

A Correlation of
Elevate Science
Grade 1, ©2019



To the
**Colorado 2020 Academic Standards
for Science**
Grade 1

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Introduction

The following document demonstrates how the ***Elevate Science* ©2019** program supports the Colorado 2020 Academic Standards for Science, Grade 1. For each standard, correlation references are to the Student Edition and Teacher Edition where applicable.

Elevate Science is a comprehensive K-5 science program that focuses on active, student-centered learning. It builds students' critical thinking, questioning, and collaboration skills, and fuels interest in STEM and creative problem solving while supporting literacy development for elementary-age learners. Developed to support Next Generation Science Standards (NGSS), ***Elevate Science*** integrates three dimensional learning of the Scientific and Engineering Practices, Crosscutting Concepts (CCC), and Disciplinary Core Ideas (DCIs).

The ***Elevate Science*** blended print and digital curriculum engages students in phenomena-based inquiry and hands-on investigations.

- Problem-based learning Quests put students on a journey of discovery
- Engineering-focused features infuse STEM learning
- Coding and innovation engage students and build 21st century skills

The Teacher's Edition of ***Elevate Science*** helps elementary educators teach science with confidence: Scaffolding, ELD, differentiated instruction, and an instructional organization based upon the 5E learning model, (Engage, Explore, Explain, Extend/Elaborate, Evaluate), provide all the support needed for successful teaching practices. Professional development offers point-of-use support. A full-view approach to inquiry and testing provides new options for a variety of hands-on labs and assessments for three-dimensional learning.

Elevate Science prepares students for the challenges of tomorrow, building strong reasoning skills and critical thinking strategies as they engage in explorations, formulate claims, and gather and analyze data that promote evidence-based argument. Designed for today's classroom, preparing students for tomorrow's world. ***Elevate Science*** promises to:

- Elevate thinking.
- Elevate learning.
- Elevate teaching.

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Physical Science	
Prepared Graduates:	
4. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how waves are used to transfer energy and information.	
Grade Level Expectation:	
1. Sound can make matter vibrate and vibrating matter can make sound.	
Evidence Outcomes:	
Students Can:	
<p>a. Plan and conduct investigations to provide evidence that vibrating materials can make a sound and that sound can make materials vibrate. (1-PS4-1) (Clarification Statement: Examples of vibrating materials that make sound could include tuning forks and plucking a stretched string. Examples of how sound can make matter vibrate could include holding a piece of paper near a speaker making sound and holding an object near a vibrating tuning fork.)</p>	<p>SE/TE: uConnect Lab: How can a ruler make a sound?, 4 uInvestigate Lab: How does size affect sound?, 7 Sound, 8 uInvestigate Lab: How can you see sound?, 13 Making Sounds, 14 Quest Check-In Lab: How can instruments talk?, 18-19 Assessment, 30-31 STEM uDemonstrate Lab: Which instrument can you use to make sound?, 34-35</p> <p>TE Only: Focus on Mastery: Using Evidence, 13 Focus on Mastery: Planning and Carrying Out Investigations, 18</p>
<p>b. Make observations to construct an evidence-based account that objects can be seen only when illuminated. (1-PS4-2) (Clarification Statement: Examples of observations could include those made in a completely dark room, a pinhole box, and a video of a cave explorer with a flashlight. Illumination could be from an external light source or by an object giving off its own light.)</p>	<p>SE/TE: uConnect Lab: What do you need to see objects?, 40 uInvestigate Lab: What happens when an object blocks light?, 43 Light and Darkness, 44 Where Light Comes From, 45 Jumpstart Discovery!, 58 uInvestigate Lab: How can you use light to see?, 59 Uses of Light, 62-63 Assessment, 68-69 Evidence-Based Assessment, 70-71</p>

