

TRUMBULL PUBLIC SCHOOLS TRUMBULL, CONNECTICUT

Curriculum Committee of the
Trumbull Board of Education

Regular Meeting

Tuesday, January 10th, 2023, 8:30 a.m.
Trumbull High School Main Office Conference room

AGENDA

- I. Call to Order/Introduction
- II. Public Comment
- III. Approval/Minutes – Regular Meeting December 11-30-23
- IV. New Business
 - a. New Curriculum Guide- K-5 English as a Second Language
 - b. Revised Elementary Science Curriculum:
 1. Updated Grade 2 Next Generation Curriculum Guide
 2. Updated Grade 3 Next Generation Curriculum Guide
 - c. Reading Waiver Status Update
 - d. Future Meeting Date Discussion-
 - Thursday, March 28th 8:30
 - Thursday, May 16th 8:30
 - Tuesday, August 10th 8:30 (if needed)
 - Thursday, Sept 12st 8:30
 - Thursday, October 17th 8:30
 - Thursday, November 14th 8:30

TRUMBULL PUBLIC SCHOOLS TRUMBULL, CONNECTICUT

Curriculum Committee of the
Trumbull Board of Education

Regular Meeting

Thursday, November 30, 2023, 8:30 a.m.
Trumbull High School Main Office Conference room

MINUTES

- I. Call to Order/Introduction. The meeting is called to order at 8:32.
- II. Public Comment. Mrs. Petitti received a wonderful note from Mrs. Martin's class thanking her for reading to their class. Each student prepared their own thank you letter with a picture. They were very impressive.
- III. Approval/Minutes –September 29th 2023-Special Meeting. Ms. McNamee moved to approve the minutes from the September 29th Special Meeting and Mrs. Nuland seconded. The motion passed unanimously.
- IV. New Business
 - a. Curriculum Guide Approval- New Course- American Indian History 9-12, Katie Boland and Mike Margonis presented the new curriculum. Department Chair Kathy Rubano was also on hand. The educators shared that the course has been developed over the course of the last three years. Ms. Boland has been using three main contacts at the Scaticoke Tribe. They have been instrumental in designing the course, planning the course and supplementing the course as guest speakers a few times. In particular, Beth Regan has come in a few times and has over 35 years of teaching experience. Mr. Margonis shared that they visited sites to do research that is incorporated into the unit along with academic vocabulary. Ms. McNamee asked if it was more course was more thematic or chronological in nature; it was shared that it was thematic. Mrs. Boland has students with American Indian heritage that have made the class really meaningful for the students taking it. The class has even led students to start a bulletin board to tie into the theme "We are still here." The class even has engaged in trying traditional American Indian foods. The course is one semester and currently has 17 students, most of whom are sophomores. Mrs. Petitti noted that it is a nice course for 9th graders looking for an additional elective. Mrs. Nuland inquired about how they might share beyond the course itself. Ms. McNamee moved that we approve the American Indian History Curriculum Guide and Mrs. Nuland seconded. The motion passed unanimously.
 - b. Curriculum Guide Update- Wood Technology I, Grades 9-12, Teacher Joe Amatore presented the new guide which updated the problem solving and critical thinking aspects. The educators wanted students to be more independent in choosing machines and using

measuring skills in order to produce the final product. Safety is also a huge component of the course as they teach it along with use of each machine. The course ends with six student products. Student chose the product, plan a summary of their steps and embark on creating. Consumables are not supported by grant funding, but equipment such as a surface planer, is supported by the Perkins Grant. Mr. Manuel was on hand to share that when he observed students planning they were not yet using the equipment, but really mapping out their designs which helps to reduce the cost of wood. These aspects fit in with Vision of the Graduate as well. Mrs. Petitti asked about the enrollment and Mr. Amaturro mentioned that they have four female students currently and interest has been growing. The course has six sections of 18 students and is the most requested technical education course. Students get OSHA certification in a pre-apprenticeship program through the state. Ms. McNamee moved that we approve the Woods Technology I Curriculum Guide and Mrs. Nuland seconded. The motion passed unanimously.

- c. Curriculum Guide Update- Percussion Ensemble, Grades 9-12. Music teacher, Josh Murphy presented the curriculum which is aimed at training students and rehearsing their craft of percussion on a regular basis. Mr. DiScala, Department Chair was on hand to support Mr. Murphy and mentioned that the work that has been done is very high quality. They have four units: snare drum (learning the 26 rudiments,) mallet instruments (marimba, glockenspiel, vibraphones, etc,) accessory percussion (tambourines, maracas, etc.,) and world percussion instruments (Djembe drums and more). Portions of the course are also dedicated to preparing for the concerts. Dr. Iwanicki mentioned that the course might want to explore Eastern instruments from Asia as well. Mrs. Nuland moved that we approve the Percussion Ensemble Curriculum Guide and Ms. McNamee seconded. The motion passed unanimously.
- d. Curriculum Guide Approval- Introduction to Piano, Grades 9-12. Music teacher, Josh Murphy presented the curriculum which currently has four sections, two per semester, 18 students per section. Unit 1 is music literacy and reading music—items such as reading the music, sharps, flats and where to put their hands. Unit 2 is playing technique and performance, working through the red book. The course is differentiated by the students' abilities. Each student is moving at their level. The keyboards are new and were purchased with the Board funding. They have been able to allow more students to engage in this type of learning. Mrs. Nuland moved that we approve the Introduction to Piano Curriculum Guide and Ms. McNamee seconded. The motion passed unanimously.
- e. New Text Approval: Saferstein, 2022. *Forensic Science: An Introduction*, 4th Edition High School Edition, MyLab Crime with Pearson eText. This is a new course for grade 11 and 12 students. Mostly 12 graders are enrolled in the 6 sections, 3 each semester. Class size ranges between 18 and 22. Mrs. Nuland asked if there are any photos that might alarm students or affect them negatively. Science teacher Jordan Miller shared that a letter was sent to all families in the beginning of the year which gave them the option of schedule changing if they had any concerns. The course is part police work, part law, and of course science. The text requested is the most modern currently offered while also corresponding with the student concepts. They have online resources that are also helpful. Mr. Miller is able to take content from the book and break it down to the level needed for the course. Guest speakers, such as one involved in the Innocence Project, are also able to come and speak with the students. Many other resources, videos, and websites are also used to supplement the information. Ms. McNamee moved that we approve the *Forensic Science:*

An Introduction, 4th Edition High School Edition, MyLab Crime with Pearson eText and Mrs. Nuland seconded. The motion passed unanimously.

- f. New Text Approval: Franknoi, A., Morrison, D, and S. Woff et al. 2022. Astronomy2e OpenStax/Rice University eText. Teacher John Albers and Department Chair Tom Edwards joined us to share that the text for approval is written by experts in the field and is updated on a regular basis by scientists in real time. For example, the information is coming from the James Webb Telescope which is the top of the line technology source. Additions are supervised by Rice University. The book has accessibility features for students—highlight features, glossary, and read-to-you, for example. 16 students are taking the course this year and 20 for next semester. Mr. Albers shared that students seem to like the course. It is an 11-12th grade course with mostly seniors enrolled. Ms. McNamee moved that we approve the Astronomy2e OpenStax/Rice University eText and Mrs. Nuland seconded. The motion passed unanimously.
- g. It was agreed that we will have the next Curriculum Committee Meeting on Wednesday, January 10th, 2024 at 8:30am.

The meeting was adjourned at 10:06 am.

TRUMBULL PUBLIC SCHOOLS

Trumbull, Connecticut



Grades K-5

English as a Second Language

(ESL)

2023

Curriculum Writing Team:

Andrea Denkovich

ESL, Grades K-5

Susan Fink

ESL, Grades K-5

Arielle McGovern

ESL, Grades K-5

Anne Rosa

ESL, Grades K-5

Ivy Travisano

ESL, Grades K-5

Lisa Carino, ESL Department Chair

Susan C. Iwanicki, Ed. D., Assistant Superintendent

Grades K-5 ESL Table of Contents

Core Values & Beliefs	3
Vision	3
Introduction	3
Program Goals and Standards	4
Program Enduring Understandings	4
Program Essential Questions	4
21st Century Skills	4
ESL Year at a Glance	5
Starter/English in My Pocket	7
Look Level 1	16
Look Level 2	24
Look Level 3	31
Look Level 4	37
Look Level 5	44

CORE VALUES AND BELIEFS

The Trumbull School Community engages in an environment conducive to learning which believes that all students will **read** and **write effectively**, therefore communicating in an articulate and coherent manner. All students will participate in activities **that present problems solving through critical thinking**. Students will use technology as a tool applying it to decision making. We believe that by fostering self-confidence, self-directed and student-centered activities, we will promote **independent thinkers and learners**. We believe **ethical conduct** to be paramount in sustaining the welcoming school climate that we presently enjoy.

VISION

Trumbull Public Schools recognizes every Multilingual Learner's right to access all of the opportunities available in the TPS community. Families and students are actively engaged and involved in the academic process. TPS sets high expectations for academic achievement. We foster a culturally responsive environment that values linguistic and cultural diversity. MLs' individual strengths and experiences contribute to the community at large. The TPS community partners with families to support the ML population. The Trumbull community is enriched by the linguistic and cultural diversity of our students and families. Through an environment that cultivates a joy of learning, TPS enables students to develop their personal agency so that they may make meaningful contributions to their communities and become lifelong learners.

INTRODUCTION

The Multilingual Learner (ML) enrolled in the Trumbull Public Schools is a student who is in the process of acquiring English. There are many factors affecting English language acquisition. MLs come from a wide variety of backgrounds and they may arrive in Trumbull with diverse schooling experiences. Some factors that will influence English language acquisition include (but are not limited to): quality of previous education, prior English learning experiences, family literacy and family expectations of schooling, socio-economic status, mobility, cultural isolation, exposure to social unrest or war, and cultural differences between educational systems. (CAPELL Guidelines. 2003) Given these factors, MLs will attain proficiency and competence in English at varying rates of progress.

Research shows that it can take MLs at least 7 years to develop the cognitive academic linguistic proficiency (CALP) in English necessary to perform on standardized tests at a level comparable to native English speakers. Therefore, Trumbull's ESL program is aligned with guidelines set forth by the CSDE to allow MLs equal access to the general education curriculum.

PROGRAM GOALS AND STANDARDS

The TPS ESL program standards are based on those articulated within the [CT English Language Proficiency \(CELP\) Standards](https://portal.ct.gov/SDE/English-Learners/English-Learners/CELP-Standards). The CELP Standards were adopted by the Connecticut Board of Education. Beyond understanding common English usage, MLs need to understand the language used for grade-level instruction in English language arts, mathematics, science, social studies and other content areas. The standards highlight and amplify the critical language, knowledge about language, and skills for using language that are necessary for MLs to be successful in school. (<https://portal.ct.gov/SDE/English-Learners/English-Learners/CELP-Standards>)

PROGRAM ENDURING UNDERSTANDINGS

Students will understand ...

- they are part of a family and a community
- there are many diverse cultures around the world
- the importance of communicating with other people, academically and socially
- the various reasons for and methods of travel
- how their environment influences their lives
- the impact of science, technology, and innovation

PROGRAM ESSENTIAL QUESTIONS

- How do people around the world participate in celebrations?
- How do people around the world communicate with one another?
- How does culture affect who we are and how we live?
- How are communities different depending on their location?
- How are lives different based on where people live in the world?
- What is the impact of evolving technology on our daily lives?

21ST CENTURY SKILLS

Creative and Innovative Thinking - Leveraging cultural differences to encourage creativity and variety in problem-solving

Critical Thinking - Using personal experiences to retell or evaluate texts

Communication and Collaboration - Using English to communicate and cooperate with others

Cultural, Global and Environmental Awareness - Utilizing multicultural backgrounds to initiate discussions on environmental concerns

Digital Literacy - Assessing data and understanding how to research topics

ESL YEAR AT A GLANCE - Starter

Starter / English in My Pocket (EIMP)	
September	At School (LOOK Unit 2)
October	Let's Play (LOOK Unit 10)
November	All About Me (LOOK Units 6 & 8)
December - January	Rainbow of Clothes (LOOK Unit 9)
February	Let's Eat (LOOK Unit 5)
March	Set the Table (EIMP Unit 6 and LOOK Level 1, Unit 10)
April	My Family and Home (LOOK Unit 7)
May - June	Up and Down (EIMP Unit 8)
* Timeline may be adjusted to allow for district-wide assured assessments	

ESL YEAR AT A GLANCE - Levels 1-5

	Level 1	Level 2	Level 3	Level 4	Level 5
September - October	Things for School (Look Unit 1)	Back to School (Look Unit 1)	Around the World (Look Unit 1)	Let's Celebrate (Look Unit 3)	Making Contact (Look Unit 1)
October - November	My Family (Look Unit 4)	Let's Play (Look Unit 4)	On My Way (Look Unit 2)	Sports (Look Unit 4)	The Animal Kingdom (Look Unit 5)
November - December	Homes (Look Unit 6)	Let's Celebrate (Look Unit 8)	I Love My Town (Look Unit 9)	Life in the Past (Look Unit 7)	Helping the Environment (Look Unit 6)
January - February	On the Farm (Look Unit 8)	Fantastic Food (Look Unit 7)	Helping Out (Look Unit 3)	Fresh Food (Look unit 8)	Life in Space (Look Unit 7)
March - April	Eat and Drink (Look Unit 10) AND Beach Vacations (Look Unit 11)	Animals (Look Unit 9)	Yesterday and Long Ago (Look Unit 10)	The World of the Future (Look Unit 9)	The World Outside (Look Unit 9)
May - June	Free Time (Look Unit 12)	Weather (Look Unit 10)	Outdoor Adventure (Look Unit 11)	City Life (Look Unit 11)	Discoveries (Look Unit 12)
* Timeline may be adjusted to allow for district-wide assured assessments					

LOOK Starter and English in My Pocket (EIMP)

LOOK Starter and English in My Pocket (EIMP) are appropriate for the following levels:

- Newcomers (Less than 10 months in the USA)
 - Gr. K beginner
 - Gr. K intermediate
1. **At School** - LOOK-Starter Level, Unit 2
 - Topic Focus: Classroom objects
 - Language Focus: Identify classroom objects, ask and answer questions about classroom objects, plurals. “We have ____.” “This is a ____.” sentence patterns
 2. **Let’s Play**- LOOK-Starter Level, Unit 10
 - Topic Focus: playground activities
 - Language Focus: Identify play time activities, use the verb *can/can’t*, ask a friend to play, ask and answer questions about their activities
 3. **All About Me**-LOOK Starter Levels, Units 6 & 8
 - Topic Focus: body parts
 - Language Focus: identify and name body parts, identify and name feelings, ask for help if they are hurt, manipulate the verb *to be*, possessive nouns
 4. **Rainbow of Clothes**-LOOK- Starter Level, Unit 9
 - Topic Focus: clothing items
 - Language Focus: Identify clothing items, singular and plural nouns, the verb *to be*, possessive pronouns *my/your*
 5. **Let’s Eat**-LOOK - Starter Level, Unit 5
 - Topic Focus: food items
 - Language Focus: Identify foods and drinks, express preferences with *Yes, I do* and *No, I don’t*, polite language for making requests, counting item
 6. **Set the Table** EIMP Unit 6
 - Topic Focus: kitchen utensils and numbers 1-10
 - Language Focus: *There is/there are, have/has*, counting items, singular and plural, commands with the word *put*
 7. **My Family and Home**-LOOK - Starter Level, Unit 7
 - Topic Focus: family members and rooms in a house
 - Language Focus: Identify family members, pronouns, feelings of others, ask and answer questions about location, wh- questions
 8. **Up and Down**- EIMP - Unit 8
 - Topic Focus: transportation and safety
 - Language Focus: prepositions, *goes and go*, opposites

