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A Correlation of

South Carolina Elevate Science Grade 8, ©2023

To the

South Carolina College- and Career-Ready Science Standards 2021 Grade 8

Prepared by Savvas Learning Company, formerly Pearson K12 Learning

A Correlation of South Carolina Elevate Science, Grade 8 ©2023 to the South Carolina College- and Career-Ready Science Standards 2021 Grade 8

Introduction

The following document demonstrates how the ***South Carolina Elevate Science ©2023*** program supports the South Carolina College- and Career-Ready Science Standards 2021. Correlation references include the Student Edition, Teacher Edition, and online Realize™ digital resources.

Savvas Learning Company, LLC is proud to introduce ***South Carolina Elevate Science*** Middle Grades – where exploration is the heart of science! Designed to address the rigors of new science standards, students will experience science up close and personal, using real-world, relevant phenomena to solve project-based problems. Our newest program 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 arguments. The blended print and digital curriculum covers all Next Generation Science Standards at every grade level.

South Carolina Elevate Science helps teachers transform learning, promote innovation, and manage their classroom.

Transform science classrooms by immersing students in active, three-dimensional learning.
South Carolina Elevate Science engages students with real-world tasks, open-ended Quests, uDemonstrate performance-based labs, and in the engineering/design process with uEngineer It! investigations.

- A new 3-D learning model enhances best practices.
- Engineering-focused features infuse STEM learning.
- Phenomena-based activities put students at the heart of a Quest for knowledge.

Innovate learning by focusing on 21st century skills. Students are encouraged to think, collaborate, and innovate! With *South Carolina Elevate Science*, students explore STEM careers, experience engineering activities, and discover our scientific and technological world. The content, strategies, and resources of South Carolina Elevate Science equip the science classroom for scientific inquiry and science and engineering practices.

- Problem-based learning Quests put students on a journey of discovery.
- STEM connections help integrate curriculum.
- Coding and innovation engage students and build 21st century skills.

Manage the classroom with confidence.
Teachers will lead their class in asking questions and engaging in argumentation. Evidence-based assessments provide new options for monitoring student understanding.

- Professional development offers practical point-of-use support.
- Embedded standards in the program allow for easy integration.
- ELL and differentiated instruction strategies help instructors reach every learner.
- Interdisciplinary connections relate science to other subjects.

Designed for today's classroom, preparing students for tomorrow's world. ***South Carolina Elevate Science*** promises to:

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

SE = Student Edition **TE= Teacher Edition**

Digital Resources: The symbol > indicates a click to reach each digital asset on the Realize platform.

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Disciplinary Core Ideas	
PS2.A: Forces and Motion	
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Disciplinary Core Ideas	
LS1.B: Growth and Development of Organisms	
Organisms reproduce, either sexually or asexually, and transfer their genetic information to their offspring. (secondary)	**SE/TE:** Asexual Reproduction, 7 Sexual Reproduction, 8 uConnect Lab: Making More, 58-59
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In sexually reproducing organisms, each parent contributes half of the genes acquired (at random) by the offspring. Individuals have two of each chromosome and hence two alleles of each gene, one acquired from each parent. These versions may be identical or may differ from each other. In asexual reproduction, an organism's DNA is replicated and passed to its offspring creating a genetic copy of the parent.	**SE/TE:** Asexual Reproduction, 7 Sexual Reproduction, 8 Chromosome Pairs, 75 Forming Sex Cells, 77 Comparing Meiosis and Mitosis, 79 **Realize™ Digital Resources:** **Topic 2: Genes and Heredity** >Lesson 2: Chromosomes and Inheritance>Interactivity: Look Inside;>Interactivity: Colorful Chromosomes
Science and Engineering Practices	
Developing and Using Models Develop and use a model to describe phenomena.	**SE/TE:** Model It!, 8 uConnect Lab: Making More, 58-59 Meiosis, Figure 6: SEP Use Models, 78 **Realize™ Digital Resources:** **Topic 1: Reproduction and Growth** >Lesson 1: Patterns of Reproduction >uInvestigate Lab: Comparing Methods of Reproduction **Topic 2: Genes and Heredity** >Lesson 2: Chromosomes and Inheritance>Interactivity: Look Inside;>Interactivity: Colorful Chromosomes

