

Glendale Elementary School District  
**Science Pacing Guide**  
2020-2021



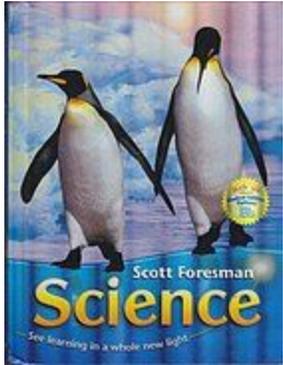
# 1st Grade

***Focus on Cause and Effect; Stability and Change (cycles)***

*By the end of first grade, students make observations to understand the connections between earth materials and the ability for Earth to sustain a variety of organisms. Students learn how objects can impact other objects from a distance or by contact with each other, how organisms interact with earth materials for survival, and how life systems have cycles. Student investigations focus on collecting and making sense of observational data and simple measurements using the science and engineering practices: ask questions and define problems, develop and use models, plan and carry out investigations, analyze and interpret data, use mathematics and computational thinking, construct explanations and design solutions, use evidence, and obtain, evaluate, and communicate information. While individual lessons may include connections to any of the crosscutting concepts, the standards in first grade focus on helping students understand phenomena through cause and effect and stability and change.*

**Text Resources:**

Scott Foresman



ReadyGEN



**Digital Resources:**

World Book



Mystery Science



**Core Ideas for Knowing Science:**

*Physical Science*

- P1: All matter in the Universe is made of very small particles.
- P2: Objects can affect other objects at a distance.
- P3: Changing the movement of an object requires a net force to be acting on it.
- P4: The total amount of energy in a closed system is always the same but can be transferred from one energy store to another during an event.

*Earth and Space Science*

- E1: The composition of the Earth and its atmosphere and the natural and human processes occurring within them shape the Earth’s surface and its climate.
- E2: The Earth and our solar system are a very small part of one of many galaxies within the Universe.

*Life Science*

- L1: Organisms are organized on a cellular basis and have a finite life span.
- L2: Organisms require a supply of energy and materials for which they often depend on, or compete with, other organisms.
- L3: Genetic information is passed down from one generation of organisms to another.
- L4: The unity and diversity of organisms, living and extinct, is the result of evolution

**Core Ideas for using Science:**

- U1: Scientists explain phenomena using evidence obtained from observations and or scientific investigations. Evidence may lead to developing models and or theories to make sense of phenomena. As new evidence is discovered, models and theories can be revised.
- U2: The knowledge produced by science is used in engineering and technologies to solve problems and/or create products.
- U3: Applications of science often have both positive and negative ethical, social, economic, and/or political implications.

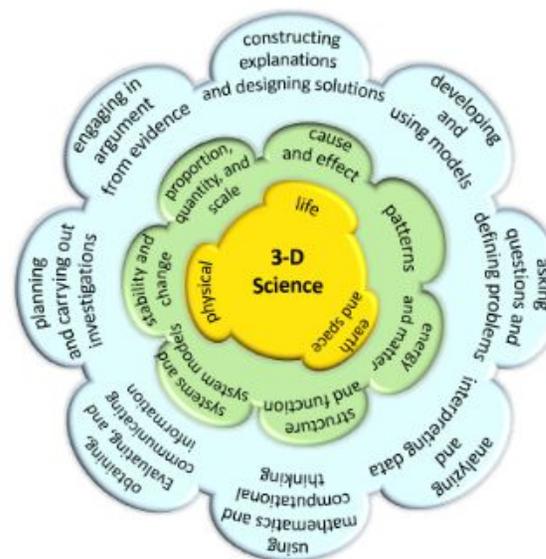
**Science and Engineering Practices:**

- ask questions and define problems
- develop and use models
- plan and carry out investigations
- analyze and interpret data
- use mathematics and computational thinking
- construct explanations and design solutions
- engage in argument for evidence
- obtain, evaluate, and communicate information

**Crosscutting Concepts:**

- Patterns
- Cause and Effect
- Scale, Proportion, and Quantity
- Systems and System Models
- Energy and Matter
- Structure and Function
- Stability and Change

Bold concepts are a focus for this grade level. Go to <http://bit.ly/CrossCutk8> for detailed information about crosscutting concepts.