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<p>c. Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light. (1-PS4-3) (Clarification Statement: Examples of materials could include those that are transparent [such as clear plastic], translucent [such as wax paper], opaque [such as cardboard] and reflective [such as a mirror].)</p>	<p>SE/TE: Quest Kickoff STEM: Help Send a Message, 38-39 uInvestigate Lab: What happens when an object blocks light?, 43 Shadows, 46 Jumpstart Discovery!, 48 uInvestigate Lab: How do materials affect light?, 49 Blocked Light, 50 Light Goes Through, 51 Interactivity: Shine Light on Matter, 51 Light Bounces Off, 52 Materials That Reflect, 53 Quest Connection, 53 Quest Check-In: Materials for a Light Signal, 54 Solve it with Science: How can you see what is behind you?, 55 uInvestigate Lab: How can you use light to see?, 59 Assessment, 68-69 Evidence-Based Assessment, 70-71 uDemonstrate Lab: How can I change a transparent material?, 72-73</p>

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<p>d. Use tools and materials to design and build a device that used light or sound to solve the problem of communicating over a distance. (1-PS4-4) (Clarification Statement: This performance expectation integrates transitional science content with engineering through a practice or disciplinary core idea.)</p>	<p>SE/TE: Quest Kickoff: Sending Sound Messages, 2-3 Quest Connection, 9 Quest Connection, 17 Quest Check-In Lab: How can instruments talk?, 18-19 uInvestigate Lab: What does that sound say?, 21 Quest Connection, 24 STEM Quest Check-In Lab: How can an instrument send a secret?, 25 STEM Quest Findings: Sending Sound Messages, 28 STEM Quest Kickoff: How can; you use light to send a message?, 38-39 Quest Check-In: Give Off Light, 47 Quest Connection, 53 Quest Check-In: Materials for a Light Signal, 54 Communicate with Light, 61 STEM Quest Check-In Lab: How can you send secret messages?, 64-65 STEM Quest Findings: How was light used to send a secret message?, 66</p>
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<i>Colorado Essential Skills and Science and Engineering Practices:</i>	
<p>1. Plan and conduct investigations collaboratively to produce evidence to answer a question. (Planning and Carrying Out Investigations) (Personal: Initiative/Self-direction)</p>	<p>SE/TE: uConnect Lab: How can a ruler make a sound?, 4 uInvestigate Lab: How does size affect sound?, 7 uInvestigate Lab: How can you see sound?, 13 Quest Check-In Lab: How can instruments talk?, 18-19 STEM Quest Check-In Lab: How can an instrument send a secret?, 25 STEM uDemonstrate Lab: Which instrument can you use to make sound?, 34-35 uInvestigate Lab: What happens when an object blocks light?, 43 uInvestigate Lab: How do materials affect light?, 49 uInvestigate Lab: How do materials affect light?, 49 uInvestigate Lab: How can you use light to see?, 59 uDemonstrate Lab: How can I change a transparent material?, 72-73</p> <p>TE Only: Focus on Mastery: Planning and Carrying Out Investigations, 54</p>

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<p>2. Make observations (firsthand or from media) to construct an evidence-based conclusion and use tools and materials provided to design and build devices. (Constructing Explanations and Designing Solutions) (Entrepreneurial: Critical thinking/Problem solving)</p>	<p>SE/TE: Literacy Connection: Draw Conclusions, 5 uInvestigate Lab: How does size affect sound?, 7 Literacy Toolbox: Draw Conclusions, 15 Quest Check-In Lab: How can instruments talk?, 18-19 Literacy Toolbox: Draw Conclusions, 24 STEM Quest Check-In Lab: How can an instrument send a secret?, 25 STEM Quest Findings: Sending Sound Messages, 28 STEM uDemonstrate Lab: Which instrument can you use to make sound?, 34-35 Quest Check-In: Materials for a Light Signal, 54 STEM Quest Check-In Lab: How can you send secret messages, 64-65</p>
<p>3. Scientific Investigations Use a Variety of Methods: Scientists use different ways to study the world. Science investigations begin with a question.</p>	<p>SE/TE: uConnect Lab: How can a ruler make a sound?, 4 uInvestigate Lab: How does size affect sound?, 7 Sound, 8 uInvestigate Lab: How can you see sound?, 13 Quest Check-In Lab: How can instruments talk?, 18-19</p>

