

**A Correlation of**  
**Elevate Science**  
**Grade 2 ©2019**



To the

**Montgomery County, Maryland**  
**Next Generation Science Curriculum**  
**Grade 2**

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To the  
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**Introduction**

The following document demonstrates how the ***Elevate Science*** ©2019 program supports Montgomery County's Next Generation Science Curriculum. Correlation references include the Student Edition, Teacher Edition, and online Realize™ digital resources.

***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 21<sup>st</sup> 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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| <b>Unit 1: What is matter?</b>  |  |
| <b>Performance Expectation 2-PS1-1</b>  |  |
| <p>Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.</p> <p><b>Clarification Statement:</b> Observations could include color, texture, hardness, and flexibility. Patterns could include the similar properties that different materials share.</p> | <p><b>SE/TE:</b><br/>uConnect Lab: Which object is bigger?, 4<br/>Jumpstart Discovery!, 6<br/>uInvestigate Lab: What is different?, 7<br/>Quest Check-In: Build with Solids, Liquids, and Gases, 11<br/>Crosscutting Concepts Toolbox: Patterns, 17<br/>Test Properties, 18<br/>Quest Check-In: Observe, Measure, Test, 19<br/>uDemonstrate Lab: What makes something sink or float?, 40-41</p> <p><b>Realize™ Digital Resources:</b><br/><b>Properties of Matter</b><br/>Lesson 1, Describe Matter&gt; Interactivity: Explore Solids, Liquids and Gases<br/>Lesson 2, Properties of Matter&gt;Video: Properties of Matter;&gt;Interactivity: Observe Properties of Matter;&gt;</p>  |
| <b>Disciplinary Core Ideas</b>  |  |
| <p><b>PS1.A: Structure and Properties of Matter</b><br/>Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties.</p>  | <p><b>SE/TE:</b><br/>uInvestigate Lab: What is different?, 7<br/>Types of Matter, 9<br/>Describe Matter, 10<br/>Quest Check-In: Build with Solids, Liquids, and Gases, 11<br/>Observe Properties, 17<br/>Quest Check-In: Observe, Measure, Test, 19<br/>uInvestigate Lab: How does heating and cooling change matter?, 55<br/>Temperature, 56<br/>Heating and Cooling, 57</p> <p><b>Realize™ Digital Resources:</b><br/><b>Properties of Matter</b><br/>Lesson 1, Describe Matter&gt;Video: Describe Matter;&gt;Interactivity: Explore Solids, Liquids and Gases;&gt;Quiz: Describe Matter<br/>Lesson 2, Properties of Matter&gt;Video: Properties of Matter;&gt; Interactivity: Observe Properties of Matter;&gt;Quiz: Properties of Matter<br/><b>Changing Matter</b><br/>Lesson 2, Temperature and Matter&gt;Video: Temperature and Matter;&gt;Interactivity: Turn Up The Heat and Chill Out;&gt;Quiz: Temperature and Matter</p> |

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| <b>Science and Engineering Practices</b>  |   |
| <p><b>Planning and Carrying Out Investigations</b><br/>Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question.</p> | <p><b>SE/TE:</b><br/>uConnect Lab: Which object is bigger?, 4<br/>Jumpstart Discovery!, 6<br/>uInvestigate Lab: What is different?, 7<br/>Quest Check-In: Build with Solids, Liquids, and Gases, 11<br/>Quest Check-In: Observe, Measure, Test, 19<br/>uInvestigate Lab: Which package fits the blocks?, 21<br/>uDemonstrate Lab: What makes something sink or float?, 40-41<br/>uInvestigate Lab: How does heating and cooling change matter?, 55</p> <p><b>Realize™ Digital Resources:</b><br/><b>Properties of Matter</b><br/>Lesson 2, Properties of Matter&gt; Interactivity: Observe Properties of Matter</p> |
| <b>Crosscutting Concepts</b>  |   |
| <p><b>Patterns</b><br/>Patterns in the natural and human designed world can be observed.</p>  | <p><b>SE/TE:</b><br/>Crosscutting Concepts Toolbox: Patterns, 17<br/>STEM Quest Check-In Lab: How do you use shapes when building?, 24-25<br/>Heating and Cooling, 57</p>   |

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| <p><b>Performance Expectation 2-PS1-2</b></p>   |  |
| <p>Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose<br/><b>Clarification Statement:</b> Examples of properties could include, strength, flexibility, hardness, texture, and absorbency.<br/><b>Assessment Boundary:</b> Assessment of quantitative measurements is limited to length.</p> | <p><b>SE/TE:</b><br/>           Quest Kickoff: Toy Building Kit, 2-3<br/>           Quest Connection, 10<br/>           Quest Check-In: Build with Solids, Liquids, and Gases, 11<br/>           STEM uInvestigate Lab: What can beavers teach engineers?, 15<br/>           Quest Check-In: Observe, Measure, Test, 19<br/>           uInvestigate Lab: Which package fits the blocks?, 21<br/>           STEM Quest Check-In Lab: How do you use shapes when building?, 24-25<br/>           Quest Check-In: Liquid and Gas Toys, 32<br/>           Quest Findings: Toy Building Kit, 34<br/>           uDemonstrate Lab: What makes something sink or float?, 40-41<br/>           STEM Quest Check-In Lab: What materials make a bridge strong?, 64<br/>           uEngineer It! Improve STEM: Improve a Sipping Cup!, 66-67</p> <p><b>Realize™ Digital Resources:</b><br/> <b>Properties of Matter</b><br/>           Lesson 1, Describe Matter&gt;uEngineer It! Video: Design a Nutcracker<br/>           Lesson 3, Use Solids&gt; Interactivity: The Most Useful Tool for a Job<br/>           Lesson 4, Use Liquids and Gases&gt; Interactivity: Experiment with Solids, Liquids and Gases</p> |

