

Estell Manor School District

Science Curriculum



Grade 1

Philosophy

The performance expectations in first grade help students formulate answers to questions such as: “What happens when materials vibrate? What happens when there is no light? Students are expected to develop understanding of the relationship between sound and vibrating materials as well as between the availability of light and ability to see objects. The idea that light travels from place to place can be understood by students at this level through determining the effect of placing objects made with different materials in the path of a beam of light.

Pacing Guide

Unit	Time Frame
Unit 1: Engineering and Technology	15-20 Days
Unit 2: Sound	25-35 Days
Unit 3: Light	25-35 Days
Unit 4: Plant and Animal Structures	30-40 Days
Unit 5: Living Things and Their Young	30-40 Days
Unit 6: Objects and Patterns in the Sky	25-30 Days

Core Materials: NJSL-Science Model Curriculum Grade 1

Unit 1 will address the following 21st Century Life and Careers skills:

21st Century Themes		Career Ready Practices	
9.1	Personal Financial Literacy	√	CRP1. Act as a responsible and contributing citizen and employee.
	Income and Careers		CRP2. Apply appropriate academic and technical skills.
	Money Management		CRP3. Attend to personal health and financial well-being.
	Credit and Debt Management	√	CRP4. Communicate clearly and effectively and with reason.
	Planning, Saving, and Investing		CRP5. Consider the environmental, social and economic impacts of decisions.
	Becoming a Critical Consumer	√	CRP6. Demonstrate creativity and innovation.
	Civic Financial Responsibility		CRP7. Employ valid and reliable research strategies.

	Insuring and Protecting		√	CRP8.Utilize critical thinking to make sense of problems and persevere in solving them.
9.2	Career Awareness, Exploration, and Preparation		√	CRP9. Model integrity, ethical leadership and effective management.
X	Career Awareness			CRP10. Plan education and career paths aligned to personal goals.
X	Career Exploration			CRP11. Use technology to enhance productivity.
X	Career Preparation			CRP12. Work productively in teams while using cultural global competence.

Technology

	8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
	A. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations

	B. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
	C. Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
	E: Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.
	F: Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Unit 1: Science / 1st Grade Engineering and Technology	Duration: 15-20 Days
Standards: 1-PS4-1: Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate 1-PS4-2: Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated 1-PS4-3: Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light 1-PS4-4: Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating	

over a distance Unit Summary: Students will be exposed to engineering and technology. This unit has two lessons attached to it and should be completed in about 15-20 Days. They will be able to define and identify problems, define and identify examples of technology, describe how people understand problems and use technology to solve problems, and explore and apply a design process
NJ Student Learning Standards: Interdisciplinary Skills Primary Interdisciplinary Connections: Infused within the unit are connections to the NJSLs for Mathematics, Language Arts SL.1.1.A - Follow agreed-upon norms for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). SL.1.1.B - Build on others' talk in conversations by responding to the comments of others through multiple exchanges. SL.1.1.C - Ask questions to clear up any confusion about the topics and texts under discussion. SL.1.3 - Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood. Technology 8.1.2. A.5 - Demonstrate the ability to navigate in developmentally appropriate virtual environments. 21st Century Life and Career ● CRP1. Act as a responsible and contributing citizen and employee. ● CRP4. Communicate clearly and effectively and with reason. ● CRP6. Demonstrate creativity and innovation. ● CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

● CRP9. Model integrity, ethical leadership and effective management.	
Essential Understanding	Essential Questions
<i>Students will understand that...</i> ● Engineers use technology in different ways ● Engineers solve different problems	● How do engineers use technology? ● How can we solve a problem?
Evidence of Student Learning	
Performance Tasks: <i>Activities to provide evidence for student learning of content and cognitive skills.</i>	Other Assessments

● Pocket-Lock It - Design a way to keep things from falling out of your pocket	Formative Assessments ● Teacher Observations ● Interactive Notebook ● Performance Assessments ● Exit Slips ● Response Cards ● Graphic Organizers Summative Assessments ● Tests ● Quizzes ● Summary ● Labs ● Hands-On Activities Benchmark Assessment ● Beginning of the Year Benchmark ● Mid-Year Benchmark ● End of the Year Benchmark Alternative Assessments ● Teacher Observations ● Group Work/Class Work
Vocabulary engineer/problem/solution/technology/design process	

Knowledge and Skills	
Content	Skills
<i>Students will know...</i> • How engineers use technology • How engineers solve problems	<i>Students will be able to...</i> • Define and identify problems • Define and identify examples of technology • Describe how people understand problems and use technology to solve problems • Explore and apply a design process
Instructional Plan	
Suggested Activities	Resources
- Keep headphones from tangling - Prevent a cat from scratching furniture	- www.brainpopjr.com - www.mysteryscience.com - https://www.teachengineering.org/ - www.readworks.org (leveled texts) - www.generationgenius.com
Literature	
- Leveled texts (Readworks.org), literature from ELA program	

