4.

Navigation to next lesson/storyline

Click the following link to access the Module 4: Ecosystem Change & Survival storyline. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 3 Standards

- Construct an argument that some animals form groups that help members survive.

  Clarifying Statement: N/A

  Assessment Boundary: N/A *(3.1.3.B)*
- Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

  Clarifying Statement: Examples of evidence could include needs and characteristics of the organisms and habitats involved. The organisms and their habitat make up a system in which the parts depend on each other.

  Assessment Boundary: N/A *(3.1.3.G)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*
- Matter can be understood in terms of the types of atoms present and the

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*
- How and why do organisms interact with their environment and what are the effects of these interactions? *(EQ.SCI.LIFE.02)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

- Make a claim supported by evidence about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

  Clarifying Statement: Examples of environmental changes could include changes in land characteristics, water distribution, temperature, food, and other organisms.

  Assessment Boundary: Assessment is limited to a single environmental change. Assessment does not include the greenhouse effect or climate change. *(3.1.3.H)*

Technology & Engineering (2023): 3-5 Technology & Engineering

- Judge technologies to determine the best one to use to complete a given task or meet a need. *(3.5.3-5.K)*
- Evaluate the strengths and weaknesses of existing design solutions, including their own solutions. *(3.5.3-5.P)*
- Practice successful design skills. *(3.5.3-5.Q)*
- Illustrate that there are multiple approaches to design. *(3.5.3-5.S)*
- Apply universal principles and elements of design. *(3.5.3-5.T)*

interactions both between and within atoms. *(U2)*
- Interactions between any two objects can cause changes in one or both. *(U3)*
- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with other organisms and the physical environment *(U4)*

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*
- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding of ecosystem dynamics and how changes to the environment affect organisms' surviva *(K1)*
- Awareness of group behaviors in animals and their role in survival *(K2)*
- Understanding adaptation in relation to environmental changes *(K3)*
- Knowledge of how environmental changes can impact biodiversity and species survival *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Constructing arguments based on evidence from investigations *(S1)*
- Making claims supported by evidence about environmental changes and their impacts on ecosystems *(S2)*
- Designing and evaluating technological solutions to address environmental challenges *(S3)*
- Collaborating and critiquing proposed solutions, using data and evidence to improve designs *(S4)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 3 Science & Engineering Practices

- Construct an argument with evidence, data, and/or a model. *(SEP.3-5.P7.D)*
- Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem. *(SEP.3-5.P7.F)*

Technology & Engineering (2023): 3-5 Science & Engineering Practices

- Use evidence (e.g., measurements, observations, patterns) to construct or support an explanation or design a solution to a problem. *(SEP.3-5.P2.1)*
- Respectfully provide and receive critiques from peers about a proposed procedure, explanation, or model by citing relevant evidence and posing specific questions. *(SEP.3-5.P4.2)*

Technology & Engineering (2023): 3-5 Technology & Engineering Practices

- Explains ethical dilemmas involving technology, such as tradeoffs. *(TEP.3-5.A.1)*
- Tries new technologies and generates strategies for improving existing ideas. *(TEP.3-5.D.1)*
- Knows how to find answers to technological questions. *(TEP.3-5.E.1)*
- Safely uses grade-appropriate tools, materials, and processes to build projects. *(TEP.3-5.F.1)*
- Engages in “tinkering” to improve a design. *(TEP.3-5.G.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 3 Disciplinary Core Ideas

- When the environment changes in ways that affect a place’s physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die. *(DCI.3.LS2.C.1)*
- Being part of a group helps animals obtain food, defend themselves, and cope with changes. Groups may serve different functions and vary dramatically in size. *(DCI.3.LS2.D.1)*
- For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all. *(DCI.3.LS4.C.1)*
- Populations live in a variety of habitats, and change in those habitats affects the organisms living there. *(DCI.3.LS4.D.1)*

Technology & Engineering (2023): 3-5 Disciplinary Core Ideas

- Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. *(DCI.3-5.ETS1.A.1)*
- At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. *(DCI.3-5.ETS1.B.1)*
- Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. *(DCI.3-5.ETS1.B.2)*
- Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. *(DCI.3-5.ETS1.B.3)*
- Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints. *(DCI.3-5.ETS1.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 3 Crosscutting Concepts

- Cause and effect relationships are routinely identified and used to explain change. *(CCC.3-5.C2.A1)*
- A system can be described in terms of its components and their interactions. *(CCC.3-5.C4.B)*

Vocabulary

1. Ecosystem – A community of living and nonliving things that work together.
2. Habitat – The place where a plant or animal lives and gets what it needs to survive.
3. Organism – Any living thing, like a plant, animal, or fungus.
4. Population – A group of the same kind of organism living in the same area.
5. Community – All the different living things in an ecosystem.

Living and Nonliving Interactions

1. Environment – Everything around a living thing, including air, water, soil, and other living things.
2. Resources – Things in the environment that organisms need to live (like food, water, shelter).
3. Food Chain – A sequence that shows who eats whom in an ecosystem.
4. Producer – A plant that makes its own food from sunlight.

5. **Consumer** – An animal that eats plants or other animals.
6. **Decomposer** – A living thing that breaks down dead plants and animals (like worms or fungi).

Ecosystem Change

1. **Change** – When something becomes different over time.
2. **Natural Disaster** – A natural event (like a flood, wildfire, or drought) that changes the environment.
3. **Pollution** – Harmful materials added to the environment by people.
4. **Human Impact** – The way people change the land, water, air, and ecosystems.

Survival & Adaptation

1. **Survival** – Staying alive and healthy.
2. **Adaptation** – A body part or behavior that helps a living thing survive.
3. **Behavior** – The way an animal or plant acts or responds to its environment.
4. **Instinct** – A behavior an animal is born knowing how to do.
5. **Migration** – When animals move from one place to another during certain times of the year.

Balance and Relationships

1. **Balance** – A healthy state where living things can get what they need without harm to the ecosystem.
2. **Dependence** – When one organism needs another to survive.
3. **Biodiversity** – The variety of living things in a place.

Module 4: Ecosystems- Plants, Animals, and their Environment

Draft Date	Course	Duration	Grades	Subjects	Team
04-02-2025 @ 02:47	Kindergarten Science	Day(s)	K	Science	Jessica Smith , Emily Stambaugh , Ashley Small

Unit Focus

In this unit, kindergarten students will explore the interdependent relationships between plants, animals, and their environment. They will learn how living things depend on each other and their surroundings for survival, focusing on the resources they need (such as water, food, air, and light) and how they can change their environment to meet these needs. Through simple investigations, students will observe how plants and animals interact with the environment and how they can impact each other.

Anchoring Phenomenon

Students are introduced to a scenario where animals in a garden or forest seem to be losing their food, and plants are being affected in some way. This mystery leads to questions like: How do animals and plants depend on each other? How can plants and animals change their environment to meet their needs? The phenomenon sparks curiosity and sets the stage for exploring the relationships between plants, animals, and their environment.

Prior Learnings/Connection

Kindergarten students can connect this unit to their prior experiences by reflecting on simple observations of plants and animals around them, such as noticing how animals eat or where plants grow. They may also have prior knowledge about basic needs, like the importance of water and food for themselves and pets. These experiences will help them understand the interdependent relationships between living things and their environment.

Navigation to next lesson/storyline

Click the following link to access the Module 4: Ecosystems- Plants, Animals, and their Environment. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): K Standards

- Use observations to describe patterns of what plants and animals (including humans) need to survive.

  Clarifying Statement: Examples of patterns could include that animals need to take in food but plants do not; the different kinds of food needed by different types of animals; the requirement of plants to have light; and, that all living things need water.

  Assessment Boundary: N/A *(3.1.K.A)*
- Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

  Clarifying Statement: Examples of plants and animals changing their environment could include a squirrel digs in the ground to hide its food and tree roots can break concrete.

  Assessment Boundary: N/A *(3.3.K.B)*
- Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T2)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T3)*
- Use content-specific and other personal knowledge to troubleshoot and generate solutions to real-world problems. *(LT.TED.02)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of climates and geographies. *(U1)*
- The Earth's processes affect and are affected by human activities. *(U2)*
- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with other organisms and the physical environment *(U3)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*
- How and why do organisms interact with their environment and what are the effects of these interactions? *(EQ.SCI.LIFE.02)*
- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Clarifying Statement: Examples of relationships could include that deer eat buds and leaves, therefore, they usually live in forested areas; and, grasses need sunlight so they often grow in meadows. Plants, animals, and their surroundings make up a system.

Assessment Boundary: N/A *(3.3.K.C)*

- Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

Clarifying Statement: Examples of human impact on the land could include cutting trees to produce paper and using resources to produce bottles. Examples of solutions could include reusing paper and recycling cans and bottles.

Assessment Boundary: N/A *(3.3.K.E)*

Technology & Engineering (2023): K-2 Technology & Engineering

- Select ways to reduce, reuse, and recycle resources in daily life. *(3.5.K-2.D)*

Technology & Engineering (2023): K-2 Technology & Engineering Practices

- Learns that use of technology affects humans and the environment. *(TEP.K-2.A.1)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- All living things, including plants and animals, need certain resources (e.g., water, food, light, air) to survive. *(K1)*
- Animals get their food from plants or other animals, while plants need water and sunlight. *(K2)*
- Plants and animals can change their environment to meet their needs (e.g., squirrels digging, tree roots breaking concrete). *(K3)*
- Living things depend on their surroundings for survival. *(K4)*
- Human activities affect the environment, but people can make choices to reduce negative impacts (e.g., recycling). *(K5)*
- Natural systems consist of parts that work together. *(K6)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Observing and describing patterns in what plants and animals need to survive. *(S1)*
- Using models to represent the relationship between living things and their environment. *(S2)*
- Constructing arguments supported by evidence on how plants and animals change their surroundings. *(S3)*
- Communicating solutions to reduce human impact on the environment through drawings, discussions, and models. *(S4)*
- Identifying cause-and-effect relationships between human actions and their environmental impact. *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): K Science & Engineering Practices

- Use a model to represent relationships in the natural world. *(SEP.K-2.P2.C)*
- Construct an argument with evidence to support a claim. *(SEP.K-2.P7.F)*
- Communicate solutions with others in oral and/or written forms using models and/or drawings that provide detail about scientific ideas. *(SEP.K-2.P8.D)*

Technology & Engineering (2023): K-2 Science & Engineering Practices

- Define a simple problem that can be solved through the development of a new or improved object or tool. *(SEP.K-2.P2.2)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): K Disciplinary Core Ideas

- All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. *(DCI.K.LS1.C.1)*
- Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. *(DCI.K.ESS3.A.1)*
- Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. *(DCI.K.ESS3.C.1)*
- Plants and animals can change their environment. *(DCI.K.ESS2.E.1)*
- Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. *(DCI.K.EST1.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): K Crosscutting Concepts

- Patterns in the natural and human designed world can be observed and used as evidence. *(CCC.K-2.C1.A)*
- Events have causes that generate observable patterns. *(CCC.K-2.C2.B)*
- Systems in the natural and designed world have parts that work together. *(CCC.K-2.C4.A)*

Vocabulary

Unit Specific Vocabulary (Tier 3): Photosynthesis, shelter, resources, pollution, recycle, habitat

Tier 2 Vocabulary: Need, survive, grow, change, environment

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Module 4: Plants

Draft Date	Course	Duration	Grades	Subjects	Team
03-31-2025 @ 01:41	2nd Grade Science	Day(s)	2	Science	Jessica Smith , Lindsay Feeser

Unit Focus

In this unit, students will explore the fundamental needs of plants—sunlight, water, and space—and how these elements affect their growth. They will begin by observing and investigating how plants grow in various conditions. Through a series of hands-on experiments and model-building activities, students will learn about seed growth, pollination, and the role animals play in the plant lifecycle. The unit concludes with students identifying solutions to help plants grow in different environments, applying their knowledge to real-world scenarios.

Anchoring Phenomenon

Students watch a puzzling newscast about a garden where plants seem to be struggling to grow despite the gardener's efforts. The news report asks why the plants are not growing as expected, despite providing water and sunlight. This triggers questions about what plants need to grow and how their environment affects their survival. The story invites students to investigate and understand the factors affecting plant growth, creating a connection to real-world issues that can impact food production, farming, and plant-based ecosystems.

Prior Learnings/Connection

In kindergarten and first grade, students build foundational knowledge of life science by exploring the basic needs of plants, animals, and humans for survival. They observe patterns in how living things meet their needs and how they interact with their environment. First graders extend this learning by investigating how animals use their external parts for survival and how humans can apply these adaptations to solve problems. They also examine the behaviors of parents and offspring that support survival and recognize that while young plants and animals resemble their parents, they are not identical. These early experiences prepare second graders to deepen their understanding of life cycles, habitats, and the ways living things adapt to their environments.

Navigation to next lesson/storyline

Click the following link to access the Module 4: Plants (link coming soon). This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 2 Standards

- Plan and conduct an investigation to determine if plants need sunlight and water to grow.

  Clarifying Statement: N/A

  Assessment Boundary: Assessment is limited to testing one variable at a time. *(3.1.2.A)*
- Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.

  Clarifying Statement: N/A

  Assessment Boundary: N/A *(3.1.2.B)*

Technology & Engineering (2023): K-2 Technology & Engineering

- Compare the natural world and human-made world. *(3.5.K-2.BB)*

Technology & Engineering (2023): K-2 Technology & Engineering Practices

- Engages in listening, questioning, and discussing. *(TEP.K-2.E.1)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Organisms grow and reproduce by obtaining necessary resources through interdependent relationships with other organisms and the physical environment *(U1)*
- All organisms are made of cells and can be characterized by common aspects of their structure and functioning. *(U2)*
- Biological adaptation explains both the unity and diversity of species and provides a unifying principle for the history and diversity of life on Earth *(U3)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do organisms live, grow, respond to stimuli, and reproduce? *(EQ.SCI.LIFE.01)*
- How and why do organisms interact with their environment and what are the effects of these interactions? *(EQ.SCI.LIFE.02)*

This unit was designed using Eduplanet21 - https://eduplanet21.com/

- Learns that human-designed things are connected. *(TEP.K-2.H.1)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Understanding the basic needs of plants (sunlight, water) for growth. *(K1)*
- Understanding the role of animals in seed dispersal and pollination. *(K2)*
- Identifying variables that affect plant growth. *(K3)*
- Recognizing the interactions between plants, animals, and their environment. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Planning and conducting scientific investigations to test hypotheses. *(S1)*
- Designing and constructing simple models to represent ecological processes. *(S2)*
- Analyzing the role of animals in ecosystems. *(S3)*
- Observing and recording the outcomes of plant growth experiments under different conditions (e.g., with or without sunlight and water). *(S4)*
- Interpreting data and evidence to draw conclusions. *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 2 Science & Engineering Practices

- Develop a simple model based on evidence to represent a proposed object or tool. *(SEP.K-2.P2.C.1)*
- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. *(SEP.K-2.P3.B)*

Technology & Engineering (2023): K-2 Science & Engineering Practices

- Define a simple problem that can be solved through the development of a new or improved object or tool. *(SEP.K-2.P2.2)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 2 Disciplinary Core Ideas

- Plants depend on water and light to grow. *(DCI.2.LS2.A.1)*

- Plants depend on animals for pollination or to move their seeds around. *(DCI.2.LS2.A.2)*
- Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. *(DCI.2.ETS1.B.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 2 Crosscutting Concepts

- Events have causes that generate observable patterns. *(CCC.K-2.C2.A)*
- The shape and stability of structures of natural and designed objects are related to their function(s). *(CCC.K-2.C6.A)*

Vocabulary

Unit Specific Vocabulary: Germinate, Pollen, Seedling, Fertilization, Drought

Tier 2 Vocabulary: Grow, Model, Investigate, Pollinate, Observe

Module 5 - Electricity & Magnetism

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 12:46	8th Grade Science	5.0 Weeks	8	Science	Kami Greenawalt , Josh Korb

Unit Focus

Students will explore the principles of electricity, including static electricity, circuits, voltage, and electrical safety, through readings, labs, and interactive activities to build a comprehensive understanding of electrical concepts and their real-world applications.