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Crosscutting Concepts	
Cause and Effect Cause-and-effect relationships may be used to predict phenomena in natural systems.	**SE/TE:** Connect It!, 72 Swapping Genetic Material, Figure 5: CCC Cause and Effect, 77 Lesson 2 Check, #5, 80
Biological Evolution: Unity and Diversity (LS4)	
Performance Expectation	
8-LS4-1. Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operated in the past as they do today.	**SE/TE:** uConnect Lab: Walking Whales?, 124-125 Reading the Past, Figure 4: CCC Identify Patterns, 130 Connect It!, 154 The Fossil Record, 155-157 Fossil Evidence of Evolution, 158-159 Comparisons of Anatomy, 160 Math Toolbox: Homologous Anatomical Structures, 161 Beginning and End of a Species, 162-164 Lesson 4 Check, #2, #5, 165 Case Study: Could Dinosaurs Roar?, 166-167 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 4: Evidence in the Fossil Record>Interactivity: Along the Canyon Wall;>Interactivity: Fossils Around the World
Disciplinary Core Ideas	
LS4.A: Evidence of Common Ancestry and Diversity	
The collection of fossils and their placement in chronological order (e.g., through the location of the sedimentary layers in which they are found or through radioactive dating) is known as the fossil record. It documents the existence, diversity, extinction, and change of many life forms throughout the history of life on Earth.	**SE/TE:** The Fossil Record, 155 Fossil Evidence of Evolution, 158-159 Beginning and End of a Species, 162 Lesson 4 Check, #5, 165 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 4: Evidence in the Fossil Record>Interactivity: Along the Canyon Wall;>Interactivity: Fossils Around the World

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ESS2.E: Biogeology	
Sudden changes in conditions (e.g., meteor impacts, major volcanic eruptions) have caused mass extinctions, but these changes, as well as more gradual ones, have ultimately allowed other life forms to flourish. (secondary)	**SE/TE:** Beginning and End of a Species, 162
Science and Engineering Practices	
Analyzing and Interpreting Data Analyze and interpret data to determine similarities and differences in findings.	**SE/TE:** uConnect Lab: Walking Whales?, 124-125 Lesson 4 Check, #2, 165 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 4: Evidence in the Fossil Record>Interactivity: Fossils Around the World
Crosscutting Concepts	
Patterns Graphs, charts, and images can be used to identify patterns in data.	**SE/TE:** uConnect Lab: Walking Whales?, 124-125 Reading the Past, Figure 4: CCC Identify Patterns, 130 Lesson 4 Check, #5, 165 Case Study: Could Dinosaurs Roar?, 166-167 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 4: Evidence in the Fossil Record>Interactivity: Fossils Around the World
Performance Expectation	
8-LS4-2. Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer their ancestral relationships.	**SE/TE:** uConnect Lab: Walking Whales?, 124-125 Question It!, 133 Lesson 1 Check, #5, 135 Homologous Structures, 160 Analogous Structures, 160 Reading Check: Determine Conclusions, 160 Math Toolbox: Homologous Anatomical Structures, 161 Lesson 4 Check, #3, 165 Case Study: Could Dinosaurs Roar?, 166-167 uDemonstrate Lab: A Bony Puzzle, 182-185 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 4: Evidence in the Fossil Record>Interactivity: Legs, Arms, Wings, and Flippers

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Disciplinary Core Ideas	
LS4.A: Evidence of Common Ancestry and Diversity	
Anatomical similarities and differences among modern organisms and between modern and fossil organisms in the fossil record enable the reconstruction of the history and the inference of lines of ancestral relationships.	**SE/TE:** Comparisons of Anatomy, 160 Math Toolbox: Homologous Anatomical Structures, 161 Lesson 4 Check, #3, 165 uDemonstrate Lab: A Bony Puzzle, 182-185 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 4: Evidence in the Fossil Record>Interactivity: Legs, Arms, Wings, and Flippers
Science and Engineering Practices	
Constructing Explanations and Designing Solutions Apply scientific ideas to construct an explanation for real-world phenomena, examples, or events.	**SE/TE:** uConnect Lab: Walking Whales?, 124-125 Question It!, 133 Lesson 1 Check, #5, 135 Lesson 4 Check, #3, 165 Case Study: Could Dinosaurs Roar?, 166-167 uDemonstrate Lab: A Bony Puzzle, 182-185 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 4: Evidence in the Fossil Record>Interactivity: Legs, Arms, Wings, and Flippers
Crosscutting Concepts	
Patterns Patterns can be used to identify cause- and-effect relationships.	**SE/TE:** uConnect Lab: Walking Whales?, 124-125 Case Study: Could Dinosaurs Roar?, 166-167 uDemonstrate Lab: A Bony Puzzle, 182-185 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 4: Evidence in the Fossil Record>Interactivity: Legs, Arms, Wings, and Flippers