Websites	
	- www.brainpopjr.com - www.mysteryscience.com - https://www.teachengineering.org/ - www.readworks.org (leveled texts) - www.generationgenius.com
Modifications	
Special Education Students / 504 <i>(These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each student's IEP or 504 plan)</i> reduce/revise assignments & assignments as per IEP; provide individual and small group assistance; notes, and study guides; provide background knowledge. English Language learners: <i>use consistent, simplified language; provide bilingual when appropriate; provide cooperative learning opportunities, use modeling, visual aids, and manipulatives.</i> Students at Risk of Failure: <i>Provide less distracting seating if possible, frequent check-in by teacher, study guides, notes, etc.</i> Gifted Students: <i>provide additional enrichment activity involving demonstrating knowledge, deeper research to answer a higher level questions, or complimentary assignment.</i> <i>*For additional modifications and accommodations, see below</i>	
English Language Learners	
● Pre Teach vocabulary using visuals and gestures ● Chunk texts ● Graphic organizers	

● Labeled pictures related to concept
Gifted and Talented ● Higher level questioning ● Students design questions ● Higher level texts ● Choice of activity to extend learning ● Expose to sophisticated vocabulary
Basic Skills/Economically Disadvantaged/Students at Risk ● Provide small group instructions ● Pre-teach concepts ● Build background knowledge ● Daily Log
Special Education/504 ● Follow all IEP modifications/504 plan ● Provide student with specific graphic organizers to help them note take about the different levels of government ● Provide opportunity to draw solution strategies ● Provide students with notes from the lesson and discussions ● Labeled pictures related to concepts

Unit 2 will address the following 21st Century Life and Careers skills:

Check all that apply 21st Century Themes		Career Ready Practices	
9.1	Personal Financial Literacy		CRP1. Act as a responsible and contributing citizen and employee.
	Income and Careers	√	CRP2. Apply appropriate academic and technical skills.
	Money Management		CRP3. Attend to personal health and financial well-being.
	Credit and Debt Management	√	CRP4. Communicate clearly and effectively and with reason.
	Planning, Saving, and Investing		CRP5. Consider the environmental, social and economic impacts of decisions.
	Becoming a Critical Consumer	√	CRP6. Demonstrate creativity and innovation.
	Civic Financial Responsibility		CRP7. Employ valid and reliable research strategies.

	Insuring and Protecting		√	CRP8.Utilize critical thinking to make sense of problems and persevere in solving them.
9.2	Career Awareness, Exploration, and Preparation			CRP9. Model integrity, ethical leadership and effective management.
X	Career Awareness			CRP10. Plan education and career paths aligned to personal goals.
X	Career Exploration			CRP11. Use technology to enhance productivity.
X	Career Preparation		√	CRP12. Work productively in teams while using cultural global competence.

Technology

	TECHNOLOGY STANDARDS 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
	A. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations
	B. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
	C. Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
	D. Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
	E: Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.
	F: Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Unit 2 Disciplinary Core Ideas Chart

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Planning and Carrying Out Investigations Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. Plan and conduct investigations collaboratively to produce data to serve as the basis for evidence to answer a question. (1-PS4-1),(1-PS4-3) Constructing Explanations and Designing Solutions Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions. Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (1- PS4-2) Use tools and materials provided to design a device that solves a specific problem. (1-PS4-4) ----- -----Connections to Nature of Science Scientific Investigations Use a Variety of	PS4.A: Wave Properties Sound can make matter vibrate, and vibrating matter can make sound. (1-PS4-1) PS4.B: Electromagnetic Radiation Objects can be seen if light is available to illuminate them or if they give off their own light. (1-PS4-2) Some materials allow light to pass through them, others allow only some light through and others block all the light and create a dark shadow on any surface beyond them, where the light cannot reach. Mirrors can be used to redirect a light beam. (Boundary: The idea that light travels from place to place is developed through experiences with light sources, mirrors, and shadows, but no attempt is made to discuss the speed of light.) (1- PS4-3) PS4.C: Information Technologies and Instrumentation People also use a variety of devices to communicate (send and receive information) over long distances. (1- PS4-4)	Cause and Effect Simple tests can be designed to gather evidence to support or refute student ideas about causes. (1-PS4-1),(1-PS4-2),(1-PS4-3) ----- ----- Connections to Engineering, Technology, and Applications of Science Influence of Engineering, Technology, and Science, on Society and the Natural World People depend on various technologies in their lives; human life would be very different without technology. (1-PS4-4)

Methods Science investigations begin with a question. (1-PS4-1) Scientists use different ways to study the world. (1-PS4-1)		
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Unit 2: Science/1st Grade	Duration: 25-35 Days
Sound	
Standards:	1-PS4-1 Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate 1-PS4-4 Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance
Unit Summary: Students will be exposed to sound. This unit has two lessons attached to it and should be completed in about 25-35 Days. They will be able to explore relationships, compare and contrast, investigate, identify, and explore how technology is used.	
NJ Student Learning Standards	
Interdisciplinary Skills	
Primary Interdisciplinary Connections: Infused within the unit are connections to the NJSLs for Mathematics, Language Arts SL.1.1.A - Follow agreed-upon norms for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). SL.1.1.B - Build on others' talk in conversations by responding to the comments of others through multiple exchanges. SL.1.1.C - Ask questions to clear up any confusion about the topics and texts under discussion. SL.1.3 - Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	

Technology

8.1.2. A.5 - Demonstrate the ability to navigate in developmentally appropriate virtual environments.

21st Century Life and Careers Skills

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP12. Work productively in teams while using cultural global competence.
- 9.2 Career Awareness, Exploration, and Preparation- This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.