STARTER / EIMP			
Unit 1: At School (LOOK Unit 2)			
Time frame : September	Essential Questions: - What do students need at school? - How do we get ready to learn? - Why is it important to go to school?	Big Ideas: - We use many items in school. - Manners are helpful in our school community.	Vocabulary: pencil, books, crayons, markers, bookshelf, garbage can, markers, boys, girls, chairs, cubes, paper, computer, tapes, ball, have, has, in, one, school, we
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know: Identify classroom objects, ask and answer questions about classroom objects, plurals			
Students will be able to: Identify classroom objects, ask and answer questions about classroom objects, plurals. “We have ____.” “This is a ____.” sentence patterns, sing a song about school items, write about classroom items, - read a book about classroom items			
Common Summative Assessments: EIMP Unit 1 Assessment			
Assured Formative: - EIMP Unit 1 writing prompt Alternative Assessment - Put on a concert - sing a personalized version of the song learned from lesson 3 to small audience			
Informal Observation of Students Language: Informal observation of students oral responses should be recorded and used to monitor individual student growth in language proficiency over the course of the unit and to drive future instruction			
Texts/Materials: English in My Pocket (EIMP) *Supplemental materials: LOOK - Starter Level, Unit 2, RAZ Plus, ELL Edition, ELL Library in SeeSaw			

<u>STARTER / EIMP</u>			
Unit 2: Let's Play (LOOK Unit 10)			
Time frame: October	Essential Questions: - Why is it important to play? - Is playing fun? - How do you play with friends?	Big Ideas: - There are many ways to play with friends. - Being active is important.	Vocabulary: Play, swing, run, walk, rest, jump, read, slide, tree, grass, slides, swings, ladder, sky, eat, I, in, park, run, the, sit
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know: Identify play time activities, use the verb <i>can</i> ,			
Students will be able to: - identify playtime activities, -sing a song about playtime activities, - write about playtime activities, - read a book about the park, - talk about what they are able to do using <i>I can...</i> , - talk about themselves and others using <i>I have... / You have ...</i> -use sentence pattern "I ___ in the park."			
Common Summative Assessments: EIMP Unit 2 Assessment			
Assured Formative: - EIMP Unit 2 Writing Prompt Alternative Assessment - Flash-Card Memory Game - review of units 1 and 2 vocabulary			
Texts/Materials: English in My Pocket (EIMP) *Supplemental materials: LOOK - Starter Level, Unit 10 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

<u>STARTER / EIMP</u>			
Unit 3: All About Me (LOOK Units 6 & 8)			
Time frame: November	Essential Questions: - What are the different parts of your body? - How do people use their body? - Why is it important to take care of your body?	Big Ideas: - There are many different parts of your body. - It is important to take care of your body. - You are important and unique.	Vocabulary: Ears, eyes, nose, mouth, arms, hands, feet, happy, sad, surprised, angry, shy, scared, teeth, lips, cheek, eyebrow, chin, forehead, elbow, knee, finger, toe, hair, body, have, my, one, two
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know: Labels for body parts, words for feelings			
Students will be able to: use <i>is</i> and <i>are</i> , identify and name body parts, identify and name feelings, sing a song about body parts, sing a song about feelings, write about body parts, - read a book about body parts			
Common Summative Assessments: EIMP Unit 3 Assessment			
Assured Formative: - EIMP Unit 3 Writing Prompt Alternative Assessment - Follow the Leader - students work in pairs and identify body parts using a stuffed animal			
Texts/Materials: English in My Pocket (EIMP) *Supplemental materials: LOOK - Starter Level, Units 6 & 8 *Supplemental materials: LOOK - Level 1, Unit 5 My Body *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

STARTER / EIMP			
Unit 4: Rainbow of Clothes (LOOK Unit 9)			
Time frame: December - January	Essential Questions: - Why do you wear clothes? - Why do we need clothing? - How is clothing made? - Why are clothes important?	Big Ideas: - There are a variety of kinds of clothing. - Clothing is important for many reasons.	Vocabulary: Blue, yellow, green, purple, red, black, shirt, pants, t-shirt, shorts, baseball, catcher's mitt, radio, backpack, soccer ball, am, four, I, my, one, three
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (Language Focus): Identify clothing items, singular and plural nouns, the verb <i>to be</i> , possessive pronouns <i>my/your</i>			
Students will be able to: - identify clothing items, - talk about their clothes, - describe their own and other people's clothes using <i>My ___ is ___</i> and <i>Your ___ is ___</i> . - sing a song about clothes, - write about clothes, - read a book about clothes			
Common Summative Assessments: EIMP Unit 4 Assessment			
Assured Formative: - EIMP Unit 4 Writing Prompt Alternative Assessment - Dress-up day: Students will wear an outfit used for a special occasion to class. Students will ask and answer questions about their clothing.			
Texts/Materials: English in My Pocket (EIMP) *Supplemental materials: LOOK - Starter Level, Unit 9 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

<u>STARTER / EIMP</u>			
Unit 5: Let's Eat (LOOK Unit 5)			
Time frame: February	Essential Questions: • What is food? • Why is food important? • What is your favorite/least favorite food and drink? • How do different cultures use food?	Big Ideas: • Food and drink are important for survival. • There are many different kinds of food and drink.	Vocabulary: Eat, morning, anytime, banana, breakfast, bread, carrot, tomato, pizza, apple, doughnut, orange, refrigerator, carton, container, bottle, milk, orange juice, water, ketchup, mustard, lettuce, eggs, lunch, top, middle, bottom, some, no, like, my, I
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (Language Focus): Identify foods and drinks, express preferences			
Students will be able to: - identify foods and drinks, - state preferences using <i>I like ...</i> , - state preferences using <i>I like...</i> , - state dislikes using <i>I don't like...</i> , - sing a song about food, - write about food, -read a book about food			
Common Summative Assessments: EIMP Unit 5 Assessment			
Assured Formative: EIMP Unit 5 Writing Prompt Alternative Assessment: End-of-Unit activity - set up a pretend restaurant - create a menu and order food			
Texts/Materials: English in My Pocket (EIMP) *Supplemental materials: LOOK - Starter Level, Unit 5 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

STARTER / EIMP			
Unit 6: Set the Table (EIMP Unit 6)			
Time frame: March	Essential Questions: - Where do people eat? - Does your family sit at a table? - Do you eat together or by yourself? - What kind of utensils do you use to eat?	Big Ideas: - People eat meals together. - Sitting together as a family helps people to share and bond. - We use utensils and plates etc. in order to hold food.	Vocabulary: sponge, plates, spoons, forks, knives, bowls, glasses, cups, sink, straw, numbers 1-10, a, is, one, this, time
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know: numbers 1-10, kitchen utensil names, plurals/singulars			
Students will be able to: read a book about kitchen items, write about kitchen items, sing a song about kitchen items, use plurals			
Common Summative Assessments: EIMP Unit 6 Assessment			
Assured Formative: - EIMP Unit 6 Writing Prompt Alternative Assessment: - End-of-Unit activity: Students will set a table and describe items			
Texts/Materials: English in My Pocket (EIMP) *Supplemental materials: LOOK - Level 1, Unit 10 Eat and Drink *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

STARTER / EIMP			
Unit 7: My Family and Home (LOOK Unit 7)			
Time frame: April	Essential Questions: - Who are the members of my family? - Why are families important? - How are families related?	Big Ideas: - Families come in all shapes and sizes. - Families are important and help us in many ways.	Vocabulary: brother, sister, mother, father, grandmother, grandfather, coming, here, in, is, the, where, not
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (Language Focus): Identify family members, pronouns, and feelings of others			
Students will be able to: - identify family members, - introduce family members using <i>This is my...</i> , - describe other people's feelings using <i>He's...</i> and <i>She's ...</i> , - sing a song about family members			
Common Summative Assessments: EIMP Unit 7 Assessment			
Assured Formative: EIMP Unit 7 Writing Prompt Alternative Assessment Students will share pictures of their families and describe the photos using vocabulary from the unit. Students listening will ask questions using appropriate language from the unit.			
Texts/Materials: English in My Pocket (EIMP) *Supplemental materials: LOOK - Starter Level, Unit 7 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

STARTER / EIMP			
Unit 8: Up and Down (EIMP Unit 8)			
Time frame: May/ June	Essential Questions: • Why is transportation important? • How do people get around? • What is your favorite kind of transportation? • What kind of transportation would you like to try?	Big Ideas: • Transportation takes many forms. • Transportation helps us in many ways. • Transportation is important for people and helps us go from place to place.	Vocabulary: in, out, open, shut, up, down, on, off, left, right, door, kids, windows, lights, wipers, am, big, black, happy, I, is, it, just, little, sad, sometimes, too, white
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know: names for different modes of transportation, prepositions, adjectives			
Students will be able to: use adjectives to describe, tell about different modes of transportation, read a book about adjectives, write about transportation using adjectives, sing a song about adjectives			
Common Summative Assessments: EIMP Unit 8 Assessment			
Assured Formative: EIMP Unit 8 Writing Prompt Alternative Assessment: Play Charades - students will use gestures to describe different modes of transportation and classmates will guess what the vehicle is using complete sentences			
Texts/Materials: English in My Pocket (EIMP) *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Look Level 1

Level 1 is appropriate for the following levels:

- Gr. K advanced
- Gr. 1 beginner
- Gr. 1 intermediate
- Gr. 2 beginner

1. Things for School (Look unit 1)

- Topic Focus: Classroom Objects
- Language Focus: Ask and answer questions about objects

2. My Family (Look unit 4)

- Topic Focus: Family Members
- Language Focus: Have/don't have, possessive pronouns

3. Homes (Look unit 6)

- Topic Focus: Where people live
- Language Focus: Contractions, prepositions of location

4. On the Farm (Look unit 8)

- Topic Focus: Life on a Farm
- Language Focus: can/can't, Use *can* to ask questions

5. Eat and Drink (Look unit 10)

- Topic Focus: Nutrition
- Language Focus: like/don't like, ask and answer questions about preferences

6. Beach Vacations (Look unit 11)

- Topic Focus: Travel experiences at home and away
- Language Focus: There isn't/there aren't, contraction, ask and answer questions(Is there...?/Are there...?)

7. Free Time (Look unit 12)

- Topic Focus: Fun Activities
- Language Focus: Commands using *let's*, Contractions -We're/We aren't

Level 1			
Unit 1: Things for School (Look Unit 1)			
Time frame: September-October	Essential Questions: What do students need to succeed in school?	Big Ideas: Students need things for school.	Vocabulary: bag, book, crayon, eraser, pencil, pencil case, ruler, board, chair, desk, poster
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): Ask and answer questions about objects			
Students will be able to: - talk about classroom objects, - ask and answer questions about classroom objects using <i>What's This? It's a ____</i> , - read about a classroom, - ask questions about a classroom objects using <i>Yes it is/No it isn't</i> , - listen to and sing a song about a school bus, - identify and pronounce words with /ae/, /b/, /k/, and /d/ at the beginning, - watch a video about classrooms in other countries, - identify the value of taking care of your school things			
Common Summative Assessment: Things for School Unit Test			
Assured Formative Assessment: Worksheet 1.1 Alternative Assessment: Guess the school tools - put items in bags, students feel the item and take turns guessing what the item is using unit sentence frames to ask and answer questions and describe items			
Texts/Materials: LOOK Level 1 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Level 1			
Unit 2: My Family (Look Unit 4)			
Time frame: October - November	Essential Questions: • What is a family? • How does your family make you feel?	Big Ideas: Families are all different. Families come in all shapes and sizes. Love makes a family.	Vocabulary: aunt, baby, cousin, dad, grandma, grandpa, me, mom, uncle, birthday, cake, birthday party, middle
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): Have/don't have, his/her			
Students will be able to: - talk about families, talk about a family using <i>I have and I don't have</i> , - read about a birthday party, - use <i>His/her name is</i> to identify people, - listen to and sing a song about a family of monkeys, -identify and pronounce words with /m/, /n/, /a/, and /p/ at the beginning, - watch a video about cartoon families, - identify the value of giving things to your friends			
Common Summative Assessment: My Family Unit Test			
Assured Formative Assessment: Worksheet 1.4 Alternative Assessment: Create an animal family - describe orally to classmates			
Texts/Materials: LOOK Level 1 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Level 1			
Unit 3: Homes (Look Unit 6)			
Time frame: November - December	Essential Questions: What kind of home do you have? What is your living situation? Why are homes important? How do they help you?	Big Ideas: Families live in different places, there are many housing options in the world. As long as you are together you have a home.	Vocabulary: bathroom, bed, bedroom, cabinet, kitchen, living room, shower, TV, clock, house, water
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): Contractions, prepositions of location			
Students will be able to: - talk about homes, - talk about where things are using <i>Where's...? And It's in the ...</i> , - read about a bedroom under the water, - use <i>next to, on, and under</i> to talk about where things are, - listen to and sing a song about a game of hide-and-seek, - identify and pronounce words with /v/, /w/, /j/, and /z/ at the beginning, - identify and pronounce the words that include /ks/, - watch a video about homes in other countries, - identify the value of playing with your friends			
Common Summative Assessment: Homes Unit Test			
Assured Formative Assessment: Worksheet 1.6			
Alternative Assessment: Students draw pictures of rooms in their homes, label items, share orally			
Texts/Materials: LOOK Level 1 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Level 1			
Unit 4: On the Farm (Look Unit 8)			
Time frame : January - February	Essential Questions: How do farms play a role in your life? How do farms and animals help us? Why are farms important to people?	Big Ideas: Farms/animals are important for our lives. Animals are important to people for many reasons.	Vocabulary: bee, bird, chicken, cow, dog, donkey, duck, sheep, farmer, food, pen
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): can/can't, Use <i>can</i> to ask questions			
Students will be able to: - talk about farm animals, - talk about things animals are able to do using <i>can and can't</i> , - read about a farm, - use <i>can</i> to ask about abilities, - listen to and sing a song about animals, - identify and pronounce words with /E/ in the middle, - watch a video about farm animals in other countries, - identify the value of being kind to animals			
Common Summative Assessment: On the Farm Unit Test			
Assured Formative Assessment: Worksheet 1.8 Alternative Assessment/Activity: Take a field trip to a farm - students journal about the trip			
Texts/Materials: LOOK Level 1 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Level 1			
Unit 5 : Eat and Drink (Look Unit 10)			
Time frame: March	Essential Questions: What kinds of food and drink do you prefer? How is food a part of your life? When do you eat and drink? Why is food important?	Big Ideas: Food and drink are necessities for life. Every culture enjoys food and drink. Food plays an important role in many celebrations.	Vocabulary: Banana, bread, candy, lemon, milk, potato, rice, tomato, water, great, lunch, terrible, tray
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): like/don't like, ask and answer questions about preferences			
Students will be able to: - talk about food and drink, - talk about food preferences using <i>I like and I don't like</i> , -read about a school lunch, - use <i>Do you like...Yes, I do/don't/They're OK</i> to ask and answer questions about food, - listen to and sing a song about food, - identify and pronounce CVC words with /a/ in the middle, - watch a video about meals in other countries, - identify the value of eating good food			
Common Summative Assessment: Eat and Drink Unit Test			
Assured Formative Assessment: Worksheet 1.10 Alternative Assessment: Using a paper plate, students will create their favorite meal			
Texts/Materials: LOOK Level 1 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Level 1			
Unit 6: Beach Vacations (Look Unit 11)			
Time frame: April	Essential Questions: Why are vacations important? How do vacations help people? What are different kinds of vacations? (Ask answer about staycation v. travel)	Big Ideas: There are all kinds of vacations. Many people take a vacation to relax and visit other places or to see family.	Vocabulary: beach, beach ball, boat, ice cream, ocean, sand, sandcastle, shell, sun hat, breathe, flippers, mask snorkel
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (Language focus): There isn't/there aren't, contraction, ask and answer questions(Is there...?/Are there...?)			
Students will be able to: - talk about beach vacations, - talk about objects using <i>There isn't and There aren't</i> , - read about children snorkeling, - ask and answer questions about things using <i>Is there...?/Are there...?/ Yes, there is/are...?/No there isn't/aren't</i> , - listen to and sing a song about the beach, - identify and pronounce CVC words with ⟨Λ⟩ in the middle, - watch a video about beaches in other countries, - identify the value of playing outside in the sun			
Common Summative Assessment: Beach Vacations Unit Test			
Assured Formative Assessment: Worksheet 1.11 Alternative Assessment: Class will plan a “pretend” vacation			
Texts/Materials: LOOK Level 1 *Supplemental materials: RAZ Plus, ELL Edition, ELL Library in SeeSaw			