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Performance Expectation	
8-LS4-4. Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individual's probability of surviving and reproducing in a specific environment.	**SE/TE:** Case Study: Cephalopods Special Edition, 70-71 Helpful Mutations, 99 Connect It!, 126 Comparisons Among the Islands, 133 Question It!, 133 Connect It!, 136 How Natural Selection Works, 139 Selection, 140-141 Model It!: Natural Selection in Action, 141 Lesson 2 Check, #5, 144 Effects of Mutations, 149 Topic 3 Review and Assess, #5, 178 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 1: Early Study of Evolution>Inquiry Warm-Up Lab: Flowery Traits, Seedy Variations;>Interactivity: Adaptations and Variations >Lesson 2: Natural Selection>Interactivity: Mice Selection on the Prairie;>Interactivity: Lessons From the Potato Famine >Lesson 3: The Process of Evolution>uInvestigate Lab: Adaptations of Birds
Disciplinary Core Ideas	
LS4.B: Natural Selection	
Natural selection leads to the predominance of certain traits in a population, and the suppression of others.	**SE/TE:** How Natural Selection Works, 139 Selection, 140-141 Model It!: Natural Selection in Action, 141 Lesson 2 Check, #4, 144 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 2: Natural Selection>Interactivity: Mice Selection on the Prairie

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Science and Engineering Practices	
Constructing Explanations and Designing Solutions Construct an explanation that includes qualitative or quantitative relationships between variables that describe phenomena.	**SE/TE:** Case Study: Cephalopods Special Edition, 70-71 Connect It!, 126 Question It!, 133 Connect It!, 136 Model It!: Natural Selection in Action, 141 Lesson 2 Check, #5, 144 Topic 3 Review and Assess, #5, 178 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 1: Early Study of Evolution>Interactivity: Adaptations and Variations >Lesson 2: Natural Selection>Interactivity: Lessons From the Potato Famine >Lesson 3: The Process of Evolution>uInvestigate Lab: Adaptations of Birds
Crosscutting Concepts	
Cause and Effect Phenomena may have more than one cause, and some cause-and-effect relationships in systems can only be described using probability.	**SE/TE:** Lesson 2 Check, #6, 144 Quest Check-In, 153 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 1: Early Study of Evolution>Inquiry Warm-Up Lab: Flowery Traits, Seedy Variations;>Interactivity: Adaptations and Variations >Lesson 2: Natural Selection>Interactivity: Mice Selection on the Prairie

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Performance Expectation	
8-LS4-5. Gather and synthesize information about technologies that have changed the way humans influence the inheritance of desired traits in organisms.	**SE/TE:** Artificial Selection, 105 Literacy Connection: Corroborate, 105 Genetic Engineering, 106 Gene Therapy in Humans, 108 Cloning Organisms, 109 Controversies of DNA Use, 112 Reading Check: Corroborate, 112 Topic 2 Review and Assess, #19, 115 Topic 2 Evidence-Based Assessment, 116-117 Artificial Selection, 138 **Realize™ Digital Resources:** **Topic 2: Genes and Heredity** >Lesson 5: Genetic Technologies>Interactivity: Solving Problems with Genetics;>Enrichment: Advances in Genetics
Disciplinary Core Ideas	
LS4.B: Natural Selection	
In artificial selection, humans have the capacity to influence certain characteristics of organisms by selective breeding. One can choose desired parental traits determined by genes, which are then passed onto offspring.	**SE/TE:** Artificial Selection, 105 Lesson 5 Check, #5, 113 Artificial Selection, 138
ETS2.A: Interdependence of Science, Engineering, and Technology	
Engineering advances have led to important discoveries in virtually every field of science, and scientific discoveries have led to the development of entire industries and engineered systems.	**SE/TE:** Genetic Engineering, 106 Lesson 5 Check, 113
Science and Engineering Practices	
Obtaining, Evaluating, and Communicating Information Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence.	**SE/TE:** Literacy Connection: Corroborate, 105 Reading Check: Corroborate, 112 Lesson 5 Check, 113 Topic 2 Evidence-Based Assessment, 116-117 **Realize™ Digital Resources:** **Topic 2: Genes and Heredity** >Lesson 5: Genetic Technologies>Interactivity: Solving Problems with Genetics;>Enrichment: Advances in Genetics

