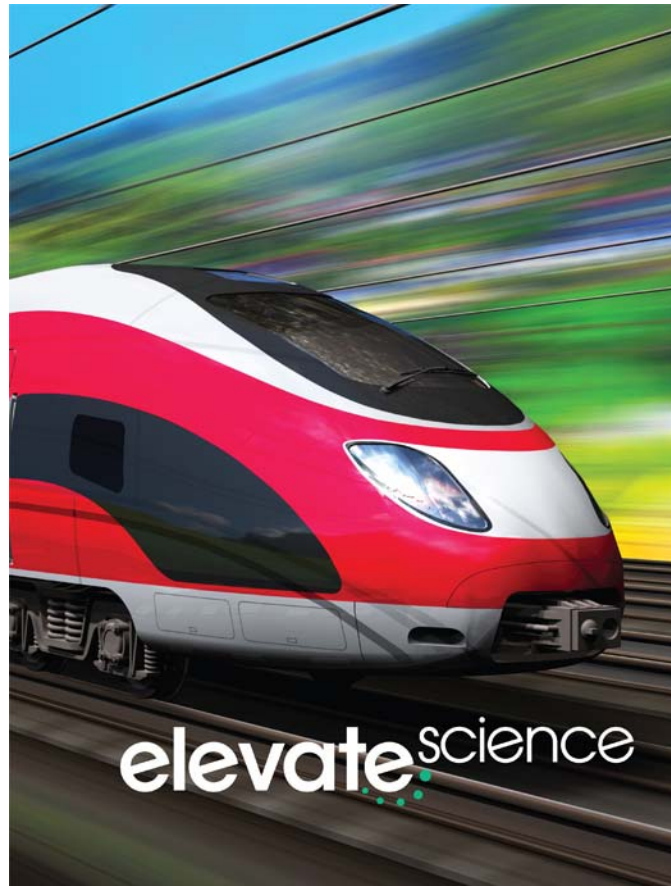


A Correlation of
Elevate Science
Grade 4, ©2019



To the
Missouri
Learning Standards for Science
Grade 4

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to the
Missouri Learning Standards for Science, Grade 4**

Introduction

The following document demonstrates how the ***Elevate Science, ©2019*** program supports the Missouri Learning Standards for Science, Grade 4. For each standard, correlation references are to the Student Edition and Teacher Edition where applicable.

Elevate Science is a comprehensive K-5 science program that focuses on active, student-centered learning. It builds students' critical thinking, questioning, and collaboration skills, and fuels interest in STEM and creative problem solving while supporting literacy development for elementary-age learners. Developed to support Next Generation Science Standards (NGSS), ***Elevate Science*** integrates three dimensional learning of the Scientific and Engineering Practices, Crosscutting Concepts (CCC), and Disciplinary Core Ideas (DCIs).

The ***Elevate Science*** blended print and digital curriculum engages students in phenomena-based inquiry and hands-on investigations.

- Problem-based learning Quests put students on a journey of discovery
- Engineering-focused features infuse STEM learning
- Coding and innovation engage students and build 21st century skills

The Teacher's Edition of ***Elevate Science*** helps elementary educators teach science with confidence: Scaffolding, ELD, differentiated instruction, and an instructional organization based upon the 5E learning model, (Engage, Explore, Explain, Extend/Elaborate, Evaluate), provide all the support needed for successful teaching practices. Professional development offers point-of-use support. A full-view approach to inquiry and testing provides new options for a variety of hands-on labs and assessments for three-dimensional learning.

Elevate Science 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 argument. 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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Missouri Learning Standards for Science, Grade 4		Elevate Science Grade 4 ©2019
PS2 Motion and Stability: Forces and Interactions		
PS2.A	Forces and Motion	
PS2.A.1	Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.	SE/TE: This standard is addressed in Elevate Science, Grade 3, Topic 1: uInvestigate Lab: How can you describe the motion of an object? 17 Math Toolbox Multiply and Divide, 18 Patterns of Motion, 18 Quest Connection, 19 Visual Literacy How high can it fly? 20-21 Evidence Based Assessment, 46-47 STEM uDemonstrate Lab Why do objects move? 48-49
PS2.A.2	Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.	SE/TE: This standard is addressed in Elevate Science, Grade 3, Topic 1 Forces, 26 Equal and Opposite Forces, 30 STEM uInvestigate Lab How can you hold up an object? 35 Visual Literacy How can you move an object? 36-37 STEM uDemonstrate Lab Why do objects move? 48-49
PS2.B Types of Interaction		
PS2.B.1	Plan and conduct a fair test to compare and contrast the forces (measured by a spring scale in Newtons) required to overcome friction when an object moves over different surfaces (i.e., rough/smooth).	SE/TE: This standard is addressed in Elevate Science, Grade 3, Topic 1. Contact Forces, 27 uBe a Scientist Friction, 27 Combined Forces, 31 Measuring Forces, 39