**Year Snapshot -Units by Quarters**

<b>QUARTER 1</b> <b><u>Light &amp; Sound</u></b>	<b>QUARTER 2</b> <b><u>Movement of Objects</u></b>	<b>QUARTER 3</b> <b><u>Living Things</u></b>	<b>QUARTER 4</b> <b><u>Living Things (cont.)</u></b>
1.P2U1.1 1.P2U1.2	1.P3U1.3 1.P4U2.4	1.L1U1.6 1.L3U1.9 1.L2U2.7 1.L2U1.8	1.L4U1.10 1.L4U3.11 <b><u>Natural Resources</u></b> 1.E1U1.5

**Disciplinary Literacy in Science**

Disciplinary literacy in science focuses on how reading, writing, speaking, and listening are used to develop sense-making in science. It emphasizes content knowledge, experiences and skills, and the ability to acquire new knowledge that experts within science disciplines use to apply and generate new knowledge.

<b>Standard</b>	<b>ELA</b>	<b>Rationale</b>
<p>These ELA standards help students gather and combine more than 1 source of information (evidence from text) that can be used to support their reasoning as they develop basic understanding of science phenomena.</p> <p>Being able to read and interpret scientific and technical text is a fundamental practice of science and engineering.</p>	<p>RI.1 RI.2 RI.3</p>	<p>Key Ideas and Details standards can be applied to help students:</p> <ul style="list-style-type: none"> <li>• Use text to find answers to relevant science questions or problems.</li> <li>• Follow a written lab protocol or sequence of steps.</li> <li>• Connect formation from text to background knowledge.</li> <li>• Determine which information is important to answering scientific questions.</li> <li>• Pay attention to details in text and when reading/collecting data from scientific instruments.</li> <li>• Describe how specific images (e.g., a diagram showing how a machine works) support a scientific or engineering idea.</li> <li>• Interpret and evaluate data, evidence, and scientific reasoning.</li> <li>• Provide an accurate and objective summary or conclusion.</li> </ul>
<p>These ELA standards help students use scientific language during investigations, observations of science phenomena, reading texts, and classroom discussions. Scientific and technical text often contains a variety of text structures, visual representations, and vocabulary that has a very specific meaning. Reading text structures that embed bullets, data, images, captions, and non-linguistic representations is a fundamental practice of science and engineering.</p>	<p>RI.4 RI.5 RI.6</p>	<p>Craft and Structure standards can be applied to help students:</p> <ul style="list-style-type: none"> <li>• Use strategies (context clues, restatement, examples) to determine the meaning of words and phrases in the text.</li> <li>• Use context to determine meanings of words and compare how vocabulary may be used differently in a science context compared to non-science contexts.</li> <li>• Identify different structures within a text (headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.</li> <li>• Identify information in pictures, diagrams and other visual representations; explain why the author used them instead of paragraph text.</li> <li>• Identify when an author is making a scientific claim, and the evidence and reasoning used to support their claim.</li> <li>• Use the information in text to answer questions, and support reasoning and conclusions.</li> </ul>
<p>These ELA standards help students integrate scientific knowledge and ideas when obtaining, evaluating, and communicating information. Students integrate information to evaluate the validity and reliability of ideas, methods, claims, and designs. They use this knowledge to generate their own questions about scientific phenomena or to identify solutions to design problems.</p>	<p>RI.7 RI.8 RI.9</p>	<p>Integration of Knowledge and Ideas standards can be applied to help students:</p> <ul style="list-style-type: none"> <li>• Use information from multiple sources, including lab investigations, to answer a scientific question.</li> <li>• Use multiple sources or formats of information related to the same science concept and explain whether these representations provide similar levels of detail.</li> <li>• Locate the claim, evidence, and reasoning in scientific explanations and arguments.</li> <li>• Identify explanations and arguments that are supported by evidence and determine why some evidence is relevant to a scientific question and some is not.</li> <li>• Distinguish between explanations that account for all gathered evidence and those that do not.</li> <li>• Explain how specific images (e.g., a diagram showing how a machine works or a labeled drawing of animal parts) contribute to and clarify a text.</li> </ul>