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| <p><b>PS1.A: Structure and Properties of Matter</b><br/>Different properties are suited to different purposes.</p>                   | <p><b>SE/TE:</b><br/>Quest Kickoff: Toy Building Kit, 2-3<br/>Quest Connection, 10<br/>Quest Check-In: Build with Solids, Liquids, and Gases, 11<br/>STEM Investigate Lab: What can beavers teach engineers?, 15<br/>Uses of Solids, 22<br/>STEM Quest Check-In Lab: How do you use shapes when building?, 24-25<br/>Everyday Uses of Liquids and Gases, 31<br/>Quest Check-In: Liquid and Gas Toys, 32<br/>Quest Findings: Toy Building Kit, 34<br/>Quest Connection, 50<br/>Quest Connection, 57<br/>Quest Check-In: How does temperature change matter over time?, 59<br/>uEngineer It! Improve STEM: Improve a Sipping Cup!, 66-67</p> <p><b>Realize™ Digital Resources:</b><br/><b>Properties of Matter</b><br/>Lesson 1, Describe Matter&gt;uEngineer It! Video: Design a Nutcracker<br/>Lesson 3, Use Solids&gt;Video: Use Solids;&gt;Interactivity: The Most Useful Tool for a Job;&gt;Quiz: Use Solids<br/>Lesson 4, Use Liquids and Gases&gt;Video: Use Liquids and Gases;&gt;Interactivity: Experiment with Solids, Liquids and Gases;&gt;Quiz: Use Liquids and Gases</p> |
| <b>Science and Engineering Practices</b>   |  |
| <p><b>Analyzing and Interpreting Data</b><br/>Analyze data from tests of an object or tool to determine if it works as intended.</p> | <p><b>SE/TE:</b><br/>Quest Check-In: Build with Solids, Liquids, and Gases, 11<br/>STEM Investigate Lab: What can beavers teach engineers?, 15<br/>Quest Check-In: Observe, Measure, Test, 19<br/>Investigate Lab: Which package fits the blocks?, 21<br/>Demonstrate Lab: What makes something sink or float?, 40-41<br/>STEM Quest Check-In Lab: What materials make a bridge strong?, 64<br/>uEngineer It! Improve STEM: Improve a Sipping Cup!, 66-67</p> <p><b>Realize™ Digital Resources:</b><br/><b>Properties of Matter</b><br/>Lesson 1, Describe Matter&gt;uEngineer It! Video: Design a Nutcracker<br/>Lesson 3, Use Solids&gt; Interactivity: The Most Useful Tool for a Job</p>   |

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| <b>Crosscutting Concepts</b>  |  |
| <p><b>Cause and Effect</b><br/>Simple tests can be designed to gather evidence to support or refute student ideas about causes.</p>   | <p><b>SE/TE:</b><br/>Literacy Connection: Cause and Effect, 5<br/>Literacy Toolbox: Cause and Effect, 10<br/>uInvestigate Lab: How can you make a bigger bubble?, 27<br/>uDemonstrate Lab: What makes something sink or float?, 40-41<br/>uInvestigate Lab: How does heating and cooling change matter?, 55</p> <p><b>Realize™ Digital Resources:</b><br/><b>Changing Matter</b><br/>Lesson 2, Temperature and Matter&gt;Video: Temperature and Matter;&gt;Interactivity: Turn Up The Heat and Chill Out</p> |
| <p><b>Influence of Engineering, Technology, and Science on Society and the Natural World</b><br/>Every human-made product is designed by applying some knowledge of the natural world and is built using materials derived from the natural world.</p>  | <p><b>SE/TE:</b><br/>Literacy Connection Matter Everywhere, TE 8<br/>uEngineer It! Model STEM: Design a Nutcracker!, 12-13<br/>STEM uInvestigate Lab: What can beavers teach engineers?, 15<br/>Uses of Solids, 22</p> <p><b>Realize™ Digital Resources:</b><br/><b>Properties of Matter</b><br/>Lesson 1, Describe Matter&gt;uEngineer It! Video: Design a Nutcracker<br/>Lesson 3, Use Solids&gt;Video: Use Solids</p>   |
| <b>Performance Expectation 2-PS1-3</b>  |  |
| <p>Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.<br/><b>Clarification Statement:</b> Examples of pieces could include blocks, building bricks, or other assorted small objects.</p> | <p><b>SE/TE:</b><br/>STEM Quest Check-In Lab: How do you use shapes when building?, 24-25<br/>STEM uInvestigate Lab: What can you build?, 61<br/>Objects Can Be Assembled from Other Objects, 62-63<br/>Quest Connection, 63<br/>STEM uDemonstrate Lab: How can you make something new?, 74-75</p> <p><b>Realize™ Digital Resources:</b><br/><b>Changing Matter</b><br/>Lesson 3, Matter Within Objects&gt;Video: Matter Within Objects;&gt; Interactivity: Choices Matter</p>                               |



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| <b>Disciplinary Core Ideas</b>  |   |
| <p><b>PS1.A: Structure and Properties of Matter</b><br/>Different properties are suited to different purposes.</p>  | <p><b>SE/TE:</b><br/>STEM uInvestigate Lab: What can you build?, 61<br/>Objects Can Be Assembled from Other Objects, 62-63<br/>STEM Quest Check-In Lab: What materials make a bridge strong?, 64<br/>STEM uDemonstrate Lab: How can you make something new?, 74-75</p> <p><b>Realize™ Digital Resources:</b><br/><b>Changing Matter</b><br/>Lesson 3, Matter Within Objects&gt;Interactivity: Choices Matter;&gt;uEngineer It! Interactivity: Chill Out</p> |
| <p>A great variety of objects can be built up from a small set of pieces.</p>   | <p><b>SE/TE:</b><br/>STEM uInvestigate Lab: What can you build?, 61<br/>Objects Can Be Assembled from Other Objects, 62-63<br/>STEM Quest Check-In Lab: What materials make a bridge strong?, 64<br/>STEM uDemonstrate Lab: How can you make something new?, 74-75</p> <p><b>Realize™ Digital Resources:</b><br/><b>Changing Matter</b><br/>Lesson 3, Matter Within Objects&gt; Video: Matter Within Objects;&gt;Quiz: Matter Within Objects</p>            |
| <b>Science and Engineering Practices</b>  |   |
| <p><b>Constructing Explanations and Designing Solutions</b><br/>Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena.</p> | <p><b>SE/TE:</b> 61, 64, 74–75<br/>STEM uInvestigate Lab: What can you build?, 61<br/>STEM Quest Check-In Lab: What materials make a bridge strong?, 64<br/>STEM uDemonstrate Lab: How can you make something new?, 74-75</p> <p><b>Realize™ Digital Resources:</b><br/><b>Changing Matter</b><br/>Lesson 3, Matter Within Objects&gt;Video: Matter Within Objects;&gt;Interactivity: Choices Matter</p>  |

