

A Correlation of
Elevate Science Modules
Grades 6-8 ©2019



To the

Nebraska
College- and Career-Ready Standards
for Science 2017
Grade 6

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

Introduction

This document demonstrates how the *Elevate Science Modules ©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.

Savvas Learning Company 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.	<u>Energy Transfer SE/TE:</u> Quest Kickoff: How can you keep hot water from cooling down?, 52-53 uEngineer It! Shockwave to the Future, 69 uDemonstrate Lab: Testing Thermal Conductivity, 84-87
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.	<u>Energy Transfer SE/TE:</u> uDemonstrate Lab: Testing Thermal Conductivity, 84-87 Develop Possible Solutions, 97 <u>Earth's Systems SE/TE:</u> uEngineer It! A Daring Bridge, 23 <u>Changing Earth and Human Activity SE/TE:</u> Question It! Moving Sand Dunes, 19
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.	<u>Energy Transfer SE/TE:</u> Temperature and Its Measurement, 56 How Temperature and Thermal Energy Are Related, 57-59 Literacy Connection: Conduct Research Projects, 67 uDemonstrate Lab: Testing Thermal Conductivity, 84-87
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.	<u>Energy Transfer SE/TE:</u> Literacy Connection: Cite Textual Evidence, 24 Energy Changes Form, 33-35 Lesson 4 Check, 39 Evidence-Based Assessment, 44-45 uDemonstrate Lab: 3, 2, 1...Liftoff!, 46-49 Model It! Friction and Energy Transformation, 76 Lesson 3 Check, 79 Topic 2 Review and Assess, 82-83

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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.	<u>Systems, Reproduction, and Growth SE/TE:</u> Connect It!, 4 Hands-On Lab, 7 Evidence-Based Assessment, 52-53 uDemonstrate Lab: It's Alive!, 54-57 Plan It! Plastic or Wood?, 67 Topic 2 Review and Assess, 102
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.	<u>Systems, Reproduction, and Growth SE/TE:</u> Model It! Bacterial Cell Structures, 30 Figure 2: Plant Cell Features, 40 Figure 2: Plant and Animal Cell Differences, 74-75 Model It! The Substance of Life, 77 Quest Check-In, 81 Quest Check-In, 90 Evidence-Based Assessment, 104-105 <u>Diversity of Life SE/TE:</u> Design It! Develop Models, 29
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.	<u>Systems, Reproduction, and Growth SE/TE:</u> Topic 2 Review and Assess, 102 Organization of the Body, 115 Levels of Organization, 116-117 Lesson 1 Check, 122 Connect It!, 124-125 Literacy Connection, 126 The Digestive System as a Whole, 145 Literacy Connection, 153 Lesson 4 Check, 159 Topic 3 Review and Assess, 170-171 Evidence-Based Assessment, 172-173 uDemonstrate Lab: Reaction Research, 174-177

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<p>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.</p>	<p><u>Systems, Reproduction, and Growth SE/TE:</u> Topic 3: Human Body Systems, 110-111 Stimulus and Response, 127 Connect It!, 160 Nervous System, 161-165 Model It! Learning from Experience, 165 Quest Check-In, 169 Lesson 5 Check, 169 Topic 3 Review and Assess, 170-171 uDemonstrate Lab: Reaction Research, 174-177</p>
SC.6.9 Growth, Development, and Reproduction of Organisms	
<p>SC.6.9.3 Gather, analyze, and communicate evidence of the inheritance and variation of traits.</p>	
<p>SC.6.9.3.A Construct an argument based on evidence for how plant and animal adaptations affect the probability of successful reproduction.</p>	<p>For related content, please see: <u>Systems, Reproduction, and Growth SE/TE:</u> Structures for Reproduction, 196-199 Lesson 2 Check, 200 Reproductive Strategies, 206-209 Lesson 3 Check, 210 Topic Review and Assess, 224-225</p> <p><u>Diversity of Life SE/TE:</u> Question It! We Got the Beak!, 77 Reading Check, 84 Lesson 2 Check, 88 Sexual Selection, 95</p>

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<p>SC.6.9.3.B Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.</p>	<p><u>Systems, Reproduction, and Growth SE/TE:</u> Connect It!, 212 Growth and Development of Organisms, 213 Plant Responses and Growth, 214-216 External and Internal Factors, 219-220 Math Toolbox: Human Malnutrition and Height, 220 Lesson 4 Check, 221 Case Study: Warmer Waters, Fewer Fish, 222-223 Topic 4 Review and Assess, 225 Evidence-Based Assessment, 226-227 uDemonstrate Lab: Clean and Green, 228-231</p> <p><u>Diversity of Life SE/TE:</u> Question It! We Got the Beaks!, 77 Reading Check, 84 Lesson 2 Check, 88</p>
<p>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.</p>	<p><u>Systems, Reproduction, and Growth SE/TE:</u> Figure 8: Bacterial Reproduction, 31 Model It! Develop Models, 184 Model It! Apply Concepts, 187 Lesson 1 Check, 191</p> <p><u>Diversity of Life SE/TE:</u> Making a Punnett Square, 10-11 Model It! Develop Models, 20 Topic 1 Review and Assess, 58 uDemonstrate Lab: Make the Right Call, 62-65</p>

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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.	<p><u>Cycles Influencing Weather and Climate SE/TE:</u> Reading Check, 24 Types of Fronts, 25-26 Model It! Develop Models, 27 Lesson 3 Check, 29 Quest Check-In, 29 Evidence-Based Assessment, 52-53</p>
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.	<p><u>Cycles Influencing Weather and Climate SE/TE:</u> Lesson 1 Check, 11 Model It! Develop Models, 69 Figure 6: Global Wind Belts, 78 Figure 7: Jet Streams, 79 Figure 2: Surface Currents, 84-85 Lesson 3 Check, 89 Topic 2 Review and Assess, 92-93 Ocean Currents, 107 Figure 4: Prevailing Winds, 108</p>
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.	<p><u>Cycles Influencing Weather and Climate SE/TE:</u> The Greenhouse Effect, 66 Climate Change, 114-122 Lesson 2 Check, 123 Topic 3 Review and Assess, 136 Evidence-Based Assessment, Ask Questions, 138 Analyze and Interpret Data, Ask Questions, 143</p>

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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.	<u>Cycles Influencing Weather and Climate SE/TE:</u> Quest Kickoff: How can you prepare for severe weather?, 2-3 Connect It!, 38 Interactivity, 46 Quest Check-In, 47 Case Study: The Case of the Runaway Hurricane, 48-49
SC.6.13 Earth's Systems	
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.	
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.	<u>Earth's Systems SE/TE:</u> Topic 1: Introduction to Earth's Systems, 0-1 Model It! Sea Ice and Climate, 8 Figure 2: The Water Cycle, 26 Topic 1 Review and Assess, 37 uDemonstrate Lab: Modeling a Watershed, 40-43

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