

A Correlation of
Elevate Science
Grade 4, ©2019



To the
Ohio New Learning Standards
Science

**A Correlation of Elevate Science ©2019, Grade 4
to the
Ohio New Learning Standards - Science**

Introduction

The following document demonstrates how the ***Elevate Science, ©2019*** program supports the Ohio New Learning Standards - 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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Ohio's New Learning Standards - Science		Elevate Science, ©2019
ESS	Earth and Space Science	
ESS.1	Earth's Surface: This topic focuses on the variety of processes that shape and reshape Earth's surface.	
ESS.1.1	Earth's surface has specific characteristics and landforms that can be identified.	
ESS.1.1.a	About 70 percent of the Earth's surface is covered with water and most of that is the ocean. Only a small portion of the Earth's water is freshwater, which is found in rivers, lakes and ground water.	SE/TE: uConnect Lab: How can rain affect land?, 154 See also Grade 5, Topic 4, Earth's Water.
ESS.1.1.b	Earth's surface can change due to erosion and deposition of soil, rock or sediment. Catastrophic events such as flooding, volcanoes and earthquakes can create landforms.	SE/TE: uConnect Lab: How can rain affect land?, 154 uInvestigate Lab: How can a rock wear away?, 184 Erosion, 188 Movement of Particles, 189 Deposition, 190 Changes in Landforms over Time, 191 STEM Quest Check-In Lab: How does water affect landforms?, 192 Quest Findings: Does X Mark the Spot?, 194 Topic Assessment, 196-197 Evidence-Based Assessment, 198-199 Quest Kickoff: Protect the City! Hazard Incoming!, 204-205 Literacy Connection: Cause and Effect, 207 Curriculum Connection, 208 uInvestigate Lab: How can a large wave affect land?, 209 Earthquakes, 210 Visual Literacy Connection: What happens during a tsunami?, 212-213 Volcanoes, 214 Quest Check-In: Beware: Hot Ash!, 215 uEngineer It!: Warning!, 216-217

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	(Continued) Earth's surface can change due to erosion and deposition of soil, rock or sediment. Catastrophic events such as flooding, volcanoes and earthquakes can create landforms.	Visual Literacy Connection: How much rainfall is enough?, 220-221 Quest Connection, 222 Quest Check-In: Water Warnings, 224 Solve it With Science: Where is the greatest earthquake risk?, 225 Long-Term Effects of Hazards, 229 Topic Assessment, 236-237
ESS.1.2	The surface of Earth changes due to weathering. Note: The ice movement (above) refers to large bodies of ice, such as glaciers that can break large rocks into small ones.	
ESS.1.2.a	Rocks change shape, size and/or form due to water or ice movement, freeze and thaw, wind, plant growth, gases in the air, pollution and catastrophic events such as earthquakes, mass wasting, flooding and volcanic activity.	SE/TE: uConnect Lab: How can rain affect land?, 154 uInvestigate Lab: How can a rock wear away?, 185 Chemical Weathering, 186 uBe a Scientist: Weathering, 186 Physical Weathering, 187 Quest Connection, 187 Erosion, 188 Movement of Particles, 189 Changes in Landforms over Time, 191 STEM Quest Check-In Lab: How does water affect landforms?, 192 Extreme Science: Powerful Plants, 193 Quest Findings: Does X Mark the Spot? That's Up to You!, 194 Topic Assessment, 196-197 Evidence-Based Assessment, 198-199 uEngineer It!: Warning!, 216-217 Sports Connection, 218 uInvestigate Lab: How does snow sliding quickly down a mountain impact people?, 219 Landslides and Avalanches, 223