Level 1			
Unit 7: Free Time (Look Unit 12)			
Time frame: May - June	Essential Questions: What activities do you prefer to do after school or on the weekend? What things do you enjoy doing with your family?	Big Ideas: Free time activities are fun. There are a variety of things you can do during your free time such as sports, arts & crafts, and all kinds of fun things to do together.	Vocabulary: fly a kite, make a cake, paint a picture, play soccer, read a book, write a story, hot, paper, swing
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): Commands using <i>let's</i> , Contractions -We're/We aren't			
Students will be able to: - talk about free-time activities, - make and respond to suggestions using <i>let's</i> , - read about being in the park, - use <i>we're and we aren't</i> to talk about their current location, - listen to and sing a song about free time, - review, clarify and pronounce CVC words with /ae/, /E/, /I/, /a/, and /<A> in the middle, - watch a video about free-time activities in other countries, - identify the value of using your free time well			
Common Summative Assessment: Free Time Unit Test			
Assured Formative Assessment: Worksheet 1.12 Alternative Assessment: Create a class mural of various “free-time” activities			
Texts/Materials: LOOK Level 1 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Look Level 2

Look Level 2 is appropriate for the following levels:

- Gr. 1 advanced
- Gr. 2 intermediate
- Gr. 3-5 beginners

1. Back to School (Look Unit 1)

- Topic Focus: Reintegration to School
- Language Focus: Asking and answering questions, using have/has, parts of speech

2. Let's Play (Look Unit 4)

- Topic Focus: Everyday Actions
- Language Focus: Ask & Answer Yes/No Questions, Simple present tense verbs (subject-verb agreement), To Do (negative & positive)

3. Celebrate (Look Unit 8)

- Topic Focus: Celebrating Family & Culture
- Language Focus: Present Progressive & Continuous (-ing), plural nouns, contractions, personal pronouns

4. Fantastic Food (Look Unit 7)

- Topic Focus: Food Around the World
- Language Focus: These/That/This/Those, Verb To be (positive & negative), articles (count and noncount), many/much

5. Animals (Look Unit 9)

- Topic Focus: Animals and their habitats
- Language Focus: present progressive, comparatives, adjectives, possessive pronouns

6. Weather (Look Unit 10)

- Topic Focus: Daily weather, Climate, and Seasons
- Language Focus: Commands, adjectives, prepositions, contractions

Level 2			
Unit 1: Back to School (Look Unit 1)			
Time frame: September - October	Essential Questions: • How do we communicate about school? • How do students ask and answer questions about school? • What are some common ways you can respond when someone asks you a question at school? • What challenges do people have trying to get to school?	Big Ideas: • Students can exchange information with others orally and in writing. • People ask and answer questions to get to know one another. • People use various forms of transportation.	Vocabulary: art, computer, English, gym, math, music, reading, science, class, garden, grade, homework
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): Asking and answering questions, using have/has, parts of speech			
Students will be able to: -Identify and say words related to school subjects -Talk about what they do at school on each day of the week -Read about the a school in another country -Ask and answer questions about school schedules -Listen to and sing a song about homework -Identify and say words with <i>th</i> -Watch a video about favorite school subjects -Identify the value of being responsible -Write an email about school			
Common Summative Assessment: Back to School Test			
Assured Formative Assessment: Back to School Worksheet 2.1 Alternative Assessment: Students write an email about school subjects			
Texts/Materials: <u>Look Level 2</u> *Supplemental materials: RAZ Plus, ELL Edition, ELL Library in Seesaw			

Level 2			
Unit 2: Let's Play (Look Unit 4)			
Time frame: October - November	Essential Questions: • What do you enjoy doing with your friends? • How do you make new friends? • Why is playtime important to you? • Why is playtime important for children?	Big Ideas: • All children around the world play. • Children play in different ways. • Play is important for children.	Vocabulary: baseball, basketball, hockey, tennis, bounce, catch, hit, jump, kick, throw, play, team, different, easy, fantastic
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): Ask & Answer Yes/No Questions, Simple present tense verbs (subject-verb agreement), To Do (negative & positive)			
Students will be able to: -Identify objects of different sports,- identify action verbs, -talk about favorite sport/activity, -make statements in simple present with <i>I, you, we, they</i> , ask & answer yes/no questions in simple present,- listen to and sing a song about playing sports, -watch will a video about sports in various countries,- talk about what sports they play,- write to a friend about the sports they play			
Common Summative Assessment: Let's Play Unit Test			
Assured Formative Assessment: Let's Play Worksheet 2.4 Alternative Assessment: Conduct a class survey to determine how many students play each sport			
Texts/Materials: <u>Look Level 2</u> *Supplemental materials: RAZ Plus, ELL Edition, ELL Library in SeeSaw			

Level 2			
Unit 3: Let's Celebrate (Look Unit 8)			
Time frame: November-December	Essential Questions: • How do families celebrate holidays and special events? • How do families celebrate their cultures?	Big Ideas: • Families celebrate their cultures in different ways. • We all have our own culture.	Vocabulary: balloon, dance, eat, drink, hold, enjoy, festival, celebrate
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): Present Progressive & Continuous (-ing), plural nouns, contractions, personal pronouns			
Students will be able to: - identify and use words related to celebrations, - use the present progressive to talk about what's happening now, - read about a festival in Thailand, - ask and answer questions about things that are happening now, - listen to and sing a song about a street party, - identify and say words with <i>ng</i> , - watch a video about celebrations around the world, - identify the value of being grateful			
Common Summative Assessment: Let's Celebrate Unit Test			
Assured Formative Assessment: Let's Celebrate Worksheet 2.8 Alternative Assessment: Class will create an imaginary celebration			
Texts/Materials: <u>Look Level 2</u> *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

<u>Level 2</u>			
Unit 4: Fantastic Food (Look Unit 7)			
Time frame : January-February	Essential Questions: • What foods do you like & dislike? • What is a food pyramid? • Why is food important to us?	Big Ideas: Food and healthy eating choices are important.	Vocabulary: beans, cheese, chicken, egg, fries, grapes, juice, mango, pear, sausage, burger, get, money, put, classify
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): These/That/This/Those, Verb To be (positive & negative), articles (count and noncount), many/much			
Students will be able to: - identify and use words for food – use <i>a, some, and any</i> to talk about food, - read about unusual vending machines, - ask questions about food using <i>a, some, and any</i> , - listen to and sing a song about lunchtime, - identify and say words beginning with <i>r</i> blends (br, cr, fr, gr, pr, and tr), - watch a video about typical dishes around the world, identify the value of giving and sharing			
Common Summative Assessment: Fantastic Food Unit Test			
Assured Formative Assessment: Fantastic Foods Worksheet 2.7			
Alternative Assessment: Conduct a class survey to determine how many students play each sport			
Texts/Materials: <u>Look Level 2</u> , *fruit, vegetable, nuts flashcards, play food *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

<u>Level 2</u>			
Unit 5 : Animals (Look Unit 9)			
Time frame: March - April	Essential Questions: • What can animals do? How do animals move? • Where do animals live (wild, farm, house, inside, outside, land, water)?	Big Ideas: Animals around the world are different in where and how they live.	Vocabulary: crocodile, elephant, hippo, lion, monkey, snake, tiger, zebra, fast, rhino, sleep, slow, savanna, mammals, habitats
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): present progressive, comparatives, adjectives, possessive pronouns			
Students will be able to : -identify and use words for animals -ask and answer questions using the present progressive with I, you, we, they -read about unlikely animal friends - compare two things using -er than - listen to and sing a song about monkeys and their babies -identify and say words ending a_e -watch a video about animals around the world - identify the value of being a good friend			
Common Summative Assessment: Animals Unit Test			
Assured Formative Assessment: Animals Worksheet 2.9 Alternative Assessment: students interview each other about an animal			
Texts/Materials: <u>Look Level 2</u> *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw *Supplemental materials: Spanish Benchmark Books *Supplemental Activity: Virtual Farm Trip/All about Rhinos for Kids: https://youtu.be/TYkIMREHD-s All about Sheep https://youtu.be/vK3KsFd2YnQ All about Hippos https://youtu.be/0iYx5q5CudI			

Unit 6 : Weather (Look Unit 10)			
Time frame: May - June	Essential Questions: - How can students ask and answer questions about weather? - How can students give instructions using the imperative?	Big Ideas: - There are different kinds of weather. - We wear certain clothing based on the kind of weather.	Vocabulary: cloudy, cold, hot, raining, snowing, sunny, windy, bring an umbrella, put on a scarf, wear a coat
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): Commands, adjectives, prepositions, contractions			
Students will be able to (language focus): -Use words related to weather -ask and answer questions about the weather -read about rainbows - give and act out instructions using the imperative -listen to and sing a song about a snowy day -identify and say words with <i>i_e</i> -watch a video about the weather in different countries - identify the values of taking care of yourself			
Common Summative Assessment: Weather Unit Test			
Assured Formative Assessment: Weather Worksheet 2.10 Alternative Assessment: Create a rainbow at a window - students work in pairs and describe what they are doing as they work			
Texts/Materials: <u>Look Level 2</u> *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw *Supplemental materials: Spanish Benchmark Books			

Look Level 3

Look Level 3 is appropriate for the following levels:

- Gr. 2 advanced
- Gr. 3 intermediate
- Gr. 4 beginner

1. Around the World (Look Unit 1)

- Topic Focus: Cultures Around the World
- Language Focus: ask and answer questions about where, singular and plural possessive pronoun, capital letters

2. On My Way (Look Unit 2)

- Topic Focus: Geographical Features
- Language Focus: ask and answer questions about where people live, prepositions of location, do/does/don't/doesn't, punctuation

3. I Love My Town (Look Unit 9)

- Topic Focus: All about my town
- Language Focus: was/ wasn't/were, time expressions, capitalization

4. Helping Out (Look Unit 3)

- Topic Focus: Daily Chores
- Language Focus: Adverbs of frequency, Ask and answer questions about how often, word order

5. Yesterday and Long Ago (Look Unit 10)

- Topic Focus: Everyday Actions
- Language Focus: regular simple past tense, ask and answer questions in the past

6. Outdoor Adventure (Look Unit 11)

- Topic Focus: Outdoor Activities
- Language Focus: Simple past irregular verbs, Ask and answer question in the past tense using different question words

Level 3			
Unit 1 : Around the World (Look Unit 1)			
Time frame: September - October	Essential Questions: - What do you like to do for fun? - What do children around the world do to have fun?	Big Ideas: - Children all over the world like to play. - Children around the world play in different ways.	Vocabulary: Argentina, Australia, Brazil, Italy, Japan, Poland, South Africa, Spain, the UK, the US, daughter, grandparents, son, favorite
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): ask and answer questions about where, singular and plural possessive pronoun, capital letters			
Students will be able to: - name and locate ten countries - ask and answer where people, animals, and things are from -read about the Fennessy family and giraffes in Namibia -Use <i>our</i> and <i>their</i> to talk about their families - listen to and sing a song with a guessing game - identify three ways to spell the /eI/ sound: <i>a_e</i> , <i>ai</i> , and <i>ay</i> -watch a video about children from other countries - write three things about their country -identify when to use capital letters -identify the value of making friends			
Common Summative Assessment: Around the World Test			
Assured Formative Assessment: Worksheet 3.1 Alternative Assessment: Project - draw a map of an imaginary place - detail what animals live there - students present their place to the class			
Texts/Materials: LOOK Level 3 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Level 3			
Unit 2: On My Way (Look Unit 2)			
Time frame: October - November	Essential Questions: • How does your family travel? • How do you travel in your daily life? • How is transportation important to your family?	Big Ideas: • People travel in different ways. • Travel is vital to life.	Vocabulary: farm, field, forest, lake, mountain, path, river, town, village, waterfall, cable car, exercise, subway, does/doesn't, do/don't, above, across, along, around, down, past, through, under
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): ask and answer questions about where people live, prepositions of location, do/does/don't/doesn't, punctuation			
Students will be able to: -talk about geographical features -ask and answer <i>yes/no</i> questions about where people live -read about unusual ways of getting to school -describe location using the words <i>above, across, along, around, down, past, through, under</i> - listen to and sing a song giving directions -identify three ways to spell the /i/ sound: <i>ee, e, y</i> -watch a video about long trip -write about a long trip they have taken -identify when to use periods, commas, question marks, and apostrophes -identify the value of helping others			
Common Summative Assessment: On My Way Unit Test			
Assured Formative Assessment: Worksheet 3.2 Alternative Assessment: Students work in pairs to create an unusual type of transportation - present to class - students vote on which design they like the best			
Texts/Materials: Look Level 3 *Supplemental materials: RAZ Plus, ELL Edition, ELL Library in SeeSaw			

Level 3			
Unit 4: Helping Out (Look Unit 3)			
Time frame: January - February	Essential Questions: - How do you help your friends? - What are some different ways that children can help others?	Big Ideas: - It is important to help others. - Children can do a lot to help others.	Vocabulary: Clean up my bedroom, cook, feed the dog, fix my bike, go shopping, make my bed, practice the piano, take out the garbage, wash the dishes, water the plants, pick, put away, recycling, always, usually, sometimes, never, every day, once a week, on the weekend
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (Language focus): Adverbs of frequency, Ask and answer questions about how often, word order			
Students will be able to: - identify and name domestic chores, - use adverbs of frequency to talk about routine chores, - reading about helping out in the countryside and the city, - use adverbial expressions of frequency, - listen to and sing a song about helping out at home, - identify three ways to spell the /aI/sounds (igh, y, or e), - watch a video about helping out, -write an interview about helping out every day, - identify the value of being responsible			
Common Summative Assessment: Helping Out Unit Test			
Assured Formative Assessment: Worksheet 3.3 Alternative Assessment: Play charades - pantomime actions to complete chores			
Texts/Materials: Look Level 3 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Level 3			
Unit 5 : Yesterday and Long Ago (Look Unit 10)			
Time frame: March - April	Essential Questions: • How does the Mayan life compare to yours? • How did the Mayan people communicate? • How do their symbols represent language?	Big Ideas: • It is important to learn about how people lived in the past. • Technology is useful to discover things about the past.	Vocabulary: Bike to school, climb, trees, cry, laugh, need, water, sail, stay home, wait for the bus, walk to school, archaeologist, change, machine, remains
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): regular simple past tense, ask and answer questions in the past			
Students will be able to: -name everyday actions -use the regular simple past to talk about past activities - read about an ancient Maya city -ask and answer questions in the past - listen to and sing a song about what children did last weekend - identify four ways to spell the /eə/ sound: air, are, ear, and ar, - watch a video about weekend activities, - write an email to a friend, - identify the value of being interested in others			
Common Summative Assessment: Yesterday and Long Ago Unit Test			
Assured Formative Assessment: Worksheet 3.10 Alternative Assessment: Write a biography of a town from your culture			
Texts/Materials: Look Level 3 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Level 3			
Unit 6 : Outdoor Adventure (Look Unit 11)			
Time frame: May - June	Essential Questions: • What adventures do people do outdoors? • What outdoor adventures do you do or would like to do?	Big Ideas: • You need to be prepared and safe on outdoor adventures. • It is fun to experience adventures with others.	Vocabulary: Eat outside, get lost, go canoeing, go on a roller coaster, have a picnic, make friends, ride on a motorcycle, see a shooting star, sleep in a tent, swim in lake, explorer, ski, sled
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (language focus): Simple past irregular verbs, Ask and answer question in the past tense using different question words			
Students will be able to: - name outdoor activities, - use simple past irregular verbs to talk about past activities, - read about an Arctic explorer, - use <i>where, who, what, and when</i> to ask and answer questions in the past, - listen to and sing a song about friendship, - identify /s/ and /dz/ sounds with c and g, - watch a video about doing something for the first time, - write a report about the first time they did something, - identify the value of staying safe outside			
Common Summative Assessments: Outdoor Adventure Unit Test			
Assured Formative Assessment: Worksheet 3.11 Alternative Assessment: Students will write a report about the first time they did something - they will explain what happened before, during and after the activity, using appropriate frames from the unit			
Texts/Materials: Look Level 3 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Look Level 4

