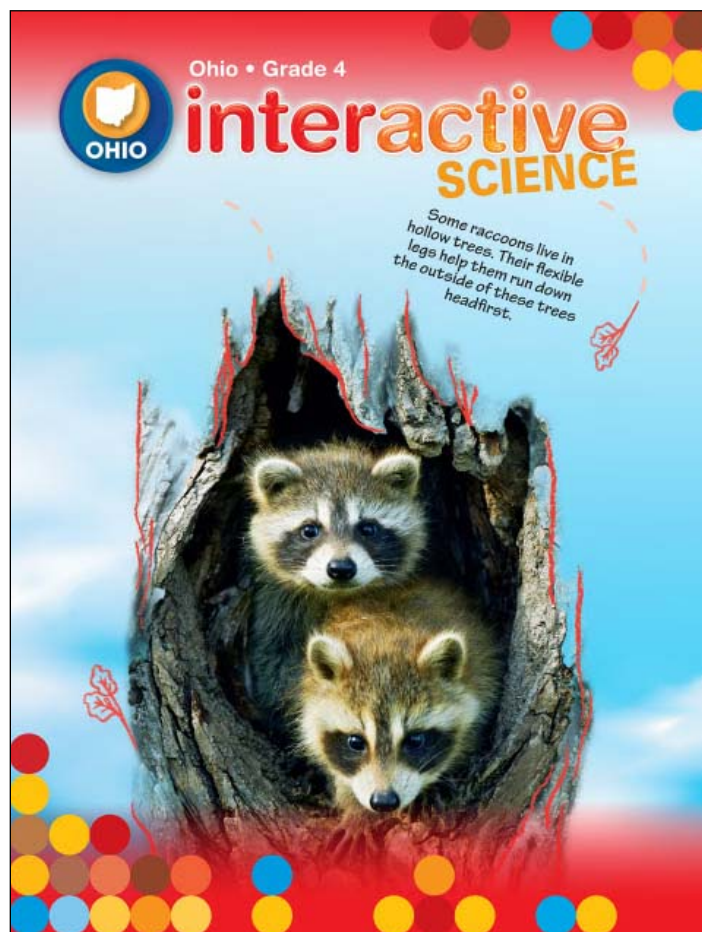


A Correlation of
**Ohio Interactive Science
Grade 4 ©2017**



To the
**Ohio
2018 Learning Standards for Science
Grade 4**

**A Correlation of Ohio Interactive Science Grade 4 ©2017
To the
Ohio 2018 Learning Standards for Science, Grade 4**

Introduction

The following document indicates how closely *Interactive Science Ohio* ©2017 supports Ohio's 2018 Learning Standards for Science. Correlation references are to the Student Edition, and Teacher Edition, and Realize Digital Resources.

Interactive Science is an elementary science program that makes learning personal, engaging, and relevant for today's student. The program features an innovative Write-in Student Edition that enables students to become active participants in their learning and truly connect the Big Ideas of science to their world.

The 2017 edition of *Interactive Science* support the Next Generation Science Standards (NGSS) in several ways. In the Student Edition, lessons provide interactive opportunities for students to acquire the Disciplinary Core Ideas that are the building blocks of the NGSS Performance Expectations at each grade level.

STEM Activities, Apply It! activities, Design It! Activities, and Performance-Based Assessments enable students to research, investigate, and apply Science and Engineering Practices to real-world problems in a meaningful way.

In the Teacher's Edition, the NGSS Cross-Cutting Concepts that link across grade levels and across disciplines within grade levels are noted at the chapter level, and a detailed and focused Performance Expectation Activity is provided for each NGSS standard.

**A Correlation of Ohio Interactive Science Grade 4 ©2017
To the
Ohio 2018 Learning Standards for Science, Grade 4**

Table of Contents

(ESS) Earth and Space Science.....	4
(LS) Life Science	7
(PS) Physical Science.....	10