Essential Understandings	Essential Questions
<i>Students will understand that...</i> ● Sound is a kind of energy you hear when something vibrates ● You can share information using sound	● What is sound? ● How can we communicate with sound?
Evidence of Student Learning	
Performance Tasks: <i>Activities to provide evidence for student</i>	

<i>learning of content and cognitive skills.</i>	Other Assessments
● Explore sound - humming, playing kazoos, and play music through a speaker to make a connection between vibrations and sound	Formative Assessments ● Teacher Observations ● Interactive Notebook ● Performance Assessments ● Exit Slips ● Response Cards ● Graphic Organizers Summative Assessments ● Tests ● Quizzes ● Summary ● Labs ● Hands-On Activities Benchmark Assessment ● Beginning of the Year Benchmark ● Mid-Year Benchmark ● End of the Year Benchmark Alternative Assessments ● Teacher Observations ● Participation Rubric

	● Teacher Observations ● Group Work/Class Work
Vocabulary sound/vibrate/volume/pitch/communicate	
Knowledge and Skills	
Content	Skills
<i>Students will know...</i> ● What sound is ● How you can communicate with sound	<i>Students will be able to ...</i> ● Explore the relationship between sound and vibration ● Compare the volume and the pitch of different sounds ● Investigate how sound makes materials move ● Identify ways people communicate using sound ● Explore how technology is used to help people communicate with sound over distances
Instructional Plan	
Suggested Activities	Resources
- Draw pictures of things that make light or sound. - Take a listening walk in and around the building. - Make a kazoo or paper cup telephone. -	- www.brainpopjr.com - www.mysteryscience.com - https://www.teachengineering.org/ - www.readworks.org (leveled texts) - www.generationgenius.com

- Make instruments out of recyclable items. - Use tuning forks to make sounds of various pitches. - Make something move with sound (rice on a bowl) - Blow a whistle and then create something that will amplify that sound	
Literature - Leveled texts (Readworks.org), literature from ELA program	
Websites - www.brainpopjr.com - www.mysteryscience.com - https://www.teachengineering.org/ - www.readworks.org (leveled texts) - www.generationgenius.com	
Modifications	

Special Education Students / 504 *(These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each student's IEP or 504 plan)* reduce/revise assignments & assignments as per IEP; provide individual and small group assistance; notes, and study guides; provide background knowledge.

English Language learners: *use consistent, simplified language; provide bilingual when appropriate; provide cooperative learning opportunities, use modeling, visual aids, and manipulatives.*

Students at Risk of Failure: *Provide less distracting seating if possible, frequent check-in by teacher, study guides, notes, etc.*

Gifted Students: *provide additional enrichment activity involving demonstrating knowledge, deeper research to answer a higher level questions, or complimentary assignment.*

Suggested Options for Differentiation

English Language Learners

- Preview lessons
- Labeled pictures
- Using tactile objects to relate to key ideas
- Build background knowledge
- Use visuals

Gifted and Talented

- Higher level questioning
- Students design questions
- Differentiated Assignments
- Choice board to extend learning
- Complete different homework problems than peers

Basic Skills/Economically Disadvantaged/Students at Risk

- Highlight key words
- Frequent breaks

- Preview lessons
- Graphic organizers

Special Education/504

- Provide differentiated instruction as needed
- Follow all IEP modifications/504 plan
- Provide students with a study guide before a test or quiz to help them prepare
- Pre-teach and model strategies to learn and practice new vocabulary words pertaining to the unit
- Modified assignments

Unit 3 will address the following 21st Century Life and Careers skills:

21st Century Themes		Career Ready Practices	
9.1	Personal Financial Literacy		CRP1. Act as a responsible and contributing citizen and employee.
	Income and Careers	√	CRP2. Apply appropriate academic and technical skills.
	Money Management		CRP3. Attend to personal health and financial well-being.
	Credit and Debt Management	√	CRP4. Communicate clearly and effectively and with reason.
	Planning, Saving, and Investing		CRP5. Consider the environmental, social and economic impacts of decisions.
	Becoming a Critical Consumer	√	CRP6. Demonstrate creativity and innovation.
	Civic Financial Responsibility		CRP7. Employ valid and reliable research strategies.

	Insuring and Protecting		√	CRP8.Utilize critical thinking to make sense of problems and persevere in solving them.
9.2	Career Awareness, Exploration, and Preparation			CRP9. Model integrity, ethical leadership and effective management.
X	Career Awareness			CRP10. Plan education and career paths aligned to personal goals.
X	Career Exploration			CRP11. Use technology to enhance productivity.
X	Career Preparation		√	CRP12. Work productively in teams while using cultural global competence.

