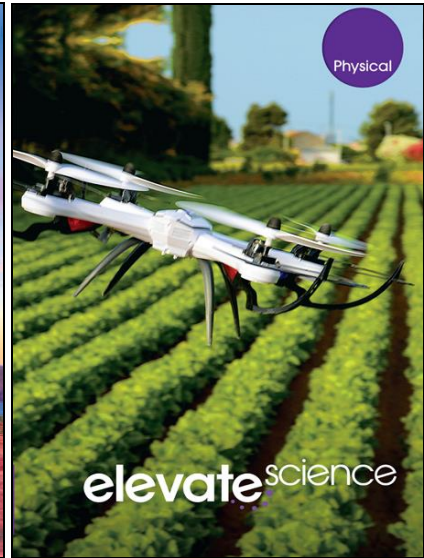
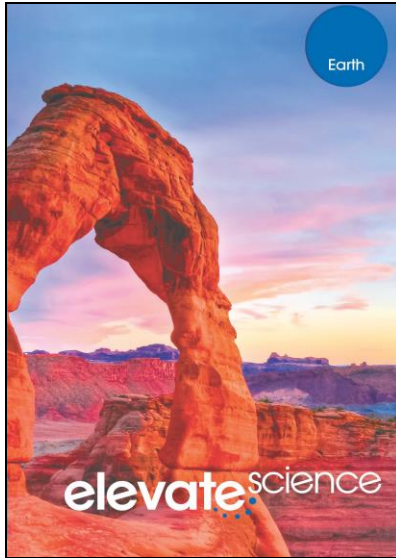
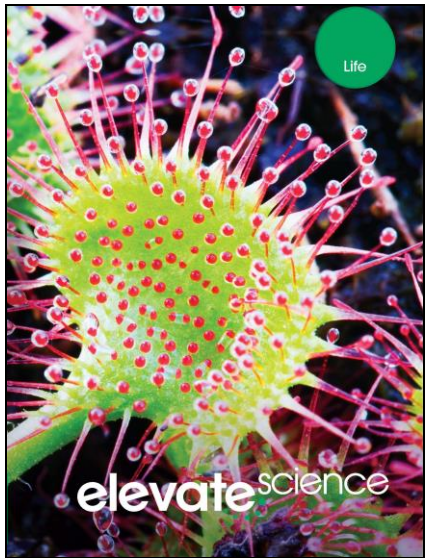


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To the

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Introduction

This document demonstrates how the ***Elevate Science* ©2019** program supports the Missouri Learning Standards for Science, Grades 6-8. Correlation page references are to the Student and Teacher's Editions and cited at the page level.

Savvas is proud to introduce ***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.

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

Transform science classrooms by immersing students in active, three-dimensional learning.

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 ***Elevate Science***, students explore STEM careers, experience engineering activities, and discover our scientific and technological world. The content, strategies, and resources of *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. ***Elevate Science*** promises to:

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

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To the
Missouri Learning Standards for Science, Grades 6-8**

Table of Contents

Physical Science.....	4
Life Science	10
Earth and Space Science.....	16
Engineering.....	23

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
Physical Science	
6-8-PS1 Matter and Its Interactions	
6-8-PS1.A Structure and Properties of Matter	
6-8-PS1-1 Develop models to describe the atomic composition of simple molecules and extended structures.	Physical Science SE/TE: Components of Matter, 8-9 Model It! Molecules and Atoms, 9 Hands-On Lab, 9 Topic 1 Review and Assessment, 36-37 Model It!: Dry Ice, 63 Evidence Based Assessment, 36-37 Model It!: Models of an Atom, 339 A Modern Model of the Atom, 340 Lesson 1 Check, 343 Lesson 3 Check, 366 Model It!: How Ions Form, 370 Lesson 4 Check, 377
6-8-PS1-2 Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.	Physical Science SE/TE: Quest Check-In, 12 Chemical Changes in Matter, 27-28 Math Toolbox, 29 Math Toolbox, Energy in Chemical Reactions, 31 Hands-On Lab: What Happens When Chemicals React?, 394 The Essential Question, 395 Chemical Change, 410 Model It!: Wood Work, 410 Evidence of Chemical Reactions, 412-413 Hands-On-Lab: Changes in a Burning Candle, 412 It's All Connected: The Art of Chemical Change, 419 Evidence of Chemical Reactions, 412-413 uDemonstrate Lab: Evidence of Chemical Change, 442-445 uDemonstrate Lab: Evidence of Chemical change, 442-445