<p>This ELA standard requires that students engage with different lengths, structures, types, and complexities of science text, appropriate for their grade level. Reading science texts requires a set of discipline-specific skills and strategies. Science texts use scientific vocabulary and present information in multiple formats.</p>	<p>RI.10</p>	<p>Implementation strategies for this standard are embedded in the previous reading examples. Students in science classrooms often read at different levels of proficiency, and even the same student may read at different levels based on text structures or format. Teachers should understand the complexity of the text provided to students and implement appropriate strategies to support student conceptual understanding of science phenomena.</p>
<p>These ELA standards help students write in formats that are typically found in science contexts or may be specific for their content area. Typically, only formal science writing is written in passive/third person voice. In science, focus is shifted from stating personal opinions to using evidence to support an explanation or scientific argument. Students use evidence and reasoning to defend scientific claims and explanations, or methods for collecting data and evidence. It is critical that students know how to incorporate appropriate visual representations to support the scientific explanations and arguments they write.</p>	<p>W.1 W.2 W.3</p>	<p>Text Types and Purposes standards can be applied to help students:</p> <ul style="list-style-type: none"> <li>Record thoughts, ideas, sketches, or collected data in science notebooks to be used as evidence or to support reasoning.</li> <li>Identify arguments that are supported by evidence and determine why some evidence is relevant to a scientific question and some is not.</li> <li>Distinguish between explanations that account for all gathered evidence and those that do not.</li> <li>Construct an explanation with evidence to support a claim and distinguish between opinions and evidence in one's own explanations.</li> <li>Write formal or informal texts. The product may include notebook entries, observations, functional text, or visual displays of data.</li> <li>Produce science writing in a voice appropriate for the type of writing and the audience.</li> <li>Write step-by-step procedures for experiments that are detailed enough that others would be able to repeat the procedure and achieve the same results.</li> <li>Communicate information, solutions, or design ideas with others using models, drawings, writing, or numbers that provide detail about scientific ideas, practices, or design ideas</li> </ul>
<p>These ELA standards help students develop scientific writing appropriate for task, purpose and audience.</p>	<p>W.4 W.5 W.6</p>	<p>Production and Distribution of Writing standards can be applied to help students:</p> <ul style="list-style-type: none"> <li>Develop and strengthen writing; focus on purpose and audience.</li> <li>Incorporate peer or adult feedback of drafts into writing; the writing process and review of drafts can be used for any writing assignments within the science classroom.</li> <li>Use technology (keyboarding skills) to interact and collaborate with others as a way of sharing ideas.</li> <li>Integrate drawings or other visual representations of information to support text.</li> </ul>
<p>These ELA standards help students synthesize multiple texts, observations, or experiments to answer questions, gather information, reason about the evidence, and communicate findings or conclusions. Final communication products typically follow a formal writing style (documenting or publishing procedures, investigation designs, explanations of models, and research) and are written in academic or passive/third person voice.</p>	<p>W.7 W.8</p>	<p>Research to Build and Present Knowledge standards can be applied to help students:</p> <ul style="list-style-type: none"> <li>Participate in shared research and writing projects (e.g., read books on a single topic to produce a report; record science observations).</li> <li>Use and combine information from multiple sources to construct claims, evidence, and explanations.</li> <li>Gather relevant information from a variety of credible print and digital sources to answer a question.</li> <li>Recall information from experiences or gather information from provided sources to answer a question.</li> <li>Use evidence from informational texts (e.g., encyclopedias, credible web sites, experts, news articles, textbooks, trade books) to support claims, analyses, reflections, and/or research.</li> </ul>
<p>These ELA standards help students engage in scientific conversations to gather and evaluate information. Engaging in scientific discourse communities to collaborate and build comprehension is a fundamental practice of science and engineering.</p>	<p>SL.1 SL.2 SL.3</p>	<p>Comprehension and Collaboration standards can be applied to help students:</p> <ul style="list-style-type: none"> <li>Initiate and participate effectively in a range of collaborative discussions (one-on-one, small groups, teacher-led, digitally) to express their own ideas clearly and build on others' ideas.</li> <li>Listen actively to others' explanations or arguments to indicate agreement or disagreement based on evidence, and/or to retell the main points.</li> <li>Distinguish between opinions and evidence in the speaker's explanations or arguments.</li> <li>Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</li> <li>Ask and answer questions about what a speaker says to clarify comprehension, gather additional information, or deepen understanding of a science topic or issue.</li> </ul>
<p>These ELA standards help students engage in scientific conversations to informally share ideas and develop understanding of scientific phenomena and</p>	<p>SL.4 SL.5 SL.6</p>	<p>Presentation of Knowledge and Ideas standards can be applied to help students:</p> <ul style="list-style-type: none"> <li>Discuss science questions, information, results, and supporting evidence with a partner or small group; speak clearly and in a sequence so listeners can follow the line of thinking and reasoning.</li> </ul>