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Crosscutting Concepts	
Cause and Effect Phenomena may have more than one cause, and some cause-and-effect relationships in systems can only be described using probability.	**SE/TE:** Lesson 5 Check, 113 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 4: Trait Variations>Quest Check-In Lab: All in the Numbers
Performance Expectation	
8-LS4-6. Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.	**SE/TE:** Connect It!, 136 How Natural Selection Works, 139 Selection, 140-141 Math Toolbox: Hatching for Success, 140 Model It!: Natural Selection in Action, 141 Lesson 2 Check, #4, #6, 144 Math Toolbox: All in the Family, 173 Lesson 5 Check, #4, 176 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 2: Natural Selection>Interactivity: Mice Selection on the Prairie> Variation in a Population
Disciplinary Core Ideas	
LS4.C: Adaptation	
Adaptation by natural selection occurring over generations is one important process by which species change over time in response to changes in environmental conditions. Traits that support successful survival and reproduction in the new environment become more common; those that do not, become less common. Thus, the distribution of traits in a population changes.	**SE/TE:** Comparisons Among the Islands, 133 How Natural Selection Works, 139 Selection, 140-141 Model It!: Natural Selection in Action, 141 Lesson 2 Check, #4, 144 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 2: Natural Selection>Interactivity: Mice Selection on the Prairie

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Science and Engineering Practices	
Using Mathematics and Computational Thinking Use mathematical representations to support scientific conclusions and design solutions.	**SE/TE:** Math Toolbox: Hatching for Success, 140 Math Toolbox: All in the Family, 173 Lesson 5 Check, #4, 176 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 2: Natural Selection>Interactivity: Mice Selection on the Prairie; >uInvestigate Lab: Variation in a Population
Crosscutting Concepts	
Cause and Effect Phenomena may have more than one cause, and some cause-and-effect relationships in systems can only be described using probability.	**SE/TE:** Lesson 2 Check, #6, 144 Quest Check-In, 176 **Realize™ Digital Resources:** **Topic 3: Natural Selection and Change Over Time** >Lesson 2: Natural Selection>Interactivity: Mice Selection on the Prairie
Earth's Place in the Universe (ESS1)	
Performance Expectation	
8-ESS1-1. Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, tides, and seasons.	**SE/TE:** The Seasons, 359 Seasons, Figure 3, 359 Lesson 2 Check, #2, 364 Phases of the Moon, 369 Moon Phases, Figure 3, 369 Two Types of Eclipses, Figure 4, 370 Eclipses, 371 Model It!: Solar and Lunar Eclipses, 371 Tides, 372-373 Spring and Neap Tides, Figure 5, 373 Lesson 3 Check, #1-#5, 374 Topic 7 Review and Assess, #17, #19, 377 Topic 7 Evidence-Based Assessment, 378-379 uDemonstrate Lab: Modeling Lunar Phases, 380-383 **Realize™ Digital Resources:** **Topic 7: Earth-Sun-Moon System** >Lesson 3: Phases and Eclipses>Interactivity: Eclipses;>Worksheet: Eclipses;>Virtual Lab: Shadows in Space;>Interactivity: Moon Phases and Eclipses;>Quest Check-In Lab: The Moon's Revolution and Tides