Look Level 4 is appropriate for the following levels:

- Gr. 3 advanced
- Gr. 4 intermediate

1. Let's Celebrate (Look Unit 3)

- Topic Focus: Celebrations
- Language Focus: simple past of irregular verbs, Wh-questions with *did* and *be*

2. Sports (Look Unit 4)

- Topic Focus: Athletics and Activities
- Language Focus: *can* and *could*, object pronouns

3. Life in the Past (Look Unit 7)

- Topic Focus: Comparing Now and Then
- Language Focus: Past using verb + preposition, *has/have to* and *had to*

4. Fresh Food (Look Unit 8)

- Topic Focus: Health and Nutrition
- Language Focus: *How much...?* and *How many...?*, Quantifiers with count and noncount nouns (*a few* and *a little*)

5. The World of the Future (Look Unit 9)

- Topic Focus: Role of Technology
- Language Focus: Future with *will* -affirmative, negative, and questions, Future time expressions

6. City Life (Look Unit 11)

- Topic Focus: Exploring Cities
- Language Focus: Present perfect: affirmative and negative, Present perfect: interrogative with yes/no answers

Level 4			
Unit 1: Let's Celebrate (Look unit 3)			
Time frame: September - October	Essential Questions: • What types of celebrations do you share with your family? • How do you celebrate with your family or friends? • How do celebrations reflect culture?	Big Ideas: Celebrations reflect the beliefs, values, and heritage of a culture.	Vocabulary: Eat traditional food, give presents, make special food, play party games, put up decorations, throw streamers, watch a parade, wear traditional clothes; buy/bought, choose/chose, drink/drank, learn/learned, take/took
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (Language focus): simple past of irregular verbs, Wh-questions with <i>did</i> and <i>be</i>			
Students will be able to: -talk about how people celebrate - listen to information about a harvest festival - use the simple past to talk and ask about celebrations and recent events - read and respond to a text about food festivals - make Wh- questions in the simple past - listen to and sing about street parties -write an email to a friend - watch a video about celebrations around the world - identify the value of being a good neighbor			
Common Summative Assessments: Let's Celebrate Unit Test			
Assured Formative: Worksheet 4.3 Alternative Assessment: Write verbs with past tense on cards - put in a bag - each student selects a card and writes a sentence using the verb chosen			
Texts/Materials: LOOK Level 4 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Level 4

Unit 2: Sports (Look Unit 4)

Time frame: October - November	Essential Questions: • How have sports changed society over time? • How can sports influence your life? • How can sports promote national pride? What are the benefits of competition? How can sports strengthen international bonds? • Why do people play sports? • Why does society like sports?	Big Ideas: Sports and activities influence our lives.	Vocabulary: cycling, diving, golf, gymnastics, ice skating, rowing, sailing, snowboarding, track volleyball, brave, nervous, surprised
--	---	---	--

Standards:

CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing

CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses

CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics

CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence

CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems

CELP 6: Analyze and critique the arguments of others orally and in writing

CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing

CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text

CELP 9: Create clear and coherent grade-appropriate speech and text

CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing

Students will know (Language focus): *can* and *could*, object pronouns

Students will be able to: - talk about sports, - listen to information about a Paralympic sport, - use *can/could* to talk about ability, - read about an Olympic athlete, - use object pronouns, - listen to and sing a song about having fun with sports, - write a fact file about an athlete, - watch a video about three famous athletes from the past, - identify the value of having fun doing sports

Common Summative Assessments: Sports Unit Test

Assured Formative: Worksheet 4.4

Alternative Assessment: Research a paralympic sport - compare with non-pa version - present findings to class

Texts/Materials: LOOK Level 4

*Supplemental materials: RAZ Plus, ELL Edition

*Supplemental materials: ELL Library in SeeSaw

Level 4			
Unit 3: Life in the Past (Look Unit 7)			
Time frame: November - December	Essential Questions: - What can you learn from studying about life in the past? - What did you find about ancient Egyptian life? - What games were played in the past?	Big Ideas: Life in the past affects our lives now.	Vocabulary: ancient, the back, the front, an elevator, an entrance, a floor, a gate, a key, a roof, downstairs, upstairs, chalk, circle, glass, square, sidewalk
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know (Language Focus): Past using verb + preposition, <i>has/have to</i> and <i>had to</i>			
Students will be able to: - talk about life in the past, - listen to information about ancient Egyptian houses, - use verb + preposition to talk about life in the past, - discuss traditional games, - talk about obligation in the present and the past, - listen to and sing a song about obligation in the present and the past, - write a timeline, - watch a video about life in the past, - identify the value of playing outside			
Common Summative Assessments: Life in the Past Unit Test			
Assured Formative: Worksheet 4.7 Alternative Assessment: Student will interview a parent/grandparent/older sibling about an activity from the past - student presents findings to their classmates			
Texts/Materials: LOOK Level 4 *Supplemental materials: RAZ Plus, ELL Edition *Supplemental materials: ELL Library in SeeSaw			

Level 4

Unit 4: Fresh Food (Look Unit 8)

Time frame: January - February	Essential Questions: • How would you describe your favorite foods? • Why is fresh food important to eat? • Have you ever read a recipe?	Big Ideas: • There are many different types of foods. • Fresh food is important to being healthy.	Vocabulary: broccoli, cereal, chili pepper, corn, jam, lettuce, nuts, olives, strawberry, zucchini, fresh food, junk food, seed, weed
--	--	---	---

Standards:

CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing

CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses

CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics

CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence

CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems

CELP 6: Analyze and critique the arguments of others orally and in writing

CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing

CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text

CELP 9: Create clear and coherent grade-appropriate speech and text

CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing

Students will know (language focus): *How much...?* and *How many...?*, Quantifiers with count and noncount nouns (*a few and a little*)

Students will be able to: - talk about food, - listen to information about chili peppers, - ask questions with *How many/much...?* - read about and discuss community gardening, - use quantifiers to talk about amounts of food, listen to and sing a song about cooking, - write a recipe for soup, - watch a video about fresh food from different countries, - identify and use commas, - identify the value of making their own food

Common Summative Assessments: Fresh Food Unit Test

Assured Formative: Worksheet 4.8

Alternative Assessment: Students will interview a family member and share a recipe with the class

Texts/Materials: LOOK Level 4

*Supplemental materials: RAZ Plus, ELL Edition

*Supplemental materials: ELL Library in SeeSaw

Level 4

Unit 5: The World of the Future (Look Unit 9)

Time frame:
March - April

Essential Questions:

- How does technology help us in the classroom?
- How does technology make life easier?
- What kind of technology do you think there will be in the future?

Big Ideas:
Technology is an important and helpful part of our lives.

Vocabulary:
app. Charge a tablet, e-book, go online, headphones, interactive whiteboard, laptop, microphone, VR headset, Wi-Fi, control, drop, satellite, send a text

Standards:

CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing

CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses

CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics

CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence

CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems

CELP 6: Analyze and critique the arguments of others orally and in writing

CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing

CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text

CELP 9: Create clear and coherent grade-appropriate speech and text

CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing

Students will know (language focus): Future with *will* -affirmative, negative, and questions, Future time expressions

Students will be able to: -talk about technology - listen to a conversation about a robot in the classroom -use *will* and *won't* to talk about the future -read and respond to a text about drones -make wh- questions using *will* - listen to and sing a song about the future - write an opinion text - watch a video about how children use technology - identify the value of using their imagination

Common Summative Assessments: The World of the Future Unit Test

Assured Formative: Worksheet 4.9

Alternative Assessment: Write an opinion text - Describe what school will be like in 60 years

Texts/Materials: LOOK Level 4

*Supplemental materials: RAZ Plus, ELL Edition

*Supplemental materials: ELL Library in SeeSaw

Level 4

Unit 6: City Life (Look Unit 11)

Time frame: May - June	Essential Questions: • Have you visited a city? • What are different places in a city? • How are cities today different from cities in the past?	Big Ideas: • Cities are made up of different kinds of places. • People have had different kinds of experiences in cities throughout history.	Vocabulary: airport, bus station, fire station, hotel, pharmacy, police station, restaurant, square, train station, university, chimney, city center, highway, office building
----------------------------------	---	--	--

Standards:

CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing

CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses

CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics

CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence

CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems

CELP 6: Analyze and critique the arguments of others orally and in writing

CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing

CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text

CELP 9: Create clear and coherent grade-appropriate speech and text

CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing

Students will know (Language focus): Present perfect: affirmative and negative, Present perfect: interrogative with yes/no answers

Students will be able to: talk about places in a city, listen and respond to a text about a model city, use the present perfect to talk about an artist who draws cityscape -ask yes/no questions with the present perfect - design a poster advertising a club -watch a video about cities around the world -identify the value of exploring their city

Common Summative Assessments: City Life Unit Test

Assured Formative: Worksheet 4.11

Alternative Assessment: Create an art gallery - have students walk around room and critique the images

Texts/Materials: LOOK Level 4

*Supplemental materials: RAZ Plus, ELL Edition

*Supplemental materials: ELL Library in SeeSaw

Look Level 5

Look Level 5 is appropriate for the following levels:

- Gr. 4 advanced
- Gr. 5 intermediate

1. Making Contact (Look Unit 1)

- Topic Focus: Written Communication
- Language Focus: Present perfect with ever, never, for, and since

2. The Animal Kingdom (Look unit 5)

- Topic Focus: Animal & Food Chains, Animal Adaptations
- Language Focus: Comparative and superlative forms; *Too* + adjective

3. Helping the Environment (Look unit 6)

- Topic Focus: Helping the environment
- Language Focus: *Used to*; negatives and questions

4. Life in Space (Look unit 7)

- Topic Focus: Space Travel
- Language Focus: *Use* will for predictions, present progressive for future

5. The World Outside (Look unit 9)

- Topic Focus: Exploring the Outdoors & National Parks
- Language Focus: First conditional future tense, asking questions in the first conditional

6. Discoveries (Look unit 12)

- Topic Focus: History of Navigation, Important Inventions & Discoveries
- Language Focus: Simple Past Passive statements & questions

Level 5			
Unit 1 : Making Contact (Look Unit 1)			
Time frame: September	Essential Questions: • How do post offices play a role in our lives? • What is a time capsule? • What is a pen pal?	Big Ideas: Contacting others may be done in different ways.	Vocabulary: envelope, letter, mail (verb), mailbox, postcard, post office, stamp, bury, magazine, object
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know: Present perfect with ever, never, for, and since			
Students will be able to: -Talk about sending letters and postcards, -listen to a radio show about unusual post offices - talk about experiences with <i>Have you ever...?</i> And <i>I've never</i> , -read about time capsules, - talk about past and present perfect and <i>for and since</i> -listen to and perform a chant about a time capsule, -write an email with personal information, -watch a video about how cats communicate, -think about their own cultural identity			
Common Summative Assessments: Making Contact Unit Test			
Assured Formative: Worksheet 5.1 Alternative Assessment: Students will write an email to a friend to describe one of the interesting places discussed in the unit - have students exchange papers and edit			
Texts/Materials: LOOK Level 5, Unit 1			

Level 5			
Unit 2: The Animal Kingdom (Look Unit 5)			
Time frame: October/November	Essential Questions: - Why are animals important? - How do animals help people? - Discuss animal adaptations. - How do animals play a role in food chains?	Big Ideas: Animals help people and can adapt to different environments.	Vocabulary: beetle, butterfly, eagle, insect, mammal, mouse/mice, plant, snake, tortoise, wing, adapted, furry, thick fur, view
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know: Comparative and superlative forms; <i>Too</i> + adjective			
Students will be able to: talk about animals and food chains, -listen about animals and food chains, -compare things using the comparative and superlative forms and (not) <i>as</i> + adjective <i>as</i> , - read an article about yaks and where they live, -describe things using <i>too</i> + adjective; (not) <i>enough</i> + noun; (not) adjective + <i>enough</i> , -listen to and sing a song about animals and their habitats, -write an animal fact file, - watch a video about giraffes, -identify the value of understanding nature			
Common Summative Assessments: Animal Kingdom Unit Test			
Assured Formative: Worksheet 5.5 Alternative Assessment: Role-play - in pairs, one student is zoologist, the second is an interviewer - ask the zoologist questions about an animal - share orally with class			
Texts/Materials: LOOK Level 5, Unit 5			

Level 5

Unit 3: Helping the Environment (Look Unit 6)

Time frame:

November/
December

Essential Questions:

- What can we do to help our environment?
- Why should we help our environment?

Big Ideas:

We can help our environment.

Vocabulary:

collect garbage, can, keep, light, plastic, recycle, reuse, throw away, turn off, turn on, land, make, sure, plant, bird, take care of

Standards:

CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing

CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses

CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics

CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence

CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems

CELP 6: Analyze and critique the arguments of others orally and in writing

CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing

CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text

CELP 9: Create clear and coherent grade-appropriate speech and text

CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing

Students will know: *Used to*; negatives and questions

Students will be able to: - Talk about helping the environment, -listen to a radio program about recycled bags in South Africa, talk about habitats in the past with *used to*, -read about a man who planted a forest in India, -talk about habitats in the past with *didn't use to* and *did...use to?*, -listen to and sing a song about a place that has changed, -write a quiz about the environment, -watch a video about how children help the environment in different countries, -identify the value of helping the environment

Common Summative Assessments: Helping the Environment Unit Test

Assured Formative: Worksheet 5.6

Alternative Assessment: Write a postcard to your family describing the Olympic Park in London

Texts/Materials: LOOK Level 5, Unit 6

Level 5

Unit 4: Life in Space (Look Unit 7)

Time frame:

January/
February

Essential Questions:

- What is in space?
- Why and how do we study space?
- What is it like to study space?

Big Ideas:

We live on planet Earth.
Earth is in space.