<p>provide a formal way to present information appropriate to the audience and task. Engaging in scientific discourse communities to communicate understanding and findings is a fundamental practice of science and engineering.</p>	<ul style="list-style-type: none"> <li>• Make a claim about the effectiveness of an object, tool, or solution that is supported by relevant evidence and listen actively to others’ comments that indicate agreement or disagreement based on evidence.</li> <li>• Engage in formal presentations to small or large groups of students to share findings and supporting evidence. Presentation should be clear, concise, and logically organized; content and presentation style should be appropriate to purpose, audience, and task.</li> <li>• Communicate scientific information orally, using various forms of print or digital media, pictures, and charts.</li> </ul>
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Quarter 1			
AZ State Standards	Background Information and Learning Targets	Vocabulary	Curricular Resources
<p><b>Unit Title: Light and Sound</b></p> <p><i>Physical Sciences: Students develop an understanding of the effects of forces and waves, and how they can impact or be impacted by objects near and far away. They explore the relationships between sound and vibrating materials, as well as light and materials including the ability of sound and light to travel from place to place.</i></p>			
<p>1.P2U1.1 Plan and carry out investigations demonstrating the effect of placing objects made with different materials in the path of a beam of light and predict how objects with similar properties will affect the beam of light</p> <p>1.P2U1.2 Use models to provide evidence that vibrating matter creates sound and sound can make matter vibrate.</p> <p>Crosscutting Concepts: Patterns; <b>Cause and Effect</b>; Scale, Proportion and Quantity; Systems and System Models; Energy and Matter; Structure and Function; <b>Stability and Change</b></p>	<p>Background Information: 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 (i.e., on the other side from the light source), where the light cannot reach. Mirrors and prisms can be used to redirect a light beam. 4 (p. 134-135) Light and sound are wavelike phenomena. Sound can make matter vibrate, and vibrating matter can make sound. 4 (p. 132)</p> <p>GESD Context and Application of Standards</p> <ul style="list-style-type: none"> <li>• I can plan and carry out investigations demonstrating the effect of placing objects made with different materials in the path is a beam of light.</li> <li>• I can predict how objects with similar properties will affect the beam of light.</li> <li>• I can use a model to provide evidence that vibrating matter creates sound.</li> <li>• I can use a model to provide evidence that sound can make matter vibrate.</li> </ul>	<p>light shadow mirrors prisms wavelike sound matter vibrate stability and change cause and effect</p>	<p><i>Scott Foresman:</i></p> <ul style="list-style-type: none"> <li>• Chapter 10; Lesson 3</li> </ul> <p><i>ReadyGEN:</i></p> <ul style="list-style-type: none"> <li>• U5MA King Kafu and the Moon</li> <li>• U5MA Let’s Visit the Moon</li> <li>• U5MB Sun</li> <li>• Leveled Reader: Look Up</li> <li>• Leveled Reader: Sunny Days</li> </ul> <p><i>Mystery Science:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Properties of Lights and Sounds</a></li> <li>• <a href="#">Waves of Sound</a></li> </ul> <p><i>World Book:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Light</a></li> <li>• <a href="#">Rainbow</a></li> <li>• <a href="#">Mirror</a></li> <li>• <a href="#">Prism</a></li> <li>• <a href="#">Sound</a></li> </ul> <p><i>Do you have a recommendation for curriculum materials that support teaching these concepts? Please email them to <a href="mailto:jmoritz@gesd40.org">jmoritz@gesd40.org</a></i></p>