Technology

	8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
	A. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations
	B. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
	C. Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
	D. Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
	E: Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.
	F: Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Unit 3 Disciplinary Core Ideas Chart

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Planning and Carrying Out Investigations	PS4.A: Wave Properties Sound can make	Cause and Effect Simple tests can be

Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. Plan and conduct investigations collaboratively to produce data to serve as the basis for evidence to answer a question. (1-PS4-1),(1-PS4-3) Constructing Explanations and Designing Solutions Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions. Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (1- PS4-2) Use tools and materials provided to design a device that solves a specific problem. (1-PS4-4) ----- -----Connections to Nature of Science Scientific Investigations Use a Variety of Methods Science investigations begin with a question. (1-PS4-1) Scientists use different ways to study the world. (1-PS4-1)	matter vibrate, and vibrating matter can make sound. (1-PS4-1) PS4.B: Electromagnetic Radiation Objects can be seen if light is available to illuminate them or if they give off their own light. (1-PS4-2) Some materials allow light to pass through them, others allow only some light through and others block all the light and create a dark shadow on any surface beyond them, where the light cannot reach. Mirrors can be used to redirect a light beam. (Boundary: The idea that light travels from place to place is developed through experiences with light sources, mirrors, and shadows, but no attempt is made to discuss the speed of light.) (1- PS4-3) PS4.C: Information Technologies and Instrumentation People also use a variety of devices to communicate (send and receive information) over long distances. (1- PS4-4)	designed to gather evidence to support or refute student ideas about causes. (1-PS4-1),(1-PS4-2),(1-PS4-3) ----- ----- Connections to Engineering, Technology, and Applications of Science Influence of Engineering, Technology, and Science, on Society and the Natural World People depend on various technologies in their lives; human life would be very different without technology. (1-PS4-4)
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Unit 3: Science/1st Grade Light	Duration: 25-35 Days
Standards: 1-PS4-2 Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated 1-PS4-3 Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light 1-PS4-4 Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance	
Unit Summary: Students will be exposed to light. This unit has three lessons attached to it and should be completed in about 25-35 Days. They will be able to provide evidence based on observations, explain using evidence, explain and demonstrate, observe, and explore.	
NJ Student Learning Standards	
Interdisciplinary Skills Primary Interdisciplinary Connections: Infused within the unit are connections to the NJSLs for Mathematics, Language Arts SL.1.1.A - Follow agreed-upon norms for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). SL.1.1.B - Build on others' talk in conversations by responding to the comments of others through multiple exchanges. SL.1.1.C - Ask questions to clear up any confusion about the topics and texts under discussion. SL.1.3 - Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood. Technology	

8.1.2. A.5 - Demonstrate the ability to navigate in developmentally appropriate virtual environments.

21st Century Life and Career

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP12. Work productively in teams while using cultural global competence.
- 9.2 Career Awareness, Exploration, and Preparation- This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.

Essential Understandings

Students will understand that...

- Light helps us see
- Materials block light
- Light travels

Essential Questions

- How does light help us see?
- How do materials block light?
- How does light travel?

Evidence of Student Learning

Performance Tasks: *Activities to provide evidence for student learning of content and cognitive skills.*

- Make a rainbow using water, a glass, white paper, and a bright light

Other Assessments

Formative Assessments

- Teacher Observations
- Interactive Notebook
- Performance Assessments

	● Exit Slips ● Response Cards ● Graphic Organizers Summative Assessments ● Tests ● Quizzes ● Summary ● Labs ● Hands-On Activities Benchmark Assessment ● Beginning of the Year Benchmark ● Mid-Year Benchmark ● End of the Year Benchmark Alternative Assessments ● Teacher Observations ● Group Work/Class Work
Vocabulary light/shadow/reflect	

Knowledge and Skills	
Content	Skills
<i>Students will know...</i> • How light helps them see • How materials block light • How light travels	<i>Students will be able to ...</i> • Provide evidence, based on observations, of the relationship between the amount of light and how an object is seen • Explain, using evidence based on observations, why objects that give off their own light can be seen in the dark • Explain and demonstrate how different materials can allow different amounts of light to pass through • Explain how shadows are made • Observe that light shines in a straight line until it hits an object • Explore how reflection can be used to redirect light • Explore how technology is used to send and receive information using light
Instructional Plan	
Suggested Activities	Resources
- Draw pictures of things that make light or sound - Use flashlights to reflect light off of mirrors	- www.brainpopjr.com

- Use flashlights to shine on various mediums to test for transparency - Use flashlights to make shadow puppets	- www.mysteryscience.com - https://www.teachengineering.org/ - www.readworks.org (leveled texts) - www.generationgenius.com
Literature - Leveled texts (readworks.org), literature from ELA program	
Websites - www.brainpopjr.com - www.mysteryscience.com - https://www.teachengineering.org/ - www.readworks.org (leveled texts) - www.generationgenius.com	
Modifications Special Education Students / 504 <i>(These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each student's IEP or 504 plan)</i> reduce/revise assignments & assignments as per IEP; provide individual and small group assistance; notes, and study guides; provide background knowledge. English Language learners: <i>use consistent, simplified language; provide bilingual when appropriate; provide cooperative learning opportunities, use modeling, visual aids, and manipulatives.</i> Students at Risk of Failure: <i>Provide less distracting seating if possible, frequent check-in by teacher, study guides, notes, etc.</i>	