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<i>Elaboration on the GLE:</i>	
<p>1. Students can answer the question: What are the characteristic properties and behaviors of waves?</p>	<p>SE/TE: uInvestigate Lab: How does size affect sound?, 7 Sound, 8 Pitch and Volume, 9 Extreme Science: Echolocation, 11 uInvestigate Lab: How can you see sound?, 13 uInvestigate Lab: What happens when an object blocks light?, 43 uInvestigate Lab: How do materials affect light?, 49 Blocked Light, 50 Light Goes Through, 51 Light Bounces Off, 52 Materials That Reflect, 53</p>
<p>2. PS4:A Wave Properties: Waves, which are regular patterns of motion, can be made in water by disturbing the surface. When waves move across the surface of deep water, the water goes up and down in place; it does not move in the direction of the wave - observe, for example, a bobbing cork or seabird - except when the water meets the beach. Sound can make matter vibrate and vibrating matter can make sound.</p>	<p>SE/TE: uConnect Lab: How can a ruler make a sound?, 4 uInvestigate Lab: How does size affect sound?, 7 Sound, 8 uInvestigate Lab: How can you see sound?, 13 Making Sounds, 14 Assessment, 30-31 STEM uDemonstrate Lab: Which instrument can you use to make sound?, 34-35</p>
<p>3. PS4:B Electromagnetic Radiation: Objects can be seen only when light is available to illuminate them. Very hot objects give off light (e.g., a fire, the sun).</p>	<p>SE/TE: uConnect Lab: What do you need to see objects?, 40 Light and Darkness, 44 Where Light Comes From, 45</p>

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<p>4. PS4:C Information Technologies and Instrumentation: People use their senses to learn about the world around them. Their eyes detect light, their ears detect sound, and they can feel vibrations by touch.</p>	<p>SE/TE: uConnect Lab: How can a ruler make a sound?, 4 uInvestigate Lab: How does size affect sound?, 7 Sound, 8 uInvestigate Lab: How can you see sound?, 13 Making Sounds, 14 Assessment, 30 uConnect Lab: What do you need to see objects?, 40 Light and Darkness, 44 Assessment, 68</p>
<p>5. Cause and Effect: Simple tests can be designed to gather evidence to support or refute student ideas about causes.</p>	<p>SE/TE: uConnect Lab: What do you need to see objects?, 40 Literacy Connection: Cause and Effect, 41 uInvestigate Lab: What happens when an object blocks light?, 43 uInvestigate Lab: How do materials affect light?, 49 Literacy Toolbox: Cause and Effect, 53 uInvestigate Lab: How can you use light?, 59</p>
Life Science	
Prepared Graduates:	
<p>6. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how individual organisms are configured and how these structures function to support life, growth, behavior and reproduction.</p>	

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Grade Level Expectation:	
1. All organisms have external parts that they use to perform daily functions.	
Evidence Outcomes:	
Students Can:	
<p>a. 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. (1-LS1-1) (Clarification Statement: Examples of human problems that can be solved could include designing clothing or equipment to protect bicyclists by mimicking turtle shells, acorn shells and animal scales; stabilizing structures by mimicking animal tails and roots on plants; keeping out intruders by mimicking thorns on branches and animal quills; and detecting intruders by mimicking eyes and ears.)</p>	<p>SE/TE: Quest Kickoff: STEM :Nature Copycats, 144-145 Quest Connection, 150 Quest Check-In: Roots Help Plants Survive, 153 Quest Connection, 158 Quest Check-In: Different Shapes, Different Uses, 159 uEngineer It! Design STEM: Design a Tool, 160-161 uInvestigate Lab: What can people learn from an acorn shell?, 163 People Mimic Nature, 164-165 Quest Connection, 164 Quest Check-In: A Sticky Invention, 166 Quest Connection, 171 Quest Check-In Lab: How do snowshoe hares stay safe?, 174-175 Quest Findings: Nature Copycats, 176 Career Connection: Bioengineer, 177 Evidence-Based Assessment, 180-181</p>
<p>b. Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive. (1-LS1-2) (Clarification Statement: Examples of patterns of behaviors could include the signals that offspring make [such as crying, cheeping and other vocalizations] and the responses of the parents [such as feeding, comforting and protecting the offspring].)</p>	<p>SE/TE: Literacy Connection Main Idea and Details: Geese and Their Young, 189 Jumpstart Discovery!, 206 STEM uInvestigate Lab: How do nests protect eggs?, 207 Parents Help Young, 209 Parents Protect Young, 210-211 Crosscutting Concepts Toolbox: Patterns, 211 Parents Teach Young, 212 Interactivity: Animal Behaviors, 212 Young Stay Close and Make Sounds, 213 Quest Check-In: Parents Help Young Learn, 214 Quest Findings: Find the Parents, 216 Assessment, 218-219</p>