Anchoring Phenomenon

Levitating Washer

Prior Learnings/Connection

Students have previously explored basic energy concepts, including how energy can move from place to place and cause changes in motion, temperature, or light. They may have had early exposure to simple circuits (e.g., lighting a bulb with a battery and wire) and observed effects of static electricity in everyday life. This unit builds on those experiences by introducing more complex ideas such as electric current, voltage, resistance, and circuit design, while reinforcing energy transfer and preparing students for real-world applications of electrical systems and safety.

Navigation to next lesson/storyline

Building on their understanding of electrical energy and circuits, students will now explore how electricity and magnetism interact to create electromagnetic waves, which are essential for modern communication. In Module 6, they will investigate how these invisible waves travel through space to carry energy and information, uncovering the science behind everyday technologies like texting, GPS, and wireless communication.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 6-8 Standards

- Ask questions about data to determine the factors that affect the strength of electric and magnetic forces.

  Clarifying Statement: Examples of devices that use electric and magnetic forces could include electromagnets, electric motors, or generators. Examples of data could include the effect of the number of turns of wire on the strength of an electromagnet, or the effect of increasing the number or strength of magnets on the speed of an electric motor.

  Assessment Boundary: Assessment about questions that require quantitative answers is limited to proportional reasoning and algebraic thinking. *(3.2.6-8.I)*
- Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.

  Clarifying Statement: Examples of this phenomenon could include the interactions of magnets, electrically-charged strips of tape, and electrically-

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Collect, analyze, and evaluate evidence to support constructing arguments. *(T1)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T2)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Interactions between any two objects can cause changes in one or both. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Electric charges create electric fields. *(K1)*
- Moving electric charges generate magnetic fields. *(K2)*
- Electricity and magnetism are interconnected through electromagnetism. *(K3)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Identifying and describing electric and magnetic fields. *(S1)*
- Building and analyzing series and parallel circuits. *(S2)*
- Measuring voltage, current, and resistance using appropriate tools. *(S3)*

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charged pith balls. Examples of investigations could include first-hand experiences or simulations.

Assessment Boundary: Assessment is limited to electric and magnetic fields, and limited to qualitative evidence for the existence of fields. *(3.2.6-8.K)*

Technology & Engineering (2023): 6-8 Technology & Engineering

- Examine the ways that technology can have both positive and negative effects at the same time. *(3.5.6-8.I)*
- Predict outcomes of a future product or system at the beginning of the design process. *(3.5.6-8.II)*

- Circuits include components such as power sources, conductors, resistors, and switches. *(K4)*
- Voltage, current, and resistance are key factors that affect electrical flow. *(K5)*
- Electromagnetic waves consist of oscillating electric and magnetic fields. *(K6)*
- Electromagnetic waves travel at the speed of light and vary in wavelength and frequency. *(K7)*

- Explaining the relationship between electricity and magnetism. *(S4)*
- Predicting the behavior of magnetic fields around electric currents. *(S5)*
- Interpreting diagrams of circuits and electromagnetic waves. *(S6)*
- Conducting experiments to explore electrical and magnetic phenomena. *(S7)*
- Applying Ohm's Law to solve problems involving voltage, current, and resistance. *(S8)*
- Analyzing real-world applications of electromagnetism, such as motors, generators, and wireless communication. *(S9)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Ask questions that can be investigated within the scope of the classroom, outdoor environment, and museums and other public facilities with available resources and, when appropriate, frame a hypothesis based on observations and scientific principles. *(SEP.6-8.P1.F)*
- Conduct an investigation and evaluate the experimental design to produce data to serve as the basis for evidence that can meet the goals of the investigation. *(SEP.6-8.P3.B.1)*

Technology & Engineering (2023): 6-8 Science & Engineering Practices

- Develop and/or revise a model to show the relationships among variables, including those that are not observable but predict observable phenomena. *(SEP.6-8.P4.2)*
- Critically read scientific texts adapted for classroom use to determine the central ideas and/or obtain scientific and/or technical information to describe patterns in and/or evidence about the natural and designed world(s). *(SEP.6-8.P6.2)*

Technology & Engineering (2023): 6-8 Technology & Engineering Practices

- Shows an understanding of ways to regulate technologies and the reasons for doing so. *(TEP.6-8.A.1)*
- Exhibits safe, effective ways of producing technological products, systems, and processes. *(TEP.6-8.F.1)*

- Uses the systems model to show how parts of technological systems work together. *(TEP.6-8.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- Electric and magnetic (electromagnetic) forces can be attractive or repulsive, and their sizes depend on the magnitudes of the charges, currents, or magnetic strengths involved and on the distances between the interacting objects. *(DCI.6-8.PS2.B.1)*
- Forces that act at a distance (electric, magnetic, and gravitational) can be explained by fields that extend through space and can be mapped by their effect on a test object (a charged object, or a ball, respectively). *(DCI.6-8.PS2.B.3)*

Technology & Engineering (2023): 6-8 Disciplinary Core Ideas

- The iterative process of testing the most promising solutions and modifying what is proposed on the basis of the test results leads to greater refinement and ultimately to an optimal solution. *(DCI.6-8.ETS1.C.1)*
- Describe and analyze positive and negative impacts on society from the introduction of a new or improved technology, including both expected and unanticipated effects. *(DCI.6-8.NAEP.T.8.3)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Cause and effect relationships may be used to predict phenomena in natural or designed systems. *(CCC.6-8.C2.B)*

Vocabulary

· Electric charge – A property of matter that causes it to experience a force when placed in an electric or magnetic field.
· Electric field – The region around a charged object where its electric force is exerted on other charges.
· Magnetic field – The area around a magnet where magnetic forces can be detected.
· Voltage – The difference in electric potential energy between two points in a circuit, measured in volts (V).
· Current – The flow of electric charge through a conductor, measured in amperes (A).
· Resistance – The opposition to the flow of electric current, measured in ohms (Ω).
· Circuit – A closed path through which electric current flows.
· Series circuit – A circuit in which components are connected end-to-end so that current flows through each component in sequence.
· Parallel circuit – A circuit in which components are connected across common points, allowing multiple paths for current to flow.
· Conductor – A material that allows electric charge to flow easily.
· Insulator – A material that resists the flow of electric charge.

- **Electromagnetism** – The interaction between electric currents and magnetic fields.
- **Electromagnetic wave** – A wave composed of oscillating electric and magnetic fields that travels through space.
- **Wavelength** – The distance between two consecutive peaks or troughs in a wave.
- **Frequency** – The number of wave cycles that pass a given point per second, measured in hertz (Hz).
- **Amplitude** – The height of a wave's peak, representing its energy.
- **Ohm's Law** – A principle stating that voltage equals current multiplied by resistance (V = IR).
- **Static electricity** – The buildup of electric charge on a surface, often resulting in a sudden discharge.
- **Battery** – A device that stores and supplies electrical energy through chemical reactions.
- **Generator** – A machine that converts mechanical energy into electrical energy.
- **Motor** – A device that converts electrical energy into mechanical energy.
- **Induction** – The process of generating an electric current by changing a magnetic field.
- **Magnetic pole** – The ends of a magnet where magnetic forces are strongest.
- **Electromagnetic spectrum** – The complete range of electromagnetic waves, from radio waves to gamma rays.
- **Energy transformation** – The process of converting energy from one form to another.
- **Electrical safety** – Precautions and practices designed to prevent electric shock, fires, and other hazards.

Natural Selection and Evolution

Draft Date	Course	Grades	Subjects	Team
10-11-2024 @ 01:11	Biology	9 , 10 , 11 , 12	Science	Kaela Piechowicz , Josh Korb

Unit Focus

How does urbanization affect nonhuman populations, and how can we minimize harmful effects? This unit on natural selection and evolution of populations focuses on the phenomenon of increasing urbanization around the world and the impact of that change on nonhuman populations. Students investigate case studies that investigate fragmentation, poison, and proximity to humans as selection pressures that affect the relative fitness of individuals with particular anatomical, physiological, and behavioral traits in a population. Through investigations with complex data sets, they figure out how genetic diversity in a population allows populations to adapt to changes encountered in urban environments.

Anchoring Phenomenon

In the anchoring phenomenon, students are introduced to the phenomenon of urbanization and discover that continued urbanization is happening worldwide. They consider what this means for nonhuman populations and make observations about differences in urban populations of hawksbeard, rats, and juncos. They wonder how urbanization could be a driving force for change.

Prior Learnings/Connection

- Science knowledge is based on empirical evidence.
- Science arguments are strengthened by multiple lines of evidence supporting a single explanation.
- New technologies can have deep impacts on society and the environment, including some that were not anticipated. Analysis of costs and benefits is a critical aspect of decisions about technology.
- Scientific knowledge is based on the assumption that natural laws operate today as they did in the past and they will continue to do so in the future.

Navigation to next lesson/storyline

Students will make sense of the way urbanization could have caused changes in hawksbeard, rat, and junco populations. Students will then use what they know about natural selection to design cities that support resilient

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populations and ecosystems by investigating the conflicting requirements for protecting biodiversity while urbanizing and providing for the needs of human populations in Buckeye, AZ.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment.

  Clarifying Statement: Emphasis is on using evidence to explain the influence each of the four factors has on number of organisms, behaviors, morphology, or physiology in terms of ability to compete for limited resources and subsequent survival of individuals and adaptation of species. Examples of evidence could include mathematical models such as simple distribution graphs and proportional reasoning.

  Assessment Boundary: Assessment does

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T1)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Gather and interpret measurements and data and apply to new situations. *(T4)*
- Design an investigation or model using appropriate tools, resources, and methods. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Biological adaptation explains both the unity and diversity of species and provides a unifying principle for the history and diversity of life on Earth *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How does variation contribute to the natural selection of advantageous traits among organisms? *(EQ.SCI.LIFE.04)*
- How are the characteristics of one generation passed to the next? *(EQ.SCI.LIFE.03)*
- How and why do organisms interact with their environment and what are the effects of these interactions? *(EQ.SCI.LIFE.02)*

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not include other mechanisms of evolution, such as genetic drift, gene flow through migration, and co-evolution. *(3.1.9-12.T)*

- Apply concepts of statistics and probability to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait.

  Clarifying Statement: Emphasis is on analyzing shifts in numerical distribution of traits and using these shifts as evidence to support explanations.

  Assessment Boundary: Assessment is limited to basic statistical and graphical analysis. Assessment does not include allele frequency calculations. *(3.1.9-12.U)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts. *(3.5.9-12.I)*
- Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. *(3.5.9-12.Y)*

- How does technology allow humans to more effectively solve problems? *(EQ.TED.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Urbanization *(K1)*
- Variation of traits in a population *(K2)*
- Natural selection *(K3)*
- Biodiversity *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- ◦ Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment. *(S1)*
- Apply concepts of statistics and probability to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait. *(S2)*
- Construct an explanation based on evidence for how natural selection leads to adaptation of populations. *(S3)*
- Evaluate the evidence supporting claims that changes in environmental

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		conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species. *(S4)* ■ Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity. *(S5)* ■ Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts. *(S6)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Construct and revise an explanation based on valid and reliable evidence obtained from a variety of sources (including students' own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future. *(SEP.9-12.P4.B)*
- Design, evaluate, and/or refine a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and tradeoff considerations. *(SEP.9-12.P4.E)*
- Apply concepts of statistics and probability (including determining function fits to data, slope, intercept, and correlation coefficient for linear fits) to scientific and engineering questions and problems, using digital tools when feasible. *(SEP.9-12.P5.B)*
- Create and/or revise a computational model or simulation of a phenomenon, designed device, process, or system. *(SEP.9-12.P6.A)*
- Evaluate the claims, evidence, and/or reasoning behind currently accepted explanations or solutions to determine the merits of arguments. *(SEP.9-12.P7.B)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- Natural selection occurs only if there is both (1) variation in the genetic information between organisms in a population and (2) variation in the expression of that genetic information—that is, trait variation—that leads to differences in performance among individuals. *(DCI.9-12.LS4.B.1)*
- The traits that positively affect survival are more likely to be reproduced, and thus are more common in the population. *(DCI.9-12.LS4.B.2)*
- Evolution is a consequence of the interaction of four factors: (1) the potential for a species to increase in number, (2) the genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for an environment's limited supply of the resources that individuals need in order to survive and reproduce, and (4) the ensuing proliferation of those organisms that are better able to survive and reproduce in that environment. *(DCI.9-12.LS4.C.1)*
- Natural selection leads to adaptation, that is, to a population dominated by organisms that are anatomically, behaviorally, and physiologically well suited to survive and reproduce in a specific environment. That is, the differential survival and reproduction of organisms in a population that have an advantageous heritable trait leads to an increase in the proportion of individuals in future generations that have the trait and to a decrease in the proportion of individuals that do not. Adaptation also means that the distribution of traits in a population can change when conditions change. *(DCI.9-12.LS4.C.2)*
- Changes in the physical environment, whether naturally occurring or human induced, have thus contributed to the expansion of some species, the emergence of new distinct species as populations diverge under different conditions, and the decline–and sometimes the extinction–of some species. *(DCI.9-12.LS4.C.3)*
- Species become extinct because they can no longer survive and reproduce in their altered environment. If members cannot adjust to change that is too fast or drastic, the opportunity for the species' evolution is lost. *(DCI.9-12.LS4.C.5)*
- Humans depend on the living world for the resources and other benefits provided by biodiversity. But human activity is also having adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change. Thus sustaining biodiversity so that ecosystem functioning and productivity are maintained is essential to supporting and enhancing life on Earth. Sustaining biodiversity also aids humanity by preserving landscapes of recreational or inspirational value. *(DCI.9-12.LS4.D.2)*
- When evaluating solutions it is important to take into account a range of constraints including cost, safety, reliability and aesthetics and to consider social, cultural and environmental impacts. *(DCI.9-12.ETS1.B.1)*
- Both physical models and computers can be used in various ways to aid in the engineering design process. Computers are useful for a variety of purposes, such as running simulations to test different ways of solving a problem or to see which one is most efficient or economical; and in making a persuasive presentation to a client about how a given design will meet his or her needs. *(DCI.9-12.ETS1.B.2)*
- Criteria may need to be broken down into simpler ones that can be approached systematically, and decisions about the priority of certain criteria over others (trade-offs) may be needed. *(DCI.9-12.ETS1.C.1)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Different patterns may be observed at each of the scales at which a system is studied and can provide evidence for causality in explanations of phenomena. *(CCC.9-12.C1.A.1)*
- Empirical evidence is required to differentiate between cause and correlation and make claims about specific causes and effects. *(CCC.9-12.C2.A)*

Vocabulary

Evolution
Fitness
Genetic variation
Heritable trait
Natural selection
Selection pressure
Urbanization

Nomenclature

Draft Date	Course	Duration	Grades	Subjects	Team
05-08-2025 @ 05:46	Chemistry	25.0 Day(s)	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Naming, Formula Writing, Moles

How are compounds named?

What calculations can be made from a chemical formula?

What is a mole?

How do you find the chemical formula of a compound?