Gifted Students: <i>provide additional enrichment activity involving demonstrating knowledge, deeper research to answer a higher level questions, or complimentary assignment.</i>
Suggested Options for Differentiation
English Language Learners • Use cooperative learning • Demonstrations • Partner with a strong English speaking partner • Extended time • Limit number of questions • Speak slowly • Chunk information
Gifted and Talented • Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles) • Provide options, alternatives and choices to differentiate and broaden the curriculum • Organize and offer flexible small group learning activities • Differentiate Assignments • Complete different homework assignments than peers
Basic Skills/Economically Disadvantaged/Students at Risk • Pre-teach vocabulary using visuals and gestures • Chunk texts • Highlight key words • Frequent breaks
Modifications/Accommodations
Special Education/504

- Provide differentiated instruction as needed
- Follow all IEP modifications/504 plan
- Review concepts and important vocabulary from previous lessons before teaching new information
- Check for student understanding often with formal, informal, verbal, and nonverbal measures
- Progress Monitoring

Unit 4 will address the following 21st Century Life and Careers skills:

21st Century Themes		Career Ready Practices	
9.1	Personal Financial Literacy		CRP1. Act as a responsible and contributing citizen and employee.
	Income and Careers		CRP2. Apply appropriate academic and technical skills.
	Money Management	√	CRP3. Attend to personal health and financial well-being.
	Credit and Debt Management	√	CRP4. Communicate clearly and effectively and with reason.
	Planning, Saving, and Investing	√	CRP5. Consider the environmental, social and economic impacts of decisions.
	Becoming a Critical Consumer		CRP6. Demonstrate creativity and innovation.
	Civic Financial Responsibility	√	CRP7. Employ valid and reliable research strategies.

	Insuring and Protecting		CRP8.Utilize critical thinking to make sense of problems and persevere in solving them.
9.2	Career Awareness, Exploration, and Preparation		CRP9. Model integrity, ethical leadership and effective management.
X	Career Awareness		CRP10. Plan education and career paths aligned to personal goals.
X	Career Exploration		CRP11. Use technology to enhance productivity.
X	Career Preparation		CRP12. Work productively in teams while using cultural global competence.

Technology

	8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
	B. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
	C. Communication and Collaboration: Students use digital media and environments to communicate and

	work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
	D. Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
	E: Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.
	F: Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Unit 4 Disciplinary Core Ideas Chart

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Constructing Explanations and Designing Solutions Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions. Use materials to design a device that solves a specific problem or a solution to a specific problem. (1-LS1-1) Obtaining, Evaluating, and Communicating Information Obtaining, evaluating, and communicating	LS1.A: Structure and Function All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1) LS1.B: Growth and Development of Organisms Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring	Patterns Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-LS1-2) Structure and Function The shape and stability of structures of natural and designed objects are related to their function(s). (1-LS1-1) ----- ----- Connections to Engineering, Technology, and Applications of Science Influence of Engineering, Technology, and Science on Society and the Natural World Every human-made product is

information in K– 2 builds on prior experiences and uses observations and texts to communicate new information. Read grade-appropriate texts and use media to obtain scientific information to determine patterns in the natural world. (1-LS1-2) ----- -----Connections to Nature of Science Scientific Knowledge is Based on Empirical Evidence Scientists look for patterns and order when making observations about the world. (1-LS1-2)	to survive. (1-LS1-2) LS1.D: Information Processing Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. (1-LS1-1)	designed by applying some knowledge of the natural world and is built using materials derived from the natural world. (1-LS1-1)
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Unit 4: Science/1st Grade Plant and Animal Structures	Duration: 30-40 Days
Unit Summary: Students will be exposed to plant and animal structures. This unit has four lessons attached to it and should be completed in about 30-40 Days. They will be able to describe, explain, relate, use evidence to describe, and use observations to design.	
Standards: 1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs	

NJ Student Learning Standards	
Interdisciplinary Skills SL.1.1.A - Follow agreed-upon norms for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). SL.1.1.B - Build on others' talk in conversations by responding to the comments of others through multiple exchanges. SL.1.1.C - Ask questions to clear up any confusion about the topics and texts under discussion. SL.1.3 - Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood. Technology 8.1.2. A.5 - Demonstrate the ability to navigate in developmentally appropriate virtual environments. 21st Century Life and Career ● CRP3. Attend to personal health and financial well-being. ● CRP4. Communicate clearly and effectively and with reason. ● CRP5. Consider the environmental, social and economic impacts of decisions. ● CRP7. Employ valid and reliable research strategies.	
<i>Students will understand that...</i> ● Certain plant parts help plants live ● Certain body parts help animals stay safe ● Certain body parts help animals meet their needs ● Plants and animals respond to their environment in different ways	● What parts help plants live? ● What body parts help animals stay safe? ● What body parts help animals meet their needs? ● How do plants and animals respond to their environment?