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Academic Context and Connections	
<i>Colorado Essential Skills and Science and Engineering Practices:</i>	
<p>1. Use materials to design a device that solves a specific problem or a solution to a specific problem. (Constructing Explanations and Designing Solutions) (Entrepreneurial: Creativity/Innovation)</p>	<p>SE/TE: Quest Kickoff: STEM Nature Copycats, 144-145 Quest Connection, 158 Quest Check-In: Different Shapes, Different Uses, 159 uEngineer It! Design STEM: Design a Tool, 160-161 Quest Check-In: A Sticky Invention, 166 Quest Findings: Nature Copycats, 176 STEM uInvestigate Lab: How do nests protect eggs?, 207</p> <p>TE Only: Focus on Mastery! Designing Solutions, 207</p>

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<p>2. Read grade-appropriate texts and use media to obtain scientific information to determine patterns in the natural world. (Obtaining, Evaluating, and Communicating Information) (Civic/Interpersonal: Communication)</p>	<p>SE/TE: uInvestigate Lab: What do the parts of a plant look like?, 149 Roots, 150 Stems and Leaves, 151 Flowers and Fruits, 152 Quest Check-In, 153 STEM uInvestigate Lab: How do whiskers help a cat?, 155 How :Animals Move, 156 Connecting Concepts Toolbox: Structure and Function, 156 Body Coverings and Ways of Breathing, 157 Quest Check-In: Different Shapes, Different Uses, 159 Quest Check-In: A Sticky Invention, 166 STEM Math Connection: Order Objects by Length, 167 STEM uDemonstrate Lab: How do the spines of cacti help them?, 182-183 Literacy Connection Main Idea and Details: Geese and Their Young, 189 Parents Hel Young, 209 Parents Protect Young, 210-211 Crosscutting Concepts Toolbox: Patterns, 211 Parents Teach Young, 212 Quest Check-In: Parents Help Young Learn, 214</p> <p>TE Only: Connecting Concepts Toolbox: Patterns, 211</p>

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<p>3. Connections to Nature of Science: Science Knowledge is Based on Empirical Evidence. Scientists look for patterns and order when making observations about the world.</p>	<p>SE/TE: STEM uConnect Lab: How can you make a model of a plant?, 146 uInvestigate Lab: What do the parts of a plant look like?, 149 STEM uInvestigate Lab: How do whiskers help a cat?, 155 Connecting Concepts Toolbox: Structure and Function, 156 uInvestigate Lab: What can people learn from an acorn shell?, 163 STEM uDemonstrate Lab: How do the spines of cacti help them?, 182-183 Crosscutting Concepts Toolbox: Patterns</p>
Elaboration on the GLE:	
<p>1. Students can answer the question: How do the structures of organisms enable life's functions?</p>	<p>SE/TE: STEM uConnect Lab: How can you make a model of a plant?, 146 uInvestigate Lab: What do the parts of a plant look like?, 149 Roots, 150 Stems and Leaves, 151 Flowers and Fruits, 152 Quest Check-In: Roots Help Plants Survive, 153 STEM uInvestigate Lab: How do whiskers help a cat?, 155 How Animals Move, 156 Connecting Concepts Toolbox: Structure and Function, 156 Body Coverings and Ways of Breathing, 157 Animals' Senses and Responses, 158 Quest Check-In: Different Shapes, Different Uses, 159 People Mimic Nature, 164-165 Quest Check-In: A Sticky Invention, 166 Assessment, 178-179 Evidence-Based Assessment, 180-181 STEM uDemonstrate Lab: How do the spines of cacti help them?, 182-183</p>