Anchoring Phenomenon

Piles of various chemicals will be weighed out and shown to students to demonstrate the inconsistencies with using mass to identify stubstances in chemistry. Then, one mole of various substance will be shown to students to demonstrate how the concept of a mole was needed in chemistry and how it levels the playing field for all compounds. List an obscure formula on the board and ask students to name it. See how mnay different names are generated. Use this to prove the point of a common language or way of naming things

Prior Learnings/Connection

Mass represents the amount of matter that makes up an object. Units like kilograms can be used to represent mass but so can pounds or grams. It is helpful to be able to convert between units to be able to express measurements in different ways. It is also helpful to have a common language to be used when talking about scientific concepts much in the way organisms are represented by scientific names. Chemistry is no exception to this concept and has a universal language used to express compounds and how to calculate amounts of materials.

Navigation to next lesson/storyline

Measurements were expressed and converted earlier in the year. Also, students have learned atomic structure and how every atom is different for each element. When the elements combine to form compounds, they take on a name unique to chemistry and also need to

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have a universal unit to express the amount of the material that is held. This ensures clear expression of what is being discussed when to comes to substance amount and identity. This also allows for the compound identity to be calculated using the mole concept.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.

  Clarifying Statement: Emphasis is on understanding the strengths of forces between particles, not on naming specific intermolecular forces (such as dipoledipole). Examples of particles could include ions, atoms, molecules, and networked materials (such as graphite). Examples of bulk properties of substances could include the melting point and boiling point, vapor pressure, and surface tension.

  Assessment Boundary: Assessment does not include Raoult's law calculations of vapor pressure. *(3.2.9-12.B)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Evaluate a solution to a complex real-world problem based on prioritized criteria and

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Gather and interpret measurements and data and apply to new situations. *(T1)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T2)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- one mole of a substance represents an Avogadro's number of particles. *(K1)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- calculating moles, number of atoms, and molar mass. *(S1)*

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trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts. *(3.5.9-12.I)*
- Assess how similarities and differences among scientific, technological, engineering, and mathematical knowledge and skills contributed to the design of a product or system. *(3.5.9-12.BB)*
- Develop a plan that incorporates knowledge from science, mathematics, and other disciplines to design or improve a technological product or system. *(3.5.9-12.DD)*
- Evaluate how technology enhances opportunities for new products and services through globalization. *(3.5.9-12.FF)*
- Identify and explain how the evolution of civilization has been directly affected by, and has in turn affected, the development and use of tools, materials, and processes. *(3.5.9-12.JJ)*

- the mass of a mole of a substance can be found on the periodic table. *(K2)*
- molar mass and Avogadro's number can be used as conversion factors. *(K3)*
- how to name chemical compounds using the IUPAC system. *(K4)*
- molar mass and Avogador's number are used as conversion factors with compound unit conversions. *(K5)*
- percent composition calculations can be used to break down a chemical formula. *(K6)*
- chemical formulas can be written from mole ratios of the elements involved. *(K7)*
- the formula of a hydrate can be calculated using experimental data to find mole ratios. *(K8)*

- expressing the amount of an element sample in various amounts. *(S2)*
- naming and writing formulas for chemical compounds. *(S3)*
- applying the mole concept to compound formulas. *(S4)*
- calculating percent composition from a formula. *(S5)*
- applying percent composition to determine a chemical formula. *(S6)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Plan and conduct an investigation individually and collaboratively to produce data to serve as the basis for evidence, and in the design: decide on types, how much, and accuracy of data needed to produce reliable measurements and consider limitations on the precision of the data (e.g., number of trials, cost, risk, time), and refine the design accordingly. *(SEP.9-12.P3.B)*

Technology & Engineering (2023): 9-12 Science & Engineering Practices

- Define a design problem that involves the development of a process or system with interacting components and criteria and constraints that may include social, technical, and/or environmental considerations. *(SEP.9-12.P1.1)*

- Evaluate a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and trade-off considerations. *(SEP.9-12.P2.1)*
- Evaluate the claims, evidence, and/or reasoning behind currently accepted explanations or solutions to determine the merits of arguments. *(SEP.9-12.P4.2)*
- Critically read scientific literature adapted for classroom use to determine the central ideas or conclusions and/or to obtain scientific and/or technical information to summarize complex evidence, concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. *(SEP.9-12.P5.1)*
- Compare, integrate and evaluate sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a scientific question or solve a problem. *(SEP.9-12.P5.2)*

Technology & Engineering (2023): 9-12 Technology & Engineering Practices

- Assesses technological products, systems, and processes through critical analysis of their impacts and outcomes. *(TEP.9-12.A.1)*
- Uses evidence to better understand and solve problems in technology and engineering, including applying computational thinking. *(TEP.9-12.E.1)*
- Demonstrates the ability to regulate and improve making and doing skills. *(TEP.9-12.F.1)*
- Shows persistence in addressing technological problems and finding solutions to those problems. *(TEP.9-12.G.1)*
- Designs and troubleshoots technological systems in ways that consider the multiple components of the system. *(TEP.9-12.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- The structure and interactions of matter at the bulk scale are determined by electrical forces within and between atoms. *(DCI.9-12.PS1.A.3)*
- Attraction and repulsion between electric charges at the atomic scale explain the structure, properties, and transformations of matter, as well as the contact forces between material objects. *(DCI.9-12.PS2.B.2)*

Technology & Engineering (2023): 9-12 Disciplinary Core Ideas

- When evaluating solutions, it is important to take into account a range of constraints, including cost, safety, reliability, and aesthetics, and to consider social, cultural, and environmental impacts. *(DCI.9-12.ETS1.B.3)*
- Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. *(DCI.9-12.HS.ETS1.1)*
- Engineers use science, mathematics, and other disciplines to improve technology, while scientists use tools devised by engineers to advance knowledge in their disciplines. This interaction has deepened over the past century. *(DCI.9-12.NAEP.D.12.2)*
- Changes caused by the introduction and use of a new technology can range from gradual to rapid and from subtle to obvious, and can change over time. These changes may vary from society to society as a result of differences in a society's economy, politics, and culture. *(DCI.9-12.NAEP.T.12.2)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Investigating or designing new systems or structures requires a detailed examination of the properties of different materials, the structures of different components, and connections of components to reveal its function and/or solve a problem. *(CCC.9-12.C6.A)*

Vocabulary

mole, molar mass, Avogadro's number, ion, polyatomic, monatomic, hydrate, compound, molecule, formula, acid, salt, molecular mass, percent composition, empirical formula, molecular formula, anhydrous

Chemical Bonding

Draft Date	Course	Duration	Grades	Subjects	Team
05-12-2025 @ 05:55	Chemistry	20.0 Day(s)	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Periodic Table, Bonding, Intermolecualr Forces, Water Properties

What determines an element's location on the Periodic Table?

What are the trends exhibited by atoms as you move around the periodic table?

What is a chemical bond?

How are atoms arranged when bonded?

How do you draw a molecule?

How do intermolecular forces determine the structure and properties of compounds?

Anchoring Phenomenon

Dry erase marker ink will float on water if drawn on an impermeable surface and made wet. This is due to solubility and properties of water. The electronic structure of an atom will be explored through floating marker ink as well as the differences between graphite and diamond even though both substances are made of the same thing. Students will create models of differences in bond types and lengths to explain the differences in structure.

Prior Learnings/Connection

Atoms are made up of protons, neutrons, and electrons. The arrangement of the electrons determines how an atom behaves chemically including reactions it will undergo and the types of materials that it will create. The properties of compounds comes from the electron arrangements and the interactions that this causes with other materials. There are many different materials that can be formed from mnay combinations of atoms. The propertes can be predicted based on the location of the elements on the periodic table.

Navigation to next lesson/storyline

The location of an element on the periodic table is determined by its electronic structure and properites that result from that structure. Using these properties, it can be predicted how an element will behave when it encounters another element in nature and what compounds they will create. The properties of those compounds are determined by the forces that exist between molecules. These forces influence that behaviors of materials and phenomena such as the special characteristics that water has. The electronic structure of an atom and the forces between the atoms that are bonded in compounds will guide the determination of how chemical reactions occur.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Environmental Literacy & Sustainability

- Analyze and interpret how issues, trends, technologies, and policies impact watersheds and water resources. *(3.4.9-12.C)*

Science (2023): 9-12 Standards

- Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.

  Clarifying Statement: Emphasis is on understanding the strengths of forces between particles, not on naming specific intermolecular forces (such as dipoledipole). Examples of particles could include ions, atoms, molecules, and networked materials (such as graphite). Examples of bulk properties of substances

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T2)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U1)*
- Interactions between any two objects can cause changes in one or both. *(U2)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

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could include the melting point and boiling point, vapor pressure, and surface tension.

Assessment Boundary: Assessment does not include Raoult's law calculations of vapor pressure. *(3.2.9-12.B)*

- Communicate scientific and technical information about why the molecularlevel structure is important in the functioning of designed materials.

Clarifying Statement: Emphasis is on the attractive and repulsive forces that determine the functioning of the material. Examples could include why electrically conductive materials are often made of metal, flexible but durable materials are made up of long chained molecules, and pharmaceuticals are designed to interact with specific receptors.

Assessment Boundary: Assessment is limited to provided molecular structures of specific designed materials. *(3.2.9-12.N)*

- Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes.

Clarifying Statement: Emphasis is on mechanical and chemical investigations with water and a variety of solid materials to provide the evidence for connections between the hydrologic cycle and system interactions commonly known as the rock cycle. Examples of mechanical investigations include stream

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...
■ the periodic table was created using mass and properties of elements. *(K1)* ■ the trends exhibited by atomic radius, ionization energy, electron affinity, and electronegativity moving around the periodic table. *(K2)* ■ how a chemical bond forms. *(K3)* ■ the types of chemical bonds. *(K4)* ■ Lewis structures represent a two dimensional picture of a molecule. *(K5)* ■ ionic compounds are represented by formula units. *(K6)* ■ intermolecular forces are additive and consist of dispersion, dipole, and hydrogen bonds. *(K7)* ■ ionic and covalent bonds are distinguished by the presence of metals and nonmetals. *(K8)* ■ ionic and covalent bonds have different properties. *(K9)* ■ intermolecular forces determine characteristics of substances like melting, boiling, and vapor pressure. *(K10)* ■ three dimensional structures of molecules based on bonded and unbonded electron groups. *(K11)* ■ the unique properties of water. *(K12)*	■ comparing the modern Periodic Table to earlier versions. *(S1)* ■ describing the properties share by a family of elements. *(S2)* ■ graphing and describing the trends exhibited by density. *(S3)* ■ explaining how atomic radius, ionization energy, and electron affinity change as you move around the periodic table. *(S4)* ■ describing the purpose and process of a chemical bond. *(S5)* ■ classifying the types of chemical bonds. *(S6)* ■ using electronegativity to predict the type of bond that will form between two substances. *(S7)* ■ drawing Lewis structures for elements. *(S8)* ■ drawing Lewis structures for molecules. *(S9)* ■ modeling molecules using two and three dimensional models. *(S10)* ■ describing the properties that make water unique. *(S11)* ■ classifying the categories of intermolecular forces. *(S12)* ■ using intermolecular forces to describe properties of materials. *(S13)*

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transportation and deposition using a stream table, erosion using variations in soil moisture content, or frost wedging by the expansion of water as it freezes. Examples of chemical investigations include chemical weathering and recrystallization (by testing the solubility of different materials) or melt generation (by examining how water lowers the melting temperature of most solids).

Assessment Boundary: N/A *(3.3.9-12.K)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Analyze how the Industrial Revolution resulted in the development of mass production, sophisticated transportation and communication systems, advanced construction practices, and improved education and leisure time. *(3.5.9-12.HH)*

- predicting three dimensional structure of molecules including bond angles and hybridization of orbitals. *(S14)*

Science and Engineering Practices

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Science & Engineering Practices

- Analyze data using tools, technologies, and/or models (e.g., computational, mathematical) in order to make valid and reliable scientific claims or determine an optimal design solution. *(SEP.9-12.P8.1)*

Science (2023): 9-12 Science & Engineering Practices

- Plan and conduct an investigation individually and collaboratively to produce data to serve as the basis for evidence, and in the design: decide on types, how much, and accuracy of data needed to produce reliable measurements and consider limitations on the precision of the data (e.g., number of trials, cost, risk, time), and refine the design accordingly. *(SEP.9-12.P3.B)*
- Communicate scientific and/or technical information or ideas (e.g. about phenomena and/or the process of development and the design and performance of a proposed process or system) in multiple formats (i.e., orally, graphically, textually, mathematically). *(SEP.9-12.P8.E)*

Technology & Engineering (2023): 9-12 Science & Engineering Practices

- Critically read scientific literature adapted for classroom use to determine the central ideas or conclusions and/or to obtain scientific and/or technical information to summarize complex evidence, concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. *(SEP.9-12.P5.1)*

Technology & Engineering (2023): 9-12 Technology & Engineering Practices

- Designs and troubleshoots technological systems in ways that consider the multiple components of the system. *(TEP.9-12.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Disciplinary Core Ideas

- Resource availability has guided the development of human society. *(DCI.9-12.ESS3.A.1)*
- Moreover, anthropogenic changes (induced by human activity) in the environment—including habitat destruction, pollution, introduction of invasive species, overexploitation, and climate change—can disrupt an ecosystem and threaten the survival of some species. *(DCI.9-12.LS2.C.2)*
- Biodiversity is increased by the formation of new species (speciation) and decreased by the loss of species (extinction). *(DCI.9-12.LS4.D.1)*
- Humans depend on the living world for the resources and other benefits provided by biodiversity. But human activity is also having adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change. Thus sustaining biodiversity so that ecosystem functioning and productivity are maintained is essential to supporting and enhancing life on Earth. Sustaining biodiversity also aids humanity by preserving landscapes of recreational or inspirational value. *(DCI.9-12.LS4.D.2)*

Science (2023): 9-12 Disciplinary Core Ideas

- The structure and interactions of matter at the bulk scale are determined by electrical forces within and between atoms. *(DCI.9-12.PS1.A.3)*
- Attraction and repulsion between electric charges at the atomic scale explain the structure, properties, and transformations of matter, as well as the contact forces between material objects. *(DCI.9-12.PS2.B.2)*
- The abundance of liquid water on Earth's surface and its unique combination of physical and chemical properties are central to the planet's dynamics. These properties include water's exceptional capacity to absorb, store, and release large amounts of energy, transmit sunlight, expand upon freezing, dissolve and transport materials, and lower the viscosities and melting points of rocks. *(DCI.9-12.ESS2.C.1)*

Technology & Engineering (2023): 9-12 Disciplinary Core Ideas

- Changes caused by the introduction and use of a new technology can range from gradual to rapid and from subtle to obvious, and can change over time. These changes may vary from society to society as a result of differences in a society's economy, politics, and culture. *(DCI.9-12.NAEP.T.12.2)*

Crosscutting Concepts

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Crosscutting Concepts

- Empirical evidence is required to differentiate between cause and correlation and make claims about specific causes and effects. *(CCC.9-12.C1.2)*
- Feedback (negative or positive) can stabilize or destabilize a system. *(CCC.9-12.C2.1)*

Science (2023): 9-12 Crosscutting Concepts

- Different patterns may be observed at each of the scales at which a system is studied and can provide evidence for causality in explanations of phenomena. *(CCC.9-12.C1.A.1)*
- Investigating or designing new systems or structures requires a detailed examination of the properties of different materials, the structures of different components, and connections of components to reveal its function and/or solve a problem. *(CCC.9-12.C6.A)*
- The functions and properties of natural and designed objects and systems can be inferred from their overall structure, the way their components are shaped and used, and the molecular substructures of its various materials. *(CCC.9-12.C6.B)*

Vocabulary

Periodic Table, atomic radius, ionization energy, melting point, atomic mass, electronegativity, density, valence, chemical bond, ionic, covalent, polar, nonpolar, molecule, octet, formula unit, compound, monatomic, diatomic, polyatomic, Lewis structure, ion, polarity, bond angle, lone pair, hybridization, dipole, london dispersion, hydrogen bond, intermolecular forces,

Module 5: Environmental Literacy & Sustainability

Draft Date	Course	Duration	Grades	Subjects	Team
03-31-2025 @ 07:23	2nd Grade Science	6.0 Lesson(s)	2	Science	Jessica Smith , Lindsay Feeser

Unit Focus

At the beginning of this unit, students explore a puzzling scene: a once-clean local park or schoolyard now scattered with litter, or a nearby farm field showing signs of erosion. People and animals don't appear to be directly causing the changes, so students wonder—what's making the environment look different? They share observations with their families and inquire about places in their community that have changed over time.