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Disciplinary Core Ideas	
ESS1.A: The Universe and Its Stars	
Patterns of the apparent motion of the sun, the moon, and stars in the sky can be observed, described, predicted, and explained with models.	**SE/TE:** Movement in the Sky, 348 Heliocentric Model, 351 Lesson 1 Check, #2, 353 Lunar Motion, Figure 2, 368 Motions of the Moon, 368 Topic 7 Review and Assess, #5, 376 **Realize™ Digital Resources:** **Topic 7: Earth-Sun-Moon System** >Lesson 1: Movement in Space>Interactivity: Evidence in Observations;>uInvestigate Lab: Watching the Skies
ESS1.B: Earth and the Solar System	
This model of the solar system can explain tides (including spring and neap), eclipses of the sun and the moon. Earth's spin axis is fixed in direction over the short-term but tilted relative to its orbit around the sun. The seasons are a result of that tilt and are caused by the differential intensity of sunlight on different areas of Earth across the year.	**SE/TE:** Rotation, 357 The Seasons, 359 Lesson 2 Check, #2, 364 Two Types of Eclipses, Figure 4, 370 Eclipses, 371 Tides, 372-373 Lesson 3 Check, #3, #4, #5, 374 Topic 7 Evidence-Based Assessment, 378-379 **Realize™ Digital Resources:** **Topic 7: Earth-Sun-Moon System** >Lesson 2: Earth's Movement in Space>Interactivity: Seasons on Earth >Lesson 3: Phases and Eclipses>Interactivity: Eclipses;>Worksheet: Eclipses;>Virtual Lab: Shadows in Space;>Interactivity: Moon Phases and Eclipses;>Quest Check-In Lab: The Moon's Revolution and Tides

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Science and Engineering Practices	
Developing and Using Models Develop and use a model to describe phenomena.	**SE/TE:** Seasons, Figure 3, 359 Moon Phases, Figure 3, 369 Two Types of Eclipses, Figure 4, 370 Model It!: Solar and Lunar Eclipses, 371 Spring and Neap Tides, Figure 5, 373 Topic 7 Review and Assess, #17, #19, 377 Topic 7 Evidence-Based Assessment, 378-379 uDemonstrate Lab: Modeling Lunar Phases, 380-383 **Realize™ Digital Resources:** **Topic 7: Earth-Sun-Moon System** >Lesson 3: Phases and Eclipses>Interactivity: Eclipses;>Worksheet: Eclipses;>Virtual Lab: Shadows in Space;>Interactivity: Moon Phases and Eclipses;>Quest Check-In Lab: The Moon's Revolution and Tides
Crosscutting Concepts	
Patterns Patterns can be used to identify cause- and- effect relationships.	**SE/TE:** Lesson 2 Check, #2, 364 Connect It!, 366 Lesson 3 Check, #1, 374 Topic 7 Evidence-Based Assessment, 378-379 uDemonstrate Lab: Modeling Lunar Phases, 380-383 **Realize™ Digital Resources:** **Topic 7: Earth-Sun-Moon System** >Lesson 3: Phases and Eclipses>Interactivity: Eclipses;>Worksheet: Eclipses;>Quest Check-In Lab: The Moon's Revolution and Tides

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Performance Expectations	
8-ESS1-2. Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.	**SE/TE:** Understanding the Solar System, 389 Smaller Solar System Objects, 392 Solar System Formation, 398 Lesson 1 Check, #5, 399 How Stars Are Organized, 413-414 Galaxies, 415 Lesson 3 Check, 416 Topic 8 Review and Assess, 419 Topic 8 Evidence-Based Assessment, 420-421 **Realize™ Digital Resources:** **Topic 8: Solar System and the Universe** >Lesson 1: Solar System Objects>uInvestigate Lab: Pulling Planets >Lesson 3: Stars and Galaxies>uInvestigate Lab: Model the Milky Way
Disciplinary Core Ideas	
ESS1.A: The Universe and Its Stars	
Earth and its solar system are part of the Milky Way galaxy, which is one of many galaxies in the universe.	**SE/TE:** Galaxies, 415 Extraordinary Science: Traveling Through the Milky Way, 417 **Realize™ Digital Resources:** **Topic 8: Solar System and the Universe** >Lesson 3: Stars and Galaxies>uInvestigate Lab: Model the Milky Way
ESS1.B: Earth and the Solar System	
The solar system consists of the sun, planets, their moons, and other celestial objects that are held in orbit around the sun by its gravitational pull on them.	**SE/TE:** Understanding the Solar System, 389 Comparing the Sun and Planets, 391 Smaller Solar System Objects, 392 The Solar System, Figure 7, 396-397
The solar system appears to have formed from a disk of dust and gas, drawn together by gravity.	**SE/TE:** Solar System Formation, 398 Lesson 1 Check, #2, #5, 399 Topic 8 Review and Assess, #4, 418 **Realize™ Digital Resources:** **Topic 8: Solar System and the Universe** >Lesson 1: Solar System Objects>Interactivity: How to Make a Solar System