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-PS1-3 Gather, analyze, and present information to describe that synthetic materials come from natural resources and how they impact society.	Physical Science SE/TE: Synthetic Material, 429 Figure 2: Accidental Synthetics, 431 Polymers, 432 Hand-On-Lab: Making Plastic from Starch, 432 Impact of Synthetic Materials, 433 Synthetic Medicines, 434 Synthetic Fuels, 434 Case Study: Is Plastic Really So Fantastic?, 436-437
6-8-PS1-4 Develop a model that describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.	Physical Science SE/TE: Model It!: Dry Ice, 63 Topic Review and Assess, 80-81 Hands-On Lab: Molecular Compounds, 375 Hands-On Lab: Changes in a Burning Candle, 412 Changes in Energy, 414 Energy Graphs for Chemical Reactions, 415 Affecting Rates Of Reactions, 414-415 Quest Check-In, 418
6-8-PS1.B Chemical Reactions	
6-8-PS1-5 Develop and use a model to describe how the total number of atoms remains the same during a chemical reaction and thus mass is conserved.	Physical Science SE/TE: Conservation of Mass, 28-29 Math Toolbox: Conservation of Mass, 29 Topic Review and Assess, 34-35 Building and Breaking Bonds, 411 Chemical Equation, 421-423 Hands-On-Lab: Is Matter Conserved?, 423 Law of Conservation of Mass, 424-425 Types of Chemical Reactions, 426 Chemical Equations, 421-423 Model It!, 422 Law of Conservation of Mass, 424-425 Math Toolbox, 425 Lesson 3 Check, 427 Topic 2 Review and Assess, 438 Topic 2 Evidence-Based Assessment, 440-441

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-PS1-6 Construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.	Physical Science SE/TE: Quest Kickoff: How can you keep hot water from cooling down?, 138-139, Quest Findings, 169 Quest Kickoff: How can you design and build hot packs and cold packs?, 396-397 Quest Check-In, 418 Quest Check-In, 427 Quest Findings: Complete the Quest, 441
6-8-PS2 Motion and Stability: Forces and Interactions	
6-8-PS2.A Forces and Motion	
6-8-PS2-1 Apply physics principles to design a solution that minimizes the force of an object during a collision and develop an evaluation of the solution.	Physical Science SE/TE: Quest Kickoff: How can you take the crash out of a collision?, 448-449 Newton's Third Law of Motion, 475-477 Action-Reaction Pairs, 475 Balanced and Action-Reaction Forces, 476 Detecting Forces and Motion, 476 Hands-On Lab: Newton Scooters, 476 Question It!: Newton's Third Law of Motion, 477 Quest Check-In, 478 Quest Check-In, 488 Quest Findings: Complete the Quest, 493
6-8-PS2-2 Plan and conduct an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.	Physical Science SE/TE: uDemonstrate Lab: Stopping on a Dime, 494-497

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To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-PS2.B Types of Interaction	
6-8-PS2-3 Analyze diagrams and collect data to determine the factors that affect the strength of electric and magnetic forces.	<p>Physical Science SE/TE: Electric Force, Electric Force, Fields and Energy, 242-243 The Essential Question, 237 Quest Kickoff: How can you lift an object without making contact?, 238-239 Question It!, 243 Extraordinary Science: Bumblebees and Electric Flowers, 249 Lesson 2: Magnetic Force, Magnetic Force and Energy, 251-252 Hands-On Lab: Detecting Fake Coins, 252 Magnetic Fields, 253-256 Model It!: Combined Magnetic Field Lines, 255 uDemonstrate Lab: Planetary Detective, 282-285</p>
6-8-PS2-4 Create and analyze a graph to use as evidence to support the claim that gravitational interactions depend on the mass of interacting objects.	<p>Physical Science SE/TE: Factors That Affect Gravity, 484-485 Extraordinary Science: Space-Time Curvature and Gravitational Waves, 489</p> <p>Earth Science SE/TE: Gravity and Orbits, 509 Math Toolbox, 510 Orbital Motion, 511 Gravity and Orbits, 573-575 Quest Check-in, 576</p>
6-8-PS2-5 Conduct an investigation and evaluate the experimental design to provide evidence that electric and magnetic fields exist between objects exerting forces on each other even though the objects are not in contact.	<p>Physical Science SE/TE: Electric Force, Electric Force, Fields and energy, 242-243 Model It!: Combined Magnetic Field Lines, 255 Electromagnetic Force, Model It! Magnetic Field Strength, 261 uEngineer It! Electromagnetism In Action, 265</p>