Evidence of Student Learning	
Performance Tasks: <i>Activities to provide evidence for student learning of content and cognitive skills.</i> ● Research a favorite animal	Other Assessments Formative Assessments ● Teacher Observations ● Interactive Notebook ● Performance Assessments ● Exit Slips ● Response Cards ● Graphic Organizers Summative Assessments ● Tests ● Quizzes ● Summary ● Labs ● Hands-On Activities Benchmark Assessment ● Beginning of the Year Benchmark ● Mid-Year Benchmark ● End of the Year Benchmark Alternative Assessments ● Teacher Observations ● Group Work/Class Work

Vocabulary	
Mimic/gills/lungs/adaptation/environment	
Knowledge and Skills	
Content	Skills
<i>Students will know....</i> • What parts help plants live • What body parts help animals stay safe • What body parts help animals meet their needs • How plants and animals respond to their environment	<i>Students will be able to ...</i> • Describe how parts of a plant help it to survive and grow • Explain how parts of an animal help it to survive and grow • Relate the shape and stability of structures to their functions • Use evidence to describe how plants and animals process and respond to information • Describe how human-made products are designed by applying knowledge of the natural world • Use observations to design a solution to a human problem by mimicking how plants use their parts to survive
Instructional Plan	
Suggested Activities	Resources
• Observe plants to design something that would keep you cool • Design a shoe to protect your feet from ice • Observe animals to design a new tool for picking up food	- www.brainpopjr.com - www.mysteryscience.com - https://www.teachengineering.org/

	- www.readworks.org (leveled texts) - www.generationgenius.com
Literature - Leveled texts (Readworks.org), literature from ELA program	
Websites - www.brainpopjr.com - www.mysteryscience.com - https://www.teachengineering.org/ - www.readworks.org (leveled texts) - www.generationgenius.com	
Modifications Special Education Students / 504 <i>(These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each student's IEP or 504 plan)</i> reduce/revise assignments & assignments as per IEP; provide individual and small group assistance; notes, and study guides; provide background knowledge. English Language learners: <i>use consistent, simplified language; provide bilingual when appropriate; provide cooperative learning opportunities, use modeling, visual aids, and manipulatives.</i> Students at Risk of Failure: <i>Provide less distracting seating if possible, frequent check-in by teacher, study guides, notes, etc.</i> Gifted Students: <i>provide additional enrichment activity involving demonstrating knowledge, deeper research to answer a higher level questions, or complimentary assignment.</i>	

Suggested Options for Differentiation	
English Language Learners	● Use visuals ● Teacher check-ins ● Provide Word Wall
Gifted and Talented	● Organize and offer flexible small group learning activities ● Teach cognitive and methodological skills ● Use centers
Basic Skills/Economically Disadvantaged/Students at Risk	● Graphic organizers ● Highlight key words ● Sentence starters
Special Education/504	● Follow all IEP modifications/504 plan ● Provide visual aids to support concepts being taught ● Use graphic organizers to help students organize important information from a lesson ● Reword Directions

Unit 5 will address the following 21st Century Life and Careers skills:

21st Century Themes		Career Ready Practices	
9.1	Personal Financial Literacy	√	CRP1. Act as a responsible and contributing citizen and employee.
	Income and Careers		CRP2. Apply appropriate academic and technical skills.
	Money Management	√	CRP3. Attend to personal health and financial well-being.
	Credit and Debt Management	√	CRP4. Communicate clearly and effectively and with reason.
	Planning, Saving, and Investing	√	CRP5. Consider the environmental, social and economic impacts of decisions.
	Becoming a Critical Consumer		CRP6. Demonstrate creativity and innovation.
	Civic Financial Responsibility	√	CRP7. Employ valid and reliable research strategies.

	Insuring and Protecting		√	CRP8.Utilize critical thinking to make sense of problems and persevere in solving them.
9.2	Career Awareness, Exploration, and Preparation			CRP9. Model integrity, ethical leadership and effective management.
X	Career Awareness			CRP10. Plan education and career paths aligned to personal goals.
X	Career Exploration			CRP11. Use technology to enhance productivity.
X	Career Preparation		√	CRP12. Work productively in teams while using cultural global competence.

Technology

	8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
	B. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
	C. Communication and Collaboration: Students use digital media and environments to communicate and

	work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
	D. Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
	E: Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.
	F: Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Unit 5 Disciplinary Core Ideas Chart

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Constructing Explanations and Designing Solutions Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions. Use materials to design a device that solves a specific problem or a solution to a specific problem. (1-LS1-1) Obtaining, Evaluating, and Communicating Information Obtaining, evaluating, and communicating	LS1.A: Structure and Function All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1) LS1.B: Growth and Development of Organisms Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring	Patterns Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-LS1-2) Structure and Function The shape and stability of structures of natural and designed objects are related to their function(s). (1-LS1-1) ----- ----- Connections to Engineering, Technology, and Applications of Science Influence of Engineering, Technology, and Science on Society and the Natural

information in K– 2 builds on prior experiences and uses observations and texts to communicate new information. Read grade-appropriate texts and use media to obtain scientific information to determine patterns in the natural world. (1-LS1-2) ----- -----Connections to Nature of Science Scientific Knowledge is Based on Empirical Evidence Scientists look for patterns and order when making observations about the world. (1-LS1-2)	to survive. (1-LS1-2) LS1.D: Information Processing Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. (1-LS1-1)	World Every human-made product is designed by applying some knowledge of the natural world and is built using materials derived from the natural world. (1-LS1-1)
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Unit 5: Science/1st Grade Living Things and Their Young	Duration: 30-40 Days
Unit Summary: Students will be exposed to living things and their young. This unit has three lessons attached to it and should be completed in about 30-40 Days. They will be able to compare and contrast, observe patterns, and describe.	
Standards: 1-LS1-2 Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive 1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents	
NJ Student Learning Standards	
Interdisciplinary Skills SL.1.1.A - Follow agreed-upon norms for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).	