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| <b>Crosscutting Concepts</b>   |   |
| <p><b>Energy and Matter</b><br/>Objects may break into smaller pieces and be put together into larger pieces, or change shapes.</p>  | <p><b>SE/TE:</b><br/>uInvestigate Lab: How can you change objects?, 49<br/>You Can Change Matter, 51<br/>Quest Check-In: Matter Can Change, 53<br/>STEM uInvestigate Lab: What can you build?, 61<br/>Objects Can Be Assembled from Other Objects, 62-63<br/>Quest Connection, 63</p> <p><b>Realize™ Digital Resources:</b><br/><b>Changing Matter</b><br/>Lesson 1, Observe Changes in Matter&gt;Interactivity: Time for a Change;&gt;Quiz: Observe Changes in Matter<br/>Lesson 3, Matter Within Objects&gt;Video: Matter Within Objects;&gt; Interactivity: Choices Matter</p> |
| <b>Performance Expectation 2-PS1-4</b>   |   |
| <p>Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.<br/><b>Clarification Statement:</b> Examples of reversible changes could include materials such as water and butter at different temperatures. Examples of irreversible changes could include cooking an egg, freezing a plant leaf, and heating paper.</p> | <p><b>SE/TE:</b><br/>uInvestigate Lab: How does heating and cooling change matter?, 55<br/>Reversible or Not, 58<br/>Evidence-Based Assessment, 72-73</p> <p><b>Realize™ Digital Resources:</b><br/><b>Changing Matter</b><br/>Lesson 1, Observe Changes in Matter&gt;Video: Observe Changes in Matter<br/>Lesson 2, Temperature and Matter&gt;Video: Temperature and Matter</p>  |
| <b>Disciplinary Core Ideas</b>   |   |
| <p><b>PS1.B: Chemical Reactions</b><br/>Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not.</p>   | <p><b>SE/TE:</b><br/>uInvestigate Lab: How does heating and cooling change matter?, 55<br/>Heating and Cooling, 57<br/>Reversible or Not, 58<br/>Topic Assessment 70-71<br/>Evidence-Based Assessment, 72-73</p> <p><b>Realize™ Digital Resources:</b><br/><b>Changing Matter</b><br/>Lesson 2, Temperature and Matter&gt; Video: Temperature and Matter;&gt;Interactivity: Turn Up the Heat and Chill Out;&gt;Quiz: Temperature and Matter</p>   |

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| <b>Science and Engineering Practices</b>   |  |
| <b>Engaging in Argument from Evidence</b><br>Construct an argument with evidence to support a claim.   | <b>SE/TE:</b><br>uInvestigate Lab: How does heating and cooling change matter?, 55<br>Quest Check-In: How does temperature change matter over time?, 59  |
| <b>Science Models, Laws, Mechanisms, and Theories Explain Natural Phenomena</b><br>Scientists search for cause and effect relationships to explain natural events. | <b>SE/TE:</b><br>uInvestigate Lab: How can you change objects?, 49<br>You Can Change Matter, 51<br>Heating and Cooling, 57<br>Investigate, Scaffolded Questions, TE 57<br><br><b>Realize™ Digital Resources:</b><br><b>Changing Matter</b><br>Lesson 1, Observe Changes in Matter>Interactivity: Time for a Change<br>Lesson 2, Temperature and Matter> Video: Temperature and Matter;>Interactivity: Turn Up The Heat and Chill Out |
| <b>Crosscutting Concepts</b>   |  |
| <b>Cause and Effect</b><br>Events have causes that generate observable patterns.   | <b>SE/TE:</b><br>uInvestigate Lab: How can you change objects?, 49<br>uInvestigate Lab: How does heating and cooling change matter?, 55<br>Heating and Cooling, 57<br><br><b>Realize™ Digital Resources:</b><br><b>Changing Matter</b><br>Lesson 1, Observe Changes in Matter>Interactivity: Time for a Change<br>Lesson 2, Temperature and Matter>Interactivity: Turn Up the Heat and Chill Out                                     |
| <b>Performance Expectation K-2-ETS1-2</b>  |  |
| Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.                 | <b>SE/TE:</b><br>uEngineer It! Model STEM: Design a Nutcracker!, 12-13<br>STEM uInvestigate Lab: What can beavers teach engineers?, 15<br>STEM Quest Check-In Lab: What materials make a bridge strong?, 64<br>uEngineer It! Improve STEM: Improve a Sipping Cup!, 66-67   |

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| <b>Disciplinary Core Ideas</b>   |   |
| <p><b>ETS1.B: Developing Possible Solutions</b><br/>Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people.</p> | <p><b>SE/TE:</b><br/>uEngineer It! Model STEM: Design a Nutcracker!, 12-13<br/>STEM uInvestigate Lab: What can beavers teach engineers?, 15<br/>STEM Quest Check-In Lab: What materials make a bridge strong?, 64<br/>uEngineer It! Improve STEM: Improve a Sipping Cup!, 66-67<br/>STEM uDemonstrate Lab: How can you make something new?, 74-75</p>   |
| <b>Science and Engineering Practices</b>   |   |
| <p><b>Developing and Using Models</b><br/>Develop a simple model based on evidence to represent a proposed object or tool.</p>   | <p><b>SE/TE:</b><br/>uEngineer It! Model STEM: Design a Nutcracker!, 12-13<br/>STEM uInvestigate Lab: What can beavers teach engineers?, 15<br/>STEM Quest Check-In Lab: What materials make a bridge strong?, 64<br/>uEngineer It! Improve STEM: Improve a Sipping Cup!, 66-67<br/>STEM uDemonstrate Lab: How can you make something new?, 74-75</p>   |
| <b>Crosscutting Concepts</b>   |   |
| <p><b>Structure and Function</b><br/>The shape and stability of structures of natural and designed objects are related to their function(s).</p>   | <p><b>SE/TE:</b><br/>uEngineer It! Model STEM: Design a Nutcracker!, 12-13<br/>STEM uInvestigate Lab: What can beavers teach engineers?, 15<br/>uInvestigate Lab: Which package fits the blocks?, 21<br/>STEM Quest Check-In Lab: How do you use shapes when building?, 24-25<br/>Quest Check-In: How does temperature change matter over time?, 59<br/>STEM Quest Check-In Lab: What materials make a bridge strong?, 64<br/>uEngineer It! Improve STEM: Improve a Sipping Cup!, 66-67</p> <p><b>Realize™ Digital Resources:</b><br/><b>Properties of Matter</b><br/>Lesson 1, Describe Matter&gt;uEngineer It! Video: Design a Nutcracker</p> |