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-PS3 Energy	
6-8-PS3.A Definitions of Energy	
6-8-PS3-1 Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.	Physical Science SE/TE: Kinetic Energy, 101-102 Math Toolbox: Mass, Speed, and Kinetic Energy, 102 Hands-On Lab: Mass, Velocity, and Kinetic Energy, 102 Factors Affecting Kinetic Energy, 101 Kinetic Energy, 101-102 Lesson 2 Check, 106 Calculating Kinetic Energy, 102 Lesson 4 Check, 125 Topic Review and Assess, 128-129
6-8-PS3-2 Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.	Physical Science SE/TE: Model It!: Conservation in Demolition, 121 Lesson 4 Check, 125 Topic Review and Assess, 128-129 Evidence-Based Assessment, 130-131 uDemonstrate Lab: 3, 2, 1...Liftoff!, 132-135 Supporting Content: Electric Force, Charges and Potential Energy, 243 Question It!, 243 Figure 4: Potential Energy, 243 Figure 9: Balloon and Paper, 247 Figure 3: Potential Energy, 253
6-8-PS3-3 Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.	Physical Science SE/TE: Quest Kickoff: How can you keep hot water from cooling down?, 138-139 uDemonstrate Lab: Testing Thermal Conductivity, 170-173

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To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
<p>6-8-PS3-4 Plan and conduct an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the temperature of the sample.</p>	<p>Physical Science SE/TE: Temperature and Thermal Energy, 30 Thermal Energy and Changes in Matter, 31 Thermal Energy and Temperature, 57 Changes in State Between Solid and Liquid, 58-59 Changes in State Between Liquid and Gas, 60 Temperature And Its Measurement, 142 How Temperature and Thermal Energy Are Related, 143-145 Changes in Temperature, 145 uDemonstrate Lab: Testing Thermal Conductivity, 170-173</p>
<p>6-8-PS3.B Conservation of Energy and Energy Transfer</p>	
<p>6-8-PS3-5 Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.</p>	<p>Physical Science SE/TE: Literacy Connection: Cite Textual Evidence, 110 Question It!: Draw Conclusions, 112 Energy Changes Form, 119-121 Kinetic and Potential Energy, 120 Energy Transformation and Transfer, 121 Energy Changes Form, 119-121 Model It!: Transformation and Transfer in Demolition, 121 Lesson 4 Check, 125 Topic Review and Assess, 128-129 Evidence-Based Assessment, 168-169 uDemonstrate Lab: 3, 2, 1...Liftoff!, 132-135 Plan It!: Materials for Airplanes, 164 Evidence-Based Assessment, 168-169</p>

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-PS4 Waves and Their Applications in Technologies for Information Transfer	
6-8-PS4.A Wave Properties	
6-8-PS4-1 Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave.	Physical Science SE/TE: Hands-On Lab: Waves and Their Characteristics, 182 Math Toolbox: Wave Properties, 184 uDemonstrate Lab:, 232-235
6-8-PS4-2 Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.	Physical Science SE/TE: Lesson 1: Wave Properties, Types of Waves, 179 Lesson 2: Wave Interactions, Connect It!, 188 Reflection, Refraction, and Absorption, 189-191 Plan It!: , 190 uDemonstrate Lab: Making Waves, 232-235
Life Science	
6-8-LS1 From Molecules to Organisms: Structure and Processes	
6-8-LS1.A Structure and Function	
6-8-LS1-1 Provide evidence that organisms (unicellular and multicellular) are made of cells and that a single cell must carry out all of the basic functions of life.	Life Science SE/TE: Cellular Organization, 6 Characteristics of Living Things, 6-7 Evidence-Based Assessment, 52-53 uDemonstrate Lab: It's Alive!, 54-57 Cells, 63 Cell Theory, 64-69 Principles of Cell Theory, 66 Lesson 1 Check, 70 Parts of a Cell, 73-75 Figure 1: Working as a Team, 73 Figure 3: The Control Center of the Cell, 76 Model It!: The Substance of Life, 77 Specialized Cells, 79 Cells Working Together, 79-80
6-8-LS1-2 Develop and use a model to describe the function of a cell as a whole and ways parts of the cells contribute to that function.	Life Science SE/TE: Model It!: Bacterial Cell Structures, 30 Characteristics of Plants, 40-43 Topic 10 Review and Assess, 50-51 Hands-On-Lab: Comparing Cells, 75 Organelles in the Cytoplasm, 76-78 Model It!: The Substance of Life, 77 Hands-On-Lab: Make a Cell Model, 81