SL.1.1.B - Build on others' talk in conversations by responding to the comments of others through multiple exchanges.

SL.1.1.C - Ask questions to clear up any confusion about the topics and texts under discussion.

SL.1.3 - Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

Technology

8.1.2. A.5 - Demonstrate the ability to navigate in developmentally appropriate virtual environments.

21st Century Life and Career

- CRP3. Attend to personal health and financial well-being.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP12. Work productively in teams while using cultural global competence.
- 9.2 Career Awareness, Exploration, and Preparation- This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.

Essential Understandings	Essential Questions
<i>Students will understand that...</i> ● Plants look like their parents ● Animals look like their parents ● Animals take care of their young	● How do plants look like their parents? ● How do animals look like their parents? ● How do animals take care of their young?

Evidence of Student Learning	
Performance Tasks: <i>Activities to provide evidence for student learning of content and cognitive skills.</i> • Compare animals that are wild vs animals that live with people and how they care for their young	Other Assessments Formative Assessments • Teacher Observations • Interactive Notebook • Performance Assessments • Exit Slips • Response Cards • Graphic Organizers Summative Assessments • Tests • Quizzes • Summary • Labs • Hands-On Activities Benchmark Assessment • Beginning of the Year Benchmark • Mid-Year Benchmark • End of the Year Benchmark Alternative Assessments • Teacher Observations • Participation Rubric • Teacher Observations

	• Group Work/Class Work
Vocabulary parent/offspring/trait/behavior	
Knowledge and Skills	
Content	Skills
<i>Students will know....</i> • That plants look like their parents • That animals looks like their parents • Animals take care of their young	<i>Students will be able to ...</i> • Compare young plants with parent plants • Observe patterns to explain how plants of the same kind are alike and different • Compare young animals with parent animals • Observe patterns to explain how animals of the same kind are alike and different • Describe how plants and animals respond to their environments to meet their needs • Describe how behavior patterns of parents and offspring help offspring survive
Instructional Plan	
Suggested Activities • Grow carrot tops to see how plants of the same kind are alike and different • Observe brine shrimp to see if animals of the same kind look different from each other as they grow • Research polar bears and lions to see how they learn from their parents	Resources - www.brainpopjr.com - www.newsela.com (leveled texts) - https://www.teachengineering.org/ - www.readworks.org (leveled texts)
Literature - Leveled texts (Readworks.org), literature from ELA program	

Websites - www.brainpopjr.com - www.mysteryscience.com - https://www.teachengineering.org/ - www.readworks.org (leveled texts) - www.generationgenius.com
Modifications Special Education Students / 504 <i>(These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each student's IEP or 504 plan)</i> reduce/revise assignments & assignments as per IEP; provide individual and small group assistance; notes, and study guides; provide background knowledge. English Language learners: <i>use consistent, simplified language; provide bilingual when appropriate; provide cooperative learning opportunities, use modeling, visual aids, and manipulatives.</i> Students at Risk of Failure: <i>Provide less distracting seating if possible, frequent check-in by teacher, study guides, notes, etc.</i> Gifted Students: <i>provide additional enrichment activity involving demonstrating knowledge, deeper research to answer a higher level questions, or complimentary assignment.</i>
Suggested Options for Differentiation
English Language Learners ● Plan activities using role play and drama ● Use visuals ● Limit Number of Questions ● Speak Slowly
Gifted and Talented

- Differentiate Assignments
- Differentiate Texts
- Complete Different Homework than peers

Basic Skills/Economically Disadvantaged/Students at Risk

- Graphic organizers
- Build background knowledge
- Increased parent communication

Special Education/504

- Follow all IEP modifications/504 plan
- Provide manipulatives or the opportunity to draw solution strategies
- Pre-Teach concepts
- Extended Time

Unit 6 will address the following 21st Century Life and Careers skills:

21st Century Themes		Career Ready Practices	
9.1	Personal Financial Literacy	√	CRP1. Act as a responsible and contributing citizen and employee.
	Income and Careers		CRP2. Apply appropriate academic and technical skills.
	Money Management		CRP3. Attend to personal health and financial well-being.
	Credit and Debt Management	√	CRP4. Communicate clearly and effectively and with reason.
	Planning, Saving, and Investing	√	CRP5. Consider the environmental, social and economic impacts of decisions.
	Becoming a Critical Consumer	√	CRP6. Demonstrate creativity and innovation.
	Civic Financial Responsibility		CRP7. Employ valid and reliable research strategies.

	Insuring and Protecting		√	CRP8.Utilize critical thinking to make sense of problems and persevere in solving them.
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9.2	Career Awareness, Exploration, and Preparation			CRP9. Model integrity, ethical leadership and effective management.
X	Career Awareness			CRP10. Plan education and career paths aligned to personal goals.
X	Career Exploration		√	CRP11. Use technology to enhance productivity.
X	Career Preparation			CRP12. Work productively in teams while using cultural global competence.