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| <b>Unit 2: Landforms and Bodies of Water</b>  |  |
| <b>Performance Expectation 2-ESS2-2</b>   |  |
| <p>Develop a model to represent the shapes and kinds of land and bodies of water in an area.</p> <p><b>Assessment Boundary:</b> Assessment does not include quantitative scaling in models.</p> | <p><b>SE/TE:</b><br/>           uInvestigate Lab: How can you make a map of a special place?, 83<br/>           Quest Check-In Lab: How can you model landforms?, 88-89<br/>           Quest Findings: Map Your Hike!, 104<br/>           uDemonstrate Lab: What can we find at the playground or park?, 110-111</p>   |
| <b>Disciplinary Core Ideas</b>  |  |
| <p><b>ESS2.B: Plate Tectonics and Large-Scale System Interactions</b></p> <p>Maps show where things are located. One can map the shapes and kinds of land and water in any area.</p>            | <p><b>SE/TE:</b><br/>           Quest Kickoff: Map Your Hike!, 78-79<br/>           uInvestigate Lab: How can you make a map of a special place?, 83<br/>           uInvestigate Lab: Where is the best place to cross the water?, 91<br/>           uInvestigate Lab: Why do map makers use different maps?, 99<br/>           Understand a Map, 100-101<br/>           Quest Connection, 101<br/>           Quest Check-In Lab: How far is it from here to there?, 102<br/>           Quest Findings: Map Your Hike!, 104<br/>           Evidence-Based Assessment, 108-109<br/>           uDemonstrate Lab: What can we find at the playground or park?, 110-111</p> <p><b>Realize™ Digital Resources:</b><br/> <b>Earth's Water and Land</b><br/>           Lesson 3, Map Land and Water&gt;Video: Map Land and Water;&gt;Interactivity: Map and Go;&gt;Quiz: Map Land and Water</p> |
| <b>Science and Engineering Practices</b>  |  |
| <p><b>Developing and Using Models</b></p> <p>Develop a model to represent patterns in the natural world.</p>  | <p><b>SE/TE:</b><br/>           uInvestigate Lab: How can you make a map of a special place?, 83<br/>           Quest Check-In Lab: How can you model landforms?, 88-89<br/>           Quest Findings: Map Your Hike!, 104<br/>           uDemonstrate Lab: What can we find at the playground or park?, 110-111</p>   |

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| <b>Crosscutting Concepts</b>   |   |
| <p><b>Patterns</b><br/>Patterns in the natural world can be observed.</p>  | <p><b>SE/TE:</b><br/>The Surface of Earth, 84<br/>Mountains, 84<br/>Hills and Plains, 85<br/>Plateaus and Canyons, 86<br/>Landforms on the Ocean Floor, 87<br/>Quest Check-In Lab: How can you model landforms?, 88-89<br/>uInvestigate Lab: Why do map makers use different maps?, 99<br/>uDemonstrate Lab: What can we find at the playground or park?, 110-111</p> <p><b>Realize™ Digital Resources:</b><br/><b>Earth's Water and Land</b><br/>Lesson 1, Describe Earth's Surface&gt;Video: Describe Earth's Surface;&gt;Interactivity: Landforms;&gt;Quiz: Describe Earth's Surface</p> |
| <b>Performance Expectation 2-ESS2-3</b>  |   |
| <p>Obtain information to identify where water is found on Earth and that it can be solid or liquid.</p>  | <p><b>SE/TE:</b><br/>The Ocean 92<br/>Rivers and Streams, 92<br/>Glaciers, 93<br/>Lakes and Ponds, 94<br/>Quest Check-In: Describe Earth's Water, 95</p> <p><b>Realize™ Digital Resources:</b><br/><b>Earth's Water and Land</b><br/>Lesson 2, Water on Earth&gt;Video: Water on Earth;&gt;Interactivity: Water, Water Everywhere</p>   |
| <b>Disciplinary Core Ideas</b>   |   |
| <p><b>ESS2.C: The Roles of Water in Earth's Surface Processes</b><br/>Water is found in the ocean, rivers, lakes, and ponds.<br/>Water exists as solid ice and in liquid form.</p> | <p><b>SE/TE:</b><br/>Jumpstart Discovery!, 90<br/>The Ocean 92<br/>Rivers and Streams, 92<br/>Glaciers, 93<br/>Lakes and Ponds, 94<br/>Quest Check-In: Describe Earth's Water, 95</p> <p><b>Realize™ Digital Resources:</b><br/><b>Earth's Water and Land</b><br/>Lesson 2, Water on Earth&gt;Video: Water on Earth;&gt;Interactivity: Water, Water Everywhere</p>  |

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|---|---|
| <b>Science and Engineering Practices</b>  |   |
| <p><b>Obtaining, Evaluating, and Communicating Information</b><br/>Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering a scientific question.</p> | <p><b>SE/TE:</b><br/>Table of Contents: Earth’s Water and Land, viii<br/>The Essential Question, 77<br/>Lesson 2 Opener, 90<br/>Glaciers, 93<br/>Reading Check, 93<br/>Understand a Map, 100-101<br/>Visual Literacy, 100</p> <p><b>Realize™ Digital Resources:</b><br/><b>Earth’s Water and Land</b><br/>Lesson 2, Water on Earth&gt;eText: Water on Earth</p>   |
| <b>Crosscutting Concepts</b>  |   |
| <p><b>Patterns</b><br/>Patterns in the natural world can be observed.</p>   | <p><b>SE/TE:</b><br/>uInvestigate Lab: Where is the best place to cross the water?, 91<br/>Rivers and Streams, 92<br/>Lakes and Ponds, 94<br/>Quest Connection, 94<br/>Quest Check-In: Describe Earth’s Water: 95<br/>uInvestigate Lab: Why do map makers use different maps?, 99<br/>Quest Findings: Map Your Hike!, 104<br/>uDemonstrate Lab: What can we find at the playground or park?, 110-111</p> <p><b>Realize™ Digital Resources:</b><br/><b>Earth’s Water and Land</b><br/>Lesson 2, Water on Earth&gt;Video: Water on Earth;&gt;Interactivity: Water, Water Everywhere</p> |
| <b>Performance Expectation K-2-ETS1-2</b>   |   |
| <p>Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p>   | <p><b>SE/TE:</b><br/>uInvestigate Lab: Where is the best place to cross the water?, 91</p>  |
| <b>Disciplinary Core Ideas</b>  |   |
| <p><b>ETS1.B: Developing Possible Solutions</b><br/>Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem’s solutions to other people.</p>  | <p><b>SE/TE:</b><br/>uEngineer It! Improve STEM: Improve a Dam!, 96-97</p> <p><b>Realize™ Digital Resources:</b><br/><b>Earth’s Water and Land</b><br/>Lesson 2, Water on Earth&gt;uEngineer It! Interactivity: Fix the Dam!</p>  |