Through a series of investigations, students learn how people harvest, redistribute, and use natural resources, and how these actions can impact the environment. They explore how different cultures interact with nature and how places hold different meanings and value to people. Students then identify a local environmental issue, such as litter, soil erosion, or water runoff, and act as citizen scientists. They plan and carry out an investigation to figure out how to address the problem.

Once students have gathered evidence, they work together to design and test a solution. They compare ideas and reflect on how their actions can positively impact their local environment. Finally, they share their findings with the school or community, encouraging others to be thoughtful stewards of the environment.

Anchoring Phenomenon

In this Anchoring Phenomenon, we explore how people interact with and change the environment. We begin by observing our schoolyard and looking for evidence of human impact, such as litter, worn footpaths, or garden beds. We share our noticings and wonderings about how these changes affect plants, animals, and people. We discover that different cultures and communities interact with nature in unique ways, shaping how they use and care for natural resources.

The anchoring phenomenon for this unit is investigating how people's choices impact the environment and how we can become environmental stewards. It is not uncommon for children to see litter on the playground or notice changes in local parks or farms. In this unit, students explore how natural resources are used, how people from different places value and care for nature, and how they can take action to help their local environment.

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In the final lesson, students identify a local environmental issue, such as litter or soil erosion, and plan a small-scale stewardship project. They work with classmates to apply their science knowledge and problem-solving skills to design, test, and share their solutions, demonstrating how even small actions can make a positive impact on their community.

Prior Learnings/Connection

N/A

Navigation to next lesson/storyline

Click the following link to access the Module 5 Storyline: Environmental Literacy & Sustainability. This document outlines the lesson sequence, including investigations, models, and key takeaways for understanding.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): K-2 Environmental Literacy & Sustainability

- Categorize ways people harvest, redistribute, and use natural resources. *(3.4.K-2.A)*
- Examine how people from different cultures and communities, including one's own, interact and express their beliefs about nature. *(3.4.K-2.A)*
- Explain ways that places differ in their physical characteristics, their meaning, and their value and/or importance. *(3.4.K-2.C)*
- Plan and carry out an investigation to address an issue in the local environment and community. *(3.4.K-2.D)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T4)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The Earth's processes affect and are affected by human activities. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How do Earth's processes and human activities affect each other? *(EQ.SCI.EARTH.03)*

Acquisition of Knowledge & Skill	
Knowledge	**Skills**
What facts and basic concepts should students know and be able to recall? Students will know... ■ People harvest, redistribute, and use natural resources in different ways. *(K1)* ■ Cultures and communities have different relationships with nature. *(K2)* ■ Places have unique physical characteristics and meanings. *(K3)* ■ People can take action to address environmental issues. *(K4)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ Categorizing ways natural resources are used and shared. *(S1)* ■ Examining and comparing cultural perspectives on nature. *(S2)* ■ Describing how places differ in their characteristics and importance. *(S3)* ■ Planning and conducting an investigation to solve a local environmental issue. *(S4)*

Science and Engineering Practices

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): K-2 Science & Engineering Practices

- Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. *(SEP.K-2.P1.1)*
- Communicate information with others in oral and/or written forms using models, drawings, writing, or numbers that provide detail about scientific ideas, practices, and/or design ideas. *(SEP.K-2.P5.1)*
- Read grade-appropriate texts and/or use media to obtain scientific information to describe patterns in the natural world. *(SEP.K-2.P5.2)*
- With guidance, plan and conduct an investigation in collaboration with peers. *(SEP.K-2.P6.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): K-2 Disciplinary Core Ideas

- Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. *(DCI.K-2.ESS3.A.1)*
- Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. *(DCI.K-2.ESS3.C.1)*
- There are many different kinds of living things in any area, and they exist in different places on land and in water. *(DCI.K-2.LS4.D.1)*

Vocabulary

Unit Specific Vocabulary: natural resources, agriculture, harvest, redistribute, ecosystem, pollution, compost, decompose, renewable resources, nonrenewable resource

Tier 2 Vocabulary: impact, interact, conserve, sustainability, resources, observe, compare, investigate, evidence, stewardship

This unit was designed using Eduplanet21 - https://eduplanet21.com/

Module 6 - Electromagnetic Spectrum

Draft Date	Course	Duration	Grades	Subjects	Team
10-14-2024 @ 12:47	8th Grade Science	5.0 Weeks	8	Science	Kami Greenawalt , Josh Korb

Unit Focus

Students will explore the electromagnetic spectrum, focusing on how different types of waves carry energy and information through space. Students will investigate wave properties, model real-world applications of electromagnetic waves, and analyze how digital signals improve communication reliability.

Anchoring Phenomenon

How can a text message travel from one phone to another almost instantly, even across the world?

Prior Learnings/Connection

Students have previously learned that waves can transfer energy and that different types of energy (such as light and sound) move in different ways. They have explored basic wave properties like amplitude and frequency and observed how waves can reflect, refract, or be absorbed. This unit builds on those concepts by introducing the electromagnetic spectrum as a range of energy-carrying waves that travel through space, deepening their understanding of energy transfer, wave behavior, and technological applications in communication and information systems.

Navigation to next lesson/storyline

The 8th Grade storyline ends here. This unit could naturally transitions into a deeper exploration of energy transfer and transformations, particularly how electromagnetic energy interacts with matter.

Stage 1: Learning Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*

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Established Goals

Standards

Pennsylvania STEELS

Science (2023): 6-8 Standards

- Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave.

  Clarifying Statement: Emphasis is on describing waves with both qualitative and quantitative thinking.

  Assessment Boundary: Assessment does not include electromagnetic waves and is limited to standard repeating waves. *(3.2.6-8.Q)*
- Develop and use a model to describe how waves are reflected, absorbed, or transmitted through various materials.

  Clarifying Statement: Emphasis is on both light and mechanical waves. Examples of models could include drawings, simulations, and written descriptions.

  Assessment Boundary: Assessment is limited to qualitative applications pertaining to light and mechanical waves. *(3.2.6-8.R)*
- Integrate qualitative scientific and technical information to support the claim that digitized signals are a more reliable way to encode and transmit information

- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T2)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Waves are a repeating pattern of motion that transfers energy from place to place without the overall displacement of matter. *(U1)*
- Interactions between any two objects can cause changes in one or both. *(U2)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- Waves transfer energy without transferring matter. *(K1)*
- The electromagnetic (EM) spectrum is made up of waves of different wavelengths and frequencies, including radio, microwave, infrared, visible light, ultraviolet, X-rays, and gamma rays. *(K2)*
- Higher frequency EM waves carry more energy than lower frequency waves. *(K3)*
- Light can be reflected, absorbed, or transmitted depending on the material it interacts with. *(K4)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- Modeling wave behavior and properties such as amplitude, wavelength, and frequency. *(S1)*
- Interpreting and creating diagrams of the electromagnetic spectrum. *(S2)*
- Conducting investigations to observe how waves interact with different materials (reflection, absorption, transmission). *(S3)*
- Using digital tools or simulations to encode and decode binary messages. *(S4)*

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than analog signals.

Clarifying Statement: Emphasis is on a basic understanding that waves can be used for communication purposes. Examples could include using fiber optic cable to transmit light pulses, radio wave pulses in wifi devices, and conversion of stored binary patterns to make sound or text on a computer screen.

Assessment Boundary: Assessment does not include binary counting. Assessment does not include the specific mechanism of any given device. *(3.2.6-8.S)*

Technology & Engineering (2023): 6-8 Technology & Engineering

- Analyze examples of technologies that have changed the way people think, interact, live, and communicate. *(3.5.6-8.F)*
- Examine the ways that technology can have both positive and negative effects at the same time. *(3.5.6-8.I)*
- Explain how technology and engineering are closely linked to creativity, which can result in both intended and unintended innovations. *(3.5.6-8.KK)*

- Digital signals use binary code (0s and 1s) to transmit information and are generally more reliable than analog signals. *(K5)*
- The speed of light is constant in a vacuum and is the fastest known speed in the universe. *(K6)*
- Visible light is just a small part of the EM spectrum that human eyes can detect. *(K7)*

- Comparing and analyzing the reliability of analog versus digital signals using evidence. *(S5)*
- Communicating scientific ideas through CER (Claim-Evidence-Reasoning) writing and presentations. *(S6)*
- Collaborating in labs and hands-on activities to gather data and draw conclusions about wave behavior. *(S7)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 6-8 Science & Engineering Practices

- Develop and/or use a model to predict and/or describe phenomena. *(SEP.6-8.P2.E)*
- Use mathematical representations to describe and/or support scientific conclusions and design solutions. *(SEP.6-8.P6.B)*

- Integrate qualitative scientific and technical information in written text with that contained in media and visual displays to clarify claims and findings. *(SEP.6-8.P8.B)*

Technology & Engineering (2023): 6-8 Science & Engineering Practices

- Critically read scientific texts adapted for classroom use to determine the central ideas and/or obtain scientific and/or technical information to describe patterns in and/or evidence about the natural and designed world(s). *(SEP.6-8.P6.2)*
- Communicate scientific and/or technical information (e.g., about a proposed object, tool, process, system) in writing and/or through oral presentations. *(SEP.6-8.P6.3)*

Technology & Engineering (2023): 6-8 Technology & Engineering Practices

- Shows an understanding of ways to regulate technologies and the reasons for doing so. *(TEP.6-8.A.1)*
- Defends technological decisions based on evidence. *(TEP.6-8.E.1)*
- Exhibits safe, effective ways of producing technological products, systems, and processes. *(TEP.6-8.F.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 6-8 Disciplinary Core Ideas

- A simple wave has a repeating pattern with a specific wavelength, frequency, and amplitude. *(DCI.6-8.PS4.A.1)*
- A sound wave needs a medium through which it is transmitted. *(DCI.6-8.PS4.A.2)*
- When light shines on an object, it is reflected, absorbed, or transmitted through the object, depending on the object's material and the frequency (color) of the light. The path that light travels can be traced as straight lines, except at surfaces between different transparent materials (e.g., air and water, air and glass) where the light path bends. A wave model of light is useful for explaining brightness, color, and the frequency-dependent bending of light at a surface between media. However, because light can travel through space, it cannot be a matter wave, like sound or water waves. *(DCI.6-8.PS4.B.1)*
- Digitized signals (sent as wave pulses) are a more reliable way to encode and transmit information. *(DCI.6-8.PS4.C.1)*

Technology & Engineering (2023): 6-8 Disciplinary Core Ideas

- Apply scientific principles to design a method for monitoring and minimizing human impact on the environment. *(DCI.6-8.MS.ESS3.3)*
- Technology advances through the processes of innovation and invention. Sometimes a technology developed for one purpose is adapted to serve other purposes. *(DCI.6-8.NAEP.D.8.2)*
- Describe and analyze positive and negative impacts on society from the introduction of a new or improved technology, including both expected and unanticipated effects. *(DCI.6-8.NAEP.T.8.3)*
- Compare the impacts of a given technology on different societies, noting factors that may make a technology appropriate and sustainable in one society but not in another. *(DCI.6-8.NAEP.T.8.4)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 6-8 Crosscutting Concepts

- Graphs, charts, and images can be used to identify patterns in data. *(CCC.6-8.C1.C.2)*
- Structures can be designed to serve particular functions by taking into account properties of different materials, and how materials can be shaped and used. *(CCC.6-8.C6.C)*

Vocabulary

- **Wave** – A repeating disturbance that transfers energy from one place to another.
- **Amplitude** – The height of a wave from its rest position; related to the energy of the wave.
- **Wavelength** – The distance between two corresponding points on a wave (like crest to crest).
- **Frequency** – The number of waves that pass a point in a certain amount of time.
- **Electromagnetic (EM) Spectrum** – The full range of electromagnetic waves, from radio waves to gamma rays.
- **Transverse Wave** – A wave in which the particles move perpendicular to the direction the wave travels (like light waves).
- **Mechanical Wave** – A wave that requires a medium (like air or water) to travel through.
- **Electromagnetic Wave** – A wave that can travel through empty space and does not need a medium.
- **Reflection** – When a wave bounces off a surface it cannot pass through.
- **Absorption** – When a wave's energy is taken in by the material it hits.
- **Transmission** – When a wave passes through a material.
- **Visible Light** – The part of the EM spectrum that humans can see.
- **Infrared** – EM waves with wavelengths longer than visible light; felt as heat.
- **Ultraviolet (UV)** – EM waves with wavelengths shorter than visible light; can cause sunburn.
- **X-rays** – High-energy EM waves used in medical imaging.
- **Gamma Rays** – The highest-energy EM waves; produced by radioactive materials and in space.
- **Radio Waves** – The longest EM waves; used in communication systems like radios and TVs.
- **Microwaves** – EM waves used in cooking and communication (like cell phones and satellites).
- **Digital Signal** – Information sent as a series of 0s and 1s (binary code); clearer and more reliable than analog.
- **Analog Signal** – A continuous signal that varies smoothly; can lose quality over distance or interference.
- **Binary Code** – A system of representing information using only two values: 0 and 1.
- **Medium** – The material through which a mechanical wave travels (like air, water, or solids).

Population Growth

Draft Date	Course	Grades	Subjects	Team
05-14-2025 @ 05:46	Ecology	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Population Dynamics, Counting, Growth

Stage 1: Learning Goals

Established Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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Chemical Reactions

Draft Date	Course	Duration	Grades	Subjects	Team
05-14-2025 @ 03:02	Chemistry	15.0 Day(s)	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Reaction Types, Reaction Energies

How are chemical reactions written?

What are the types of chemical reactions?

What changes do compounds undergo when reactions occur?

Anchoring Phenomenon

Demonstrate the group one elements in water. This is accomplished both in person and through video. Show students how explosive the reactions are.

Prior Learnings/Connection

The behaviors of the elements varies based on their electronegativities and place on the periodic table. The trends exhibited by the properties of the elements leads to predictions about their behavior when they encounter another element. The resluts of chemical reactions

Navigation to next lesson/storyline

Chemical reactions occur due to changes that atoms undergo to form more stable products. The extent and results of the chemical reactions can be calculated using molar amounts of the reactants involved. This will determine the parameters that the reaction will occur under and how the reaction will proceed. The state of the reactants is also important to the overall reaction and will determine the reaction results and how the reaction proceeds. Calculating concentrations and amounts of reactants and products will allow one to fully understand the mechanism by which a chemical reaction is operating under.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Science (2023): 9-12 Standards

- Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.

  Clarifying Statement: Examples of chemical reactions could include the reaction of sodium and chlorine, of carbon and oxygen, or of carbon and hydrogen.

  Assessment Boundary: Assessment is limited to chemical reactions involving main group elements and combustion reactions.
  (3.2.9-12.C)
- Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.

  Clarifying Statement: Emphasis is on the idea that a chemical reaction is a system that affects the energy change. Examples of models could include molecular-level drawings and diagrams of reactants

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Collect, analyze, and evaluate evidence to support constructing arguments. *(T1)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T2)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U1)*
- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U2)*
- Interactions between any two objects can cause changes in one or both. *(U3)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

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and products, and representations showing energy is conserved.