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-LS1-3 Develop an argument supported by evidence for how multicellular organisms are organized by varying levels of complexity; cells, tissue, organs, organ systems.	Life Science SE/TE: Cells Working Together, 79 Cells Make Up an Organism, 80 Lesson 2 Check, 81 Organization of the Body, 131 Levels of Organization, 132-133 Human Organ Systems, 134-137 Lesson 1 Check, 138 Systems Working Together, 141-145 Hands-On Lab: Parts Working Together, 144 Figure 5: Interacting Systems, 145
6-8-LS1-4 Present evidence that body systems interact to carry out key body functions, including providing nutrients and oxygen to cells, removing carbon dioxide and waste from cells and the body, controlling body motion/activity and coordination, and protecting the body.	Life Science SE/TE: Organization of the Body, 131 Levels of Organization, 132-133 Human Organ Systems, 134-137 Lesson 1 Check, 138 Systems Working Together, 141-145 Hands-On Lab: Parts Working Together, 144 Figure 5: Interacting Systems, 145
6-8-LS1.B Growth and Development of Organisms	
6-8-LS1-5 Construct an explanation for how characteristic animal behaviors as well as specialized plant structures affect the probability of successful reproduction of animals and plants respectively.	Life Science SE/TE: Plant Reproduction, 209 Plant Life Cycles, 210-212 Structures for Reproduction, 212-215 Hands-On Lab: Modeling Flowers, 214 Model It! Flower to Fruit, 215 Lesson 2 Check, 216 Mating Behaviors, 220-221 Reproductive Strategies, 222-225 Lesson 3 Check, 226

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To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
<p>6-8-LS1-6 Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.</p>	<p>Life Science SE/TE: Patterns of Reproduction, Genes and The Environment, 205 Lesson 1 Check, 207 Factors Influencing Growth, Growth and Development of Organisms, 229 Plant Responses and Growth, 230-232 Hands-on-Lab: Watching Roots Grow, 230 Plan It! Water Needs and Plant Growth, 232 External and Internal Factors, 235-236 Lesson 4 Check, 237 Case Study: Warmer Waters, Fewer Fish, 238-239 Topic 3 Review and Assess, 240-243 uDemonstrate Lab: Clean and Green, 244-247</p>
<p>6-8-LS1.C Organization for Matter and Energy Flow in Organisms</p>	
<p>6-8-LS1-7 Construct a scientific explanation based on evidence for the role of photosynthesis and cellular respiration in the cycling of matter and flow of energy into and out of organisms.</p>	<p>Life Science SE/TE: Energy From th Sun, 100 Photosynthesis, 102-103 Hands-On Lab: Energy from the Sun, 103 Expressing Photosynthesis, 104-105 Lesson 5 Check, 106 uEngineer It!: An Artificial Leaf, 107 Energy and Cellular Respiration, 109-112 Lesson 6 Check, 115 Food and Energy, 153-155 Energy and Matter Transfer, 266 Model It!: Food Web, 267 Energy Pyramids, 268 Math Toolbox: Relationships in an Energy Pyramid, 269 Topic 4 Evidence-Based Assessment, 284-285</p>

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-LS2 Ecosystems: Interactions, Energy, and Dynamics	
6-8-LS2.A Interdependent Relationships in Ecosystems	
6-8-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on individual organisms and populations of organisms in an ecosystem.	Life Science SE/TE: Case Study: The Case of the Disappearing Cerulean Warbler, 260-261 Biotic Factors, 254 Abiotic Factors, 254 uDemonstrate Lab:, 342-343 Population Size, 299 Populations, 256-257 Math Toolbox: Graphing Population Changes, 256 Factors That Limit Population Growth, 258 Evidence-Based Assessment, 338-339 Math Toolbox: Predator-Prey Interactions, 299 uDemonstrate Lab: Last Remains, 286-289
6-8-LS2-2 Construct an explanation that predicts the patterns of interactions among and between the biotic and abiotic factors in a given ecosystem.	Life Science SE/TE: Case Study: The Case of the Disappearing Cerulean Warbler, 260-261 Math Toolbox: Room to Roam, 318 Lesson 1 Check, 259 Evidence-Based Assessment, 242-243 Lesson 1 Check, 301 Mutualism, 300-301 Abiotic Factors, 254 Biotic Factors, 254 Topic Review and Assess, 282-283 Organisms and Habitats, 253-254 Physical Science SE/TE: Lesson 2 Check, 257 Connect It!, 300-303