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| <b>Science and Engineering Practices</b>   |   |
| <b>Developing and Using Models</b><br>Develop a simple model based on evidence to represent a proposed object or tool.   | <b>SE/TE:</b><br>uEngineer It! Improve STEM: Improve a Dam!, 96-97<br><br><b>Realize™ Digital Resources:</b><br><b>Earth’s Water and Land</b><br>Lesson 2, Water on Earth>uEngineer It! Interactivity:<br>Fix the Dam!  |
| <b>Crosscutting Concepts</b>   |   |
| <b>Structure and Function</b><br>The shape and stability of structures of natural and designed objects are related to their function(s).                         | <b>SE/TE:</b><br>uInvestigate Lab: Where is the best place to cross the water?, 91<br>uEngineer It! Improve STEM: Improve a Dam!, 96-97<br><br><b>Realize™ Digital Resources:</b><br><b>Earth’s Water and Land</b><br>Lesson 2, Water on Earth>uEngineer It! Interactivity:<br>Fix the Dam! |
| <b>Performance Expectation K-2-ETS1-3</b>  |   |
| Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.                          | <b>SE/TE:</b><br>Engineering Practices: Improve the Design, EM12-13<br><br><b>Realize™ Digital Resources:</b><br><b>Earth’s Water and Land</b><br>Lesson 2, Water on Earth>uEngineer It! Interactivity:<br>Fix the Dam!   |
| <b>Disciplinary Core Ideas</b>   |   |
| <b>ETS1.C: Optimizing the Design Solution</b><br>Because there is always more than one possible solution to a problem, it is useful to compare and test designs. | <b>SE/TE:</b><br>Engineering Practices: Improve the Design, EM12-13<br><br><b>Realize™ Digital Resources:</b><br><b>Earth’s Water and Land</b><br>Lesson 2, Water on Earth>uEngineer It! Interactivity:<br>Fix the Dam!   |
| <b>Science and Engineering Practices</b>   |   |
| <b>Analyzing and Interpreting Data</b><br>Analyze data from tests of an object or tool to determine if it works as intended.                                     | <b>SE/TE:</b><br>Engineering Practices: Improve the Design, EM12-13   |



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| <b>Unit 3: Biodiversity</b>  |  |
| <b>Performance Expectation 2-LS4-1</b>   |  |
| <p>Make observations of plants and animals to compare the diversity of life in different habitats.</p> <p><b>Clarification Statement:</b> Emphasis is on the diversity of living things in each of a variety of different habitats.</p> <p><b>Assessment Boundary:</b> Assessment does not include specific animal and plant names in specific habitats.</p> | <p><b>SE/TE:</b></p> <ul style="list-style-type: none"> <li>uConnect Lab: What is out there?, 194</li> <li>uInvestigate Lab: Who lives in a grassland?, 197</li> <li>Living Things and Their Habitats, 199</li> <li>Quest Connection, 199</li> <li>Jumpstart Discovery!, 204</li> <li>Forests, Deserts, Tundra, 206-207</li> <li>Science Practice Toolbox: Plan an Investigation, 207</li> <li>Grasslands, 208</li> <li>Quest Connection, 208</li> <li>Quest Check-In: Habitat Diversity, 209</li> <li>The Ocean, 212-213</li> <li>Rivers and Streams, 214</li> <li>Wetlands, 215</li> <li>Topic Assessment, 220-221</li> <li>uDemonstrate Lab: How can you compare diversity in two habitats?, 224-225</li> </ul> <p><b>Realize™ Digital Resources:</b></p> <p><b>Habitats</b></p> <ul style="list-style-type: none"> <li>Lesson 2, Living Things in Land Habitats&gt;Video: Living Things in Land Habitats;&gt;Interactivity: Compare Different Land Habitats;&gt;Quiz: Living Things in Land Habitats</li> <li>Lesson 3, Living Things in Water Habitats&gt;Video: Living Things in Water Habitats;&gt;Interactivity: Explore Interactions in Water Habitats;&gt;Quiz: Living Things in Water Habitats</li> </ul> |

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| <b>Disciplinary Core Ideas</b>   |  |
| <p><b>LS4.D: Biodiversity and Humans</b><br/>There are many different kinds of living things in any area, and they exist in different places on land and in water.</p> | <p><b>SE/TE:</b><br/>uConnect Lab: What is out there?, 194<br/>Jumpstart Discovery!, 196<br/>uInvestigate Lab: Who lives in a grassland?, 197<br/>Habitats, 198<br/>Living Things and Their Habitats, 199<br/>Quest Connection, 199<br/>Jumpstart Discovery!, 204<br/>Forests, Deserts, Tundra, 206-207<br/>Grasslands, 208<br/>Quest Connection, 208<br/>The Ocean, 212-213<br/>Rivers and Streams, 214<br/>Wetlands, 215<br/>Topic Assessment, 220-221</p> <p><b>Realize™ Digital Resources:</b><br/><b>Habitats</b><br/>Lesson 2, Living Things in Land Habitats&gt;Video:<br/>Living Things in Land Habitats;&gt;Interactivity: Compare<br/>Different Land Habitats;&gt;Quiz: Living Things in Land<br/>Habitats<br/>Lesson 3, Living Things in Water Habitats&gt;Video:<br/>Living Things in Water Habitats;&gt;Interactivity: Explore<br/>Interactions in Water Habitats;&gt;Quiz: Living Things in<br/>Water Habitats</p> |
| <b>Science and Engineering Practices</b>   |  |
| <p><b>Planning and Carrying Out Investigations</b><br/>Make observations (firsthand or from media) to collect data which can be used to make comparisons.</p>          | <p><b>SE/TE:</b><br/>uConnect Lab: What is out there?, 194<br/>uInvestigate Lab: Who lives in a grassland?, 197<br/>Jumpstart Discovery!, 204<br/>Forests, Deserts, Tundra, 206-207<br/>Science Practice Toolbox: Plan an Investigation, 207<br/>Grasslands, 208<br/>Quest Connection, 208<br/>Quest Check-In: Habitat Diversity, 209<br/>The Ocean, 212-213<br/>Rivers and Streams, 214<br/>Wetlands, 215<br/>uDemonstrate Lab: How can you compare diversity in two habitats?, 224-225</p> <p><b>Realize™ Digital Resources:</b><br/><b>Habitats</b><br/>Lesson 2, Living Things in Land Habitats&gt;Video:<br/>Living Things in Land Habitats<br/>Lesson 3, Living Things in Water Habitats&gt;Video:<br/>Living Things in Water Habitats</p>   |