Quarter 2

AZ State Standards	Background Information and Learning Targets	Vocabulary	Curricular Resources
<p><b>Unit Title: Movement of Objects</b></p> <p><i>Physical Sciences: Students develop an understanding of the effects of forces and waves, and how they can impact or be impacted by objects near and far away. They explore the relationships between sound and vibrating materials, as well as light and materials including the ability of sound and light to travel from place to place.</i></p>			
<p>1.P3U1.3 Plan and carry out investigations which demonstrate how equal forces can balance objects and how unequal forces can push, pull, or twist objects, making them change their speed, direction, or shape.</p> <p>Crosscutting Concepts: Patterns; <b>Cause and Effect</b>; Scale, Proportion and Quantity; Systems and System Models; Energy and Matter; Structure and Function; <b>Stability and Change</b></p>	<p>Background Information: Forces can push, pull or twist objects, making them change their motion or shape. Forces act in particular directions. Equal forces acting in opposite directions in the same line cancel each other and are described as being in balance. The movement of objects is changed if the forces acting on them are not in balance. 2 (p. 22)</p> <p>GESD Context and Application of Standards</p> <ul style="list-style-type: none"> <li>• I can plan and do an investigation that shows how equal forces can balance objects.</li> <li>• I can plan and do an investigation that shows how unequal forces can push, pull or twist objects.</li> <li>• I can plan and do an investigation that shows how unequal forces can change their speed, direction, or shape.</li> <li>• I can design and evaluate ways to increase or reduce heat from friction between two objects.</li> </ul>	<p>Forces, push Pull, twist Motion, shape Balance, magnet design evaluate friction sketches drawings physical models compare test discuss strengths Weaknesses investigation unequal</p>	<p><i>Scott Foresman:</i></p> <ul style="list-style-type: none"> <li>• Chapter 9; Lesson 1 - What makes things move?</li> </ul> <p><i>ReadyGEN:</i></p> <ul style="list-style-type: none"> <li>• Dragons and Giants U1MA Text Collection (rolling rocks)</li> <li>• Leveled Reader: Liftoff!</li> </ul> <p><i>Mystery Science:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Invisible Forces</a></li> <li>• <a href="#">Forces and Motion</a></li> </ul> <p><i>World Book:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Force</a></li> <li>• <a href="#">Balance</a></li> </ul>
<p>1.P4U2.4 Design and evaluate ways to increase or reduce heat from friction between two objects.</p>	<p>Background Information: When two objects rub against each other, this interaction is called friction. Friction between two surfaces can warm both of them (e.g., rubbing hands together). There are ways to reduce the friction between two objects.4 (p. 129) Designs can be conveyed through sketches, drawings, or physical models.4 (p. 207)Because there is always more than one possible solution to a problem, it is useful to compare designs, test them, and discuss their strengths and weaknesses.4 (p. 209)</p>		<p><i>Scott Foresman:</i></p> <ul style="list-style-type: none"> <li>• Chapter 10; Lesson 1 - What gives off heat?</li> </ul> <p><i>Mystery Science:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Friction</a></li> </ul> <p><i>World Book:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Friction</a></li> <li>• <a href="#">Heat</a></li> </ul> <p><i>Do you have a recommendation for curriculum materials that support teaching these concepts? Please email them to <a href="mailto:jmoritz@gesd40.org">jmoritz@gesd40.org</a></i></p>