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ESS.1.3	The surface of Earth changes due to erosion and deposition.	
ESS.1.3.a	Water, wind and ice physically remove and carry (erosion) rock, soil and sediment and deposit the material in a new location.	SE/TE: uConnect Lab: How can rain affect land?, 154 Erosion, 188 Movement of Particles, 189 Deposition, 190 Changes in Landforms over Time, 191 STEM Quest Check-In Lab: How does water affect landforms?, 192 Evidence-Based Assessment, 198-199
ESS.1.3.b	Gravitational force affects movements of water, rock and soil.	SE/TE: uConnect Lab: How can rain affect land?, 154 Erosion, 188 Deposition, 191 STEM Quest Check In Lab How does water affect landforms, 192
LS	Life Science	
LS.1	Earth's Living History: This topic focuses on using fossil evidence and living organisms to observe that suitable habitats depend upon a combination of biotic and abiotic factors.	
LS.1.1	Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful.	
LS.1.1.a	Ecosystems can change gradually or dramatically. When the environment changes, some plants and animals survive and reproduce and others die or move to new locations. An animal's patterns of behavior are related to the environment. This includes the kinds and numbers of other organisms present, the availability of food and resources, and the physical attributes of the environment.	SE/TE: Earthquakes, 210 Hazards of Earthquakes, 211 Volcanoes, 214 Topic Assessment, 236-237 STEM Math Connection Canyonlands, 255 uBe a Scientist, 264 Changing Environments and Survival, 321 Behaviors and Survival, 322 uDemonstrate Lab: How do earthworms respond to stimuli?, 332-333

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LS.1.2	Fossils can be compared to one another and to present-day organisms according to their similarities and differences.	
LS.1.2.a	The concept of biodiversity is expanded to include different classification schemes based upon shared internal and external characteristics of organisms.	SE/TE: Compare and Contrast, 281 Investigate Lab: How compare the stomachs of cows and dogs?, 301 How do lungs and gills compare?, 304-305
LS.1.2.b	Most types of organisms that have lived on Earth no longer exist.	SE/TE: Fossils, 250 Geologic Time Scales , 253 Mass extinctions, 265 Changing Environments and Survival, 321
LS.1.2.c	Fossils provide a point of comparison between the types of organisms that lived long ago and those existing today.	SE/TE: Quest Connection, 250 Quest Check-In, 254 Question It!, 261
PS.1	Electricity, Heat and Matter: This topic focuses on the conservation of matter and the processes of energy transfer and transformation, especially as they apply to heat and electrical energy.	
PS.1.1	The total amount of matter is conserved when it undergoes a change. Note 1: At this grade, the discussion of conservation of matter should be limited to a macroscopic, observable level. Note 2: States of matter are found in PS grade 3. Heating and cooling is one way to change the state of matter.	
PS.1.1.a	When an object is broken into smaller pieces, when a solid is dissolved in a liquid or when matter changes state (solid, liquid, gas), the total amount of matter remains constant.	See Grade 5, Topic 2, Changes in Matter, Lesson 3.

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PS.1.2	Energy can be transformed from one form to another or can be transferred from one location to another.	
PS.1.2.a	Energy transfers from hot objects to cold objects as heat, resulting in a temperature change.	SE/TE: STEM Connection, 24 uInvestigate Lab: How does heat move? 25 Visual Literacy Connection: How is energy transferred?, 26-27 Energy and Particle Motion, 28 Lesson 3 Check, 31
PS.1.2.b	Electric circuits require a complete loop of conducting materials through which an electrical energy can be transferred.	SE/TE: uInvestigate Lab: How does electric energy flow in circuits? 35 Electric Circuits, 38 Lesson 4 Check, 39
PS.1.2.c	Electrical energy in circuits can be transformed to other forms of energy, including light, heat, sound and motion.	SE/TE: Curriculum Connection, 34 Resistance, 39 Quest Check-In Lab: How can an electric circuit help prevent collisions?, 41-42 Energy Conversions STEM Connection, 56 STEM uInvestigate Lab How can a potato provide energy to a light bulb?, 57 STEM Quest Check-In Lab: How can you use a battery to produce motion?, 72-73
PS.1.2.d	Electricity and magnetism are closely related.	SE/TE: Supporting Content: Visual Literacy Connection, 60-61 See Grade 3, Topic 2, Electricity and Magnetism, Lesson 1.