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| <p><b>Scientific Knowledge is Based on Empirical Evidence</b><br/>Scientists look for patterns and order when making observations about the world.</p>                                       | <p><b>SE/TE:</b><br/>Habitats, 198<br/>Living Things and Their Habitats, 199</p> <p><b>TE Only:</b><br/>Investigate: Forests, TE 206</p> <p><b>Realize™ Digital Resources:</b><br/><b>Habitats</b><br/>Lesson 1, Identify Habitats&gt;Video: Identify Habitats</p>   |
| <b>Performance Expectation 2-ESS2-2</b>  |  |
| <p>Develop a model to represent the shapes and kinds of land and bodies of water in an area.<br/><b>Assessment Boundary:</b> Assessment does not include quantitative scaling in models.</p> | <p><b>SE/TE:</b><br/>uInvestigate Lab: How can you make a map of a special place?, 83<br/>Quest Check-In Lab: How can you model landforms?, 88-89<br/>Quest Findings: Map Your Hike!, 104<br/>uDemonstrate Lab: What can we find at the playground or park?, 110-111</p>   |
| <b>Disciplinary Core Ideas</b>   |  |
| <p><b>ESS2.B: Plate Tectonics and Large-Scale System Interactions</b><br/>Maps show where things are located. One can map the shapes and kinds of land and water in any area.</p>            | <p><b>SE/TE:</b><br/>Quest Kickoff: Map Your Hike!, 78-79<br/>uInvestigate Lab: How can you make a map of a special place?, 83<br/>uInvestigate Lab: Where is the best place to cross the water?, 91<br/>uInvestigate Lab: Why do map makers use different maps?, 99<br/>Understand a Map, 100-101<br/>Quest Connection, 101<br/>Quest Check-In Lab: How far is it from here to there?, 102<br/>Quest Findings: Map Your Hike!, 104<br/>Evidence-Based Assessment, 108-109<br/>uDemonstrate Lab: What can we find at the playground or park?, 110-111</p> <p><b>Realize™ Digital Resources:</b><br/><b>Earth's Water and Land</b><br/>Lesson 3, Map Land and Water&gt;Video: Map Land and Water;&gt;Interactivity: Map and Go;&gt;Quiz: Map Land and Water</p> |

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| <b>Science and Engineering Practices</b>  |   |
| <b>Developing and Using Models</b><br>Develop a model to represent patterns in the natural world.   | <b>SE/TE:</b><br>uInvestigate Lab: How can you make a map of a special place?, 83<br>Quest Check-In Lab: How can you model landforms?, 88-89<br>Quest Findings: Map Your Hike!, 104<br>uDemonstrate Lab: What can we find at the playground or park?, 110-111   |
| <b>Crosscutting Concepts</b>  |   |
| <b>Patterns</b><br>Patterns in the natural world can be observed.   | <b>SE/TE:</b><br>The Surface of Earth, 84<br>Mountains, 84<br>Hills and Plains, 85<br>Plateaus and Canyons, 86<br>Landforms on the Ocean Floor, 87<br>Quest Check-In Lab: How can you model landforms?, 88-89<br>uInvestigate Lab: Why do map makers use different maps?, 99<br>uDemonstrate Lab: What can we find at the playground or park?, 110-111<br><br><b>Realize™ Digital Resources:</b><br><b>Earth's Water and Land</b><br>Lesson 1, Describe Earth's Surface>Video: Describe Earth's Surface;>Interactivity: Landforms;>Quiz: Describe Earth's Surface |
| <b>Performance Expectation K-2-ETS1-1</b>   |   |
| Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. | <b>SE/TE:</b><br>Quest Kickoff: Protect a Habitat, 192-193<br>Quest Check-In Lab: Which habitat is best?, 200-201<br>uEngineer It! Define STEM: Plan a Habitat on Mars!, 202-203<br>Quest Findings: Protect a Habitat, 218<br>Engineering Practices: Define a Problem, EM10<br><br><b>Realize™ Digital Resources:</b><br><b>Habitats</b><br>Lesson 1, Identify Habitats>uEngineer It! Video: Environment on Mars  |

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| <b>Disciplinary Core Ideas</b>   |   |
| <p><b>ETS1.A: Defining and Delimiting Engineering Problems</b><br/>A situation that people want to change or create can be approached as a problem to be solved through engineering.</p> | <p><b>SE/TE:</b><br/>Quest Kickoff: Protect a Habitat, 192-193<br/>uEngineer It! Define STEM: Plan a Habitat on Mars!, 202-203<br/>Quest Findings: Protect a Habitat, 218<br/>Engineering Practices: Design a Solution, EM11</p> <p><b>Realize™ Digital Resources:<br/>Habitats</b><br/>Lesson 1, Identify Habitats&gt;uEngineer It! Video: Environment on Mars</p>   |
| <p>Asking questions, making observations, and gathering information are helpful in thinking about problems.</p>  | <p><b>SE/TE:</b><br/>Quest Kickoff: Protect a Habitat, 192-193<br/>Quest Check-In Lab: Which habitat is best?, 200-201<br/>uEngineer It! Define STEM: Plan a Habitat on Mars!, 202-203<br/>uInvestigate Lab: What do land plants need?, 205<br/>STEM uInvestigate Lab: How do plants survive in water?, 211<br/>Quest Check-In: Why Some Animals Live in Water, 216<br/>Quest Findings: Protect a Habitat, 218</p> <p><b>Realize™ Digital Resources:<br/>Habitats</b><br/>Lesson 1, Identify Habitats&gt;uEngineer It! Video: Environment on Mars</p> |
| <p>Before beginning to design a solution, it is important to clearly understand the problem.</p>   | <p><b>SE/TE:</b><br/>uEngineer It! Define STEM: Plan a Habitat on Mars!, 202-203<br/>Quest Findings: Protect a Habitat, 218<br/>Engineering Practices: Define a Problem, EM10</p> <p><b>Realize™ Digital Resources:<br/>Habitats</b><br/>Lesson 1, Identify Habitats&gt;uEngineer It! Video: Environment on Mars</p>  |