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-LS2.B Cycles of Matter and Energy Transfer in Ecosystems	
6-8-LS2-3 Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.	Life Science SE/TE: Energy Roles in an Environment, 263-265 Hands-On Lab: Observing Decomposers, 265 Energy and Matter Transfer, 266 Model It! Food Web, 267 Energy Pyramids, 268 Energy Availability, 269 Math Toolbox: Relationships in an Energy Pyramid, 269 Conservation of Matter and Energy, 273 Water Cycle, 274-275 Hands-On Lab: Following Water, 275 Model It! Where does your water come from?, 274 Carbon and Oxygen Cycles, 276-277 Nitrogen Cycle in Ecosystems, 278-279 Lesson 3 Check, 280 Topic Review and Assess, 282-285 Supporting Services, 330
6-8-LS2.C Ecosystems Dynamics, Functioning and Resilience	
M-LS2-4 Construct an argument supported by empirical evidence that explains how changes to physical or biological components of an ecosystem affect populations.	Life Science SE/TE: Case Study: The Case of the Disappearing Cerulean Warbler, 260-261 Connect It! , 304 Succession, 305-306 Secondary Succession, 307 Ecosystem Disruptions and Population Survival, 308-309 Hands-On Lab: Primary and Secondary Succession, 308 Lesson 2 Check, 310 uDemonstrate Lab: Changes in an Ecosystem, 340-343
M-LS2-5 Evaluate benefits and limitations of differing design solutions for maintaining an ecosystem.	Life Science SE/TE: Hands-On Lab: Observing Decomposers, 265 Energy Availability, 269 uDemonstrate Lab: Changes in an Ecosystem, 340-343

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-LS4 Biological Evolution; Unity and Diversity	
6-8-LS4.A Evidence of Common Ancestry and Diversity	
6-8-LS4-1 Analyze and interpret evidence from the fossil record to infer patterns of environmental change resulting in extinction and changes to life forms throughout the history of the Earth.	<p>Life Science SE/TE: Species Extinction, 317 Question It!: Endangered Species, 317 See also representative content in Elevate Science, Course 3: Mary Anning’s Fossils, 300 Figure 4: Reading the Past, 300 Fossils, 301 uEngineer It! Fossils from Bedrock, 315 The Fossil Record, 325-327 Hands-On Lab: Finding Proof, 327 Fossil Evidence of Evolution, 328-329</p> <p>Earth Science SE/TE: Evidence-Based Assessment, 266-267 uEngineer It! Tiny Fossil, Big Accuracy, 293 Global to Local: A New Mass Extinction?, 393</p>
6-8-LS4.B Natural Selection	
6-8-LS4-2 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.	<p>Life Science SE/TE: Chromosomes and Variation, 382-383 Galapagos Organisms, 420-421 Question It!: We Got the Beak!, 421 Hands-On Lab: How Do Species Change Over Time?, 421 Hands-On Lab: Variation in a Population, 426 How Natural Selection Works, 427 Model It!: Natural Selection in Action, 429</p>
6-8-LS4-3 Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.	<p>Life Science SE/TE: Quest Kickoff, 346-347 Artificial Selection, 393 Genetic Engineering, 394-397 Plan It! Synthesize a New Trait, 394 Topic 4 Evidence-Based Assessment, 404-405</p>

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-LS4.C Adaptation	
6-8-LS4-4 Interpret graphical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.	Life Science SE/TE: Lesson 2 Check, 256 Galapagos Organisms, 420-421 Question It!: We Got the Beak, 421 Hands-On Lab: How Do Species Change Over Time?, 421 Darwin’s Search for a Mechanism, 425-427 Selection, 428-429 Math Toolbox: Hatching for Success, 428
Earth and Space Science	
6-8-ESS1 Earth's Place in the Universe	
6-8-ESS1.A The Universe and Its Stars	
6-8-ESS1-1 Develop and use a model of the Earth-sun-moon system to explain the cyclic patterns of lunar phases and eclipses of the sun and moon.	Earth Science SE/TE: Connect It!, 514 The Appearance of the Moon, 515-517 Hands-On Lab: How Does the Moon Move?, 516 Figure 4: Two Types of Eclipses, 518 Eclipses, 519 Model It!: Solar and Lunar Eclipses, 519 Topic 9 Review and Assess, 524-525 Topic 9 Evidence-Based Assessment, 526-527 uDemonstrate Lab: Modeling Lunar Phases, 528-531
6-8-ESS1-2 Develop and use a model of the Earth-sun system to explain the cyclical pattern of seasons, which includes the Earth's tilt and directional angle of sunlight on different areas of Earth across the year.	Earth Science SE/TE: Movement in the Sky, 496-497 Connect It!, 504 How Earth Moves, 505-506 Hands-On Lab: Patterns: Day and Night, 505 Design It!, 506 The Seasons, 507-508 Lesson 2 Check, 512
6-8-ESS1-3 Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.	Earth Science SE/TE: Gravity and Orbits, 509-511 Math Toolbox: Gravity vs. Distance, 510 Orbital Motion, 511 Quest Check-In, 512 Topic 10: Evidence-Based Assessment, 582-583