Vocabulary:

astronaut, land, orbit, planet, rocket, solar system, space, spacecraft, takeoff, float, gravity, muscle, pool, sleeping bag

Standards:

CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing

CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses

CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics

CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence

CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems

CELP 6: Analyze and critique the arguments of others orally and in writing

CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing

CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text

CELP 9: Create clear and coherent grade-appropriate speech and text

CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing

Students will know: *Use will for predictions, present progressive for future*

Students will be able to: -Talk about space travel, -listen to a report about Mars, -use *will* for predictions, - read about life on the International Space Station, -Use the present progressive for future arrangements, -listen to and sing a song about the planets in our solar system, -write an informational text about Venus, -Watch a video about a mechanical engineer at Nasa, identify the value of giving and sharing

Common Summative Assessments: Life in Space Unit Test

Assured Formative: Worksheet 5.7

Alternative Assessment: Students choose a planet and using evidence from the text, defend why your planet is the best

Texts/Materials:

LOOK Level 5, Unit 7

Level 5			
Unit 5: The World Outside (Look Unit 9)			
Time frame: March/April	Essential Questions: - Where would you like to visit? - What are some of Earth's natural resources?	Big Ideas: We can explore the Earth's diverse natural resources.	Vocabulary: flashlight, hill, pond, skis, sled, snowboard, stone, stay, stream, become, guess, experiment, happen, rise
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know: First conditional future tense, asking questions in the first conditional			
Students will be able to: -Talk about exploring outdoors, -listen to a program about national parks around the world, -talk about possibilities in the future with the first conditional, -read about an outdoor science experiment that uses solar energy, -ask about possibilities in the future with the first conditional, -listen to and sing a song about visiting a national park, -write a short report about a place they've visited, - watch a video about National Geographic Explorer Bertie Gregory, -identify the value of being active			
Common Summative Assessments: The World Outside Unit Test			
Assured Formative: Worksheet 5.9 Alternative Assessment: Plan a camping trip with a friend			
Texts/Materials: LOOK Level 5, Unit 9			

Level 5			
Unit 6: Discoveries (Look Unit 12)			
Time frame: May/June	Essential Questions: - How can you explore the world around you? - How do scientists make discoveries?	Big Ideas: Scientists are continually making new discoveries.	Vocabulary: east, invent, invention, magnet, navigation, needle, north sailor, south, west, breathe, design, sink
Standards: CELP 1: Construct meaning from oral presentations and literary and informational text through grade-appropriate listening, reading, and viewing CELP 2: Participate in grade-appropriate oral and written exchanges of information, ideas, and analyses CELP 3: Speak and write about grade-appropriate complex literary and informational texts and topics CELP 4: Construct grade-appropriate oral and written claims and support them with reasoning and evidence CELP 5: Conduct research, and evaluate and communicate findings to answer questions or solve problems CELP 6: Analyze and critique the arguments of others orally and in writing CELP 7: Adapt language choices to purpose, task, and audience when speaking and writing CELP 8: Determine the meaning of words and phrases in oral presentations, and in literary and informational text CELP 9: Create clear and coherent grade-appropriate speech and text CELP 10: Make accurate use of standard English to communicate in grade-appropriate speech and writing			
Students will know: Simple Past Passive statements & questions			
Students will be able to: -Talk about staying safe in the mountains, -listen to a description of the Lochaber Mountain Rescue team, -talk about present and future possibilities with <i>may</i> , <i>might</i> , and <i>could</i> , and future predictions with <i>will</i> , read about Flying Doctors Nigeria, -talk about obligation in the present with <i>has/have to</i> and <i>don't have to</i> , listen to and sing a song about different kinds of ambulances, -write a newspaper story, -watch a video about emergency service education in different countries, -identify the value of staying safe			
Common Summative Assessments: Discoveries Unit Test			
Assured Formative: Worksheet 5.12 Alternative Assessment: students create a compass and play a game to practice the four compass points			
Texts/Materials: LOOK Level 5, Unit 12			

TRUMBULL PUBLIC SCHOOLS
Trumbull, Connecticut

Science Curriculum
Grade 2
Next Generation
January 2024

Curriculum Writing Team:

Stephanie Helminger	Science Teacher, Daniels Farm Elementary
Karen Houghton	Science Teacher, Daniels Farm Elementary
Paula Martins	Science Teacher, Frenchtown Elementary
Cathy Fedak	Science Teacher, Jane Ryan Elementary
Diana Reding	Science Teacher, Middlebrook Elementary
Amy Congdon	Science Teacher, Tashua Elementary

Elizabeth Doherty	Science Program Leader, Grades K-5
-------------------	------------------------------------

Dr. Susan C. Iwanicki	Assistant Superintendent
-----------------------	--------------------------

SCIENCE - NEXT GENERATION

Grade 2

Table of Contents

Core Values & Beliefs	3
Introduction & Philosophy	3-4
Safety First	5
Course Goals	5
Course Enduring Understandings	5
Course Essential Questions	5
Course Knowledge & Skills	5-6
Bundle 1: Matter: Structure and Properties of Matter	7-11
Bundle 2: Earth's Systems: Processes that Shape the Earth	12-16
Bundle 3: Ecosystem Diversity: Interdependent Relationships in Ecosystems	17-20

The Trumbull Board of Education will continue to take Affirmative Action to ensure that no persons are discriminated against in its employment

CORE VALUES AND BELIEFS

The Trumbull Public School System, in partnership with the community, strives to meet the educational needs of all students within a challenging and supportive academic environment that empowers each student to become a life-long learner and to live and participate in a democratic, diverse and global society.

- We believe that all individuals are capable of learning.
- We believe that all individuals should have the resources necessary to achieve success within a challenging curriculum.
- We believe that a family, school, and community partnership is essential to our success.
- We believe that a safe and orderly environment is critical to learning.
- We believe that there is strength in diversity and that all individuals are worthy of our respect and dignity.
- We believe that our school climate must be welcoming, caring, and supportive for all members of the learning community.
- We believe that a reflective evaluation of present practices and processes is necessary in order to plan for our future.

INTRODUCTION & PHILOSOPHY

The Connecticut State Board of Education, in its 2008 Position Statement on Science Education, calls for a systematic approach to ensuring that every student in Connecticut receives a rich and coordinated PK-12 education in science. Science learning should focus simultaneously on developing an understanding of core concepts, as well as knowing how scientists work collaboratively to test ideas, analyze evidence and solve problems. The realization of this vision is critical for our students' futures, as well as for Connecticut's place in a globally competitive economy.

In 2015, the Connecticut State Board of Education adopted the Next Generation Science Standards which embodies the National Research Council's *Framework for K-12 Education: Practices, Crosscutting Concepts, and Core Ideas* (2011); and furthermore developed a 5-year Implementation Plan of the Next Generation Science Standards (NGSS) for transitioning curriculum, instruction, and assessment. (Appendix B). The NGSS architecture was designed to provide information to teachers and curriculum and assessment developers beyond the traditional one line standard and uses Science and Engineering Practices along with various components of the Disciplinary Core Ideas and Crosscutting Concepts to make up the performance expectations for students.

The Board offers guidelines to support the establishment of collaborations among various stakeholders to build a coordinated science education system. (SDE, 2008).

As developed by the writers of the *Framework for K-12 Science Education* (Council, 2011), a core idea for K-12 science instruction should:

1. "Have broad importance across multiple sciences or engineering disciplines or be a key organizing principle of a single discipline."
2. "Provide a key tool for understanding or investigating more complex ideas and solving problems."

3. “Relate to the interests and life experiences of students or be connected to societal or personal concerns that require scientific or technological knowledge.”
4. “Be teachable and learnable over multiple grades at increasing levels of depth and sophistication.” (Council, 2011)

The Trumbull Public School’s Grade 2 science curriculum addresses the Next Generation Science Standards as listed with each unit of study.

SAFETY FIRST

The Trumbull Public School System follows the recommended guidelines for student safety in the classroom as represented in the National Science Education Standards, State Science Frameworks and NGSS, the National Science Teachers Association, and OSHA and as outlined in subsections of Policy 6000 in regards to Instruction. We encourage and foster a hands-on, process and inquiry-based approach to science instruction with student safety always first and foremost in mind. The use of lab safety guidelines are supported throughout the district.

COURSE GOALS

The course goals derive from the 2013 Next-Generation Science Standards. Goals are listed specific to each unit in this curriculum guide, and developed through unit lessons using the 5-E learning model (engage, explore, explain, elaborate, evaluate) in order to encourage student engagement and foster metacognitive learning strategies through a reflective process. An important role of science education is not to teach “all the facts” but rather to prepare students with sufficient core knowledge so that they can later acquire additional information on their own.

COURSE ENDURING UNDERSTANDINGS

Structure and Properties of Matter

Students will understand...

- 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.
- A great variety of objects can be built up from a small set of pieces.
- Heat and cooling of a substance may cause changes that can be observed.
- Some changes in matter are reversible and some are irreversible.

Earth’s Systems: Processes that Shape the Earth

Students will understand...

- Earth changes over time. Some of those changes occur very slowly and other changes occur very quickly.
- Humans can create designs to slow or prevent wind or water from changing the shape of the land.
- Water is found in oceans, rivers, lakes, and ponds. The majority of water on Earth is salt water, and a small amount of water is freshwater.

- Water can exist as solid ice and in liquid form.
- Maps are used to show where land and water are found across our planet. These maps allow us to monitor any changes on Earth.

Ecosystem Diversity: Interdependent Relationships in Ecosystems

Students will understand...

- Plants depend on water and light to grow.
- Plants depend on animals/insects for pollination or to move their seeds around.
- There are many different kinds of living things in any area, and they exist in different places on land and in water.
- Organisms live in different habitats that provide them with food, water, shelter and the necessary climate needed for their survival.
- Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solution to other people.

COURSE ESSENTIAL QUESTIONS

- How can one describe matter?
- How are different types of matter similar and different from one another?
- How can one tell the differences between the states of matter?
- How does heating and cooling create changes in matter?
- Are all objects made from other objects?
- What do plants need to grow?
- How do plants and animals help each other?
- Why do different plants and animals live in different habitats?
- Why do plants need pollinators?
- Why do scientists model their thinking?
- What are some examples of sudden events that change the Earth's surface?
- What are some ways that humans can help slow down weathering and erosion?
- How does water cycle through Earth?
- How does water impact Earth's surface?

COURSE KNOWLEDGE AND SKILLS

Crosscutting scientific and engineering concepts as outlined in the Next Generation Science

Standards(NGSS):

Students will know...

- Patterns. Observed patterns of forms and events guide organization and classification, and they prompt questions about relationships and the factors that influence them.
- Cause and effect: Mechanism and explanation. Events have causes, sometimes simple, sometimes multifaceted. A major activity of science is investigating and explaining causal relationships and the mechanisms by which they are mediated. Such mechanisms can then be tested across given contexts and used to predict and explain events in new contexts.

- Scale, proportion, and quantity. In considering phenomena, it is critical to recognize what is relevant at different measurements of size, time, and energy and to recognize how changes in scale, proportion, or quantity affect a system's structure or performance.
- Systems and system models. Defining the system under study-specifying its boundaries and making explicit a model of that system provides tools for understanding and testing ideas that are applicable throughout science and engineering.
- Energy and matter: flows, cycles, and conservation. Tracking fluxes of energy and matter into, out of, and within systems helps one understand the systems possibilities and limitations.
- Structure and function. The way in which an object or living thing is shaped and its substructure determine many of its properties and functions.
- Stability and change. For natural and built systems alike, conditions of stability and determinants of rates of change or evolution of a system are critical elements of study.

Students will be able to ...

- Ask questions (for science) and define problems (for engineering)
- Develop and use models
- Plan and carry out investigations
- Analyze and interpret data
- Use mathematics and computational thinking
- Construct explanations (for science) and design solutions (for engineering)
- Engage in arguments from evidence
- Obtain, evaluate, and communicate information

Scope and Sequence

September to December	Bundle 1: Structure and Properties of Matter- Matter
January to Mid-April	Bundle 2: Earth's Systems: Processes that Shape of the Earth- Earth Materials
Mid-April to June	Bundle 3: Interdependent Relationships in Ecosystems- Ecosystem Diversity

BUNDLE 1:

Structure and Properties of Matter

Matter

Unit Overview:

Although matter is the fundamental substance that constitutes everything in our environment, the concept of matter can be abstract and challenging to explain. To aid students in grasping the concept of matter, this unit utilizes hands-on activities that encourage students to engage with materials, pose questions, and draw connections between matter and natural phenomena. Through a series of lessons, students progressively develop an understanding that all objects are composed of smaller components, and these smaller parts consist of particles. The behavior of these particles varies depending on the state of matter, whether it's solid, liquid, or gas. Students also explore the consequences of mixing different types of matter and the impact of adding or removing energy. This unit serves as a significant introduction to the field of chemistry, providing a foundation for further learning.

Unit Goals:

- | | |
|----------------|---|
| NGSS: 2-PS1-1: | Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. |
| NGSS: 2-PS1-2 | Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. |
| NGSS: 2-PS1-3: | 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. |
| NGSS: 2-PS1-4: | Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot. |

The following course goals derive from the 2010 Connecticut Core Standards.

ELA-Literacy:

- CCS.ELA-Literacy.RI.2.1 Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. *(2-PS1-4)*
- CCS.ELA-Literacy.RI.2.3 Describe the connection between a series of historical events, scientific ideas, or concepts, or steps in technical procedures in a text. *(2-PS1-4)*
- CCS.ELA-Literacy.RI.2.8 Describe how reasons support specific points the author makes in a text. *(2-PS1-2),(2-PS1-4)*
- CCS.ELA-Literacy.W.2.1 Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section. *(2-PS1-4)*
- CCS.ELA-Literacy.W.2.8 Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). *(2-PS1-1),(2-PS1-2),(2-PS1-3)*

Mathematics:

- CCS.Mathematics.MP.2 Reason abstractly and quantitatively. *(2-PS-1-2)*
- CCS.Mathematics.MP.4 Model with mathematics. *(2-PS1-1),(2-PS1-2)*
- CCS.Mathematics.MP.5 Use appropriate tools strategically. *(2-PS1-2)*
- CCS. Mathematics.2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. *(2-PS1-1),(2-PS1-2)*

The following standards derive from the 2013 Next-Generation Science (NGSS) Elementary School Engineering Design Standards.

NGSS.3-5-ETS1-2: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

BUNDLE 1: Structure and Properties of Matter

<u>Science & Engineering Practices</u>	<u>Disciplinary Core Ideas</u>	<u>Crosscutting Concepts</u>
<u>Planning and Carrying Out Investigations</u> - Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. (2-PS1-1) <u>Analyzing and Interpreting Data</u> - Analyze data from tests of an object or tool to determine if it works as intended. (2-PS1-2) <u>Constructing Explanations and Designing Solutions</u> - Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (2-PS1-3) <u>Engaging in Argument from Evidence</u> - Construct an argument with evidence to support a claim. (2-PS1-4)	<u>PS1.A: Structure and Properties of Matter</u> - 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. (2-PS1-1) - Different properties are suited to different purposes. (2-PS1-2), (2-PS1-3) - A great variety of objects can be built up from a small set of pieces. (2-PS1-3) <u>PS1.B: Chemical Reactions</u> - Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not. (2-PS1-4)	<u>Patterns</u> - Patterns in the natural and human designed world can be observed. (2-PS1-1) <u>Cause and Effect</u> - Events have causes that generate observable patterns. (2-PS1-4) - Simple tests can be designed to gather evidence to support or refute student ideas about causes. (2-PS1-2) <u>Energy and Matter</u> - Objects may break into smaller pieces and be put together into larger pieces, or change shapes. (2-PS1-3)

Unit Essential Questions:

1. What is matter, and what are its different forms?
2. How can we describe and compare the properties of different materials?
3. What are the properties of solids, liquids and gases, and how are they different from each other?

4. How can we use our senses to observe and describe the properties of materials?
5. What happens when different materials are mixed together, and how can we separate them again?
6. How do materials change when they are heated or cooled, and why?
7. Why do some materials sink and others float?

Scope and Sequence of Bundle 1:

Lesson 1: Small Parts Make Big Things

Lesson 2: What's the Matter?

Lesson 3: Solids, Liquids and Mixtures

Lesson 4: Describing Matter

Lesson 5: Heating Matter

Phenomenon: An engineer, builder, or inventor must consider many factors when choosing the materials to construct something. Whether it's a pencil, a skyscraper, or a sailboat, the materials used in the object are carefully chosen based on its function. The anchoring phenomenon for *Matter* is making connections between a material and how it is used.

Focus questions:

- What are the three states of matter?
- Why can't we see particles?
- How does the motion of particles change?
- Is gas made of particles?
- What are the properties of solids?
- What are the properties of liquids?
- What is a mixture?
- How can you use physical properties to describe objects?
- Which materials are the best choice for your project?
- How does matter change state?
- How do chemical reactions cause identity changes?
- Why is it important to evaluate design plans?