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<p>2. 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, grow and produce more plants.</p>	<p>SE/TE: Show What You Know, 143 STEM uConnect Lab: How can you make a model of a plant?, 146 uInvestigate Lab: What do the parts of a plant look like?, 149 Roots, 150 Stems and Leaves, 151 Flowers and Fruits, 152 Quest Check-In: Roots Help Plants Survive, 153 STEM uInvestigate Lab: How do whiskers help a cat?, 155 How Animals Move, 156 Connecting Concepts Toolbox: Structure and Function, 156 Body Coverings and Ways of Breathing, 157 Animals' Senses and Responses, 158 Quest Connection, 158 Quest Check-In: Different Shapes, Different Uses, 159 uEngineer It! Design STEM: Design a Tool, 160-161 uInvestigate Lab: What can people learn from an acorn shell?, 163 Reading Check: Compare and Contrast, 165 Quest Check-In: A Sticky Invention, 166 Quest Check-In Lab: How do snowshoe hares stay safe?, 174-175 Assessment, 178-179 Evidence-Based Assessment, 180-181 STEM uDemonstrate Lab: How do the spines of cacti help them?, 182-183</p>

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<p>3. LS1:B Growth and Development of Organisms: Plants and animals have predictable characteristics at different stages of development. Plants and animals grow and change. Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive.</p>	<p>SE/TE: <ul style="list-style-type: none"> uInvestigate Lab: How do plants grow and change?, 191 Life Cycle of a Plant, 192 Life Cycle of an Animals, 193 Quest Connection, 193 Quest Check-In Lab: How are the life cycles alike and different, 194-195 uInvestigate Lab: What do young plants look like, 197 STEM uInvestigate Lab: How do nests protect eggs?, 207 Parents Help Young, 209 Quest Connection, 209 Parents Protect Young, 210-211 Crosscutting Concepts Toolbox: Patterns, 211 Parents Teach Young, 212 Young Stay Close and Make Sounds, 213 Quest Check-In: Parents Help Young Learn, 214 Quest Findings: Find the Parents, 216 Assessment, 218-219 uDemonstrate Lab: How do living things change as they grow?, 222-223 </p>
<p>4. LS1:D Information Processing: Animals have body parts that capture and convey different kinds of information needed for growth and survival - for example, eyes for light, ears for sounds, and skin for temperature or touch. Animals respond to these inputs with behaviors that help them survive (e.g., find food, run from a predator). Plants also respond to some external inputs (e.g., turn leaves toward the sun).</p>	<p>SE/TE: <ul style="list-style-type: none"> Roots, 150 Stems and Leaves, 151 STEM uInvestigate Lab: How do whiskers help a cat?, 155 Animals' Senses and Responses, 158 Parents Protect Young, 210-211 Parents Teach Young, 212 Quest Check-In: Parents Help Young Learn, 214 </p>

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<i>Cross Cutting Concepts:</i>	
<p>a. Structure and Function: The shape and stability of structures of natural and designed objects are related to their function(s).</p>	<p>SE/TE: STEM uConnect Lab: How can you make a model of a plant?, 146 uInvestigate Lab: What do the parts of a plant look like?, 149 Interactivity: Plant Parts, 151 Quest Check-In: Roots Help Plants Survive, 153 STEM uInvestigate Lab: How do whiskers help a cat?, 155 How Animals Move, 156 Connecting Concepts Toolbox: Structure and Function, 156 Quest Check-In: Different Shapes, Different Uses, 159 uInvestigate Lab: What can people learn from an acorn shell?, 163 Quest Check-In: A Sticky Invention, 166</p>
<p>b. Patterns: Patterns in the natural world can be observed, used to describe phenomena and used as evidence.</p>	<p>SE/TE: STEM uConnect Lab: How can you make a model of a plant?, 146 uInvestigate Lab: What do the parts of a plant look like?, 149 Quest Check-In: Roots Help Plants Survive, 153 Connecting Concepts Toolbox: Structure and Function, 156 Quest Check-In: A Sticky Invention, 166 uInvestigate Lab: How do plants grow and change?, 191 Quest Check-In Lab: How are the life cycles alike and different?, 194-195 Crosscutting Concepts Toolbox: Patterns, 211 Quest Check-In: Parents Help Young Learn, 214 uDemonstrate Lab: How do living things change as they grow?, 222-223</p>