Assessment Boundary: Assessment does not include calculating the total bond energy changes during a chemical reaction from the bond energies of reactants and products. *(3.2.9-12.D)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Apply appropriate design thinking processes to diagnose, adjust, and repair systems to ensure precise, safe, and proper functionality. *(3.5.9-12.O)*

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know... ■ reactants are on the left and products on the right side of a chemical equation. *(K1)* ■ chemical equations must balance with the same amount of atoms on each side. *(K2)* ■ the main types of reactions are synthesis, decomposition, single-replacement, and double-replacement. *(K3)* ■ products can be predicted based on the types of reactants present. *(K4)* ■ the energy changes that chemicals undergo during reactions can be diagramed and interpreted as absorbing or releasing energy. *(K5)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ writing chemical reactions using proper notation. *(S1)* ■ balancing both sides of a chemical reaction with proper notation. *(S2)* ■ classifying a chemical reaction based on reactnt and products. *(S3)* ■ predicting the products of chemical reactions. *(S4)* ■ modeling changes in energy as chemical reactions progress. *(S5)*

Science and Engineering Practices

Pennsylvania STEELS

Science (2023): 9-12 Science & Engineering Practices

- Develop, revise, and/or use a model based on evidence to illustrate and/or predict the relationships between systems or between components of a system. *(SEP.9-12.P2.C)*
- Construct and revise an explanation based on valid and reliable evidence obtained from a variety of sources (including students' own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future. *(SEP.9-12.P4.B)*

Technology & Engineering (2023): 9-12 Science & Engineering Practices

- Apply scientific ideas, principles, and/or evidence to provide an explanation of phenomena and solve design problems, taking into account possible unanticipated effects. *(SEP.9-12.P2.3)*

Technology & Engineering (2023): 9-12 Technology & Engineering Practices

- Demonstrates the ability to regulate and improve making and doing skills. *(TEP.9-12.F.1)*
- Designs and troubleshoots technological systems in ways that consider the multiple components of the system. *(TEP.9-12.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Science (2023): 9-12 Disciplinary Core Ideas

- The periodic table orders elements horizontally by the number of protons in the atom's nucleus and places those with similar chemical properties in columns. The repeating patterns of this table reflect patterns of outer electron states. *(DCI.9-12.PS1.A.2)*
- A stable molecule has less energy than the same set of atoms separated; one must provide at least this energy in order to take the molecule apart. *(DCI.9-12.PS1.A.4)*
- The fact that atoms are conserved, together with knowledge of the chemical properties of the elements involved, can be used to describe and predict chemical reactions. *(DCI.9-12.PS1.B.1)*
- Chemical processes, their rates, and whether or not energy is stored or released can be understood in terms of the collisions of molecules and the rearrangements of atoms into new molecules, with consequent changes in the sum of all bond energies in the set of molecules that are matched by changes in kinetic energy. *(DCI.9-12.PS1.B.2)*

Technology & Engineering (2023): 9-12 Disciplinary Core Ideas

- Criteria may need to be broken down into simpler ones that can be approached systematically, and decisions about the priority of certain criteria over others (trade-offs) may be needed. *(DCI.9-12.ETS1.C.1)*
- Analyze a complicated system to identify ways that it might fail in the future. Identify the most likely failure points and recommend safeguards to avoid future failures. *(DCI.9-12.NAEP.D.12.18)*

Crosscutting Concepts

Pennsylvania STEELS

Science (2023): 9-12 Crosscutting Concepts

- Different patterns may be observed at each of the scales at which a system is studied and can provide evidence for causality in explanations of phenomena. *(CCC.9-12.C1.A.1)*

- Changes of energy and matter in a system can be described in terms of energy and matter flows into, out of, and within that system. *(CCC.9-12.C5.B)*

Vocabulary
chemical equation, chemical reaction, prcipitate, coefficient, reactant, product, synthesis, composition, decomposition, single-replacement, double-replacement, combustion, activity series, solubility, thermodynamics, energy, endothermic, exothermic

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Populations

Draft Date	Course	Grades	Subjects	Team
05-14-2025 @ 05:46	Ecology	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Species Interactions, Biodiversity, Speciation

Stage 1: Learning Goals

Established Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

Genetics

Draft Date	Course	Grades	Subjects	Team
05-14-2025 @ 05:47	Ecology	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Ancestry, Evolution, Heredity, Genetic Equilibrium

Stage 1: Learning Goals

Established Goals

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

Meaning

Big Ideas	Essential Questions
What specifically do you want students to understand? What inferences should they make? Students will understand that...	What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know...	What discrete skills and processes should students be able to use? Students will be skilled at...

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Stoichiometry

Draft Date	Course	Duration	Grades	Subjects	Team
05-14-2025 @ 05:45	Chemistry	30.0 Day(s)	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Reaction Calculations, Kinetics, LeChatlier's Principle, Solutions, Concentration Calculation, Gas Laws

How do you calculate amounts of substances in an ideal reaction?

How much product will results from a reaction?

What can be learned about a gas from the motion of its molecules?

Identify and describe the Gas laws.

What can be calculated about gases in a chemical reaction?

How are solutions identified and described?

What determines solution concentration?

What parameters determine the rate and direction of a reaction?

Anchoring Phenomenon

Vinegar and Baking Soda Balloons: The chemical reaction between vinegar and baking soda will be carried out by students through a series of jars with attached balloons to catch the gas produced. Students will experience limiting reactants in that the first few balloons will be limited in product because of lack of sufficient baking soda, and the last few balloons will have lack of vinegar. This will allow them to see that the ideal mole ratio of reactants will produce the most product.

Prior Learnings/Connection

Chemical reactions occur when two atoms or compunds meet with bonds broken and new bonds form. The extent to which this occurs and the conditions under which it occurs is related to the types of materials involved as well as the amount of materials involved. The amount of

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product produced can be calculated based on these parameters. Reactions undergo specific changes and properties based on state of matter and concentrations of materials involved.

Navigation to next lesson/storyline

Chemical reactions exist under specific conditions based on state of matter and concentration. These conditions determine the rate and direction that the reaction will proceed along with the amount and type of product produced. Ordinary chemical reactions occur with changes to the electron struture of an atom to reach a more stable configuration. Sometimes however, it is the nucleus that is unstable causing the atoms to undergo a special type of reaction called a nuclear reaction.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Environmental Literacy & Sustainability

- Plan and conduct an investigation utilizing environmental data about a local environmental issue. *(3.4.9-12.E)*

Science (2023): 9-12 Standards

- Apply scientific principles and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs.

  Clarifying Statement: Emphasis is on student reasoning that focuses on the number and energy of collisions between molecules.

  Assessment Boundary: Assessment is limited to simple reactions in which there

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Gather and interpret measurements and data and apply to new situations. *(T2)*
- Collect, analyze, and evaluate evidence to support constructing arguments. *(T3)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T4)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T5)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U1)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*

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are only two reactants; evidence from temperature, concentration, and rate data; and qualitative relationships between rate and temperature. *(3.2.9-12.E)*

- Refine the design of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium.

  Clarifying Statement: Emphasis is on the application of Le Chatelier's Principle and on refining designs of chemical reaction systems, including descriptions of the connection between changes made at the macroscopic level and what happens at the molecular level. Examples of designs could include different ways to increase product formation including adding reactants or removing products.

  Assessment Boundary: Assessment is limited to specifying the change in only one variable at a time. Assessment does not include calculating equilibrium constants and concentrations. *(3.2.9-12.F)*
- Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.

  Clarifying Statement: Emphasis is on using mathematical ideas to communicate the proportional relationships between masses of atoms in the reactants and the products, and the translation of these relationships to the macroscopic scale using the mole as

- Interactions between any two objects can cause changes in one or both. *(U2)*

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*

Acquisition of Knowledge & Skill

Knowledge

What facts and basic concepts should students know and be able to recall? Students will know...

- balanced chemical reaction coeficients give the ratios of reactants to products in a chemical reaciton and can be used to calculate unknown amounts of materials. *(K1)*
- the reactant that is use up in a chemical reaction and determines how much product can be made is called the limiting reactant. *(K2)*
- percent yeild is the amount of expected yield that was produced in a chemical reaction. *(K3)*
- actual yield will always be lower than expected yield. *(K4)*
- the molar volume of a gas at STP is 22.4 liters. *(K5)*
- systems at equilibrium will respond to stress in the environment to account for thte change according to LeChatlier's Principle. *(K6)*
- concentration, surface area, pressure, catalysts, nature of reactants, and temperature affect the rate at which a chemical reaction proceeds. *(K7)*

Skills

What discrete skills and processes should students be able to use? Students will be skilled at...

- calculating mole rations in reactions. *(S1)*
- calculating reactant and product amounts based on chemical reactions. *(S2)*
- identifying and describing the limiting reactant in an equation. *(S3)*
- calculating and applying percent yield in a reaction. *(S4)*
- describing chemical equilibrium and what affects equilibrium of a reaction. *(S5)*
- describing what affects the rate of a chemical reaction. *(S6)*
- describing the physical properties of a gas. *(S7)*
- describing how pressure is created and measured. *(S8)*
- using the Gas Laws to calculate pressure, temperature, and volume of gases. *(S9)*
- applying the Gas Laws to situations. *(S10)*
- predicting amounts of products and reactants involved in chemical reactions containing gases. *(S11)*

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the conversion from the atomic to the macroscopic scale. Emphasis is on assessing students' use of mathematical thinking and not on memorization and rote application of problem-solving techniques.

Assessment Boundary: Assessment does not include complex chemical reactions. *(3.2.9-12.G)*

- Evaluate or refine a technological solution that reduces the impact of human activities on natural systems.

Clarifying Statement: Examples of data on the impacts of human activities could include the quantities and types of pollutants released, changes to biomass and species diversity, or areal changes in land surface use (such as for urban development, agriculture and livestock, or surface mining). Examples for limiting future impacts could range from local efforts (such as reducing, reusing, and recycling resources) to large-scale geoengineering design solutions (such as altering global temperatures by making large changes to the atmosphere or ocean).

Assessment Boundary: N/A *(3.3.9-12.R)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Critically assess and evaluate a technology that minimizes resource use and resulting waste to achieve a goal. *(3.5.9-12.B)*

- gases have a low density, they expand, they diffuse, they effuse, they are fluids, and they are compressible. *(K8)*
- gas laws relate pressure, temperature, volume, and moles of a given gas. *(K9)*
- pressure can be expressed in various units. *(K10)*
- the process of dissolving is affected by temperature, aggitation, particle size, pressure, and nature of solute and solvent. *(K11)*
- concentration can be expressed through percent mass, molarity, and molality. *(K12)*

- describing how effusion and diffusion affect the bahavior of gases. *(S12)*
- differentiating between the types of mixtures. *(S13)*
- describing properties of solutions based on the type of solute. *(S14)*
- expressing and calculating the concentration of solute in a solution using various methods. *(S15)*
- using concentration to make stoichiometric calculations. *(S16)*

- Evaluate a technological innovation that arose from a specific society's unique need or want. *(3.5.9-12.F)*
- Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem. *(3.5.9-12.K)*
- Evaluate and define the purpose of a design. *(3.5.9-12.U)*

Science and Engineering Practices

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Science & Engineering Practices

- Plan and conduct an investigation individually and collaboratively to produce data to serve as the basis for evidence, and in the design: decide on types, how much, and accuracy of data needed to produce reliable measurements and consider limitations on the precision of the data (e.g., number of trials, cost, risk, time), and refine the design accordingly. *(SEP.9-12.P6.1)*

Science (2023): 9-12 Science & Engineering Practices

- Apply scientific ideas, principles, and/or evidence to provide an explanation of phenomena and solve design problems, taking into account possible unanticipated effects. *(SEP.9-12.P4.C)*
- Design, evaluate, and/or refine a solution to a complex real-world problem, based on scientific knowledge, student-generated sources of evidence, prioritized criteria, and tradeoff considerations. *(SEP.9-12.P4.E)*
- Use mathematical, computational, and/or algorithmic representations of phenomena or design solutions to describe and/or support claims and/or explanations. *(SEP.9-12.P6.B)*

Technology & Engineering (2023): 9-12 Science & Engineering Practices

- Compare, integrate and evaluate sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a scientific question or solve a problem. *(SEP.9-12.P5.2)*
- Gather, read, and evaluate scientific and/or technical information from multiple authoritative sources, assessing the evidence and usefulness of each source. *(SEP.9-12.P5.3)*
- Use mathematical, computational, and/or algorithmic representations of phenomena or design solutions to describe and/or support claims and/or explanations. *(SEP.9-12.P7.1)*

- Use mathematical models and/or computer simulations to predict the effects of a design solution on systems and/or the interactions between systems. *(SEP.9-12.P7.3)*

Technology & Engineering (2023): 9-12 Technology & Engineering Practices

- Conveys ideas clearly in constructive insightful ways, including through written and oral communication and via mathematical and physical models. *(TEP.9-12.C.1)*
- Uses evidence to better understand and solve problems in technology and engineering, including applying computational thinking. *(TEP.9-12.E.1)*
- Shows persistence in addressing technological problems and finding solutions to those problems. *(TEP.9-12.G.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Disciplinary Core Ideas

- The sustainability of human societies and the biodiversity that supports them requires responsible management of natural resources. *(DCI.9-12.ESS3.C.1)*
- Moreover, anthropogenic changes (induced by human activity) in the environment—including habitat destruction, pollution, introduction of invasive species, overexploitation, and climate change—can disrupt an ecosystem and threaten the survival of some species. *(DCI.9-12.LS2.C.2)*
- Biodiversity is increased by the formation of new species (speciation) and decreased by the loss of species (extinction). *(DCI.9-12.LS4.D.1)*
- Humans depend on the living world for the resources and other benefits provided by biodiversity. But human activity is also having adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change. Thus sustaining biodiversity so that ecosystem functioning and productivity are maintained is essential to supporting and enhancing life on Earth. Sustaining biodiversity also aids humanity by preserving landscapes of recreational or inspirational value. *(DCI.9-12.LS4.D.2)*

Science (2023): 9-12 Disciplinary Core Ideas

- The fact that atoms are conserved, together with knowledge of the chemical properties of the elements involved, can be used to describe and predict chemical reactions. *(DCI.9-12.PS1.B.1)*
- Chemical processes, their rates, and whether or not energy is stored or released can be understood in terms of the collisions of molecules and the rearrangements of atoms into new molecules, with consequent changes in the sum of all bond energies in the set of molecules that are matched by changes in kinetic energy. *(DCI.9-12.PS1.B.2)*
- In many situations, a dynamic and conditiondependent balance between a reaction and the reverse reaction determines the numbers of all types of molecules present. *(DCI.9-12.PS1.B.3)*
- Scientists and engineers can make major contributions by developing technologies that produce less pollution and waste and that preclude ecosystem degradation. *(DCI.9-12.ESS3.C.2)*

- When evaluating solutions it is important to take into account a range of constraints including cost, safety, reliability and aesthetics and to consider social, cultural and environmental impacts. *(DCI.9-12.ETS1.B.1)*