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Science and Engineering Practices	
Developing and Using Models Develop and use a model to describe phenomena.	**SE/TE:** Topic 8 Evidence-Based Assessment, 420-421 **Realize™ Digital Resources:** **Topic 8: Solar System and the Universe** >Lesson 1: Solar System Objects>uInvestigate Lab: Pulling Planets >Lesson 3: Stars and Galaxies>uInvestigate Lab: Model the Milky Way
Crosscutting Concepts	
Systems and System Models Models can be used to represent systems and their interactions.	**SE/TE:** How Stars Are Organized, 413-414 Galaxies, 415 Topic 8 Evidence-Based Assessment, 420-421 **Realize™ Digital Resources:** **Topic 8: Solar System and the Universe** >Lesson 1: Solar System Objects>uInvestigate Lab: Pulling Planets >Lesson 3: Stars and Galaxies>uInvestigate Lab: Model the Milky Way
Performance Expectation	
8-ESS1-3. Evaluate information to determine scale properties of objects in the solar system.	**SE/TE:** uConnect Lab: Planetary Measures, 386-387 Distances in the Solar System, 390 Math Toolbox: Converting Units of Distance, 390 The Solar System, Figure 7, 396-397 Case Study: Comparing Solar System Objects, 400-401 uDemonstrate Lab: Scaling Down the Solar System, 422-425 **Realize™ Digital Resources:** **Topic 8: Solar System and the Universe** >Lesson 1: Solar System Objects>Interactivity: Distance Learning>uInvestigate Lab: Modeling the Solar System

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Disciplinary Core Ideas	
ESS1.B: Earth and the Solar System	
The solar system consists of the sun, planets, their moons, and other celestial objects that are held in orbit around the sun by its gravitational pull on them.	**SE/TE:** Understanding the Solar System, 389 Comparing the Sun and Planets, 391 Smaller Solar System Objects, 392 The Solar System, Figure 7, 396-397 **Realize™ Digital Resources:** **Topic 8: Solar System and the Universe** >Lesson 1: Solar System Objects>uInvestigate Lab: Modeling the Solar System
ETS2.A: Interdependence of Science, Engineering, and Technology	
Engineering advances have led to important discoveries in virtually every field of science and scientific discoveries have led to the development of entire industries and engineered systems.	**SE/TE:** Collecting Space Data, 403-405 Lesson 2 Check, #2, #3, 410 uEngineer It!: Blast Off, 411 **Realize™ Digital Resources:** **Topic 8: Solar System and the Universe** >Lesson 2: Learning About the Universe>Interactivity: Space Exploration
Science and Engineering Practices	
Obtaining, Evaluating, and Communicating Information Integrate qualitative and/or quantitative scientific and/or technical information in text with that contained in media and visual displays to clarify claims and findings.	**SE/TE:** Reading Check: Integrate Visuals, 397 Case Study: Comparing Solar System Objects, 400-401 uDemonstrate Lab: Scaling Down the Solar System, 422-425 **Realize™ Digital Resources:** **Topic 8: Solar System and the Universe** >Lesson 1: Solar System Objects>Interactivity: Distance Learning**;** >uInvestigate Lab: Modeling the Solar System

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Crosscutting Concepts	
Scale, Proportion, and Quantity Time, space, and energy phenomena can be observed at various scales using models to study systems that are too large or too small.	**SE/TE:** uConnect Lab: Planetary Measures, 386-387 The Solar System, Figure 7, 396-397 Case Study: Comparing Solar System Objects, 400-401 uDemonstrate Lab: Scaling Down the Solar System, 422-425 **Realize™ Digital Resources:** **Topic 8: Solar System and the Universe** >Lesson 1: Solar System Objects>uInvestigate Lab: Modeling the Solar System