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Prepared Graduates:	
7. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding how genetic and environmental factors influence variation of organisms across generations.	
Grade Level Expectation:	
2. Young organisms are very much, but not exactly, like their parents, and also resemble other organisms of the same kind.	
Evidence Outcomes:	
Students Can:	
<p>a. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents. (1-LS3-1) (Clarification Statement: Examples of patterns could include features that plants or animals share. Examples of observations could include leaves from the same kind of plant that are the same shape but can differ in size; and, a particular breed of dog looks like its parents but is not exactly the same. This performance expectation integrates traditional science content with engineering through a practice or disciplinary core idea.)</p>	<p>SE/TE: Quest Kickoff, 186-187 uConnect Lab: Which mouse is longer?, 188 uInvestigate Lab: How do plants grow and change?, 191 Life Cycle of an Animal, 193 uInvestigate Lab: What do young plants look like?, 197 Alike and Different, 198 Plants Are Alike, 199 Plants Are Different, 200 Animals Are Alike, 201 Interactivity: Alike and Different Living Things, 201 Animals Are Different, 202 Quest Check-In: Alike and Different, 203 Quest Findings: Find the Parents, 216 Assessment, 218-219 Evidence-Based Assessment, 220-221 uDemonstrate Lab: How do living things change as they grow?, 222-223</p>

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Academic Context and Connections	
<i>Colorado Essential Skills and Science and Engineering Practices:</i>	
<p>1. Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (Constructing Explanations and Designing Solutions) (Civic/Interpersonal: Communications).</p>	<p>SE/TE: Quest Kickoff, 186-187 uConnect Lab: Which mouse is longer?, 188 uInvestigate Lab: What do young plants look like?, 197 Alike and Different, 198 Plants Are Alike, 199 Plants Are Different, 200 Animals Are Alike, 201 Interactivity: Alike and Different Living Things, 201 Animals Are Different, 202 Quest Check-In: Alike and Different, 203 Quest Findings: Find the Parents, 216 Evidence-Based Assessment, 220-221 uDemonstrate Lab: How do living things change as they grow?, 222-223</p>
<i>Elaboration on the GLE:</i>	
<p>1. Students can answer the questions: How are the characteristics of one generation related to the previous generation? Why do individuals of the same species vary in how they look, function, and behave?</p>	<p>SE/TE: uInvestigate Lab: What do young plants look like?, 197 Alike and Different, 198 Plants Are Alike, 199 Plants Are Different, 200 Animals Are Alike, 201 Interactivity: Alike and Different Living Things, 201 Animals Are Different, 202 Quest Check-In: Alike and Different, 203 Parents Teach Young, 212 Interactivity: Animal Behaviors, 212 Quest Check-In: Parents Help Young Learn, 214 Evidence-Based Assessment, 220-221 uDemonstrate Lab: How do living things change as they grow?, 222-223</p>

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<p>2. LS3:A Inheritance of Traits: Young animals are very much, but not exactly, like their parents. Plants also are very much, but not exactly, like their parents.</p>	<p>SE/TE: Show What You Know, 185 Quest Kickoff, 186-187 uConnect Lab: Which mouse is longer?, 188 uInvestigate Lab: How do plants grow and change?, 191 Life Cycle of an Animal, 193 uInvestigate Lab: What do young plants look like?, 197 Alike and Different, 198 Plants Are Alike, 199 Plants Are Different, 200 Animals Are Alike, 201 Interactivity: Alike and Different Living Things, 201 Animals Are Different, 202 Quest Check-In: Alike and Different, 203 Quest Findings: Find the Parents, 216 Assessment, 218-219 Evidence-Based Assessment, 220-221 uDemonstrate Lab: How do living things change as they grow?, 222-223</p>
<p>3. LS3:B Variation of Traits: Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways.</p>	<p>SE/TE: Plants Are Alike, 199 Plants Are Different, 200 Animals Are Alike, 201 Interactivity: Alike and Different Living Things, 201 Animals Are Different, 202 Quest Check-In: Alike and Different, 203</p>