Technology & Engineering (2023): 9-12 Disciplinary Core Ideas

- Both physical models and computers can be used in various ways to aid in the engineering design process. *(DCI.9-12.ETS1.B.1)*
- Computers are useful for a variety of purposes, such as running simulations to test different ways of solving a problem or to see which one is most efficient or economical; and in making a persuasive presentation to a client about how a given design will meet their needs. *(DCI.9-12.ETS1.B.2)*
- Criteria may need to be broken down into simpler ones that can be approached systematically, and decisions about the priority of certain criteria over others (trade-offs) may be needed. *(DCI.9-12.ETS1.C.1)*
- Evaluate or refine a technological solution that reduces impacts of human activities on natural systems. *(DCI.9-12.HS.ESS3.4)*
- Meet a sophisticated design challenge by identifying criteria and constraints, predicting how these will affect the solution, researching and generating ideas, and using trade-offs to balance competing values in selecting the best solution. *(DCI.9-12.NAEP.D.12.8)*
- The decision to develop a new technology is influenced by societal opinions and demands. These driving forces differ from culture to culture. *(DCI.9-12.NAEP.T.12.1)*

Crosscutting Concepts

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Crosscutting Concepts

- Science is both a body of knowledge that represents a current understanding of natural systems and the processes used to refine, elaborate, revise, and extend this knowledge. *(CCC.9-12.C3.2.1)*

Science (2023): 9-12 Crosscutting Concepts

- Different patterns may be observed at each of the scales at which a system is studied and can provide evidence for causality in explanations of phenomena. *(CCC.9-12.C1.A.1)*
- The total amount of energy and matter in closed systems is conserved. *(CCC.9-12.C5.A)*
- Much of science deals with constructing explanations of how things change and how they remain stable. *(CCC.9-12.C7.A)*
- Feedback (negative or positive) can stabilize or destabilize a system. *(CCC.9-12.C7.C)*

Vocabulary

stoichiometry, mole ratio, mole, coefficient, limiting reactant, excess reactant, theoretical yield, actual yield, percent yield, kinetic-molecular theory, ideal gas, elastic collisions, fluids, diffusion, effusion, real gas, pressure, barometer, atmosphere, STP, Boyle's Law, Charles's Law, Gay-Lussac's Law, Combined Gas Law, Ideal Gas Law, partial pressure, soluble, solution, insoluble, solvent, solute, suspension, colloid, electrolyte,

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nonelectrolyte, saturated, unsaturated, supersaturated, miscible, immiscible, alloy, concentration, molarity, molality, dissolve, reaction rate, equilibrium, LeChatlier's Principle, kinetics

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Nuclear Chemistry

Draft Date	Course	Duration	Grades	Subjects	Team
05-14-2025 @ 05:45	Chemistry	10.0 Day(s)	9 , 10 , 11 , 12	Science	Shane Miller

Unit Focus

Nuclear Reactions, Nuclear Decay

How do unstable atommic nuclei behave?

Describe the pros and cons of nuclear decay.

Anchoring Phenomenon

Students will use the American Nuclear Society website to calculate their exposure to radiation each year.

Prior Learnings/Connection

Chemical reactions occur when the electrons in an atom are attempting to reach a more stable configuration. The nucleus does not factor into normal chemical reactions, however its stability can determine the bahavior of the atom as well. Nuclear reactions are the result of an unstable nucleus and hold the potential to release a lot of energy.

Navigation to next lesson/storyline

Students not have an understanding of basic chemistry including reactions, atomic structure, nuclear decay, and electron configuration. They can now use thier kowledge to decribe everyday occurances around them or to further investigate scientific problems in future studies. They next step in chemistry would be to calculate how the changes that they learned about in this affect other things.

Stage 1: Learning Goals

Established Goals

Standards

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Environmental Literacy & Sustainability

- Analyze and evaluate how best resource management practices and environmental laws achieve sustainability of natural resources. *(3.4.9-12.G)*
- Analyze and interpret data on a regional environmental condition and its implications on environmental justice and social equity. *(3.4.9-12.I)*

Science (2023): 9-12 Standards

- Develop models to illustrate the changes in the composition of the nucleus of the atom and the energy released during the processes of fission, fusion, and radioactive decay.

  Clarifying Statement: Emphasis is on simple qualitative models, such as pictures or diagrams, and on the scale of energy released in nuclear processes relative to other kinds of transformations.

  Assessment Boundary: Assessment does not include quantitative calculation of energy released. Assessment is limited to alpha, beta, and gamma radioactive decays. *(3.2.9-12.H)*

Transfer

Long-Term Transfer Goals

What kinds of long-term, independent accomplishments are desired? Students will be able to independently use their learning to...

- Design an investigation or model using appropriate tools, resources, and methods. *(T1)*
- Apply scientific and technical knowledge to a variety of topics in a changing world. *(T2)*
- Approach science as a reliable and tentative way of knowing and explaining the natural world. *(T3)*

Meaning

Big Ideas

What specifically do you want students to understand? What inferences should they make? Students will understand that...

- Interactions between any two objects can cause changes in one or both. *(U1)*
- Matter can be understood in terms of the types of atoms present and the interactions both between and within atoms. *(U2)*
- The concept of energy transfer and conservation can be used to predict and explain interactions of objects or systems of objects. *(U3)*

Essential Questions

What thought-provoking questions will foster inquiry, meaning making, and transfer? Students will keep considering...

- How can we explain the structure, properties, and interactions of matter? *(EQ.SCI.PHYS.01)*
- How is energy transferred and conserved? *(EQ.SCI.PHYS.03)*
- How can we explain and predict interactions between objects? *(EQ.SCI.PHYS.02)*

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- Develop a model based on evidence to illustrate the life span of the sun and the role of nuclear fusion in the sun's core to release energy in the form of radiation.

  Clarifying Statement: Emphasis is on the energy transfer mechanisms that allow energy from nuclear fusion in the sun's core to reach Earth. Examples of evidence for the model include observations of the masses and lifetimes of other stars, as well as the ways that the sun's radiation varies due to sudden solar flares ("space weather"), the 11-year sunspot cycle, and non-cyclic variations over centuries.

  Assessment Boundary: Assessment does not include details of the atomic and sub-atomic processes involved with the sun's nuclear fusion. *(3.3.9-12.A)*
- Communicate scientific ideas about the way stars, over their life cycle, produce elements.

  Clarifying Statement: Emphasis is on the way nucleosynthesis, and therefore the different elements created, varies as a function of the mass of a star and the stage of its lifetime.

  Assessment Boundary: Details of the many different nucleosynthesis pathways for stars of differing masses are not assessed. *(3.3.9-12.C)*
- Evaluate evidence of the past and current movements of continental and oceanic

Acquisition of Knowledge & Skill

Knowledge	Skills
What facts and basic concepts should students know and be able to recall? Students will know... ■ the force that holds together an atomic nucleus can be utilized as a source of power. *(K1)* ■ the atomic nucleus can be unstable and undergo decay. *(K2)* ■ there are various types of nuclear reactions. *(K3)* ■ nuclear decay can be used for power and to date objects. *(K4)*	What discrete skills and processes should students be able to use? Students will be skilled at... ■ defining what holds an atom together. *(S1)* ■ defining the types of nuclear reactions and decribing how they work. *(S2)* ■ calculating half-lives of nuclear decay. *(S3)* ■ applying nuclear reactions to modern scientific research like medicine and energy. *(S4)* ■ describing how stars burn and how that same type of energy can be used by humans. *(S5)*

crust and the theory of plate tectonics to explain the ages of crustal rocks.

Clarifying Statement: Emphasis is on the ability of plate tectonics to explain the ages of crustal rocks. Examples include evidence of the ages oceanic crust increasing with distance from mid-ocean ridges (a result of plate spreading) and the ages of North American continental crust decreasing with distance away from a central ancient core of the continental plate (a result of past plate interactions).

Assessment Boundary: N/A *(3.3.9-12.F)*

Technology & Engineering (2023): 9-12 Technology & Engineering

- Develop a solution to a technological problem that has the least negative environmental and social impact. *(3.5.9-12.C)*
- Critique whether existing or proposed technologies use resources sustainably. *(3.5.9-12.D)*
- Evaluate a technological innovation that was met with societal resistance impacting its development. *(3.5.9-12.G)*
- Develop a plan that incorporates knowledge from science, mathematics, and other disciplines to design or improve a technological product or system. *(3.5.9-12.DD)*

Science and Engineering Practices

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Science & Engineering Practices

- Evaluate competing design solutions to a realworld problem based on scientific ideas and principles, empirical evidence, and logical arguments regarding relevant factors (e.g., economic, societal, environmental, ethical considerations). *(SEP.9-12.P4.1)*
- Evaluate the claims, evidence, and reasoning behind currently accepted explanations or solutions to determine the merits of arguments. *(SEP.9-12.P4.2)*

Science (2023): 9-12 Science & Engineering Practices

- Develop, revise, and/or use a model based on evidence to illustrate and/or predict the relationships between systems or between components of a system. *(SEP.9-12.P2.C)*
- Evaluate the claims, evidence, and/or reasoning behind currently accepted explanations or solutions to determine the merits of arguments. *(SEP.9-12.P7.B)*
- Communicate scientific and/or technical information or ideas (e.g. about phenomena and/or the process of development and the design and performance of a proposed process or system) in multiple formats (i.e., orally, graphically, textually, mathematically). *(SEP.9-12.P8.E)*

Technology & Engineering (2023): 9-12 Science & Engineering Practices

- Define a design problem that involves the development of a process or system with interacting components and criteria and constraints that may include social, technical, and/or environmental considerations. *(SEP.9-12.P1.1)*
- Respectfully provide and/or receive critiques on scientific arguments by probing reasoning and evidence, challenging ideas and conclusions, responding thoughtfully to diverse perspectives, and determining additional information required to resolve contradictions. *(SEP.9-12.P4.1)*
- Critically read scientific literature adapted for classroom use to determine the central ideas or conclusions and/or to obtain scientific and/or technical information to summarize complex evidence, concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. *(SEP.9-12.P5.1)*

Technology & Engineering (2023): 9-12 Technology & Engineering Practices

- Assesses technological products, systems, and processes through critical analysis of their impacts and outcomes. *(TEP.9-12.A.1)*
- Uses evidence to better understand and solve problems in technology and engineering, including applying computational thinking. *(TEP.9-12.E.1)*
- Demonstrates the ability to regulate and improve making and doing skills. *(TEP.9-12.F.1)*
- Designs and troubleshoots technological systems in ways that consider the multiple components of the system. *(TEP.9-12.H.1)*

Disciplinary Core Ideas

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Disciplinary Core Ideas

- The sustainability of human societies and the biodiversity that supports them requires responsible management of natural resources. *(DCI.9-12.ESS3.C.1)*
- When evaluating solutions, it is important to take into account a range of constraints, including cost, safety, reliability, and aesthetics, and to consider social, cultural, and environmental impacts. *(DCI.9-12.ETS1.B.1)*
- Moreover, anthropogenic changes (induced by human activity) in the environment—including habitat destruction, pollution, introduction of invasive species, overexploitation, and climate change—can disrupt an ecosystem and threaten the survival of some species. *(DCI.9-12.LS2.C.2)*

Science (2023): 9-12 Disciplinary Core Ideas

- Nuclear processes, including fusion, fission, and radioactive decays of unstable nuclei, involve release or absorption of energy. The total number of neutrons plus protons does not change in any nuclear process. *(DCI.9-12.PS1.B.1)*
- Spontaneous radioactive decays follow a characteristic exponential decay law. Nuclear lifetimes allow radiometric dating to be used to determine the ages of rocks and other materials. *(DCI.9-12.PS1.B.2)*
- Nuclear Fusion processes in the center of the sun release the energy that ultimately reaches Earth as radiation. *(DCI.9-12.PS3.D.4)*
- The star called the sun is changing and will burn out over a lifespan of approximately 10 billion years. *(DCI.9-12.ESS1.A.1)*
- The study of stars' light spectra and brightness is used to identify compositional elements of stars, their movements, and their distances from Earth. *(DCI.9-12.ESS1.A.2)*
- Other than the hydrogen and helium formed at the time of the Big Bang, nuclear fusion within stars produces all atomic nuclei lighter than and including iron, and the process releases electromagnetic energy. Heavier elements are produced when certain massive stars achieve a supernova stage and explode. *(DCI.9-12.ESS1.A.4)*
- Continental rocks, which can be older than 4 billion years, are generally much older than the rocks of the ocean floor, which are less than 200 million years old. *(DCI.9-12.ESS1.C.1)*
- Plate tectonics is the unifying theory that explains the past and current movements of the rocks at Earth's surface and provides a framework for understanding its geologic history. *(DCI.9-12.ESS2.B.1)*

Technology & Engineering (2023): 9-12 Disciplinary Core Ideas

- Criteria and constraints also include satisfying any requirements set by society, such as taking issues of risk mitigation into account, and they should be quantified to the extent possible and stated in such a way that one can tell if a given design meets them. *(DCI.9-12.ETS1.A.1)*
- When evaluating solutions, it is important to take into account a range of constraints, including cost, safety, reliability, and aesthetics, and to consider social, cultural, and environmental impacts. *(DCI.9-12.ETS1.B.3)*

- Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity. *(DCI.9-12.HS.ESS3.3)*
- Engineers use science, mathematics, and other disciplines to improve technology, while scientists use tools devised by engineers to advance knowledge in their disciplines. This interaction has deepened over the past century. *(DCI.9-12.NAEP.D.12.2)*

Crosscutting Concepts

Pennsylvania STEELS

Environmental Literacy & Sustainability (2023): 9-12 Crosscutting Concepts

- Cause and effect relationships can be suggested and predicted for complex natural and human designed systems by examining what is known about smaller scale mechanisms within the system. *(CCC.9-12.C1.1)*
- Empirical evidence is required to differentiate between cause and correlation and make claims about specific causes and effects. *(CCC.9-12.C1.2)*
- Feedback (negative or positive) can stabilize or destabilize a system. *(CCC.9-12.C2.1)*
- Science knowledge indicates what can happen in natural systems—not what should happen. The latter involves ethics, values, and human decisions about the use of knowledge. *(CCC.9-12.C3.1.2)*

Science (2023): 9-12 Crosscutting Concepts

- Empirical evidence is needed to identify patterns. *(CCC.9-12.C1.A.2)*
- The significance of a phenomenon is dependent on the scale, proportion, and quantity at which it occurs. *(CCC.9-12.C3.A)*
- In nuclear processes, atoms are not conserved, but the total number of protons plus neutrons is conserved. *(CCC.9-12.C5.E)*

Vocabulary

nuclide, binding stability, band of stability, nuclear reaction, radioactive decay, nuclear decay, half-life, carbon dating, radioactivity, fission, fusion

ProCare Therapy

ADDENDUM A
Terms of Teleservices Assignment
Equipment Provided

This Terms of Teleservices Assignment is subject to the terms and conditions of that certain Client Services Agreement between the parties outlined below.

Assignment Details
New Direction Solutions, LLC dba ProCare Therapy ("ProCare" or the "Company") will contract with VocoVision for the provisions of telepractice services to Client. Client will pay ProCare for the hours worked by Contracted Telepractitioner under the following terms:

Contracted Telepractitioner:	Jolyn Foltz		
Client:	Bermudian Springs SD		
Assignment Start Date:	08/19/2025	**Assignment End Date:**	06/03/2026
Position:	Tele - SLP		
Hours per Week:	20.0		
Bill Rate per Hour	$105.00	*Bill Rate is all-inclusive*[(a)]	
Technology Fee:	$0.00		
	One VocoVision station per full time position at no cost. Additional stations can be provided with a $1,000 per unit refundable deposit and $200 per unit nonrefundable configuration and shipping charge. Deposit will be refunded to the school district upon return of the station(s) in working condition within fifteen (15) days of the assignment being completed.		
Miscellaneous:	N/A		

a) Sales tax will be added to professional fees if required by state law and client is not a tax-exempt entity.

b) Client agrees that it will not directly or indirectly, personally or through an agent or agency, contract with or employ any Contracted Telepractitioner introduced or referred by the Company or VocoVision for a period of (24) months after the last date Client received Services from such Contracted Telepractitioner. If Client or its affiliate enters into such a relationship or refers Contracted Telepractitioner to a third party for employment, Client agrees to pay an amount equal to first year's total compensation including but not limited to a signing and/or relocation bonus, as agreed upon at the time of hiring. Payment is due and payable to the Company upon start date.

c) Client agrees to approve Contracted Telepractitioner's weekly log of service. Logs will be submitted on a weekly basis by Contracted Telepractitioner for Client's review and approval. Should Contracted Telepractitioner fail to submit paperwork or weekly log to show proof of completed work, Client agrees to notify ProCare in writing within three (3) business days of alleged failure. Client's failure to notify ProCare in writing within the three (3) day period shall negate any Client invoicing dispute.

d) Client acknowledges Additional Terms and Conditions as applicable to teletherapy services and the provision thereof.

e) Client acknowledges that Contracted Telepractitioner will be providing and using their own equipment in performance of duties.