Academic Vocabulary:

behavior, characteristic, chemical change, colloid, different, evaporation, flexible, float, fluid, fluidity, gas, graduated cylinder, identity change, invisible, liquid, magnify, malleability, matter, microscope, mixture, part, particle, physical change, porous, property, sink, small, solid, specifications, state change, states of matter, structure, substance, viscosity, water vapor, whole

Assured Assessments:

Formative/Skills:

- Student Investigation Sheets
- Science Notebook Entries
- Whole group check-in discussions
- Monitoring during Turn and Talk
- Student responses during class discussions
- Review students' questions about the investigative phenomenon from the beginning of the lesson.
- Tell Me More Extension - responses

Summative/Content:

- Matter Checkpoint One
- Matter Checkpoint Two

Resources:

Core

- Building Blocks of Science® 3D: Matter (©2019) Carolina Biological Supply Company. Burlington, NC.
- Building Blocks of Science Literacy Series™: Matter. Carolina Biological Supply Company. Print.

Supplemental

- Classroom Libraries

Time Allotment

- Bundle 1: Structure and Properties of Matter- Matter Trimester 1

BUNDLE 2:

Earth's Systems: Processes That Shape the Earth

Earth Materials

Unit Overview:

Earth's surface is in a constant state of change, shaped by natural materials like water, minerals, rocks, and soil. These elements play a crucial role in forming various landforms, from canyons to mountains. While many changes to landforms occur over extended periods, some agents of change, such as volcanoes and floods, can expedite these transformations. In this curriculum, students delve into these concepts through hands-on exploration, interactive discussions, and problem-solving exercises. They make observations, formulate predictions, analyze and graph data, construct claims supported by evidence and reasoning, and engage in the engineering design process.

Unit Goals:

- | | |
|-----------|---|
| 2-ESS1-1. | Use information from several sources to provide evidence that Earth events can occur quickly or slowly. |
| 2-ESS2-1. | Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land. |
| 2-ESS2-2. | Develop a model to represent the shapes and kinds of land and bodies of water in an area. |
| 2-ESS2-3. | Obtain information to identify where water is found on Earth and that it can be solid or liquid. |

The following course goals derive from the 2010 Connecticut Core Standards.

ELA-Literacy:

- | | |
|-------------------------|--|
| CCS.ELA-Literacy.RI.2.1 | Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. <i>(2-ESS1-1).</i> |
| CCS.ELA-Literacy.RI.2.3 | Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. <i>(2-ESS1-1),(2-ESS2-1).</i> |
| CCS.ELA-Literacy.RI.2.9 | Compare and contrast the most important points presented by two texts on the same topic. <i>(2-ESS2-1)</i> |

CCS.ELA-Literacy.W.2.6	With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. <i>(2-ESS1-1),(2-ESS2-3)</i> .
CCS.ELA-Literacy.W.2.7	Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). <i>(2-ESS1-1)</i> .
CCS.ELA-Literacy.W.2.8	Recall information from experiences or gather information from provided sources to answer a question. <i>(2-ESS1-1),(2-ESS2-3)</i>
CCS.ELA-Literacy.SL.2.2	Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. <i>(2-ESS1-1)</i>
CCS.ELA-Literacy.SL.2.5	Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. <i>(2-ESS2-2)</i>

Mathematics:

CCS.Mathematics.MP.2	Reason abstractly and quantitatively. <i>(2-ESS2-1),(2-ESS2-1),(2-ESS2-2)</i>
CCS.Mathematics.MP.4	Model with mathematics. <i>(2-ESS1-1),(2-ESS2-1),(2-ESS2-2)</i>
CCS.Mathematics.MP.5	Use appropriate tools strategically. <i>(2-ESS2-1)</i>
CCS.Mathematics 2.NBT.A	Understand place value. <i>(2-ESS2-1)</i>
CCS.Mathematics 2.NBT.A.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. <i>(2-ESS2-2)</i>
CCS.Mathematics 2.MD.B.5	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. <i>(2-ESS2-1)</i>

The following standards derive from the 2013 Next-Generation Science (NGSS) Elementary School Engineering Design Standards.

NGSS.3-5-ETS1-2: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

BUNDLE 2: Earth's Systems: Processes that Shape the Earth

<u>Science & Engineering Practices</u>	<u>Disciplinary Core Ideas</u>	<u>Crosscutting Concepts</u>
<u>Developing and Using Models</u> - Develop a model to represent patterns in the natural world. (2-ESS2-2) <u>Constructing Explanations and Designing Solutions</u> - Make observations from several sources to construct an evidence-based account for natural phenomena. (2-ESS1-1) - Compare multiple solutions to a problem. (2-ESS2-1) <u>Obtaining, Evaluating, and Communicating Information</u> - 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. (2-ESS2-3)	<u>ESS1.C: The History of Planet Earth</u> - Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. (2-ESS1-1) <u>ESS2.A: Earth Materials and Systems</u> - Wind and water can change the shape of the land. (2-ESS2-1) <u>ESS2.B: Plate Tectonics and Large-Scale System Interactions</u> - Maps show where things are located. One can map the shapes and kinds of land and water in any area. (2-ESS2-2) <u>ESS2.C: The Roles of Water in Earth's Surface Processes</u> - Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (2-ESS2-3) <u>ETS1.C: Optimizing the Design Solution</u> - Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (secondary to 2-ESS2-1)	<u>Patterns</u> - Patterns in the natural world can be observed. (2-ESS2-2), (2-ESS2-3) <u>Stability and Change</u> - Things may change slowly or rapidly. (2-ESS1-1), (2-ESS2-1)

Unit Essential Questions:

- What are the things that make up the Earth's surface, and how do they shape the land?
- What makes the Earth's surface change, and does it happen quickly or slowly?
- How does water move around the Earth, and how does it impact the land?

- What are the different types of rocks, and how can we tell them apart?
- How does sand form from rocks, and why is this important?
- What is in the dirt where we live, and how does it affect the environment?
- How can wind and water change the Earth's surface, and what can we do to stop them from causing problems like erosion?
- How do big rivers and ice impact the way the land looks?

Scope and Sequence of Bundle 2:

Lesson 1: Water

Lesson 2: Rocks

Lesson 3: Sand

Lesson 4: Soil

Lesson 5: Changing Earth/Changing Land

Lesson 6: My Model Island

Phenomenon: The surface of Earth is constantly changing. The results of these changes usually take a long time to become noticeable, but some agents of change, such as volcanoes and floods, cause land to change more quickly. The anchoring phenomenon in *Earth Materials* is how natural materials such as water, minerals, rocks, and soil are important parts of Earth's surface.

Essential/Focus questions:

- Where's the water?
- How does water move on Earth?
- How much of the Earth is water and how much is land?
- What can I learn by studying rocks?
- Can I make a claim about how landforms change?
- What can we learn by studying sand?
- How can water and wind change sand?
- Can I design a barrier to reduce wind erosion?
- What makes up soil?
- What can we learn by studying soil?
- How can wind and water affect soil?
- How do glaciers and rivers change land?
- How do Earth's natural processes change land?

Academic Vocabulary:

barrier, condensation, condense, conserve, deposition, desert, Earth's materials, erosion, evaporate, evaporation, glacier, humus, igneous rock, island, lake, landform, metamorphic rock, mineral, ocean, precipitation, relief map, river, rock, runoff, sand, sand dune, sediment, sedimentary rock, soil, temperature, topsoil, vegetation, volcano, water cycle, water vapor, weathering

Assured Assessments

Formative/Skills:

- Student Investigation Sheets
- Science Notebook Entries
- Whole group check-in discussions
- Monitoring during Turn and Talk
- Student responses during class discussions
- Review students' questions about the investigative phenomenon from the beginning of the lesson.
- Tell Me More Extension - responses

Summative/Content:

- Water Cycle Checkpoint
- Earth Materials Checkpoint

Resources:

Core

- Building Blocks of Science® 3D:Earth Materials (©2019) Carolina Biological Supply Company. Burlington, NC.
- Building Blocks of Science Literacy Series™: Earth Materials. Carolina Biological Supply Company. Print.

Supplemental

- Online resources will be listed with lesson outlines on “Pacing Chart”.
- Classroom and Learning Commons content related libraries

Time Allotment

- Bundle 2: Earth's Systems: Processes that Shape the Earth: Earth Materials- Trimester 2

BUNDLE 3:

Interdependent Relationships in Ecosystems

Ecosystem Diversity

Unit Goals:

An ecosystem is the living and nonliving things that interact with one another in a specific area. Within ecosystems are smaller habitats, which are the places where living things can meet their basic needs—water, air, a food source (or sunlight for plants), and a shelter. The availability of these resources varies from habitat to habitat. For example, there is less water in a desert than in a wetland. The water in an ocean is different from the water in the tundra. Because of these differences, different things live in each habitat on Earth. The characteristics that plants and animals have depend on the habitat in which they live. Some characteristics make an organism suited to survive in multiple habitats. For example, ectothermic animals with scales can survive in a desert or a grassland. In contrast, some characteristics are suited for only one kind of habitat; only certain types of plants and animals can survive in salty ocean water. Throughout the unit students will identify different habitats, determine the growth patterns of plants, explore plants' dependence on animals, recognize the diversity of living things, and consider their own impact on the world around them.

Unit Goals:

- | | |
|---------|---|
| 2-LS2-1 | Plan and conduct an investigation to determine if plants need sunlight and water to grow. |
| 2-LS2-2 | Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants. |
| 2-LS4-1 | Make observations of plants and animals to compare the diversity of life in different habitats. |

The following course goals derive from the 2010 Connecticut Core Standards.

ELA-Literacy

- | | |
|-------------------------|--|
| CCS.ELA-Literacy.W.2.7. | Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). <i>(2-LS2-1),(2-LS4-1)</i> |
| CCS.ELA-Literacy.W.2.8 | Recall information from experiences or gather information from provided sources to answer a question. <i>(2-LS2-1),(2-LS4-1)</i> |
| CCS.ELA-Literacy.SL.2.5 | Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. <i>(2-LS2-2)</i> |

Mathematics

CCS.Mathematics.MP.2	Reason abstractly and quantitatively. (2-LS2-1), (2-LS4-1)
CCS.Mathematics.MP.4	Model with mathematics (2-LS2-1), (2-LS2-1), (2-LS4-1)
CCS.Mathematics.MP.5	Use appropriate tools strategically. (2-LS2-1)
CCS.Mathematics2.MD.D.10	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems. (2-LS2-2), (2-LS4-1)

The following standards derive from the 2013 Next-Generation Science (NGSS) Elementary School Engineering Design Standards.

NGSS.3-5-ETS1-2:	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
------------------	---

BUNDLE 3: Molecules and Organisms: Matter and Energy in Ecosystems

<u>Science & Engineering Practices</u>	<u>Disciplinary Core Ideas</u>	<u>Crosscutting Concepts</u>
<u>Developing and Using Models</u> - Develop a simple model based on evidence to represent a proposed object or tool. (2-LS2-2) <u>Planning and Carrying Out Investigations</u> - Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. (2-LS2-1) - Make observations (firsthand or from media) to collect data which can be used to make comparisons. (2-LS4-1)	<u>LS2.A: Interdependent Relationships in Ecosystems</u> - Plants depend on water and light to grow. (2-LS2-1) - Plants depend on animals for pollination or to move their seeds around. (2-LS2-2) <u>LS4.D: Biodiversity and Humans</u> - There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1) <u>ETS1.B: Developing Possible Solutions</u> - 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. (secondary to 2-LS2-2)	<u>Cause and Effect</u> - Events have causes that generate observable patterns. (2-LS2-1) <u>Structure and Function</u> - The shape and stability of structures of natural and designed objects are related to their function(s). (2-LS2-2)

Unit Essential Questions:

- What is an ecosystem, and how do living and nonliving components interact within it?
- How do different habitats vary in terms of the availability of essential resources like water, air, food, and shelter?
- How do the characteristics of plants and animals depend on the specific habitat they inhabit?
- What adaptations allow organisms to survive in multiple habitats, and which adaptations are habitat-specific?
- How do organisms, including humans, impact the diversity of life within their habitats?
- How do different types of habitats influence the growth patterns and life cycles of plants?
- What is the role of animals in processes like pollination, seed dispersion, and plant germination?
- How can human activities influence the living and nonliving elements of different habitats, and what are the consequences of these impacts?

Scope and Sequence of Bundle 3:

Lesson 1: Organisms and Habitats

Lesson 2: Plant Growth

Lesson 3: Plant and Animal Interactions

Lesson 4: Diversity of Life

Lesson 5: Relationship in an Ecosystem

Phenomenon: Many different habitats can be found on Earth, each with its own unique climate, access to light, and communities of organisms. Whether you go on a short trip within your state or on an intercontinental vacation, you can make comparisons between your local region and a new region. Perhaps the air is drier, there are fewer birds, or you find brightly colored plants that you've never seen before. The anchoring phenomenon for this unit is the variety of habitats on Earth and observing the life within them.

Focus questions:

- What do living things need to survive? (biotic and abiotic factors)
- What type of habitat do I live in?
- What do plants need to grow?
- What is the life cycle of a plant?
- Where do plants grow?
- How do plants depend on animals?
- How do animals help to pollinate or disperse seeds?
- Can I design a habitat for a pillbug?
- How do humans interact with their habitat?

Academic Vocabulary:

characteristic, climate, diverse, ecosystem, energy, food, germination, habitat, impact, living, nonliving, organism, photosynthesis, plant, pollination, pollution, producer, protect, seed, reproduction, shelter, soil, survive, seed dispersal

Assured Assessments**Formative/Skills:**

- Student Investigation Sheets
- Science Notebook Entries
- Whole group check-in discussions
- Monitoring during Turn and Talk
- Student responses during class discussions
- Review students' questions about the investigative phenomenon from the beginning of the lesson.
- Tell Me More Extension - responses

Summative/Content:

- Plants Checkpoint
- Seed Dispersal Checkpoint
- Habitat Checkpoint

Resources:

Core

- Building Blocks of Science® 3D: Ecosystem Diversity (©2019) Carolina Biological Supply Company. Burlington, NC.
- Building Blocks of Science Literacy Series™: Ecosystem Diversity. Carolina Biological Supply Company. Print.

Supplemental

- Online resources will be listed with lesson outlines on "Pacing Chart".
- Classroom and Learning Commons content related libraries

Time Allotment

- Bundle 3: Interdependent Relationships in Ecosystems: Ecosystem Diversity.

TRUMBULL PUBLIC SCHOOLS
Trumbull, Connecticut

Science Curriculum
Grade 3
Next Generation
January 2024

Curriculum Writing Team:

Denise King	Science Teacher, Booth Hill Elementary
Rachel Dustin	Science Teacher, Frenchtown Elementary
Kierston Fallon	Science Teacher, Frenchtown Elementary
Lauren Smith	Science Teacher, Jane Ryan Elementary
Allison Ebert	Science Teacher, Middlebrook Elementary
Nedda Carrano	Science Teacher, Middlebrook Elementary
Jessica Preman	Science Teacher, Tashua Elementary

Elizabeth Doherty	Science Program Leader, Grades K-5
-------------------	------------------------------------

Dr. Susan C. Iwanicki	Assistant Superintendent
-----------------------	--------------------------

SCIENCE - NEXT GENERATION

Grade 3

Table of Contents

Core Values & Beliefs	3
Introduction & Philosophy	3
Safety First	5
Course Goals	4
Course Enduring Understandings	4
Course Essential Questions	4-5
Course Knowledge & Skills	5-6
Bundle 1:Earth's Systems: Weather and Climate	8-12
Bundle 2:Motion and Stability: Forces and Interactions	13-17
Bundle 3: Ecosystems and Heredity	18- 24

The Trumbull Board of Education will continue to take Affirmative Action to ensure that no persons are discriminated against in its employment

CORE VALUES AND BELIEFS

The Trumbull Public School System, in partnership with the community, strives to meet the educational needs of all students within a challenging and supportive academic environment that empowers each student to become a life-long learner and to live and participate in a democratic, diverse and global society.

- We believe that all individuals are capable of learning.
- We believe that all individuals should have the resources necessary to achieve success within a challenging curriculum.
- We believe that a family, school, and community partnership is essential to our success.
- We believe that a safe and orderly environment is critical to learning.
- We believe that there is strength in diversity and that all individuals are worthy of our respect and dignity.
- We believe that our school climate must be welcoming, caring, and supportive for all members of the learning community.
- We believe that a reflective evaluation of present practices and processes is necessary in order to plan for our future.