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<i>Cross Cutting Concepts:</i>	
<p>4. Patterns: Patterns in the natural and human designed world can be observed, used to describe phenomena and used as evidence.</p>	<p>SE/TE: Life Cycle of a Plant, 192 Life Cycle of an Animal, 193 Interactivity: Compare Life Cycles, 193 Quest Check-In Lab: How are the life cycles alike and different?, 194-195 Plants Are Alike, 199 Animals Are Alike, 201 Crosscutting Concepts Toolbox: Patterns, 211</p>
Earth and Space Science	
Prepared Graduates:	
<p>9. Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding the universe and Earth's place in it.</p>	

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Grade Level Expectations:	
1. Patterns of movement of the sun, moon and stars as seen from Earth can be observed, described and predicted.	
Evidence Outcomes:	
Students Can:	
<p>a. Use observations of the sun, moon, and stars to describe patterns that can be predicted. (1-ESS1-1) (Clarification Statement: Examples of patterns could include that the sun and moon appear to rise in one part of the sky, move across the sky and set; and stars other than our sun are visible at night but not during the day.)</p>	<p>SE/TE: Quest Kickoff: Sky Watchers, 76-77 Jumpstart Discovery!, 80 uInvestigate Lab: Why is it hard to see stars during the day?, 81 Star Light, Star Bright, 82 Quest Connection, 83 Jumpstart Discovery!, 86 uInvestigate Lab: How can you observe sun patterns?, 87 Earth Spins, 88 Sunrise, Sunset, 89 Moon Motions and Phases, 90 Quest Check-In: Moon Patterns, 92 STEM Math Connection: Use a Calendar, 93 Quest Check-In Lab: How can you model the motions of Earth?, 98-99 Quest Findings: Sky Watchers, 102 Evidence-Based Assessment, 106-107 uDemonstrate Lab: How do shadows change?, 108-109</p>
<p>b. Make observations at different times of year to relate the amount of daylight to the time of year. (1-ESS1-2) (Clarification Statement: Emphasis is on relative comparisons of the amount of daylight in the winter to the amount in the spring or fall.) (Boundary Statement: Limited to relative amounts of daylight, not quantifying the hours or time of daylight.)</p>	<p>SE/TE: uInvestigate Lab: How does the sun cause seasons?, 95 Seasons, 96-97 Quest Connection, 96 Assessment, 104-105 Quest Kickoff: Plan a Trip!, 113 Sunlight and Seasons, 129 Quest Check-In Lab: How does the season affect the amount of daylight?, 132-133 Assessment, 136-137 Evidence-Based Assessment, 138-139</p>
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Colorado 2020 Academic Standards for Science, Grade 1	Elevate Science Grade 1, ©2019
<i>Colorado Essential Skills and Science and Engineering Practices:</i>	
<p>1. Plan and conduct investigations collaboratively to produce evidence to answer a question. (Planning and Carrying out Investigations) (Personal: Personal responsibility).</p>	<p>SE/TE: <ul style="list-style-type: none"> uInvestigate Lab: Why is it hard to see stars during the day?, 81 uInvestigate Lab: How can you observe sun patterns?, 87 uInvestigate Lab: How does the sun cause seasons?, 95 Quest Check-In Lab: How can you model the motions of Earth?, 98-99 uDemonstrate Lab: How do shadows change?, 108-109 </p>
<p>2. Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (Analyzing and Interpreting Data) (Entrepreneurial: Creativity/Innovation).</p>	<p>SE/TE: <ul style="list-style-type: none"> uInvestigate Lab: Why is it hard to see stars during the day?, 81 Star Light, Star Bright, 82 Quest Connection, 83 Quest Check-In: Stars in the Sky, 85 uInvestigate Lab: How can you observe sun patterns?, 87 Earth Spins, 88 Sunrise, Sunset, 89 Moon Motions and Phases, 90 Math Toolbox: Science Practice Toolbox, 90 Quest Check-In: Moon Patterns, 92 STEM Math Connection: Use a Calendar, 93 uInvestigate Lab: How does the sun cause seasons?, 95 Seasons, 96-97 Quest Connection, 96 Quest Check-In Lab: How can you model the motions of Earth?, 98-99 Quest Findings: Sky Watchers, 102 Evidence-Based Assessment, 106-107 uDemonstrate Lab: How do shadows change?, 108-109 </p>

