A Correlation of

Elevate Science
Course 1, ©2019

To the

Massachusetts Science and Technology Engineering Standards Grade 6

Pearson

A Correlation of Elevate Science, Course 1, ©2019
to the
Massachusetts Science and Technology Engineering Standards, Grade 6

Introduction

This document demonstrates how ***Elevate Science ©2019*** supports the Massachusetts Science and Technology Engineering Standards, Grade 6. Correlation page references are to the Student and Teacher's Editions and cited at the page level.

Pearson 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.

A Correlation of Elevate Science, Course 1, ©2019
to the
Massachusetts Science and Technology Engineering Standards, Grade 6

Massachusetts Science and Technology Engineering Standards, Grade 6		**Elevate Science Course 1, ©2019**
6.MS-ESS	Earth and Space Sciences	
6.MS-ESS1	Earth's Place in the Universe	
6.MS-ESS1-1a	Develop and use a model of the Earth-Sun-Moon system to explain the causes of lunar phases and eclipses of the Sun and Moon.	**SE/TE:** This standard is met in Elevate Science Course 3, Topic 9, Earth-Sun-Moon System: • Lesson 1, Case Study: The Ptolemaic Model: Explaining the Unexplained, 438-439 • Lesson 3, Eclipses, 455
6.MS-ESS1-4	Analyze and interpret rock layers and index fossils to determine the relative ages of rock formations that result from processes occurring over long periods of time.	**SE/TE:** Connect It!, 310 Lesson 4 Check, 315 See also Elevate Science, Course 3, Topic 6, History of Earth, Lesson 1, Determining Ages of Rocks.
6.MS-ESS1-5(MA)	Use graphical displays to illustrate that Earth and its solar system are one of many in of the Milky Way galaxy, which is one of billions of galaxies in the universe.	**SE/TE:** This standard is met in Elevate Science Course 3, Topic 10, Solar System and the Universe: • Lesson 3, Connect It!, 506 • Lesson 4, Extraordinary Science: Traveling Through the Milky Way, 515
6.MS-ESS2	Earth's Systems	
6.MS-ESS2-3	Analyze and interpret maps showing the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence that Earth's plates have moved great distances, collided, and spread apart.	**SE/TE:** Hypothesis of Continental Drift, 331-333 Evidence From Fossils, 332 Evidence From Land Features, 332 Mid-Ocean Ridges, Figure 3, 334 Plate Boundaries, 345-348 Case Study: Australia on the Move, 350-351

A Correlation of Elevate Science, Course 1, ©2019
to the
Massachusetts Science and Technology Engineering Standards, Grade 6

Massachusetts Science and Technology Engineering Standards, Grade 6		**Elevate Science Course 1, ©2019**
6.MS-LS	Life Science	
6.MS-LS1	From Molecules to Organisms: Structures and Processes	
6.MS-LS1-1	Provide evidence that all organisms (unicellular and multicellular) are made of cells.	**SE/TE:** Cellular Organization, 440 Quest Connection, 472 Evidence-Based Assessment, 486-487 uDemonstrate Lab: It's Alive!, 488-491
6.MS-LS1-2	Develop and use a model to describe how parts of cells contribute to the cellular functions of obtaining food, water, and other nutrients from its environment, disposing of wastes, and providing energy for cellular processes.	**SE/TE:** Model It!: Bacterial Cell Structures, 464 Plant Cell Features , Figure 2, 474 Characteristics of Plants, 474-477 Topic 10 Review and Assess, 484-485
6.MS-LS1-3	Construct an argument supported by evidence that the body systems interact to carry out essential functions of life.	**SE/TE:** Invertebrates, 479 Lesson 4 Check, 483 Evidence-Based Assessment, 486-487 See also Elevate Science, Course 2, Topic 2, Human Body Systems.
6.MS-LS4	Biological Evolution: Unity and Diversity	
6.MS-LS4-1	Analyze and interpret evidence from the fossil record to describe organisms and their environment, extinctions, and changes to life forms throughout the history of Earth.	**SE/TE:** Connect It!, 230 Evidence From Fossils, 332 See also Elevate Science, Course 3, Topic 5, Natural Selection and Age Over Time, Lesson 4, Evidence in the Fossil Record.