Quarter 3

AZ State Standards	Background Information and Learning Targets	Vocabulary	Curricular Resources
<p><b>Unit Title: Living things</b></p> <p><i>Life Sciences: Students develop an understanding that Earth has supported, and continues to support, a large variety of organisms. These organisms can be distinguished by their physical characteristics, life cycles, and their different resource needs for survival. Different types of organisms live where there are different earth resources such as food, air, and water.</i></p>			
<p>1.L1U1.6 Observe, describe, and predict life cycles of animals and plants.</p> <p>Crosscutting Concepts: Patterns; <b>Cause and Effect</b>; Scale, Proportion and Quantity; Systems and System Models; Energy and Matter; Structure and Function; <b>Stability and Change</b></p>	<p>Background Information: Plants and animals have predictable characteristics at different stages of development. Plants and animals grow and change. Adult plants and animals can have young.4(p. 146)</p> <p>GESD Context and Application of Standards</p> <ul style="list-style-type: none"> <li>● I can observe life cycles of animals and plants.</li> <li>● I can describe life cycles of animals and plants.</li> <li>● I can predict life cycles of animals and plants.</li> </ul>	<p>plants animals Characteristics stages of development grow young</p>	<p><i>Scott Foresman:</i></p> <ul style="list-style-type: none"> <li>● Chapter 3 - How Plants and Animals Live</li> <li>● Chapter 4 - Life Cycles</li> </ul> <p><i>Ready Gen:</i></p> <ul style="list-style-type: none"> <li>● U1MA Stellaruna</li> <li>● Sleuth U1MA: How Polar Bears Hunt</li> <li>● U4MA Arbor Day Square</li> <li>● U4MB Life Cycle of an Apple Tree</li> <li>● U4MB How a Seed Grows</li> <li>● Leveled Reader: A Garden for All</li> <li>● Leveled Reader: At the Pond</li> <li>● Leveled Reader: Giraffes Grow Up</li> <li>● Leveled Reader: Guide to Growing</li> <li>● Leveled Reader: How a Seed Grows</li> </ul> <p><i>Mystery Science:</i></p> <ul style="list-style-type: none"> <li>● <a href="#">Plant Life Cycles</a></li> <li>● <a href="#">Animal Life Cycles</a></li> <li>● <a href="#">Life Science</a></li> </ul> <p><i>World Book:</i></p> <ul style="list-style-type: none"> <li>● <a href="#">Life Cycle</a></li> <li>● <a href="#">Metamorphosis</a></li> </ul>

