

A Correlation of
Elevate Science
Course 1, ©2019



To the
Nebraska
College and Career Ready Standards
for Science, Grade 6

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Introduction

This document demonstrates how the ***Elevate Science* ©2019** program supports Nebraska College and Career Ready Standards for Science. 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.

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SC.6.4 Energy	
SC.6.4.1 Gather, analyze, and communicate evidence of energy.	
SC.6.4.1.A Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.	SE/TE: Potential Energy, 103-105 Gravitational Potential Energy, 104 Elastic Potential Energy, 105 Lesson 2 Check, 106 Model It!: Conservation in Demolition, 121 Lesson 4 Check, 125 Topic Review and Assess, 128-129 Evidence-Based Assessment, 130-131 Quest Kickoff: How can you keep hot water from cooling down?, 138-139 uEngineer It!: Shockwave to the Future, 155 uDemonstrate Lab: Testing Thermal Conductivity, 170-173
SC.6.4.1.B Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principle and potential impacts on people and the natural environment that may limit possible solutions.	SE/TE: uEngineer It!: A Daring Bridge, 197 uEngineer It!: Designing to Prevent Destruction, 363 The Engineering and Design Process, Develop Possible Solutions, 500-501
SC.6.4.1.C Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.	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 uDemonstrate Lab: 3, 2, 1...Liftoff!, 132-135 Temperature And Its Measurement, 142 How Temperature and Thermal Energy Are Related, 143-145 Model It!., 144 Literacy Connection: Conduct Research Projects, 153

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SC.6.4.1.D 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.	SE/TE: Literacy Connection: Cite Textual Evidence, 110 Energy Changes Form, 119-121 Model It!: Transformation and Transfer in Demolition, 121 Topic Review and Assess, 128-129 Evidence-Based Assessment, 130-131 Lesson 4 Check, 125 uDemonstrate Lab: 3, 2, 1...Liftoff!, 132-135 Glassblowing: Not Just a Bunch of Hot Air, 147 Plan It!: Materials for Airplanes, 164 Evidence-Based Assessment, 168-169
SC.6.6 Structure and Function and Information Processing	
SC.6.6.2 Gather, analyze, and communicate evidence of the relationship between structure and function in living things.	
SC.6.6.2.A Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.	SE/TE: Cellular Organization, 440 Bacteria, 464 Model It!: Bacterial Cell Structures, 464 Protists, 467 Hands-On-Lab, 467 Characteristics of Plants, 474 Plant Cell Features, Figure 2: 474 Characteristics of Animals, 478 uDemonstrate Lab: It's Alive!, 488-491
SC.6.6.2.B Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.	SE/TE: Model It!: Bacterial Cell Structures, 464 Figure 2: Plant Cell Features, 474 This standard is further addressed in Elevate Science Course 2, Topic 1: The Cell System.
SC.6.6.2.C Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.	SE/TE: This standard is addressed in Elevate Science Course 2, Topic 1: The Cell System; and Topic 2: Human Body Systems.

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SC.6.6.2.D Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.	SE/TE: Response To Surroundings, 441 This standard is also addressed in Elevate Science Course 2, Topic 2: Human Body Systems.
SC.6.9 Growth, Development, and Reproduction of Organisms	
SC.6.9.3 Gather, analyze, and communicate evidence of the inheritance and variation of traits.	
SC.6.9.3.A Construct an argument based on evidence for how plant and animal adaptations affect the probability of successful reproduction.	SE/TE: Bacterial Reproduction, 465 Fungal Reproduction, 468 Form and Function, 473 Plant Structures, 475 Vascular Plants, 476 Traits Unique to Animals, 482 Lesson 4 Check, 483 See also Elevate Science Course 2, Topic 5: Populations, Communities, and Ecosystems.
SC.6.9.3.B Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.	SE/TE: This standard is met in Elevate Science Course 2, Topic 3: Reproduction and Growth.
SC.6.9.3.C Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.	SE/TE: Bacterial Reproduction, 465 See also Elevate Science Course 2, Topic 3: Reproduction and Growth.

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SC.6.12 Weather and Climate	
SC.6.12.4 Gather, analyze, and communicate evidence of factors and interactions that affect weather and climate.	
SC.6.12.4.A Collect data to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions.	SE/TE: Quest Connection, 240 How Air Masses Move, 241 Major Air Masses, 241-242 Types of Air Masses, 242 Warm Fronts, 244 Model It!: Develop Models, 245 Lesson 3 Check, 247 Quest Check-In, 247 Evidence-Based Assessment, 270-271
SC.6.12.4.B 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.	SE/TE: Model It! Sea Ice and Climate, 183 Heating of Earth, 227 Winds, 228 Lesson 1 Check, 229 See also Elevate Science Course 3, Topic 7: Energy in the Atmosphere and the Ocean; and Topic 8: Climate.
SC.6.12.4.C Ask questions to clarify evidence of the factors that have caused the change in global temperatures over thousands of years.	SE/TE: Model It! Sea Ice and Climate, 182 Global-to-Local: When the Ice Melts, 185 See also Elevate Science Course 3, Topic 8: Climate.

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<p>SC.6.12.4.D Analyze and interpret data on weather and climate to forecast future catastrophic events and inform the development of technologies to mitigate their effect.</p>	<p>SE/TE: Quest Kickoff: How can you prepare for severe weather?, 220-221 Quest Connection, 256 Winter Storms, 258 Storm Safety, 264 Case Study: The Case of the Runaway Hurricane, 266-267 uEngineer It!: Designing to Prevent Destruction, 363 uEngineer It!: Ground Shifting Advances, 395 Quest Check-In, 402</p>
SC.6.13 Earth's Systems	
<p>SC.6.13.5 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter associated with Earth's materials and processes.</p>	
<p>SC.6.13.5.A Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.</p>	<p>SE/TE: The Water Cycle, 199-200 Condensation, 200 Precipitation, 200 Lesson 3 Check, 207 Figure 2, 232 The Water Cycle, 237 Model It!, 237 Lesson 2 Check, 238</p>