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(Continued)	(Continued) TE Only: Focus on Mastery! Communicating Information, 85 Focus on Mastery! Comparing Observations, 90 Focus on Mastery! Explaining Observations, 95
Elaboration on the GLE:	
1. Students can answer the questions: What is the universe, and what goes on in stars? (ES1.A) What are the predictable patterns caused by Earth's movement in the solar system? (ES1.B)	SE/TE: uInvestigate Lab: How can you observe sun patterns?, 87 Earth Spins, 88 Sunrise, Sunset, 89 uInvestigate Lab: How does the sun cause seasons?, 95 Seasons, 96-97 Quest Check-In Lab: How can you model the motions of Earth?, 98-99 Quest Findings: Sky Watchers, 102 Evidence-Based Assessment, 106-107
2. 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. At night one can see the light coming from many stars with the naked eye, but telescopes make it possible to see many more and to observe them and the moon and planets in greater detail.	SE/TE: Quest Kickoff: Sky Watchers, 76-77 uInvestigate Lab: Why is it hard to see stars during the day?, 81 Star Light, Star Bright, 82 Quest Check-In: Stars in the Sky, 85 Jumpstart Discovery!, 86 uInvestigate Lab: How can you observe sun patterns?, 87 Sunrise, Sunset, 89 Moon Motions and Phases, 90 A Closer View, 91 Interactivity: Patterns in the Night Sky, 91 Quest Connection, 91 Quest Check-In: Moon Patterns, 92 STEM Math Connection: Use a Calendar, 93 Quest Check-In Lab: How can you model the motions of Earth?, 98-99 Quest Findings: Sky Watchers, 102

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<p>3. ESS1:B Earth and the Solar System: Seasonal patterns of sunrise and sunset can be observed, described and predicted.</p>	<p>SE/TE: Sunrise, Sunset, 89 Seasons, 96-97 Quest Connection, 96 Quest Check-In Lab: How can you model the motions of Earth?, 98-99 Quest Findings: Sky Watchers, 102 Quest Check-In Lab: How does the season affect the amount of daylight?, 132-133</p> <p>TE Only: Enrichment Activity Worksheet, 89</p>
Cross Cutting Concepts:	
<p>1. Patterns: Patterns in the natural world can be observed, used to describe phenomena and used as evidence.</p>	<p>SE/TE: Quest Connection, 83 uInvestigate Lab: How can you observe sun patterns?, 87 Earth Spins, 88 Sunrise, Sunset, 89 Moon Motions and Phases, 90 Quest Check-In: Moon Patterns, 92 uInvestigate Lab: How does the sun cause seasons?, 95 Seasons, 96-97 Quest Connection, 96 Quest Check-In Lab: How can you model the motions of Earth?, 98-99 Quest Findings: Sky Watchers, 102 Evidence-Based Assessment, 106-107 uDemonstrate Lab: How do shadows change?, 108-109</p> <p>TE Only: Focus on Mastery! Identifying Patterns, 130</p>

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<p>2. Scientific Knowledge Assumes an Order and Consistency in Natural Systems: Science assumes natural events happen today as they happened in the past.</p>	<p>SE/TE: The Sun, Our Star, 83 Quest Connections, 83 uInvestigate Lab: How can you observe sun patterns?, 87 Earth Spins, 88 Sunrise, Sunset, 89 Moon Motions and Phases, 90 Math Toolbox: Science Practice Toolbox, 90 uInvestigate Lab: How does the sun cause seasons?, 95 Seasons, 96-97 Quest Check-In Lab: How can you model the motions of Earth?, 98-99</p> <p>TE Only: Storyline: Using Phenomena, 74</p>