Technology

	8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
	A. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.
	B. Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
	C. Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
	D. Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
	E: Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.
	F: Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Unit 6 Disciplinary Core Ideas Chart

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Planning and Carrying Out Investigations Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. Make observations (firsthand or from media) to collect data that can be used to make comparisons. (1-ESS1-2) Analyzing and Interpreting Data Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations. Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (1-ESS1-1)	ESS1.A: The Universe and its Stars Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted. (1-ESS1-1) ESS1.B: Earth and the Solar System Seasonal patterns of sunrise and sunset can be observed, described, and predicted. (1-ESS1-2)	Patterns Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-ESS1-1),(1-ESS1-2) ----- ----- Connections to Nature of Science Scientific Knowledge Assumes an Order and Consistency in Natural Systems Science assumes natural events happen today as they happened in the past. (1-ESS1-1) Many events are repeated. (1-ESS1-1)

Unit 6: Science/1st Grade Objects and Patterns in the Sky	Duration: 25-30 Days
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Unit Summary: Students will be exposed to an introduction of earth's resources. This unit has two lessons attached to it and should be completed in about 15-20 Days. They will be able to use evidence to explain things, describe things, design and communicate, and identify different natural resources.

Standards:

1-ESS1-1 Use observations of the sun, moon, and stars to describe patterns that can be predicted

1-ESS1-2 Make observations at different times of year to relate the amount of daylight to the time of year

NJ Student Learning Standards

Interdisciplinary Skills

SL.1.1.A - Follow agreed-upon norms for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).

SL.1.1.B - Build on others' talk in conversations by responding to the comments of others through multiple exchanges.

SL.1.1.C - Ask questions to clear up any confusion about the topics and texts under discussion.

SL.1.3 - Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

Technology

8.1.2. A.5 -Demonstrate the ability to navigate in developmentally appropriate virtual environments.

21st Century Life and Career

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP3. Attend to personal health and financial well-being.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- 9.2 Career Awareness, Exploration, and Preparation- This standard outlines the importance of being knowledgeable about

one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.	
Essential Understandings	Essential Questions
<i>Students will understand that...</i> • Objects in the sky seem to change • There are different patterns of daylight	• How do objects in the sky seem to change? • What are patterns of daylight?
Evidence of Student Learning	
Performance Tasks: <i>Activities to provide evidence for student learning of content and cognitive skills.</i> • Explore the Moon's phases by creating a model	Other Assessments Formative Assessments • Teacher Observations • Interactive Notebook • Performance Assessments • Exit Slips • Response Cards • Graphic Organizers Summative Assessments • Tests • Quizzes • Summary • Labs • Hands-On Activities Benchmark Assessment

	● Beginning of the Year Benchmark ● Mid-Year Benchmark ● End of the Year Benchmark Alternative Assessments ● Teacher Observations ● Group Work/Class Work
Vocabulary star/sun/moon/phases/season	
Knowledge and Skills	
Content	Skills
<i>Students will know....</i> ● How objects in the sky seem to change ● Different patterns of daylight	<i>Students will be able to ...</i> ● Identify and describe objects in the sky ● Use evidence to describe predictable patterns of the sun, moon, and stars ● Observe and model patterns of the moon's phases ● Use observations to describe characteristics of each season ● Predict patterns of change that take place from season to season ● Use observations to compare the amount of daylight from season to season ● Explore how seasons affect people and animals
Instructional Plan	
Suggested Activities	Resources

● Make a solar eclipse model ● Draw pictures of the sun, moon and stars. ● Make predictions about how the earth and moon move in the sky. ● Observe and measure the sun's position in the sky and how shadows change throughout the day. ● Make drawings of the four seasons and where the moon and sun will be positioned in the sky. ● Teach students about the phases of the moon, and make models using Oreo cookies. ● Observe patterns of a sunset	- www.brainpopjr.com - www.mysteryscience.com - https://www.teachengineering.org/ - www.readworks.org (leveled texts) - www.generationgenius.com
Literature	
- Leveled texts (Readworks.org), literature from ELA program	
Websites	
- www.brainpopjr.com - www.mysteryscience.com - https://www.teachengineering.org/ - www.readworks.org (leveled texts) - www.generationgenius.com	
Modifications	
Special Education Students / 504 (<i>These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each student's IEP or 504 plan</i>) reduce/revise assignments & assignments as per IEP; provide individual and small group assistance; notes, and study guides; provide background knowledge. English Language learners: <i>use consistent, simplified language; provide bilingual when appropriate; provide cooperative learning opportunities, use modeling, visual aids, and manipulatives.</i> Students at Risk of Failure: <i>Provide less distracting seating if possible, frequent check-in by teacher, study guides, notes, etc.</i>	

Gifted Students: <i>provide additional enrichment activity involving demonstrating knowledge, deeper research to answer a higher level questions, or complimentary assignment.</i>
Suggested Options for Differentiation
English Language Learners ● Use visuals ● Teacher check-ins ● Limit number of questions ● Provide Word Wall
Gifted and Talented ● Organize and offer flexible small group learning activities ● Create alternate projects or assignments that challenge thinking ● Differentiate test questions
Basic Skills/Economically Disadvantaged/Students at Risk ● Graphic organizers ● Highlight key words ● Frequent breaks ● Sentence starters
Special Education/504 ● Follow all IEP modifications/504 plan ● Provide visual aids to support concepts being taught ● Allow students to verbalize before beginning an assignment ● Extended time