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| <b>Science and Engineering Practices</b>  |   |
| <b>Asking Questions and Defining Problems</b><br>Ask questions based on observations to find more information about the natural and/or designed world.                            | <b>SE/TE:</b><br>Quest Check-In Lab: Which habitat is best?, 200-201<br>uInvestigate Lab: What do land plants need?, 205<br>STEM uInvestigate Lab: How do plants survive in water?, 211<br>Quest Check-In: Why Some Animals Live in Water, 216<br>uDemonstrate Lab: How can you compare diversity in two habitats?, 224-225   |
| Define a simple problem that can be solved through the development of a new or improved object or tool.   | <b>SE/TE:</b><br>uEngineer It! Define STEM: Plan a Habitat on Mars!, 202-203  |
| <b>Unit 4: What do plants need?</b>   |   |
| <b>Performance Expectation 2-LS2-1</b>  |   |
| Plan and conduct an investigation to determine if plants need sunlight and water to grow.<br><b>Assessment Boundary:</b> Assessment is limited to testing one variable at a time. | <b>SE/TE:</b><br>uInvestigate Lab, What do plants need to grow?, 163<br>uDemonstrate Lab: How does a plant make oxygen?, 188-189  |
| <b>Disciplinary Core Ideas</b>  |   |
| <b>LS2.A: Interdependent Relationships in Ecosystems</b><br>Plants depend on water and light to grow.   | <b>SE/TE:</b><br>Jumpstart Discovery!, 162<br>uInvestigate Lab, What do plants need to grow?, 163<br>What Plants Need, 164<br>Topic Assessment, 184-185<br>Evidence-Based Assessment, 186-187<br>uDemonstrate Lab: How does a plant make oxygen?, 188-189<br><br><b>Realize™ Digital Resources:</b><br><b>Plants and Animals</b><br>Lesson 2, Plant Needs>Video: Plant Needs;>Interactivity: How Plant Parts Help Plants;>Quiz: Plant Needs |
| <b>Science and Engineering Practices</b>  |   |
| <b>Planning and Carrying Out Investigations</b><br>Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question.     | <b>SE/TE:</b><br>uInvestigate Lab, What do plants need to grow?, 163<br>uDemonstrate Lab: How does a plant make oxygen?, 188-189  |

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| <b>Crosscutting Concepts</b>  |   |
| <b>Cause and Effect</b><br>Events have causes that generate observable patterns.  | <b>SE/TE:</b><br>uInvestigate Lab, What do plants need to grow?, 163<br>What Plants Need, 164<br>Quest Check-In Lab: How can you see the parts of a plant work?, 166-167<br>uDemonstrate Lab: How does a plant make oxygen?, 188-189<br><br><b>Realize™ Digital Resources:</b><br><b>Plants and Animals</b><br>Lesson 2, Plant Needs>Video: Plant Needs   |
| <b>Performance Expectation 2-LS2-2</b>  |   |
| Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.                             | <b>SE/TE:</b><br>uInvestigate Lab: How can you model how animals spread seeds?, 175<br>Quest Check-In Lab: What is pollination?, 178-179<br>uEngineer It! Design STEM: Here's the Buzz, 180-181<br><br><b>Realize™ Digital Resources:</b><br><b>Plants and Animals</b><br>Lesson 4, Animals Can Help Plants<br>Reproduce>Interactivity: How Seeds and Pollen are Dispersed  |
| <b>Disciplinary Core Ideas</b>  |   |
| <b>LS2.A: Interdependent Relationships in Ecosystems</b><br>Plants depend on animals for pollination or to move their seeds around. | <b>SE/TE:</b><br>Quest Check-In: Attracting Flies, 172<br>Jumpstart Discovery!, 174<br>uInvestigate Lab: How can you model how animals spread seeds?, 175<br>Seeds Can Travel, 176<br>Pollen Can Travel, 177<br>Quest Connection, 177<br>Quest Check-In Lab: What is pollination?, 178-179<br>uEngineer It! Design STEM: Here's the Buzz, 180-181<br>Quest Findings: Help Save the Giant Flower, 182<br>Topic Assessment, 184-185<br>Evidence-Based Assessment, 186-187<br><br><b>Realize™ Digital Resources:</b><br><b>Plants and Animals</b><br>Lesson 4, Animals Can Help Plants<br>Reproduce>Video: Animals Can Help Plants<br>Reproduce;> Interactivity: How Seeds and Pollen are Dispersed;>uEngineer It! Video: Here's the Buzz;>Quiz: Animals Can Help Plants Reproduce |

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| <p><b>ETS1.B: Developing Possible Solutions</b><br/>Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people.</p> | <p><b>SE/TE:</b><br/>uInvestigate Lab: How can you model how animals spread seeds?, 175<br/>Quest Check-In Lab: What is pollination?, 178-179<br/>uEngineer It! Design STEM: Here's the Buzz, 180-181</p> <p><b>Realize™ Digital Resources:<br/>Plants and Animals</b><br/>Lesson 4, Animals Can Help Plants Reproduce&gt;<br/>uEngineer It! Video: Here's the Buzz</p>   |
| <b>Science and Engineering Practices</b>   |   |
| <p><b>Developing and Using Models</b><br/>Develop a simple model based on evidence to represent a proposed object or tool.</p>   | <p><b>SE/TE:</b><br/>uInvestigate Lab: How can you model how animals spread seeds?, 175<br/>Quest Check-In Lab: What is pollination?, 178-179</p>   |
| <b>Crosscutting Concepts</b>   |   |
| <p><b>Structure and Function</b><br/>The shape and stability of structures of natural and designed objects are related to their function(s).</p>   | <p><b>SE/TE:</b><br/>Jumpstart Discovery!, 174<br/>uInvestigate Lab: How can you model how animals spread seeds?, 175<br/>Seeds Can Travel, 176</p> <p><b>Realize™ Digital Resources:<br/>Plants and Animals</b><br/>Lesson 4, Animals Can Help Plants Reproduce&gt;<br/>Video: Animals Can Help Plants Reproduce;&gt;<br/>Interactivity: How Seeds and Pollen are Dispersed;&gt;<br/>Quiz: Animals Can Help Plants Reproduce</p> |