INTRODUCTION & PHILOSOPHY

The Connecticut State Board of Education, in its 2008 Position Statement on Science Education, calls for a systematic approach to ensuring that every student in Connecticut receives a rich and coordinated PK-12 education in science. Science learning should focus simultaneously on developing an understanding of core concepts, as well as knowing how scientists work collaboratively to test ideas, analyze evidence and solve problems. The realization of this vision is critical for our students' futures, as well as for Connecticut's place in a globally competitive economy.

In 2015, the Connecticut State Board of Education adopted the Next Generation Science Standards which embodies the National Research Council's *Framework for K-12 Education: Practices, Crosscutting Concepts, and Core Ideas* (2011); and furthermore developed a 5-year Implementation Plan of the Next Generation Science Standards (NGSS) for transitioning curriculum, instruction, and assessment. (Appendix B). The NGSS architecture was designed to provide information to teachers and curriculum and assessment developers beyond the traditional one line standard and uses Science and Engineering Practices along with various components of the Disciplinary Core Ideas and Crosscutting Concepts to make up the performance expectations for students.

The Board offers guidelines to support the establishment of collaborations among various stakeholders to build a coordinated science education system. (SDE, 2008).

As developed by the writers of the *Framework for K-12 Science Education* (Council, 2011), a core idea for K-12 science instruction should:

1. "Have broad importance across multiple sciences or engineering disciplines or be a key organizing principle of a single discipline."
2. "Provide a key tool for understanding or investigating more complex ideas and solving problems."

3. “Relate to the interests and life experiences of students or be connected to societal or personal concerns that require scientific or technological knowledge.”
4. “Be teachable and learnable over multiple grades at increasing levels of depth and sophistication.” (Council, 2011)

The Trumbull Public School’s Grade 3 science curriculum addresses the Next Generation Science Standards as listed with each unit of study.

SAFETY FIRST

The Trumbull Public School System follows the recommended guidelines for student safety in the classroom as represented in the National Science Education Standards, State Science Frameworks and NGSS, the National Science Teachers Association, and OSHA and as outlined in subsections of Policy 6000 in regards to Instruction. We encourage and foster a hands-on, process and inquiry-based approach to science instruction with student safety always first and foremost in mind. The use of lab safety guidelines are supported throughout the district.

COURSE GOALS

The course goals derive from the 2013 Next-Generation Science Standards. Goals are listed specific to each unit in this curriculum guide, and developed through unit lessons using the 5-E learning model (engage, explore, explain, elaborate, evaluate) in order to encourage student engagement and foster metacognitive learning strategies through a reflective process. An important role of science education is not to teach “all the facts” but rather to prepare students with sufficient core knowledge so that they can later acquire additional information on their own.

COURSE ENDURING UNDERSTANDINGS

Earth’s Systems- Weather and Climate

Students will understand...

- 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.
- Climate describes a range of an area’s typical weather conditions and the extent to which those conditions vary over years.
- A variety of natural hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts.

Motion and Stability- Forces and Interactions

Students will understand...

- Each force acts on one particular object and has both strength and direction.
- An object at rest typically has multiple forces acting on it, but they add to give zero net force on the object.
- 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.
- Objects in contact exert forces on each other.

- 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. For forces between two magnets the size of the force in each situation depends on their orientation relative to each other.

Ecosystems and Heredity

Students will understand...

- For any particular environment some kinds of organisms survive well, some survive less well, and some cannot survive at all.
- Populations live in a variety of habitats, and change in those habitats affects the organisms living there.
- 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.
- Some kinds of plants and animals that once lived on Earth are no longer found anywhere.
- Fossils provide evidence about the types of organisms that lived long ago and also about the nature of the environment.
- 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.
- Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles.
- Plants and animals have traits inherited from parents and that variation of traits exists in a group of similar organisms.
- Many characteristics result from individuals' interactions with the environment, which can range from diet to learning. Many characteristics involve both inheritance and environment.
- Different organisms vary in how they look and function because they have different inherited information.
- The environment also affects the traits that an organism develops.
- Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing.

COURSE ESSENTIAL QUESTIONS

- What is the difference between weather and climate, and how do they influence each other?
- What tools and methods do scientists use to measure and analyze weather?
- How do scientists collect and interpret data from weather stations?
- What are some common weather measurement instruments and their purposes?
- How do changes in weather occur, and what are the factors that contribute to these changes?
- What are the different climate zones around the world, and how do they impact weather patterns?
- How do different climate zones influence the types of weather experienced in specific regions?

- What are the dangers associated with extreme weather events, and how can we mitigate their impact?
- What are some examples of weather hazards and their potential consequences?
- What are the different types of forces that objects experience?
- How do pushes and pulls affect motion?
- How do gravity, magnetism, and friction affect the motion of objects?
- What is force?
- What is net force?
- What are balanced and unbalanced forces? How do they affect an object?
- How can you change the direction of motion of an object?
- What are the ways speed can change?
- What are contact forces?
- How can objects affect each other when not in contact?
- What role does mass play in determining the effects of forces?
- How do magnetic forces cause motion, and what are their properties?
- How do magnetic objects interact with each other?
- What affects the size of a force?
- How do life cycles, inherited and acquired traits, and adaptations impact the diversity of life on Earth?
- How do organisms grow and develop through their life cycles?
- What are the differences between inherited and acquired traits, and how do they contribute to variations in organisms?
- What are the different types of adaptations, and how do they help organisms survive and thrive in their environments?
- How do physical adaptations, such as bird beaks, enable organisms to obtain food?
- What are the benefits of behavioral adaptations, such as camouflage, in predator-prey relationships?
- How does the environment impact the life cycles of organisms, and how do environmental changes affect ecosystems?
- How do variations in environmental conditions affect the growth and development of organisms?
- What are the long-term effects of environmental changes on ecosystems?
- How do scientists use the fossil record to understand how organisms and their environments have changed over time?
- What can fossil structures and data tell us about past organisms and the environments they lived in?
- How does the study of fossils contribute to our understanding of the diversity of life on Earth?
- How do human activities impact ecosystems, and how can we design solutions to address environmental problems?

COURSE KNOWLEDGE AND SKILLS

Crosscutting scientific and engineering concepts as outlined in the Next Generation Science

Standards(NGSS):

Students will know...

- Patterns. Observed patterns of forms and events guide organization and classification, and they prompt questions about relationships and the factors that influence them.
- Cause and effect: Mechanism and explanation. Events have causes, sometimes simple, sometimes multifaceted. A major activity of science is investigating and explaining causal relationships and the mechanisms by which they are mediated. Such mechanisms can then be tested across given contexts and used to predict and explain events in new contexts.
- Scale, proportion, and quantity. In considering phenomena, it is critical to recognize what is relevant at different measurements of size, time, and energy and to recognize how changes in scale, proportion, or quantity affect a system's structure or performance.
- Systems and system models. Defining the system under study-specifying its boundaries and making explicit a model of that system provides tools for understanding and testing ideas that are applicable throughout science and engineering.
- Energy and matter: flows, cycles, and conservation. Tracking fluxes of energy and matter into, out of, and within systems helps one understand the systems possibilities and limitations.
- Structure and function. The way in which an object or living thing is shaped and its substructure determine many of its properties and functions.
- Stability and change. For natural and built systems alike, conditions of stability and determinants of rates of change or evolution of a system are critical elements of study.

Students will be able to ...

- Ask questions (for science) and define problems (for engineering)
- Develop and use models
- Plan and carry out investigations
- Analyze and interpret data
- Use mathematics and computational thinking
- Construct explanations (for science) and design solutions (for engineering)
- Engage in arguments from evidence
- Obtain, evaluate, and communicate information

Scope and Sequence

September to December	Bundle 1: Earth Systems: Weather and Climate
January to Mid-April	Bundle 2: Motion and Stability: Forces and Interactions
Mid-April to June	Bundle 3: Ecosystems and Heredity

BUNDLE 1:

Earth Systems : Weather and Climate

Unit Overview:

Step outside or look out the window, and you can observe the weather. Perhaps it is cold and rainy today where you live, but in other parts of the world it may be hot and sunny, or perhaps a tropical storm is developing. “Climate” refers to an area’s average weather pattern over many years, and climate influences the weather. Extreme weather events occur around the world every day, but how does climate variability influence the probability of extreme weather events? What do scientists need to know to inform people about dangerous weather and prevent damage and death from weather hazards? Throughout this unit, students will explore and learn about patterns in weather, climate, seasons, and weather hazards. Students will be introduced to the components that make up weather, the tools used to measure weather, how changes in weather happen, and the connection between weather and climate. Students explore these concepts by investigating, discussing, and problem-solving. Students make observations and predictions, analyze and graph data, develop claims supported with evidence and reasoning, and evaluate problems and solutions.

Unit Goals:

- | | |
|----------------|---|
| NGSS: 3-ESS2-1 | Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. |
| NGSS: 3-ESS2-2 | Obtain and combine information to describe climates in different regions of the world. |
| NGSS: 3-ESS3-1 | Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. |

The following course goals derive from the 2010 Connecticut Core Standards.

ELA-Literacy:

- CCSS.ELA-Literacy.RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. *(3-ESS2-2)*
- CCSS.ELA-Literacy.RI.3.9 Compare and contrast the most important points and key details presented in two texts on the same topic. *(3-ESS2-2)*
- CCSS.ELA-Literacy.W.3.1 Write opinion pieces on topics or texts, supporting a point of view with reasons. *(3-ESS3-1)*
- CCSS.ELA-Literacy.W.3.7 Conduct short research projects that build knowledge about a topic. *(3-ESS3-1)*
- CCSS.ELA-Literacy.W.3.9 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories. *(3-ESS2-2)*

Mathematics:

- CCS.Mathematics.MP.2 Reason abstractly and quantitatively. *(3-ESS2-1), (3-ESS2-2), (3-ESS3-1)*
- CCS.Mathematics.MP.4 Model with mathematics. *(3-ESS2-1), (3-ESS2-2), (3-ESS1-1)*
- CCS.Mathematics.MP.5 Use appropriate tools strategically. *(3-ESS2-1)*
- CCS. Mathematics.3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. *(3-ESS2-1)*

The following standards derive from the 2013 Next-Generation Science (NGSS) Elementary School Engineering Design Standards.

NGSS.3-5-ETS1-2: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

BUNDLE 1: Weather and Climate

<u>Science & Engineering Practices</u>	<u>Disciplinary Core Ideas</u>	<u>Crosscutting Concepts</u>
<u>Analyzing and Interpreting Data</u> - Represent data in tables and various graphical displays (bar graphs, pictographs and/or pie charts) to reveal patterns that indicate relationships. (3-ESS2-1) <u>Obtaining, Evaluating, and Communicating Information</u> - Obtain and combine information from books and other reliable media to explain phenomena. (3-ESS2-2) <u>Engaging in Argument from Evidence</u> - 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. (3-ESS3-1)	<u>ESS2.D: Weather and Climate</u> - 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. (3-ESS2-1) - Climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over years. (3-ESS2-2) <u>ESS3.B: Natural Hazards</u> - A variety of natural hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts. (3-ESS3-1)	<u>Patterns</u> - Patterns of change can be used to make predictions. (3-ESS2-1), (3-ESS2-2) <u>Cause and Effect</u> - Cause and effect relationships are routinely identified, tested, and used to explain change. (3-ESS3-1)

Unit Essential Questions:

1. What are the components that make up weather?
2. How do changes in weather happen?
3. How is weather related to climate?
4. How can students use tools to measure and monitor weather patterns?

5. How does collecting and analyzing daily data contribute to understanding local weather conditions?
6. In what ways does geographic location affect weather data?
7. How do climate zones vary globally?
8. What role does geographic location play in determining climate zones?
9. What are the characteristics and dangers associated with tropical storms, and how do they contribute to dangerous weather conditions?
10. How do scientists and engineers reduce the impact of dangerous weather on humans?

Scope and Sequence of Bundle 1:

Lesson 1: Weather and the Tools Used to Study Weather

Lesson 2: Analyzing Weather and Data Patterns

Lesson 3: Weather and Climate Connections

Lesson 4: Dangerous Weather

Lesson 5: Possible Solutions to Reduce Impact of Weather Hazards

Phenomenon: Step outside or look out the window, and you can observe the weather. Perhaps it is cold and rainy today where you live, but in other parts of the world it may be hot and sunny, or perhaps a tropical storm is developing. “Climate” refers to an area’s average weather pattern over many years, and climate influences the weather. This phenomenon has impacted Earth throughout its geologic history. In fact, dangerous weather events occur around the world every day as a result of climate variability. How does climate variability influence the probability of a weather event? What do scientists need to know to inform people about the weather and prevent damage and deaths from extreme weather events? The anchoring phenomenon for this unit is recognizing that weather and climate are connected.

Focus questions:

- What tools do we use to measure weather?
- What is the benefit of understanding patterns in weather?
- Can I analyze and graph weather data?
- Can I analyze patterns in weather in various places?
- How are weather and climate related?
- What factors shape climate?
- What are patterns in climate zones?
- How can dangerous weather affect an area?
- How can we reduce the impact of a weather hazard?
- How well does the solution reduce the impact of the weather hazard?

Academic Vocabulary:

air, air mass, air pressure, altitude, anemometer, atmosphere, average, barometer, biosphere, celsius, climate, climate zone, cloud, degrees, equator, fahrenheit, forecast, forecast model, geosphere, greenhouse gasses, hazard, meteorologist, meteorology, polar, precipitation, rain, rain gauge, rainfall, satellite, season, temperate, temperature, thermometer, topography, tropical, tropical storm, weather, wind, wind vane, windsock

Assured Assessments:**Formative/Skills:**

- Student Investigation Sheets
- Science Notebook Entries
- Whole group check-in discussions
- Monitoring during Turn and Talk
- Student responses during class discussions
- Review students' questions about the investigative phenomenon from the beginning of the lesson.
- Tell Me More Extension - responses

Summative/Content:

- Lesson 2- Analyzing Weather and Data Patterns Snapshot/ Poster
- Lesson 3- Weather and Climate Patterns Snapshot

Resources:**Core**

- Building Blocks of Science® 3D: Weather and Climate (©2019) Carolina Biological Supply Company. Burlington, NC.
- Building Blocks of Science Literacy Series™: Weather and Climate. Carolina Biological Supply Company. Print.

Supplemental

- Classroom Libraries

Time Allotment

- Bundle 1: Earth's Systems Weather and Climate- Trimester 1

BUNDLE 2:

Motion and Stability: Forces and Interactions

Unit Overview:

Everything around us is subject to forces. While students are likely familiar with forces that set things in motion, like pushes or pulls, there's a good chance they might not know much about other forces, such as magnetism or gravity, which are a bit more abstract and need us to observe things happening. In this unit, students are diving into Newton's three laws of motion, the basics of physical science that students will build on as they move through their science courses. The goal is for the students to get a deeper understanding of forces and how they make things start, change, or stop moving. Students will learn about balanced and unbalanced forces, by learning about topics such as gravity, magnetism, friction, mass, and distance.

Unit Goals:

- | | |
|---------|--|
| 3-PS2-1 | Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. |
| 3-PS2-2 | Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion. |
| 3-PS2-3 | Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other. |
| 3-PS2-4 | Define a simple design problem that can be solved by applying scientific ideas about magnets. |

The following course goals derive from the 2010 Connecticut Core Standards.