By: 72461 BERMUDIAN SPRINGS SD

Print Name: _____

Title: _____

Date: _____

ProCare Therapy

Additional Terms and Conditions
VocoVision Equipment Policies

Telepractice Provisions:

1. **Client Responsibilities.** Client agrees to the following items to facilitate VocoVision's provision of Services:
   (a) Client shall be responsible for providing a secure environment for VocoVision hardware and software ("Equipment") installed and operated at Client's designated location(s).
   (b) Client will provide sufficient infrastructure to support the proper operation of the Equipment, including network connectivity equal or superior to DSL access.
   (c) Client warrants that its facilities and operations will comply at all times with all federal, state and local safety and health laws, regulations and standards.
   (d) Client warrants that it will not use the Equipment for any purpose other than as contemplated hereunder, and acknowledges that VocoVision is not responsible for any damages associated with such impermissible use.
   (e) Client agrees to provide appropriate local support to facilitate remote Contracted Telepractitioner's ability to fulfill the responsibilities outlined in Addendum C: Duties and Responsibilities.

2. **Scheduling.** Client agrees to the minimum hours of Services per week as stipulated in Addendum A: Terms of Teleservices Assignment, and will schedule the appropriate number of student sessions and other related services each week to meet or exceed the minimum hours requirement. Client and Contracted Telepractitioner will agree upon a weekly schedule for Services which will be loaded into the VocoVision system. Any revisions to the schedule must be submitted to the VocoVision Operations Department no later than 12:00 PM EST Friday for Services the following week. VocoVision requires a 24-hour notice to cancel scheduled Services. One cancellation without notice is permitted per school year. Additional cancellations with less than 24 hours' notice will be billed at the regular rate. Note that VocoVision Contracted Telepractitioner are encouraged to complete non-therapy work (e.g., paperwork, planning, file reviews, etc.) during any such cancellation time.

3. **Administrative Responsibilities.** Client shall be responsible for orienting Contracted Telepractitioner to Client's policies and procedures regarding the submission of any requisite paperwork which must be tendered for reimbursement by funding entities such as Medicare, Medicaid, or health insurance. Such paperwork may include, but is not limited to individual education plans or Client-specific program plans. During the contracted assignment, should Contracted Telepractitioner fail to submit paperwork as required per Client's policies and procedures, Client must notify VocoVision in writing within three (3) business days of alleged failure. Failure to notify VocoVision within the three (3) day period shall negate any Client claim to withhold payment due to paperwork non-compliance by Contracted Telepractitioner. Within three (3) business days following the conclusion of a contracted assignment, Client shall conduct a final review to determine whether the completion of additional paperwork is needed from the Contracted Telepractitioner. Failure to notify VocoVision prior to the fourth (4th) day after conclusion of the assignment will negate any Client claim to withhold payment due to paperwork non-compliance by Contracted Telepractitioner.

Duties and Responsibilities

The duties and responsibilities of a Contracted Telepractitioner include, but are not limited to the following:

a) Collaborates with the school district to identify students' communication characteristics, support resources, as well as any physical, sensory, cognitive, behavioral and motivational needs to determine the benefit a student may receive through telepractice.
b) Collaborates with the school district to determine assessment resources - including their potential benefits and limitations - in the telepractice setting, and to develop a plan to assess students appropriately.
c) Monitors effectiveness of services and modifies evaluation and treatment plans as needed.
d) Maintains appropriate documentation of delivered services in a format consistent with professional standards and client requirements.
e) Complies with state and federal regulations to maintain student privacy and security.
f) Facilitates behavior management strategies in students as appropriate.
g) Provides information and counseling to families and school personnel as needed

VocoVision Damaged Equipment Policy

If, during the course of contracted services, VocoVision computer equipment sustains damage or is missing components (keyboard, audio accessories, etc.), it should be reported immediately to the VocoVision Operations Department at 1-866-779-7005. Replacement equipment will be shipped to Client as needed. The costs of repairing or replacing the equipment (including shipping) will be charged to Client, but in no case shall exceed $1,000 per unit.

At the end of the VocoVision contract period, all equipment must be returned in original packaging within 15 days of completion of services. All returned equipment will be inspected for both physical and internal damage. If equipment is found to be damaged, VocoVision reserves the right to withhold from Client deposit the cost of repairing or replacing the damaged equipment. If no Client deposit exists, VocoVision will bill Client for such charges and will provide supporting documentation of all costs.

Packaging

All packaging, boxes and containers used to ship VocoVision equipment are considered property of VocoVision and must not be discarded. Packaging should be stored and kept in good condition during the course of the contract and must be used for return shipping at the conclusion of services. If VocoVision packaging is lost or damaged, Client is solely responsible for obtaining replacement packaging to ensure undamaged return of equipment to VocoVision. In such cases, we strongly recommend the use of a professional packaging and shipping service, such as the UPS Store or a FedEx retail location.

A.C.C.E.S.S., Inc.
Adams County Head Start

LICENSE AGREEMENT

This **License Agreement** (the "Agreement") is agreed to as of this 17th day of June, 2025 (the "Effective Date") by and between Adams County Head Start, a component of Adams County Children's Educational and Special Services, Inc. (the Program) and Bermudian Springs School District (the "District"), a Pennsylvania public school district organized and operating pursuant to the Pennsylvania Public School Code of 1949, as amended, located at 7335 Carlisle Pike, York Springs, PA 17372 (the "Property"). The purpose of this MOU is to set forth the terms and conditions concerning the use of portions of the Elementary School Building of the Property by the Program.

WHEREAS, the Program has requested use of certain portions of the District's Elementary School Building during the 2025-2026 school year; and

WHEREAS, the Parties have agreed to a list of "Program Agreement Items", a copy of which is attached thereto marked as "Exhibit A" and incorporated herein by reference; and

WHEREAS, the Parties have negotiated certain terms which they desire by these presents to document and memorialize.

NOW, THEREFORE, in consideration of these presents and the mutual terms, promises and conditions set forth herein and intending to be legally bound hereby, the parties mutually agree as follows:

1. The foregoing preamble and paragraphs are incorporated herein by reference thereto.

2. This Agreement is a license agreement in which the District is the licensor and the Program is the licensee. This Agreement is not a lease and does not create the relationship of lessor (landlord) and lessee (tenant) between the parties hereto.

3. In consideration of the exchange of services, and other good and valuable consideration, the District grants a license for the Program to use the Property, specifically the Elementary School Building.

4. The term of this license shall commence on August 1, 2025, and end on July 31, 2026. There is no automatic renewal of this Agreement. The District will review the Program and Property

availability at the end of this Agreement term and determine if the Agreement will be renewed for the 2026-2027 school year and thereafter.

5. The District extends the use of portions of the Elementary School Building (as designated in Exhibit A) to the Program for approximately 170 program days (Monday-Friday), beginning in August 2025, and ending in May 2026. Except when the Program is actually in session, the use of the facilities will not be exclusive. No parts of the Property other than that specified in Exhibit A will be used, occupied, or entered by agency personnel or program participants without prior permission granted by the District. Children in the Program will be under responsible adult supervision from the Program at all times.

6. The Program will make available to the District for inspection any and all background certifications or licensure documentation of all individuals having direct contact with children documentation of the following background certifications and documentation: Act 34 State Police Criminal History Check; Act 151 Child Abuse History Clearance; Act 14 FBI Clearance; Act 168 Sexual Misconduct/Abuse Disclosure Release form; mandated reporter training; and evidence of certifications and/or licensures.

7. The District will provide locks and other security measures as necessary to safeguard Program property.

8. Program hours of operation will be 8:00 a.m. to2:15 p.m., Monday through Friday for 164 instructional days, described in further detail in Exhibit A. Head Start is required by its federal grant award to provide 164 days of classroom services. If Head Start must close due to a District function or inclement weather, the missed class days must be made up. The schedule of dates the Program is in the Elementary School Building when the District is closed is described in further detail in Exhibit A.

9. The Program shall be responsible for all damages to the Property caused during its use and shall return the Property to District at the end of every daily session in a good state of repair, with only reasonable wear and tear being excepted. The Program shall not disturb any of the District's instructional materials nor consume any of its school supplies.

10. The District will furnish ground maintenance, water and utilities. All supplies and equipment will be the responsibility of the Program, described in further detail in Exhibit A.

11. The Program will furnish its own food service and clean up, described in further detail in Exhibit A.

12. The Program will compensate the District annually for the items identified in #Section 10 in the amount of $3,675.00, to be paid, in full, by the first of October of each program year. A cost-of-living allowance (COLA) will be given annually when the Program receives such an increase from its federal funding source. If the Program does not receive such an increase, the Program will be unable to provide this increase for that program year.

13. Improvements and changes to the District property must be approved in advance by the District. Any such improvements and changes which have been made and funded by the Program during the term of this Agreement will be left in place if property is vacated by the Program.

14. The Program shall conduct its operations in accordance with all applicable laws of any governmental agency having jurisdiction and in accordance with the District's School Board policies and administrative procedures while on the Property,

15. The Program shall comply with the Family Education Rights and Privacy Act ("FERPA"), Protection of Pupil Rights Act ("PPRA"), Individuals with Disabilities Education Act ("IDEA"), the State Board of Education Guidelines, the Health Insurance Portability and Accountability Act ("HIPAA"), to the extent applicable, and any other applicable federal, state, and/or local legislation regarding the creation of, protection and dissemination of student information.

16. The District and the Program agree they will indemnify and hold harmless the other Party and each of its employees, agents and partners from and against any and all claims, loss, damages, liability, costs, expenses, judgments or obligations whatsoever, for or in connection with injury or damage (including death) to any person or property resulting from or in any way connected with the willful or negligent performance or negligent failure to perform obligations or activities hereunder by a Party, its agents, staff, or by any Student enrolled in the Program. This hold harmless provision survives the termination of this Agreement.

17. The District shall have the right to revoke the Program's license upon the occurrence of any of the following:

    a. The Program's failure to perform any of the terms thereof.

    b. The Program's violation of any of the terms thereof.

c. A determination that this Agreement is unlawful.

d. Except for an emergency situation, or a determination that this Agreement is unlawful (in which events said license may be revoked without prior notice), District agrees to give the Program written notice of its intention to revoke said license not less than ten (10) calendar days prior to the proposed date of revocation, said notice to state the reason therefore and the date of proposed revocation. Said notice shall be sufficient if mailed at to the Program by certified mail or by personal service upon any of the Program's Administrators or Directors on the Property. The Program shall have the right to cure the problem giving rise to the proposed revocation within said 10-day period by providing District with such assurances as it may require that the problem has been solved and that it will not reoccur. Such right to cure shall not extend to or be available for any subsequent occurrence of the reason for the first notice.

e. Upon the District's exercise of the revocation, and the end to any cure period, should the revocation condition still persist, the Program will leave the Property, remove all program materials, and return the Program's access cards to the Building Principal.

18. Should the Program funding cease to be available, the Program will notify the District immediately, and shall have up to thirty (30) days to remove Program materials, furniture, and supplies from the Property.

19. The Program maintains general and professional liability insurance (or comparable coverage under a program of self-insurance) for itself and its employees with a single limit of no less than One Million Dollars ($1,000,000) per occurrence and Three Million Dollars ($3,000,000) annual aggregate. The Program will name the District as an additional insured and will provide proof of coverage to the District upon request

20. It is understood and agreed that Program's operations hereunder are independent of and not a part of District's mission or program, and that District shall not be responsible for any matter arising between Program and its clientele. The Program is a sole proprietor vis-a-vis its clientele, vendors and all other third persons, and District is not an agent, employee or other representative of Program.

21. The license thereby granted and this agreement shall not be assigned or transferred by Program without District prior express written consent and approval of the proposed assignee or

transferee. Any attempted assignment or transfer of said license in violation of the foregoing shall be void and without effect, and the license shall be deemed to be revoked.

22. This Agreement shall be construed and enforced under the laws of the Commonwealth of Pennsylvania.

Signatures indicating agreement:

District Representative(s): Date:

_____ _____

_____ _____

Program Representative(s): Date:

_____ _____

_____ _____

Exhibit A
Program Agreement Items

School Day:

- The Program's school day will run from 8:00 a.m. to 2:15 p.m.
- The Program's first student day will be August 20, 2025 and the last day will be May 7, 2026, barring any snow days or unforeseen circumstances.
- The Program will be in the Elementary School Building during the following days when the District is closed:
    - Staff Only:
        - August 11, 2025
        - August 12, 2025
        - August 13, 2025
        - August 14, 2025
        - August 15, 2025
        - August 18, 2025
    - Staff and Students:
        - August 29, 2025
        - October 10, 2025
        - November 7, 2025
        - January 16, 2026
        - April 7, 2026
        - April 8, 2026
- The Program's students will be dropped off in the morning at the parent drop off spot on the side of the Elementary School Building. The students will be picked up at the same location in the afternoon. The Program's drop off and pick up times do not interfere with the District's.
- Should a parent need to pick up their child at alternative times, the child pickup will be in the main office. The Program shall let the District know when parent pickup outside of normal arrival/dismissal.
- Program parents who enter the Property beyond the front office shall be responsible for obtaining the following background checks and documentation: negative tuberculosis test; Act 34 State Police Criminal History Check; Act 151 Child Abuse History Clearance; Act 14 FBI Clearance the under required for volunteers under Board Policy 916. Program parents shall provide the proper documentation to the District upon request.

Elementary School Building:

- The Program shall be in Classroom 107.
- The Classroom shall have a telephone and Apple TV for the Program's use.

- The Classroom has an interior bathroom with sink for the students' use.
- The Program shall supply and pay for its own WiFi to use in the Classroom.
- The Program's students shall have access to the District's playground during the school day, at a time approved by the Building Administration and so as not to interfere with the District's students' use.
- The Program shall supply their own furniture for the Classroom.
- The Program shall provide their own supplies for their staff and students to use.

Utilities:

- The Program shall pay a monthly amount of $0.00 to the District for their use of utilities.

Janitorial Services:

- The Program shall provide its own janitorial services to clean the Classroom daily.

Lunch:

- The Program shall provide lunch for its students daily, at their own cost.
- The food delivery shall come to the main entrance for drop off daily.
- Lunch shall be eaten in the Classroom.

Nursing / Medical:

- The Program will provide a refrigerator for the Classroom for medications to be refrigerated. The District will not assume any responsibility for nursing support or the administration of medication to the Program's students.
- The District's nursing staff will provide emergency assistance, as needed, to the Program's students.
- The Program will provide all necessary emergency information to the District for students in the Program.