			<p><i>Other:</i></p> <ul style="list-style-type: none"> <li>● <a href="#">Frog's Life Cycle Resource</a></li> <li>● <a href="#">Life Cycle Resource</a></li> </ul>
<p>1.L3U1.9 Obtain, evaluate, and communicate information to support an evidence-based explanation that plants and animals produce offspring of the same kind, but offspring are generally not identical to each other or their parents.</p>	<p><b>Background Information:</b> Living things produce offspring of the same kind, but offspring are not identical with each other or with their parents. Plants and animals, including humans, resemble their parents in many features because information is passed from one generation to the next.2 (p. 22) Organisms have characteristics that can be similar or different. Young animals are very much, but not exactly, like their parents and also resemble other animals of the same kind. Plants also are very much, but not exactly, like their parents and resemble other plants of the same kind.4 (p. 158)</p> <p><b>GESD Context and Application of Standards:</b></p> <ul style="list-style-type: none"> <li>● I can obtain information to support an evidence-based explanation that plants and animals produce offspring of the same kind.</li> <li>● I can evaluate information to support an evidence-based explanation that plants and animals produce offspring of the same kind.</li> <li>● I can communicate information to support an evidence-based explanation that plants and animals produce offspring of the same kind.</li> </ul>	<p>Living Offspring Identical Parents Generation Characteristics</p>	<p><b>ReadyGEN:</b></p> <ul style="list-style-type: none"> <li>● Stellarluna U1MA</li> <li>● Leveled Reader: A Very Big Animal</li> <li>● Leveled Reader: Animals Grow and Change</li> </ul> <p><b>Mystery Science:</b></p> <ul style="list-style-type: none"> <li>● <a href="#">Offspring</a></li> </ul> <p><b>World Book:</b></p> <ul style="list-style-type: none"> <li>● <a href="#">Family</a></li> </ul> <p><i>Do you have a recommendation for curriculum materials that support teaching these concepts? Please email them to <a href="mailto:jmoritz@gesd40.org">jmoritz@gesd40.org</a></i></p>
<p>1.L2U2.7 Develop and use models about how living things use resources to grow and survive; design and evaluate habitats for organisms using earth materials.</p> <p>1.L2U1.8 Construct an explanation describing how organisms obtain resources from the environment including materials that are used again by other organisms.</p>	<p><b>Background Information:</b> Animals depend on their surroundings to get what they need, including food, water, shelter, and a favorable temperature. Animals depend on plants or other animals for food. They use their senses to find food and water, and they use their body parts to gather, catch, eat, and chew the food. Plants depend on air, water, minerals (in the soil), and light to grow. Animals can move around, but plants cannot, and they often depend on animals for pollination or to move their seeds around. Different plants survive better in different settings because they have varied needs for water, minerals, and sunlight 4 (. 151) Animals need food that they can break down, which comes either directly by eating plants (herbivores) or by eating animals (carnivores) which have eaten plants or other animals. 2 (p. 27) Designs can be conveyed through sketches, drawings, or physical models.4 (p. 207) Because there is always more than one possible solution to a problem, it is useful to compare designs, test them, and discuss their strengths and weaknesses.4 (p. 209)</p> <p><b>GESD Context and Application of Standards:</b></p>	<p>animals food water shelter favorable temperature plants senses body parts air minerals light seeds sketches drawings physical models compare</p>	<p><b>Scott Foresman:</b></p> <ul style="list-style-type: none"> <li>● Chapter 1 - Living and Nonliving</li> <li>● Chapter 2 - Habitats</li> </ul> <p><b>ReadyGEN:</b></p> <ul style="list-style-type: none"> <li>● U1MA Stellarluna</li> <li>● U1MB Time to Sleep</li> <li>● U1MB Text Collection: What Do You Do With a Tail Like This?</li> <li>● U3MB Goods and Services</li> <li>● U3MB Supermarket</li> <li>● Leveled Reader: A Very Big Animal</li> <li>● Leveled Reader: How Animals Move</li> </ul>