ELA-Literacy:

- | | |
|-------------------------|---|
| CCS.ELA-Literacy.RI.3.1 | Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
<i>(3-PS2-1), (3-PS2-3)</i> |
| CCS.ELA-Literacy.RI.3.3 | Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. <i>(3-PS2-3)</i> |

CCS.ELA-Literacy.RI.3.8	Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence). <i>(3-PS2-3)</i>
CCS.ELA-Literacy.W.3.7	Conduct short research projects that build knowledge about a topic. <i>(3-PS2-1),(3-PS2-2)</i>
CCS.ELA-Literacy.W.3.8	Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories. <i>(3-PS2-1),(3-PS2-2)</i> .
CCS.ELA-Literacy.W.2.8	Recall information from experiences or gather information from provided sources to answer a question. <i>(2-ESS1-1),(2-ESS2-3)</i>
CCS.ELA-Literacy.SL.2.2	Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. <i>(2-ESS1-1)</i>
CCS.ELA-Literacy.SL.3.3	Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. <i>(3-PS2-3)</i>

Mathematics:

CCS.Mathematics.MP.2	Reason abstractly and quantitatively. <i>(3-PS2-1)</i>
CCS.Mathematics.MP.5	Use appropriate tools strategically. <i>(3-PS2-1)</i>
CCS.Mathematics 3.MD.A.2	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. <i>(3-PS2-1)</i>

The following standards derive from the 2013 Next-Generation Science (NGSS) Elementary School Engineering Design Standards.

NGSS.3-5-ETS1-2:	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
------------------	---

BUNDLE 2: Motion and Stability: Forces and Interactions

<u>Science & Engineering Practices</u>	<u>Disciplinary Core Ideas</u>	<u>Crosscutting Concepts</u>
<u>Asking Questions and Defining Problems</u> - Ask questions that can be investigated based on patterns such as cause and effect relationships. (3-PS2-3) - Define a simple problem that can be solved through the development of a new or improved object or tool. (3-PS2-4) <u>Planning and Carrying Out Investigations</u> - 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. (3-PS2-1) - 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. (3-PS2-2)	<u>PS2.A: Forces and Motion</u> - 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. (3-PS2-1) - 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. (3-PS2-2) <u>PS2.B: Types of Interactions</u> - Objects in contact exert forces on each other. (3-PS2-1) - 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. (3-PS2-3), (3-PS2-4)	<u>Patterns</u> - Patterns of change can be used to make predictions. (3-PS2-2) <u>Cause and Effect</u> - Cause and effect relationships are routinely identified. (3-PS2-1) - Cause and effect relationships are routinely identified, tested, and used to explain change. (3-PS2-3)

Unit Essential Questions:

- What are the fundamental forces and interactions that govern motion and impact objects in our everyday lives?
- How do Newton's three laws of motion serve as a framework for understanding physical science concepts related to forces and interactions?

- In what ways can balanced and unbalanced forces be identified, manipulated, and utilized to determine mass using tools like a beam balance?
- How does gravity play a crucial role in shaping our understanding of inertia, and how do forces such as gravity and friction, in combination with mass, influence the movement of objects?
- What role does magnetism play in causing motion, and how can students identify, explain, and manipulate magnetic forces, polarity, attraction, and repulsion?
- How do real-world phenomena connect with the concepts of forces, gravity, and magnetism explored in the unit?
- How does gravity, magnetism, friction, mass, and distance, influence and shape the interactions and movement of objects?

Scope and Sequence of Bundle 2:

Lesson 1: Balanced Forces

Lesson 2: Unbalanced Forces

Lesson 3: Changes in Motion

Lesson 4: Magnetism and Electricity

Lesson 5: Magnetic Solutions

Phenomenon: All motion relies on the interactions of forces. Depending on the forces at work on an object, it may start, stop, change direction, or change speed. The mass of the object and the strength of the forces at work affect the resulting motion of the object. The anchoring phenomenon for this unit is recognizing the interactions between forces at an amusement park.

Essential/Focus questions:

- How can we use a balance to estimate mass?
- How does gravity affect balance?
- What is inertia?
- How does inertia affect the motion of an object?
- Why does friction slow movement?
- How does force affect the motion of an object?
- How does mass affect the motion of an object?
- How can I increase magnetic force?
- Are all metals magnetic?
- What is a magnetic field and how can we see it?
- How does the shape of a magnet affect its magnetic forces?
- How do electric forces compare to magnetic forces?
- Can you illustrate different forces and interactions?
- Can you achieve the project goal by designing a model using magnets?

Academic Vocabulary:

accelerate, attract, balance, balanced forces, charge, decrease, distance, equal, even, force, friction, fulcrum, gram, gravity, increase, inertia, Isaac Newton, level, load, magnet, magnetic field,

magnetism, mass, motion, newton, repel, scale, speed, spring scale, static electricity, strength, unbalanced forces

Assured Assessments

Formative/Skills:

- Student Investigation Sheets
- Science Notebook Entries
- Whole group check-in discussions
- Monitoring during Turn and Talk
- Student responses during class discussions
- Review students' questions about the investigative phenomenon from the beginning of the lesson.
- Tell Me More Extension - responses

Summative/Content:

- Lesson 1 Snapshot: Gravity and Balance
- Lesson 2 Snapshot: Unbalanced Forces and Inertial
- Lesson 3 Snapshot: Mass, Force, and Inertia
- Lesson 4 Snapshot: Magnetism and Electricity

Resources:

Core

- Building Blocks of Science® 3D:Earth Materials (©2019) Carolina Biological Supply Company. Burlington, NC.
- Building Blocks of Science Literacy Series™: Earth Materials. Carolina Biological Supply Company. Print.

Supplemental

- Online resources will be listed with lesson outlines on "Pacing Chart".
- Classroom and Learning Commons content related libraries

Time Allotment

- Bundle 2: Earth's Systems: Processes that Shape the Earth: Earth Materials- Trimester 2

BUNDLE 3:

Ecosystems and Heredity

Unit Overview:

In this unit, students will be introduced to life cycles, inherited and acquired traits, adaptations, and the fossil record and how all of those things impact the diversity of life on Earth. Students begin by drawing upon previous knowledge to document what they know about the components of ecosystems. They are introduced to life cycles by setting up habitats for Triops® and Wisconsin Fast Plants® by beginning unit-long observations of these organisms. Students further explore growth and development by examining some of the inherited and acquired traits that they possess and evaluating trait variations in their plants, their Triops, and other organisms.

Students discuss behavioral and physical adaptations, and they investigate physical adaptations by comparing model bird beaks to the types of food birds can obtain. Students build on their knowledge of adaptations to describe the benefits of camouflage in predator–prey relationships, and they observe how variations in adaptations can impact an organism’s survival. Students investigate the effect of the environment on the life cycles of organisms by setting up a second plant growing system and withholding one important plant need. The experimental system is compared with students’ original growing systems, and students analyze how environmental changes can impact various ecosystems, and use fossil structures and data to determine how organisms and the environments they lived in change over time. The culminating unit activity is a STEM activity which

In the culminating lesson, students discuss how humans depend on and impact ecosystems. Students work in groups to analyze the ways that an environmental problem could affect the plants and animals in an ecosystem. They evaluate a proposed solution and determine whether the solution helps solve the environmental problem or harms the ecosystem by introducing additional changes with negative impacts.

Unit Goals:

- | | |
|---------|--|
| 3-LS1-1 | Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death |
| 3-LS2-1 | Construct an argument that some animals form groups that help members survive. |
| 3-LS3-1 | 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. |
| 3-LS3-2 | Use evidence to support the explanation that traits can be influenced by the environment. |

- 3-LS4-1 Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.
- 3-LS4-2 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.
- 3-LS4-3 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.
- 3-LS4-4 Make a claim 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

The following course goals derive from the 2010 Connecticut Core Standards.

ELA-Literacy

- CCS.ELA-Literacy.R.I. 3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
(3-LS2-1)
Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
(3-LS3-1),(3-LS3-2)
Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
(3-LS4-1),(3-LS4-2),(3-LS4-3) (3-LS4-4)
- CCS.ELA-Literacy.R.I. 3.2 Determine the main idea of a text; recount the key details and explain how they support the main idea. *(3-LS3-1),(3-LS3-2)*
Determine the main idea of a text; recount the key details and explain how they support the main idea.
(3-LS4-1),(3-LS4-2),(3-LS4-3),(3LS4-4)
- CCS.ELA-Literacy.R.I. 3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. *(3-LS2-1)*
Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. *(3-LS3-1),(3-LS3-2)*
Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. *(3-LS4-1),(3-LS4-2),(3-LS4-3),(3-LS4-4)*

- CCS.ELA-Literacy.R.I. 3.7 Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). *(3-LS1-1)*
- CCS.ELA-Literacy.W.3.1 Write opinion pieces on topics or texts, supporting a point of view with reasons. *(3-LS2-1)*
- CCS.ELA-Literacy.W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly. *(3-LS3-1), (3-LS3-2)*
Write informative/explanatory texts to examine a topic and convey ideas and information clearly. *(3-LS4-1), (3-LS4-2), (3-LS4-3), (3-LS4-4)*
- CCS.ELA-Literacy.W.3.9 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories. *(3-LS4-1)*
- CCS.ELA-Literacy.S.L.3.4 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace. *(3-LS3-1), (3-LS3-2)*
Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace. *(3-LS4-2), (3-LS4-3), (3-LS4-4)*
- CCS.ELA-Literacy.S.L.3.5 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. *(3-LS1-1)*

Mathematics

- CCS.Mathematics.MP.2 Reason abstractly and quantitatively. *(3-LS3-1), (3-LS3-2), (3-LS4-1), (3-LS4-2), (3-LS4-3), (3-LS4-4)*
- CCS.Mathematics.MP.4 Model with mathematics. *(3-LS1-1), (3-LS2-1), (3-LS3-1), (3-LS3-2), (3-LS4-1), (3-LS4-2), (3-LS4-3), (3-LS4-4)*
- CCS.Mathematics.MP.5 Use appropriate tools strategically. *(3-LS4-1)*
- CCS.Mathematics.3.NBT Number and Operations in Base Ten *(3-LS1-1), (3-LS2-1)*
- CCS.Mathematics.3.NF Number and Operations—Fractions *(3-LS1-1)*
- CCS.Mathematics.3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by

making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters. (3-LS3-1), (3-LS3-2), (3-LS4-1) (3-LS4-2), (3-LS4-3)

The following standards derive from the 2013 Next-Generation Science (NGSS) Elementary School Engineering Design Standards.

NGSS.3-5-ETS1-2: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

BUNDLE 3: Ecosystems and Heredity

<u>Science & Engineering Practices</u>	<u>Disciplinary Core Ideas</u>	<u>Crosscutting Concepts</u>
<u>Developing and Using Models</u> - Develop models to describe phenomena. (3-LS1-1) <u>Engaging in Argument from Evidence</u> - Construct an argument with evidence, data, and/or a model. (3-LS2-1) <u>Analyzing and Interpreting Data</u> - Analyze and interpret data to make sense of phenomena using logical reasoning. (3-LS3-1), (3-LS4-1) <u>Constructing Explanations and Designing Solutions</u> - Construct an argument with evidence. (3-LS4-3) - Use evidence (e.g., observations, patterns) to support an explanation. (3-LS3-2), (3-LS4-2) - 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. (3-LS4-4)	<u>LS1.B: Growth and Development of Organisms</u> - Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. (3-LS1-1) <u>LS2.D: Social Interactions and Group Behavior</u> - 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 (3-LS2-1) <u>LS3.A: Inheritance of Traits</u> - Many characteristics of organisms are inherited from their parents. (3-LS3-1) - Other characteristics result from individuals' interactions with the environment, which can range from diet to learning. Many characteristics involve both inheritance and environment. (3-LS3-2) <u>LS3.B: Variation of Traits</u> - Different organisms vary in how they look and function because they have different	<u>Patterns</u> - Patterns of change can be used to make predictions. (3-LS1-1) - Similarities and differences in patterns can be used to sort and classify natural phenomena. (3-LS3-1) <u>Cause and Effect</u> - Cause and effect relationships are routinely identified and used to explain change. (3-LS2-1), (3-LS4-2), (3-LS4-3) - Cause and effect relationships are routinely identified and used to explain change. (3-LS3-2) <u>Scale, Proportion, and Quantity</u> - Observable phenomena exist from very short to very long time periods. (3-LS4-1) <u>Systems and System Models</u> - A system can be described in terms of its components and their interactions. (3-LS4-4)

	inherited information. (3-LS3-1) • The environment also affects the traits that an organism develops. (3-LS3-2) <u>LS2.C: Ecosystem Dynamics, Functioning, and Resilience</u> • 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. (secondary to 3-LS4-4) <u>LS4.A: Evidence of Common Ancestry and Diversity</u> • Some kinds of plants and animals that once lived on Earth are no longer found anywhere. (3-LS4-1) • Fossils provide evidence about the types of organisms that lived long ago and also about the nature of their environments. (3-LS4-1) <u>LS4.B: Natural Selection</u> • Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing. (3-LS4-2) <u>LS4.C: Adaptation</u> • For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all. (3-LS4-3) <u>LS4.D: Biodiversity and Humans</u> • Populations live in a variety of habitats, and change in those habitats affects the	
--	--	--

	organisms living there. (3-LS4-4)	
--	--------------------------------------	--

Unit Essential Questions:

- What role do organisms in local ecosystems play in providing essential resources such as food, shelter, and oxygen for human life?
- How do life cycles, inherited traits, and acquired traits contribute to the diversity of life on Earth, and how can they be observed and studied?
- What are the behavioral and physical adaptations that organisms develop for survival, and how do variations in these adaptations impact an organism's ability to thrive in its environment?
- In what ways do environmental changes affect the life cycles of organisms, and how can these changes impact various ecosystems?
- How does the fossil record provide insights into the historical changes in organisms and the environments they inhabited, and what can be learned from this data?
- How do humans depend on ecosystems, and what are the potential impacts of human activities on these ecosystems?
- How can students analyze and evaluate proposed solutions to environmental problems, considering their potential effects on plants, animals, and overall ecosystem health?

Scope and Sequence of Bundle 3:

- Lesson 1: Life in Ecosystems
- Lesson 2: Inheritance and Variation of Traits
- Lesson 3: Adaptations
- Lesson 4: Environmental Influences
- Lesson 5: Ecosystems, Humans, and Biodiversity

Phenomenon: Earth is a very special place and is the only planet that has been found to support life. Have you ever stopped to consider the sheer number of organisms that surround us in our daily interactions? As students travel to school, play on the playground, or participate in a school fire drill, they are observing and sharing space with many of the different organisms that live in the local ecosystem. The anchoring phenomenon for *Life in Ecosystems* is recognizing the amazing diversity of life in the ecosystems we live in.

Focus questions

- What patterns exist as organisms grow and develop?
- Why do some animals live in groups?
- What is a trait, and where do I get it from?
- Why don't all organisms look exactly alike?
- How do adaptations help organisms survive?
- How does the structure of a bird's beak help it survive?
- How can camouflage be beneficial in a predator-prey relationship?

- How can the environment influence traits?
- What do fossils tell us about past and present organisms?
- How do we depend on and impact ecosystems?
- Does the solution help the problem impacting an ecosystem?

Academic Vocabulary:

acquired trait, adaptation, ancestor, behavioral adaptation, camouflage, community, ecologist, ecology, ecosystem, environment, extinct, fossil, geologic time scale, germinating, habitat, influence, inherited trait, larvae, life cycle, offspring, organism, paleontologist, physical adaptation, population, predator, prey, reproduce, species, survive, trait, variation,

Assured Assessments

Formative/Skills:

- Student Investigation Sheets
- Science Notebook Entries
- Whole group check-in discussions
- Monitoring during Turn and Talk
- Student responses during class discussions
- Review students' questions about the investigative phenomenon from the beginning of the lesson.
- Tell Me More Extension - responses

Summative/Content:

- Lesson 2 Snapshot- Inheritance and Variation of Traits.
- Lesson 3 Snapshot- Adaptations

Resources:

Core

- Building Blocks of Science® 3D: Life in Ecosystems (©2019) Carolina Biological Supply Company. Burlington, NC.
- Building Blocks of Science Literacy Series™: Life in Ecosystems. Carolina Biological Supply Company. Print.

Supplemental

- Online resources will be listed with lesson outlines on “Pacing Chart”.
- Classroom and Learning Commons content related libraries

Time Allotment

- Bundle 3: Ecosystems and Heredity- Trimester 3