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PS2.B.2	Predict how changes in either the amount of force applied to an object or the mass of the object affects the motion (speed and direction) of the object.	SE/TE: uInvestigate Lab How does starting height affect an object's energy?, 7 Motion and Energy, 12 uBe a Scientist Force and Speed, 12 Lesson 2 Check, 21
PS3 Energy		
PS3.A	Definitions of Energy	
PS3.A.1	Use evidence to construct an explanation relating the speed of an object to the energy of that object.	SE/TE: uConnect Lab: How can you compare the energy of objects?, 4 uInvestigate Lab How does starting height affect an object's energy?, 7 Motion and Energy, 12 Quest Check-In: Energy, Speed, and Motion, 13
PS3.B	Conservation of Energy and Energy Transfer	
PS3.B.1	Provide evidence to construct an explanation of an energy transformation (e.g. temperature change, light, sound, motion, and magnetic effects)	SE/TE: Other Energy Changes, 20 Light Energy, 29 Question It!, 29 Quest Connection, 30 Sound Energy, 30 Curriculum Connection, 34 uInvestigate Lab: How does electric energy flow in circuits?, 35 Lesson 4 Check, 39 Quest Check-In Lab, 40-41
PS3.B.2	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.	SE/TE: Quest Kickoff Energy Changes in Collisions, 2-3 Quest Connection, 8 Energy in Motion, 9 Model It, 20 uBe a Scientist Construct a Cradle, 21 Quest Findings, 42

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PS3.C	Relationship Between Energy and Forces	
PS3.C.1	Use models to explain that simple machines change the amount of effort force and/or direction of force.	<p>SE/TE: uInvestigate Lab How does starting height affect an object's energy?, 7</p> <p>This standard is also addressed in Elevate Science, Grade 3: STEM uDemonstrate Lab Why do objects move?, 48-49</p>
PS4 Waves and Their Applications in technologies for Information Transfer		
PS4.A	Wave Properties	
PS4.A.1	Develop a model of waves to describe patterns in terms of amplitude or wavelength and that waves can cause objects to move. (Boundary: The terms amplitude and wavelength should not be assessed.)	<p>SE/TE: uConnect Lab: How do we describe waves?, 104 uInvestigate Lab: How does a wave carry energy?, 107 Waves, 108 Visual Literacy Connection: How does a wave move?, 110-111 uInvestigate Lab: What patterns can waves make?, 117 Patterns in Wave Characteristics, 118 uBe a Scientist: Ripples, 118 Crosscutting Concepts Toolbox: Patterns, 119 Wave Patterns, 119 Visual Literacy Connection: How do wave patterns move?, 120-121 uDemonstrate Lab: How can you model a light or sound wave?, 148-149</p>

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LS1 From Molecules to Organisms: Structure and Processes		
LS1.A	Structure and Function	
LS1.A.1	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction.	<p>SE/TE: Quest Kickoff: Let Plants and Animals Inspire You!, 278-279 uConnect Lab: How do your eyes respond to differences in lighting?, 280 Curriculum Connection, 282 uInvestigate Lab: What parts are inside a flower?, 283 Literacy Toolbox: Compare and Contrast, 284 Plant Systems, 284 Functions of Plant Structures, 285 Visual Literacy What are some functions of internal leaf structures, 286-287 Photosynthesis, 288 uBe a Scientist: Make a Plant Collection, 288 Lesson 1 Check, 289 Quest Check-In Lab: How can you observe a plant's vascular system in action?, 290-291 uInvestigate Lab: How are leaf coverings different?, 293 External Structures of a Plant, 294 Stems and Their Coverings, 295 Visual Literacy Connection: What structures do flowering plants use to reproduce?, 296-297 Adaptations of Flowers, 298 Lesson 2 Check, 298 uInvestigate Lab: How can you compare the stomachs of cows and dogs?, 301 Animal Structures for Support, 302 Quest Connection, 302 Structure of the Animal Heart, 303 Visual Literacy Connection, 304-305 Structure of the Animal Brain, 306 Quest Check-In: Fish Float and Sink, 307 uInvestigate Lab: How can you design a protective insect shell?, 309 Visual Literacy Connection: What do exoskeletons do?, 310-311 Other External Structures of Animals, 312</p>