Staffing - Program's Responsibility:

- Classroom staffing will include one classroom teacher and one classroom assistant.
- Support staff will also be utilized for this program (interns, social worker, nurse, administration).
- The Program will make available to the District for inspection any and all background certifications or licensure documentation of all individuals having direct contact with children in the Program: Act 34 State Police Criminal History Check; Act 151 Child Abuse History Clearance; Act 14 FBI Clearance; Act 168 Sexual Misconduct/Abuse Disclosure Release form; mandated reporter training; and evidence of certifications and/or licensures.

Access:

- The Program will provide its own WiFi and follow the District's Acceptable Use Policy 815.

- Upon receipt of the proper photo identification and clearances, the District will provide the Program's staff members with a swipe key access card to the Elementary School Building.
- Should a need arise for the District to recover the classroom space provided, every attempt will be made to secure another viable space for the Program, but the District issues no guarantee.
- The Program's staff members shall have access to the staff bathroom and front office of the Elementary School Building.
- Should the program need to view video surveillance in areas utilized by the Program, they shall contact the Assistant Principal with their request.

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NEW STORY SCHOOLS

SERVICES AGREEMENT

This Services Agreement ("Agreement") dated this 11th day of August 2025, between Bermudian Springs School District (hereafter referred to as the "District") and New Story Schools, located at 774 Limekiln Road, New Cumberland, PA 17070 (hereinafter referred to ("Provider").

WHEREAS, it is the desire and intent of the District to contract with Provider to receive certain educational and related services for certain identified pupils of the District; and

WHEREAS, it is the desire and intent of Provider to render and perform certain educational and related services for the aforementioned pupils under the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the consideration set forth in the attached Addendum "A," attached hereto, and the mutual promises contained herein, and intending to be legally bound, the District and Provider hereby agree as follows:

1. **Services.** The District agrees to purchase from Provider educational and related servicesas described in the individualized educational plan ("IEP"), and any revisions thereto of certain identified resident pupil(s) of the District. Provider shall provide the educational and related services described in the IEP of the pupil(s), and any revisions thereto, in accordance with all applicable federal and state laws. The District will translate the IEP in the Parent's native language, as required by law. Additionally, all services provided pursuant to this Agreement shall include research-based methodologies. The parties agree that Provider has made no representations or other commitments regarding Student achieving any specific goals specified within the IEP.

2. **Term.** This Agreement shall be in effect from August 11, 2025 through July 31, 2026, unless terminated earlier pursuant to the terms of this Agreement.

3. **Payment.** Payment for tuition shall, as part of this Agreement, be made in accordancewith the attached "Schedule A." If this Agreement includes Extended School Year ("ESY") services, those tuition charges are included on Schedule A. Provider shall invoice the District on a monthly basis within ten (10) days of the beginning of the month for which services are scheduled to be provided. Payment shall be remitted within 30 days' receipt of such invoices. Payments not paid within thirty (30) days of invoice date shall bear interest at the rate of 1.5% per month. If payments are not made within forty- five (45) days of the invoice date, any discounts identified in Schedule A shall not apply until the District's account is current. If Provider pursues collection of any unpaid amounts, the District will be responsible for any costs of collection, including attorney's fees.

4. **Attendance.** Provider agrees to record the pupil's attendance and to notify the District in writing if the pupil is truant as defined by the compulsory attendance law so that the District may investigate the enrollment status of the pupil. Provider agrees to attend, if asked by the District, a school attendance improvement conference, and to assist the District in preparing, subsequently, a written school attendance improvement plan, to the extent required under Pennsylvania's truancy law. Provider operates on a school year schedulein accordance with the School's calendar. The parties agree that the School may be closed by Provider due to inclement weather or for other safety reasons without prior notice to the District. In the event

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of an extended school closure, Provider agrees to make a good faith effort to provide continuity of education for the student using alternative means during the period of closure. Provider's plan to reopen after an extended school closure will comply with Pennsylvania Department of Education guidelines and any other applicable law, regulation or governmental agency recommendations.

5. **Progress Reports.** Provider agrees to send progress monitoring reports to the District within fourteen (14) days after the end of each quarter as outlined by the school calendar.

6. **Termination.**

   a. This Agreement may be terminated by either party upon twenty-one (21) calendar days' written notification to the other party.

   b. School District shall remain obligated to pay all amounts due to New Story through the enrollment termination and such obligation shall survive any termination of this Agreement.

   c. If student becomes hospitalized or placed at an alternate placement, after ten (10) consecutive days, School District can dis-enroll or choose to pay the low daily rate to maintain enrollment.

   d. New Story reserves the right to terminate a Student's enrollment at the School whenever New Story determines, in its sole discretion, that Student is not benefiting from the program being offered, School is unable to effectively deliver services to Student, Student presents a serious risk to the safety of others, and/or Student is in need of services which School is unable to provide. Serious disciplinary infractions shall be defined at the sole discretion of New Story. However, the parties acknowledge that School is designed and intended to educate students with behavioral challenges and that serious disciplinary infractions as defined by New Story must present exceptional challenges to be so defined.

   e. If enrollment continues beyond either party's twenty-one (21) calendar day notice for any reason, then Provider shall continue providing services until the District is able to find a new placement for a pupil for a total period up to sixty (60) days, provided the District is making a good faith effort to find a new placement. If the pupil's continued placement beyond the twenty-one (21) day notice would create a risk to the health, safety, or welfare of the pupil, other students, or Provider's staff, Provider reserves the right to provide virtual instruction to the student in its sole discretion. The rate for enrollment for any day following the twenty-one (21) calendar days' notice may be twice the rate of otherwise applicable under this Agreement.

   f. If Provider gives twenty-one (21) calendar days' notice of termination due to the District's failure to pay amounts due and owing, Provider shall have the right to disenroll the pupil on the twenty-second (22nd) day following such notice.

   g. If the pupil is no longer a resident of the District, this Agreement shall terminate upon the District's written notification to Provider. District shall be responsible for payment through the date of notification to Provider.

7. **Dispute Resolution.** In the event that any disputes arise out of this Agreement, the parties shall seek to resolve the dispute as expeditiously as possible. The interests of this pupil shall be the foremost concern in resolving such disputes.

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8. **Discontinuance of Approval Status.** In the event that the approval status of Provider is discontinued by the Pennsylvania Department of Education, Provider must immediately provide written notice to the District and this Agreement shall be terminated. The District shall be responsible for tuition for the days the pupil is enrolled.

9. **Assignment.** Provider shall not assign this Agreement or any portion thereof to any other entity; however, Provider, may use employees and/or independent contractors to perform services under this Agreement.

10. **Licenses and Certifications.** Provider shall maintain, at its own expense, any required licenses and certifications to provide the aforementioned services. Provider employs certified personnel as defined by the Pennsylvania Department of Education, including Private School certification, and otherwise meets regulatory requirements for a private licensed school. Provider shall be responsible for obtaining any and all necessary permits and licenses and for ensuring that each of its employees and/or independent contractors comply with all applicable laws, rules and regulations, whether federal, state or local, and the policies of School.

11. **Clearances.** Provider agrees all of its employees and staff shall possess the following valid clearances and certifications as required by Section 1-111 of the Public School Code (24 P.S. § 1-111):

    a) PA Child Abuse History Clearance (Act 151);
    b) Federal Criminal History Records (Act 114);
    c) Pennsylvania Background Checks (Act 34);
    d) Employment History Review (Act 168);
    e) Mandated reporter training and all other training required by law.

    Provider agrees to bear any costs or fees associated with obtaining these clearances, training andcertifications. Provider agrees to provide proof of the aforementioned clearances upon request by the District. Provider will notify the District in writing within seventy-two (72) hours if it learns that a Provider Employee is arrested for or convicted of a crime. Provider will also notify the District in writing within seventy-two (72) hours of notification that a Provider employee has been named a perpetrator in an indicated or founded report pursuant to the Child Protective Services Law.

12. **Non-Solicitation**. The District shall not, directly or indirectly: (i) recruit, solicit or otherwise induce or attempt to induce any employee or independent contractor of New Story or any subsidiary or affiliate of New Story including, but not limited to, the New Story Representatives, to leave the employ or service of New Story or such subsidiary or affiliate, or in any way interfere with the relationship between New Story, its subsidiaries or its affiliates and their respective employees or independent contractors; or (ii) employ, hire or otherwise retain any person listed above while such person has such employment or contractual relationship with New Story, it subsidiaries or its affiliates including the New Story Representatives and for one year thereafter.

13. **Insurance.** Provider shall maintain the following insurance coverages in the following limits for the term of this Agreement:

Commercial General Liability	$1,000,000 per occurrence/$2,000,000 aggregate
Automobile Liability	$1,000,000 each accident
Umbrella Liability	$3,000,000 per occurrence/$3,000,000 aggregate

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Workers Compensation	$1,000,000 per occurrence
Professional Liability	$6,000,000 per claim/$8,000,000 aggregate

14. **Privacy and Confidentiality.** All information of any kind regarding Student, including (without limitation) confidential Student data, shall be kept strictly confidential by District and Provider, and shall not be used or disclosed for any purpose except as provided in this Agreement. This obligation of confidentiality shall survive the expiration or termination of this Agreement. As used herein, the term "confidential Student data" shall include, without limitation, any personal or identifying Student information, names, addresses, date of birth, social security or other identification numbers, attendance records, grades, test results, assessments, work product, disciplinary records, and any information deemed to be a "Student record" under the Family Educational Rights and Privacy Act (FERPA).

Provider further acknowledges and agrees that through its performance under this Agreement it may possess, maintain, store or manage Personal Information, as that term is defined by the Pennsylvania Breach of Personal Information Notification Act, 73 P.S. § 2301 et seq., and that the unauthorized access or acquisition of such information may expose the District to loss or injury. Provider shall maintain a policy to govern the proper data storage of Personal Information. Such policy shall require current, commercially reasonable best practices for data storage and shall be reviewed at least annually and updated as necessary. Provider shall utilize encryption and other commercially reasonable security measures to protect the transmission of Personal Information over the internet from being viewed or modified by any unauthorized third party. Provider shall maintain a policy to govern the proper encryption and other security measures it utilizes to protect the transmission of Personal Information. Provider must provide immediate notification to the District of any suspected Discovery, as defined by the Breach of Personal Information Notification Act, of an unauthorized access or acquisition of Personal Information. Provider specially acknowledges and understands that time is of the essence in providing such notification to the District, and that any failure to immediately notify the District constitutes a material breach of this Agreement. Upon any suspected unauthorized access or acquisition of Personal Information, Provider will provide District access to all data or information requested by District as necessary to comply with any requirements to notify impacted individuals. Notwithstanding any other provision of this Agreement, Provider agrees to indemnify, defend, and hold harmless the District, it's directors, officers, employees, agents and representatives, from and against any and all claims, demands, liabilities, suits, actions, damages, losses and any amounts payable whatsoever including, without limitation, court costs, investigative fees and expenses, and reasonable attorney's fees, arising out of or caused by the gross negligence, malfeasance or intentional recklessness of Provider and/or its partners, principals, agents, employees, subcontractors, and representatives or by their failure to perform pursuant to this Section 14 of this Agreement.

15. **Indemnification.** District agrees to indemnify, defend, and hold Provider harmless from any claims, losses, suits or damages caused by or arising from the negligence or willful misconduct of District, its agents and its employees, District's obligation to indemnify shall survive the termination of this Agreement.

Provider agrees to indemnify, defend, and hold District harmless from any claims, losses, suits or damages caused by or arising from the negligence, or willful misconduct of Provider, its agents, and its employees. Provider's obligation to indemnify shall survive the termination of this Agreement.

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15. **Independent Contractor.** It is hereby understood and agreed that Provider, in performing this Agreement, is acting in the capacity of an independent contractor, and that Provider, in such capacity, is not an agent, servant, partner, or employee of the District. None of the benefits provided by the District to its employees, including but notlimited to workers' compensation insurance, disability insurance, medical insurance, and unemployment insurance are available from the District to Provider for the services provided to this Agreement. Provider has no authority hereunder to assume or create any obligation or responsibility, express or implied, on behalf or in name of the District or to bind the District in any way whatsoever.

16. **Non-Discrimination.** Provider and District shall assure that the Services provided pursuant to this Agreement are rendered without regard to race, sex, national origin, age, disability, or any other protected category under federal, state or local law.

17. **Waiver of Certain Damages.** Provider waives claims against the District for lost profits, lost expected profits, consequential damages and/or incidental damages arisingout of or relating to this Agreement or termination thereof.

18. **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania without giving effect to any laws or principles of conflicts of laws that would cause the laws of any other jurisdiction to apply.

19. **Venue.** Sole and exclusive jurisdiction for claim or suit arising from or under this Agreement shall be in the Court of Common Pleas for York County, Pennsylvania, and in no other forum.

20. **Sovereign Immunity.** As it pertains to third parties, nothing contained herein shall be construed as or imply that the District is waiving its sovereign immunity. Notwithstanding anything contained in this Agreement, nothing in this Agreement shall be deemed to be a direct or indirect waiver of or limitation to any sovereign or governmental immunity in any respect applicable to the District, its directors, officers, employees and agents, including without limitation under the Pennsylvania Political Subdivision Tort Claims Act.

21. **Modification.** This Agreement may not be modified, altered, or changed except upon express, written consent of both parties wherein specific reference is made to this Agreement.

22. **Execution** This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same Agreement. Electronic signatures are acceptable. A signed copy of this Agreement delivered by facsimile, e-mail, or other means of electronic transmission shall be deemedto have the same legal effect as delivery of an original signed copy of this Agreement.

23. **Notice**. All official notices and other communications required or permitted under this Agreement must be in writing and delivered to the recipient as provided below:

    Nichole Arnold
    Vice President of Operations
    New Story Schools
    3710 Hempland Road
    Mountville, PA 17554

24. **Authority.** District represents and warrants that the individual executing this Agreement is

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duly authorized to execute and deliver this Agreement on its behalf and this Agreement is a valid and binding obligation of District.

25. **Entire Agreement; Headings**. This Agreement contains the entire understanding between the Parties with respect to their subject matter and superseded all prior or contemporaneous agreements or understandings between the Parties with respect to subject matter contained herein. The headings in this Agreement are solely for convenience of reference and are not to be given any effect in the construction or interpretation of this Agreement.

Bermudian Springs School District:	**Provider: New Story Schools**
By:_____	By: DocuSigned by: Michele Arnold EB23804C1A8C4D3...
Title:	Title: Vice President of Operations
Date:_____	Date: 8/11/2025

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ADDENDUM "A"

Provider shall either complete the information on this form with pertinent information or, alternatively, submit a separate rate schedule to be substituted as a new Addendum "A." In no event, however, shall the separate rate schedule contain substantive terms and conditions, including, but not limited to, invoice/payment terms, which vary from the terms of the Services Agreement.

1) **Description of educational and related services to be provided by Provider:**

The following are the Related Services that New Story provides at School:

Occupational Therapy
Speech Therapy
Behavior Consultation
Individual Counseling
Group Counseling
Crisis Intervention

2) **Per Diem Tuition Rate for Such Services during the regular school calendar year, per pupil:**

Rates vary by students based on the following pay structure:

Low Rate $ 267.00
Medium Rate $ 334.00
High Rate $ 451.00
High Rate+ $ 590.00

The fee shall be discounted by $10/day for each additional student that the District enrolls in Provider beyond the initial five (5) students and $20/day for each additional student that the district enrolls beyond the initial fifteen (15) students.

3) **Per Diem Tuition Rate for Extended School Year Services, if applicable, per pupil:**

Rates vary by students based on the following pay structure:

Low Rate $ 267.00
Medium Rate $ 334.00
High Rate $ 451.00
High Rate+ $ 590.00

The fee shall be discounted by $10/day for each additional student that the District enrolls inProvider beyond the initial five (5) students and $20/day for each additional student that the district enrolls beyond the initial fifteen (15) students.