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-ESS1.B Earth and the Solar System	
6-8-ESS1-4 Analyze and interpret data to determine scale properties of objects in the solar system.	Earth Science SE/TE: Understanding the Solar System, 537 Math Toolbox: Converting Units of Distance, 538 Comparing the Sun and Planets, 539 Smaller Solar System Objects, 539 Case Study: Comparing Solar System Objects, 548-549 uDemonstrate Lab: Scaling Down the Solar System, 584-587
6-8-ESS1.C The History of Planet Earth	
6-8-ESS1-5 Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's history.	Earth Science SE/TE: Connect It!, 376 The Geologic Time Scale, 377-379 Quest Check-In, 392 Evidence-Based Assessment, 396-397

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-ESS2 Earth's Systems	
6-8-ESS2.A Earth Materials and Systems	
6-8-ESS2-1 Develop and use a model to illustrate that energy from the Earth's interior drives convection which cycles Earth's crust leading to melting, crystallization, weathering and deformation of large rock formations, including generation of ocean sea floor at ridges, submergence of ocean sea floor at trenches, mountain building and active volcanic chains.	<p>Earth Science SE/TE: Earth's Layers, 109-113 Math Toolbox: Temperature in Earth's Interior, 111 Model It!, 112 Figure 5: Modeling Earth's Interior, 113 Movement in Earth's Mantle, 288-289 Hands-On Lab: Heat and Motion in a Liquid, 288 Figure 7: Mantle Convection, 115 Lesson 1 Check, 116 U Engineer It!: Examining Earth's Interior from Space, 117 The Cycling of Earth's Materials, 137-140 Model It! Modeling the Cycling of Rock Material, 140 Case Study: Mighty Mauna Loa, 142-143 Topic 7 Evidence-Based Assessment, 146-147 uDemonstrate Lab: The Rock Cycle in Action, 148-151 Mid-Ocean Ridges, 160 Sea-Floor Spreading, 161 Ocean Trenches, 162-163 Model It! Predict North America's Movement, 163 Model It! Ring of Fire, 170 Plate Boundaries, 171-174 Lesson 2 Check, 175 Volcanoes and Plate Boundaries, 192 uDemonstrate Lab: Modeling Sea-Floor Spreading, 204-207</p>

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
<p>6-8-ESS2-2 Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.</p>	<p>Earth Science SE/TE: Quest Connection, 156 Lesson 2 Check, 175 Case Study: Australia on the Move, 176-177 Landslides, 187 Lesson 3 Check, 188 Topic 8 Review and Assess, 200-201 Lesson 4 Check, 199 Lesson 2 Check, 228 Groundwater Changes of Earth's Surface, 237-238 Case Study: Buyer Beware!, 240-241 Evidence-Based Assess Glacial Erosion, 245 Lesson 4 Check, 251 Evidence-Based Assessment, 254-255</p>
<p>6-8-ESS2.B Plate Tectonics and Large-Scale Systems</p>	
<p>6-8-ESS2-3 Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.</p>	<p>Earth Science SE/TE: Evidence-Based Assessment, 146-147 Hypothesis of Continental Drift, 157-159 Evidence From Land Features, 158 Evidence From Fossils, 158 Hypothesis of Continental Drift, 157-159 Sea-Floor Spreading, 161 Ocean Trenches, 162-163 Model It!: Predict North America's Movement, 163 Lesson 1 Check, 164 Plate Boundaries, 171-174 Normal Fault, 180 Strike-Slip Fault, 180 Reverse Fault, 180 Tension and Normal Faults, 181 Folding, 181 Anticlines and Synclines, 182 New Landforms From Plate Movement, 181-182 Evidence-Based Assessment, 254-255</p>