A Correlation of Elevate Science, Course 1, ©2019
to the
Massachusetts Science and Technology Engineering Standards, Grade 6

Massachusetts Science and Technology Engineering Standards, Grade 6		**Elevate Science Course 1, ©2019**
6.MS-LS4-2	Construct an argument using anatomical structures to support evolutionary relationships among and between fossil organisms and modern organisms.	**SE/TE:** Evolution and Classification, 456-457 Lesson 2 Check, 458 See also Elevate Science, Course 3, Topic 5, Natural Selection and Age Over Time, Lesson 4, Evidence in the Fossil Record.
6.MS-PS	Physical Science 6.MS-PS	
6.MS-PS1	Matter and Its Interactions 6.MS-PS1	
6.MS-PS1-6	Plan and conduct an experiment involving exothermic and endothermic chemical reactions to measure and describe the release or absorption of thermal energy.	**SE/TE:** Math Toolbox: Energy in Chemical Reactions, 31 Chemical Energy, 112 Lesson 3 Check, 116 This standard is addressed in Elevate Science, Course 2, Topic 2, Chemical Reactions, Lesson 2, Chemical Change.
6.MS-PS1-7(MA)	Use a particulate model of matter to explain that density is the amount of matter (mass) in a given volume. Apply proportional reasoning to describe, calculate, and compare relative densities of different materials.	**SE/TE:** Quest Connection, 14 Calculating Density, 18 Model It!: Liquid Layers, 18 Determining Density, 18-19 Math Toolbox: Densities of Unknown Substances, 20 Using Density, 20 Lesson 2 Check, 21 Model It!: Altitude and Air Density, 225 Math Toolbox: Calculate Density, 295
6.MS-PS1-8(MA)	Conduct an experiment to show that many materials are mixtures of pure substances that can be separated by physical means into their component pure substances.	**SE/TE:** Types of Mixtures, 11 uDemonstrate Lab: Help Out the Wildlife, 38-41

A Correlation of Elevate Science, Course 1, ©2019
to the
Massachusetts Science and Technology Engineering Standards, Grade 6

Massachusetts Science and Technology Engineering Standards, Grade 6		**Elevate Science Course 1, ©2019**
6.MS-PS2	Motion and Stability: Forces and Interactions	
6.MS-PS2-4	Use evidence to support the claim that gravitational forces between objects are attractive and are only noticeable when one or both of the objects have a very large mass.	**SE/TE:** Expressing Weight, Mass, and Volume, 15-16 See also Elevate Science, Course 3, Topic 3 Forces and Motion, Lesson 4, Friction and Gravitational Interactions.
6.MS-PS4	Waves and Their Applications in Technologies for Information Transfer	
6.MS-PS4-1	Use diagrams of a simple wave to explain that (a) a wave has a repeating pattern with a specific amplitude, frequency, and wavelength, and (b) the amplitude of a wave is related to the energy of the wave.	**SE/TE:** Earthquakes, 357-358 Math Toolbox: Finding the Epicenter, 359 See also Elevate Science, Course, 2, Topic 8 Waves and Electromagnetic Radiation, Lesson 1, Wave Properties.
6.MS-PS4-2	Use diagrams and other models to show that both light rays and mechanical waves are reflected, absorbed, or transmitted through various materials.	**SE/TE:** This standard is addressed in Elevate Science, Course, 2, Topic 8 Waves and Electromagnetic Radiation: • Lesson 2, Wave Interactions • Lesson 5, Light
6.MS-PS4-3	Present qualitative scientific and technical information to support the claim that digitized signals (sent as wave pulses representing 0s and 1s) can be used to encode and transmit information.	**SE/TE:** This standard is addressed in Elevate Science, Course 2, Topic 10, Information Technologies, Lesson 2, Signals.