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| <b>Performance Expectation 2-PS1-4</b>  |  |
| <p>Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.</p> <p><b>Clarification Statement:</b> Examples of reversible changes could include materials such as water and butter at different temperatures. Examples of irreversible changes could include cooking an egg, freezing a plant leaf, and heating paper.</p> | <p><b>SE/TE:</b><br/>           ulnvestigate Lab: How does heating and cooling change matter?, 55<br/>           Reversible or Not, 58<br/>           Evidence-Based Assessment, 72-73</p> <p><b>Realize™ Digital Resources:</b><br/> <b>Changing Matter</b><br/>           Lesson 1, Observe Changes in Matter&gt;Video: Observe Changes in Matter<br/>           Lesson 2, Temperature and Matter&gt;Video: Temperature and Matter</p>   |
| <b>Disciplinary Core Ideas</b>  |  |
| <p><b>PS1.B: Chemical Reactions</b><br/>           Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not.</p>   | <p><b>SE/TE:</b><br/>           ulnvestigate Lab: How does heating and cooling change matter?, 55<br/>           Heating and Cooling, 57<br/>           Reversible or Not, 58<br/>           Topic Assessment 70-71<br/>           Evidence-Based Assessment, 72-73</p> <p><b>Realize™ Digital Resources:</b><br/> <b>Changing Matter</b><br/>           Lesson 2, Temperature and Matter&gt; Video: Temperature and Matter;&gt;Interactivity: Turn Up the Heat and Chill Out;&gt;Quiz: Temperature and Matter</p>             |
| <b>Science and Engineering Practices</b>  |  |
| <p><b>Engaging in Argument from Evidence</b><br/>           Construct an argument with evidence to support a claim.</p>   | <p><b>SE/TE:</b><br/>           ulnvestigate Lab: How does heating and cooling change matter?, 55<br/>           Quest Check-In: How does temperature change matter over time?, 59</p>   |
| <p><b>Science Models, Laws, Mechanisms, and Theories Explain Natural Phenomena</b><br/>           Scientists search for cause and effect relationships to explain natural events.</p>   | <p><b>SE/TE:</b><br/>           ulnvestigate Lab: How can you change objects?, 49<br/>           You Can Change Matter, 51<br/>           Heating and Cooling, 57<br/>           Investigate, Scaffolded Questions, TE 57</p> <p><b>Realize™ Digital Resources:</b><br/> <b>Changing Matter</b><br/>           Lesson 1, Observe Changes in Matter&gt;Interactivity: Time for a Change<br/>           Lesson 2, Temperature and Matter&gt; Video: Temperature and Matter;&gt;Interactivity: Turn Up the Heat and Chill Out</p> |

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| <b>Crosscutting Concepts</b>   |   |
| <b>Cause and Effect</b><br>Events have causes that generate observable patterns.   | <b>SE/TE:</b><br>ulnvestigate Lab: How can you change objects?, 49<br>ulnvestigate Lab: How does heating and cooling change matter?, 55<br>Heating and Cooling, 57<br><br><b>Realize™ Digital Resources:</b><br><b>Changing Matter</b><br>Lesson 1, Observe Changes in Matter>Interactivity: Time for a Change<br>Lesson 2, Temperature and Matter>Interactivity: Turn Up The Heat and Chill Out  |
| <b>Performance Expectation K-2-ETS1-2</b>  |   |
| Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.   | <b>SE/TE:</b><br>Jumpstart Discovery!, 174<br>ulnvestigate Lab: How can you model how animals spread seeds?, 175<br>Quest Check-In Lab: What is pollination?, 178-179   |
| <b>Disciplinary Core Ideas</b>   |   |
| <b>ETS1.B: Developing Possible Solutions</b><br>Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. | <b>SE/TE:</b><br>ulnvestigate Lab: How can you model how animals spread seeds?, 175   |
| <b>Science and Engineering Practices</b>   |   |
| <b>Developing and Using Models</b><br>Develop a simple model based on evidence to represent a proposed object or tool.   | <b>SE/TE:</b><br>ulnvestigate Lab: How can you model how animals spread seeds?, 175   |
| <b>Crosscutting Concepts</b>   |   |
| <b>Structure and Function</b><br>The shape and stability of structures of natural and designed objects are related to their function(s).   | <b>SE/TE:</b><br>Quest Check-In Lab: How can you see the parts of a plant work?, 166-167<br>Jumpstart Discovery!, 174<br>ulnvestigate Lab: How can you model how animals spread seeds?, 175<br>Seeds Can Travel, 176<br><br><b>Realize™ Digital Resources:</b><br><b>Plants and Animals</b><br>Lesson 4, Animals Can Help Plants Reproduce><br>Video: Animals Can Help Plants Reproduce;><br>Interactivity: How Seeds and Pollen are Dispersed;><br>Quiz: Animals Can Help Plants Reproduce |

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To the  
Montgomery County Next Generation Science Curriculum for Grade 2**

| <b>Montgomery County Next Generation<br/>Science Curriculum for Grade 2</b>  | <b>Elevate Science ©2019<br/>Grade 2</b>   |
|--|--|
| <b>Performance Expectation K-2-ETS1-3</b>  |  |
| Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.                          | <b>SE/TE:</b><br>Investigate Lab: How can you model how animals spread seeds?, 175<br>Engineering Practices: Improve the Design, EM12-EM13 |
| <b>Disciplinary Core Ideas</b>   |  |
| <b>ETS1.C: Optimizing the Design Solution</b><br>Because there is always more than one possible solution to a problem, it is useful to compare and test designs. | <b>SE/TE:</b><br>Investigate Lab: How can you model how animals spread seeds?, 175<br>Engineering Practices: Improve the Design, EM12-EM13 |
| <b>Science and Engineering Practices</b>   |  |
| <b>Analyzing and Interpreting Data</b><br>Analyze data from tests of an object or tool to determine if it works as intended.                                     | <b>SE/TE:</b><br>Investigate Lab: How can you model how animals spread seeds?, 175<br>Engineering Practices: Improve the Design, EM12-EM13 |

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