**A Correlation of Elevate Science: Life, Earth, Physical, ©2019
To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-ESS2.C The Role of Water in Earth's Surface Processes	
6-8-ESS2-4 Design and develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.	Earth Science SE/TE: The Water Cycle, 25-26 Topic Review and Assess, 36-37 uDemonstrate Lab: Modeling a Watershed, 40-43 The Water Cycle, 63 Lesson 1 Check, 55 Quest Check-In, 64 Model It!: Develop Models, 71 Model It!: How Thunderstorms Form, 85
6-8-ESS2-5 Research, collect, and analyze data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.	Earth Science SE/TE: Major Air Masses, 67-68 Types of Air Masses, 68 Model It!: Develop Models, 71 Quest Check-In, 73 Case Study: The Case of the Runaway Hurricane, 92-93 Factors That Affect Precipitation, 452-453
6-8-ESS2-6 Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.	Earth Science SE/TE: Global Winds, 182 The Coriolis Effect, 183 Global Wind Patterns, 184-185 Factors Affecting Surface Currents, 190 Hands-On-Lab: Modeling Ocean Current Formation, 190 El Nino and La Nina, 192 u Demonstrate Lab: Not All Heating is Equal, 202-205 Factors Affecting Surface Currents, 428 Effects on Climate, 429 U Demonstrate Lab: Not All Heating Is Equal, 440-443 Factors That Affect Temperature, 449-451 Hands-On Lab: How Does Latitude Affect Climate, 449 Math Toolbox: Temperature and Altitude, 450 World Climate, 454-455 Hands-On Lab: Classifying Climates, 454 Model It! City Climates, 455 Lesson 1 Check, 465 Topic 8: Review and Assess, 480

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To the
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Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-ESS3 Earth and Human Activity	
6-8-ESS3.A Natural Resources	
6-8-ESS3-1 Construct a scientific explanation based on evidence for how the uneven distributions of Earth’s mineral, energy, and groundwater resources are the result of past and current geoscience processes and human activity.	Earth Science SE/TE: Natural Resources, 265 Figure 5: Mineral Distribution, 287 Humans and Minerals, 288 Water on Earth, 293-295 Math Toolbox: Distribution of Water Resources, 294 Figure 3: Distribution of Groundwater, 295 Human Impacts, 296-297 Topic 6 Evidence-Based Assessment, 302-303 uDemonstrate Lab: To Drill or not to Drill, 304-307
6-8-ESS3.B Natural Hazards	
6-8-ESS3-2 Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.	Earth Science SE/TE: Quest Connection, 82 Storm Safety, 90 Flood and Drought, 89 Storm Safety, 90 Case Study: Runaway Hurricanes, 92-93 Hands-On Lab: Earthquake Data to Identify Patterns, 183 uEngineer It!: Designing to Prevent Destruction, 189 Question It! Building on a Volcano, 198 Quest Kickoff: How can I design and build an artificial island?, 210-211 uEngineer It!: Ground Shifting Advances, 221 Math Toolbox: Finding an Epicenter, 185 uDemonstrate Lab: Materials on a Slope, 256-259

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To the
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Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
6-8-ESS3.C Human Impacts on Earth's Systems	
6-8-ESS3-3 Analyze data to define the relationship for how increases in human population and per-capita consumption of natural resources impact Earth's systems.	<p>Earth Science SE/TE: The Human Population, 313 Hands-On Lab: Growth Spurt, 313 Population Changes, 314 Population Growth Rate, 315 Math Toolbox: Projected Growth Rates, 315 Using Natural Resources, 316-317 Hands-On Lab: Doubling Time, 316 Land as Resource, 331-332 Importance of Soil Management, 333-336 Math Toolbox: Causes of Land Degradation, 335</p>
6-8-ESS3-4 Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.	<p>Life Science SE/TE: Human Impact, 319-322 uEngineer It!: From Bulldozers to Biomes, 335</p> <p>Earth Science SE/TE: Micro-Hydro Power, 281 Math Toolbox: Causes of Land Degradation, 335 Dealing with Climate Change, 476-477 Energy-Efficient Technologies, 476 Design It!: Adapting for Climate Change, 476 uEngineer It!: Changing Climate Change, 479 Quest Kickoff, 446-447 Quest Findings: Complete the Quest, 483</p>
6-8-ESS3.D Global Climate Change	
6-8-ESS3-5 Analyze evidence of the factors that have caused the change in global temperatures over the past century.	<p>Earth Science SE/TE: Hands-On Lab: What is the Greenhouse Effect?, 460 Recent Climate Change, 463 Human Activities, 464-465 Carbon Dioxide Concentrations, 466 Impact of Rising Temperatures, 471-475</p>

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To the
Missouri Learning Standards for Science, Grades 6-8**