A Correlation of Elevate Science, Course 1, ©2019
to the
Massachusetts Science and Technology Engineering Standards, Grade 6

Massachusetts Science and Technology Engineering Standards, Grade 6		Elevate Science Course 1, ©2019
6.MS.ETS	Technology/Engineering	
6.MS-ETS1	Engineering Design	
6.MS-ETS1-1	Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution. Include potential impacts on people and the natural environment that may limit possible solutions.	**SE/TE:** Literacy Connection: Conduct Research Projects, 153 uEngineer It! shockwave to the Future, 155 uEngineer It! A Daring Bridge, 197 uEngineer It! Catching Water with a Net, 239 uEngineer It! Designing to Prevent Destruction, 363 Question It!: Building on a Volcano, 372 Question It!: Moving Sand Dunes, 401
6.MS-ETS1-5(MA)	Create visual representations of solutions to a design problem. Accurately interpret and apply scale and proportion to visual representations.	**SE/TE:** uEngineer It!: From Ink to Objects: 3D Printing, 55 uEngineer It!: Prosthetics on the Move, 107 uEngineer It!: Shockwave to the Future, 155 uEngineer It!: A Daring Bridge, 197 uEngineer It!: Catching Water With a Net, 239 uEngineer It!: Examining Earth's Interior From Space, 291 Model It!: Modeling the Cycling of Rock Material, 314 uEngineer It!: Designing to Prevent Destruction, 363 uEngineer It!: Ground Shifting Advances: Maps Help Predict, 395 Communicate the Solution, 503

A Correlation of Elevate Science, Course 1, ©2019
to the
Massachusetts Science and Technology Engineering Standards, Grade 6

Massachusetts Science and Technology Engineering Standards, Grade 6		Elevate Science Course 1, ©2019
6.MS-ETS1-6(MA)	Communicate a design solution to an intended user, including design features and limitations of the solution.	**SE/TE:** uEngineer It!: From Ink to Objects 3D Printing, 55 uEngineer It!: A Daring Bridge, 197 uEngineer It!: Catching Water with a Net, 239 uEngineer It!: Designing to Prevent Destruction, 363 Question It!: Moving Sand Dunes, 401 Supporting content: uEngineer It!:A Disease Becomes a Cure, 471
`6.MS-ETS2	Materials, Tools, and Manufacturing	
6.MS-ETS2-1(MA)	Analyze and compare properties of metals, plastics, wood, and ceramics, including flexibility, ductility, hardness, thermal conductivity, electrical conductivity, and melting point.	**SE/TE:** uEngineer It!: Gathering Speed with Superconductors, 33 uDemonstrate Lab: Help Out the Wildlife, 38-39 Math Toolbox: The Freezing Point, 59 Topic Review and Assess, 78-79 uDemonstrate Lab: Melting Ice, 82-83 uDemonstrate Lab: Testing Thermal Conductivity, 170-171 Characteristics, 293 Mineral Properties, 294-295 Lesson 2 Check, 300 Topic Review and Assess, 318-319 uDemonstrate Lab: The Rock Cycle in Action, 322-323

A Correlation of Elevate Science, Course 1, ©2019
to the
Massachusetts Science and Technology Engineering Standards, Grade 6

Massachusetts Science and Technology Engineering Standards, Grade 6		**Elevate Science Course 1, ©2019**
6.MS-ETS2-2(MA)	Given a design task, select appropriate materials based on specific properties needed in the construction of a solution.	**SE/TE:** uEngineer It!: Prosthetics on the Move, 107 uEngineer It!: Catching Water with a Net, 239 uDemonstrate Lab: The Rock Cycle in Action, 322-323 uEngineer It!: Designing to Prevent Destruction, 363 uEngineer It!: Ground Shifting Advances: Maps Help Predict, 395
6.MS-ETS2-3(MA)	Choose and safely use appropriate measuring tools, hand tools, fasteners, and common hand-held power tools used to construct a prototype.	**SE/TE:** uDemonstrate Lab: Melting Ice, 82 uDemonstrate Lab: 3, 2, 1. . . Liftoff!, 132 uDemonstrate Lab: Testing Thermal Conductivity, 170 uDemonstrate Lab: The Rock Cycle in Action, 322 uDemonstrate Lab: Modeling Sea-Floor Spreading, 378 uDemonstrate Lab: Materials on a Slope, 430