	<ul style="list-style-type: none"> <li>• I can create and use models on how living things use resources to grow and survive.</li> <li>• I can design and evaluate habitats for organisms using earth materials.</li> <li>• I can create an explanation on how organisms obtain resources.</li> </ul>	<p>test discuss strengths weaknesses</p>	<p><i>Mystery Science:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">How Living Things Survive</a></li> <li>• <a href="#">Shelter</a></li> <li>• <a href="#">Habitats</a></li> <li>• <a href="#">Web of Life</a></li> </ul> <p><i>World Book:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Habitat</a></li> </ul> <p><i>Other:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Pocket See Experiment</a></li> <li>• Khan Academy <a href="#">Food Chain</a></li> <li>• <a href="#">Plants Parents and their Offspring Video</a></li> </ul>
<b>Quarter 4</b>			
<b>AZ State Standards</b>	<b>Background Information and Learning Targets</b>	<b>Vocabulary</b>	<b>Curricular Resources</b>
<b>Unit Title: Living Things (continued)</b>			
<p>1.L4U1.10 Develop a model to describe how animals and plants are classified into groups and subgroups according to their similarities.</p> <p>1.L4U1.11 Ask questions and explain how factors can cause species to go extinct</p>	<p>Background Information: There are many different kinds of plants and animals in the world today and many kinds that once lived but are now extinct. We know about these from fossils. Animals and plants are classified into groups and subgroups according to their similarities.2 (p.29) Some kinds of plants and animals that once lived on Earth (e.g., dinosaurs) are no longer found anywhere, although others now living (e.g., lizards) resemble them in some ways.4 (p. 162)</p> <p>GESD Context and Application of Standards</p> <ul style="list-style-type: none"> <li>• I can create a model to describe how animals and plants are classified into groups with their similarities.</li> <li>• I can ask questions how factors can cause species to go extinct.</li> <li>• I can explain how factors can cause species to go extinct.</li> </ul>	<p>plant animals extinct fossils classified similarities</p>	<p><i>Scott Foresman:</i></p> <ul style="list-style-type: none"> <li>• Chapter 5; Math in Science - Grouping Animals, pg. 132</li> </ul> <p><i>Mystery Science:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Extinction</a></li> <li>• <a href="#">Fossils</a></li> <li>• <a href="#">Classifying Living Things</a></li> </ul> <p><i>World Book:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Fossil</a></li> <li>• <a href="#">Endangered Species</a></li> </ul> <p><i>Do you have a recommendation for curriculum materials that support teaching these concepts? Please email them to <a href="mailto:jmoritz@gesd40.org">jmoritz@gesd40.org</a></i></p>

**Unit Title: Natural Resources**

*Earth and Space Sciences: Students develop an understanding that earth materials are essential for organism’s survival.*

<p>1.E1U1.5 Obtain, evaluate, and communicate information about the properties of Earth materials and investigate how humans use natural resources in everyday life.</p> <p>Crosscutting Concepts: Patterns; <b>Cause and Effect</b>; Scale, Proportion and Quantity; Systems and System Models; Energy and Matter; Structure and Function; <b>Stability and Change</b></p>	<p>Background Information: Wind and water can change the shape of the land. The resulting landforms, together with the materials on the land, provide homes for living things. 4 (p. 180) Humans use natural resources for everything they do: for example, they use soil and water to grow food, wood to burn to provide heat or to build shelters, and materials such as iron or copper (minerals) extracted from Earth to make cooking pans.4 (p. 192)</p> <p>GESD Context and Application of Standards</p> <ul style="list-style-type: none"> <li>• I can obtain information about the properties of Earth materials and investigate how humans use natural resources in everyday life.</li> <li>• I can evaluate information about the properties of Earth materials and investigate how humans use natural resources in everyday life.</li> <li>• I can communicate information about the properties of Earth materials and investigate how humans use natural resources in everyday life.</li> </ul>	<p>landforms living things natural resources soil water food heat shelters iron copper (minerals)</p>	<p><i>Scott Foresman:</i></p> <ul style="list-style-type: none"> <li>• Chapter 6; Lesson 4 - How do living things use natural resources?</li> </ul> <p><i>ReadyGEN:</i></p> <ul style="list-style-type: none"> <li>• U3MB Goods and Services</li> <li>• U3MB Supermarket</li> </ul> <p><i>Mystery Science:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Natural Resources</a></li> <li>• <a href="#">Landforms</a></li> </ul> <p><i>World Book:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Landform</a></li> <li>• <a href="#">Natural Resources</a></li> <li>• <a href="#">Soil</a></li> <li>• <a href="#">Water</a></li> <li>• <a href="#">Food</a></li> <li>• <a href="#">Heat</a></li> <li>• <a href="#">Iron</a></li> <li>• <a href="#">Copper</a></li> <li>• <a href="#">Mineral</a></li> </ul> <p><i>Other:</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Physical Landforms</a></li> </ul>
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