Missouri Learning Standards for Science, Grades 6-8	Elevate Science Life, Earth, & Physical ©2019
Engineering	
6-8-ETS1 Engineering Design	
6-8-ETS1.A Defining and Delimiting Engineering Problems	
6-8-ETS-1 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.	<p>Life Science SE/TE: uEngineer It! An Artificial Leaf, 107 uEngineer It! Artificial Skin, 139 uEngineer It! Gardening in Space, 217 uEngineer It! Eating Oil, 271 uEngineer It! From Bulldozer To Biomes, 335 uEngineer It! Fossils from Bedrock, 433</p> <p>Earth Science SE/TE: uEngineer It! Micro-Hydro Power, 281 uEngineer It! From Wastewater to Tap Water, 353 uEngineer It! Windmills of the Future, 425 uEngineer It! Changing Climate Change, 479 uEngineer It!: Power from the Tides, 523 uEngineer It! Blast Off, 559</p> <p>Physical Science SE/TE: uEngineer It! Say "Cheese!", 197 uEngineer It! Electromagnetism In Action, 265 uEngineer It! A Life-Saving Mistake, 299 uEngineer It! When Particles Collide, 367 uEngineer It! Making Water Safe to Drink, 407 uEngineer It! Generating Energy from Potholes, 479</p>

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6-8-ETS1.B Developing Possible Solutions	
6-8-ETS-2 Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.	<p>Life Science SE/TE: uEngineer It! An Artificial Leaf, 107 uEngineer It! Artificial Skin, 139 uEngineer It! Gardening in Space, 217 uEngineer It! Eating Oil, 271 uEngineer It! From Bulldozer To Biomes, 335 uEngineer It! Fossils from Bedrock, 433</p> <p>Earth Science SE/TE: uEngineer It! Catching Water With a Net, 24 uEngineer It! Ground Shifting Advances: Maps Help Protect, 84 uEngineer It!, A Disease Becomes a Cure, 160 uEngineer It! Artificial Skin, 215 uEngineer It! Micro-Hydro Power, 281 uEngineer It! From Wastewater to Tap Water, 353 uEngineer It! Windmills of the Future, 425 uEngineer It! Changing Climate Change, 479 uEngineer It!: Power from the Tides, 523 uEngineer It! Blast Off, 559</p> <p>Physical Science SE/TE: uEngineer It! Prosthetics on the Move, 25 uEngineer It!, Generating Energy from Potholes, 86 uEngineer It! A Daring Bridge, 126 uEngineer It! Windmills of the Future, 169 uEngineer It! Say "Cheese!", 197 uEngineer It! Electromagnetism In Action, 265 uEngineer It! A Life-Saving Mistake, 299 uEngineer It! When Particles Collide, 367 uEngineer It! Making Water Safe to Drink, 407 uEngineer It! Generating Energy from Potholes, 479</p>

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<p>6-8-ETS-3 Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.</p>	<p>Life Science SE/TE: uEngineer It! An Artificial Leaf, 107 uEngineer It! Artificial Skin, 139 uEngineer It! Gardening in Space, 217 uEngineer It! Eating Oil, 271 uEngineer It! From Bulldozer To Biomes, 335 uEngineer It! Fossils from Bedrock, 433</p> <p>Earth Science SE/TE: uEngineer It! Micro-Hydro Power, 281 uEngineer It! From Wastewater to Tap Water, 353 uEngineer It! Windmills of the Future, 425 uEngineer It! Changing Climate Change, 479 uEngineer It!: Power from the Tides, 523 uEngineer It! Blast Off, 559</p> <p>Physical Science SE/TE: uEngineer It! A Daring Bridge, 126 uEngineer It! Windmills of the Future, 169 uEngineer It! Say "Cheese!", 197 uEngineer It! Electromagnetism In Action, 265 uEngineer It! A Life-Saving Mistake, 299 uEngineer It! When Particles Collide, 367 uEngineer It! Making Water Safe to Drink, 407 uEngineer It! Generating Energy from Potholes, 479</p>

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<p>6-8-ESTS-4 Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.</p>	<p>Life Science SE/TE: uEngineer It! An Artificial Leaf, 107 uEngineer It! Artificial Skin, 139 uEngineer It! Gardening in Space, 217 uEngineer It! Eating Oil, 271 uEngineer It! From Bulldozer To Biomes, 335</p> <p>Earth Science SE/TE: uEngineer It! Catching Water With a Net, 24 Model It!: Develop Models, 71 Model It!: How Thunderstorms Form, 85 Model It!: Oxbow Lakes, 234 uDemonstrate Lab: Materials on a Slope, 256-259 Model It!: Develop Models, 247 uEngineer It!, A Disease Becomes a Cure, 160 uEngineer It! Micro-Hydro Power, 281 uEngineer It! From Wastewater to Tap Water, 353</p> <p>Physical Science SE/TE: uEngineer It! Say "Cheese!", 197 uEngineer It! Electromagnetism In Action, 265 uEngineer It! A Life-Saving Mistake, 299</p>