**A Correlation of Ohio Interactive Science Grade 4 ©2017
To the
Ohio 2018 Learning Standards for Science, Grade 4**

Ohio 2018 Learning Standards for Science Grade 4	Ohio Interactive Science ©2017 Grade 4
(ESS) Earth and Space Science	
Earth's Surface	
This topic focuses on the variety of processes that shape and reshape Earth's surface.	
<p>(4.ESS.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, groundwater and glaciers.</p>	<p>SE/TE: Inquiry Explore It! Where is Earth's water?, 214 Water on Earth, 215 Surface Water, 216-217 Groundwater, 218 Chapter 5 Study Guide, 233 Chapter 5 Chapter Review, 235</p> <p>TE Only: Chapter 5 Test, 235A</p> <p>Realize™ Digital Resources: Chapter 5: Earth's Resources: >Lesson 5: Where is Earth's water?>Where is Earth's water?;>Where is Earth's water? 60-Sec Video;>Earth's Water</p>
<p>(4.ESS.1.b) Earth's surface can change due to erosion and deposition of soil, rock or sediment.</p>	<p>SE/TE: Chapter 5: Earth's Resources: Inquiry Explore It! How does a rock wear away?, 202 Weathering, 204-205 Erosion, 206 At-Home Lab: Soil in Motion, 206 Deposition, 207 Inquiry Investigate It! How does the steepness of a stream affect how fast it flows?, 226-227 Chapter 5 Study Guide, 233 Chapter 5 Chapter Review, 234 Chapter 5 Ohio Benchmark Practice, 236 Inquiry Apply It! What affects how soil erodes?, 238-241</p> <p>TE Only: Chapter 5 Test, 235B</p> <p>Realize™ Digital Resources: Chapter 5: Earth's Resources: >Lesson 3: What are weathering and erosion?>How does rock wear away?;>What are weathering and erosion?;>Weathering and Erosion 60-Sec Video;>Weathering, Erosion and Deposition Graphic Organizer;>Weathering, Erosion, and Deposition Editable Pres;>Earth's Changing Surface >Chapter Leveled Readers>Earth's Resources</p>

**A Correlation of Ohio Interactive Science Grade 4 ©2017
To the
Ohio 2018 Learning Standards for Science, Grade 4**

Ohio 2018 Learning Standards for Science Grade 4	Ohio Interactive Science ©2017 Grade 4
(4.ESS.1.c) Catastrophic events such as flooding, volcanoes and earthquakes can create landforms.	<p>SE/TE: Earth's Moving Plates, 209 Volcanoes, 210 Earthquakes, 211 Landslides and Floods, 212 Lightning Lab: Earthquake Model, 213 Field Trip: The Galapagos Islands, 228 Chapter 5 Study Guide, 233 Chapter 5 Chapter Review, 235 Chapter 5 Ohio Benchmark Practice, 236 Unit C Performance-Based Assessment, 242</p> <p>Realize™ Digital Resources: Chapter 5: Earth's Resources: >Lesson 4: How can Earth's surface change rapidly?>Rapid Change to Earth's Surface;>Earthquakes, Volcanoes, and Landslides;>How can Earth's surface change rapidly? 60-Sec Video</p>
(4.ESS.2.a) Rocks change shape, size and/or form due to water or glacial movement, freeze and thaw, wind, plant growth, acid rain, pollution and catastrophic events such as earthquakes, flooding, and volcanic activity.	<p>SE/TE: Chapter 5: Earth's Resources: Classifying Rock, 193 Igneous Rocks, 194-195 Sedimentary Rocks, 196-197 Metamorphic Rocks, 198-199 The Rock Cycle, 200-201 Inquiry Explore It! How does a rock wear away?, 202 Weathering, 204-205 Erosion, 206 Volcanoes, 210 Earthquakes, 211 Landslides and Floods, 212 Chapter 5 Study Guide, 233 Chapter 5 Chapter Review, 234-235 Chapter 5 Ohio Benchmark Practice, 236</p> <p>Realize™ Digital Resources: Chapter 5: Earth's Resources: >Lesson 2: How are rocks classified?>How are rocks classified?;>Rock Groups;>How are rocks classified? 60-Sec Video;>Categories of Rocks >Lesson 3: What are weathering and erosion?>How does rock wear away?;>What are weathering and erosion?;>Weathering and Erosion 60-Sec Video;>Weathering, Erosion and Deposition Graphic Organizer;>Weathering, Erosion, and Deposition Editable Pres;>Earth's Changing Surface</p>

**A Correlation of Ohio Interactive Science Grade 4 ©2017
To the
Ohio 2018 Learning Standards for Science, Grade 4**

Ohio 2018 Learning Standards for Science Grade 4	Ohio Interactive Science ©2017 Grade 4
<p>(4.ESS.3.a) Liquid water, wind and ice physically remove and carry rock, soil and sediment (erosion) and deposit the material in a new location (deposition).</p>	<p>SE/TE: Inquiry Explore It! How does a rock wear away?, 202 Erosion, 206 At-Home Lab: Soil in Motion, 206 Deposition, 207 Chapter 5 Study Guide, 233 Chapter 5 Chapter Review, 234 Chapter 5 Ohio Benchmark Practice, 236 Inquiry Apply It! What affects how soil erodes?, 238-241</p> <p>TE Only: Chapter 5 Test, 235B</p> <p>Realize™ Digital Resources: Chapter 5: Earth's Resources: >Lesson 3: What are weathering and erosion?>How does rock wear away?;>What are weathering and erosion?;>Weathering and Erosion 60-Sec Video;>Weathering, Erosion and Deposition Graphic Organizer;>Weathering, Erosion, and Deposition Editable Pres;>Earth's Changing Surface >Chapter Leveled Readers>Earth's Resources Quests, STEM, and Program Resources >Program Resources>Social Studies and Language Arts Connections>The Dustbowl of the 1930s</p>
<p>(4.ESS.3.b) Gravitational force affects movements of water, rock and soil.</p>	<p>SE/TE: Sedimentary Rocks, 196 Weathering, 205 Erosion, 206 Deposition, 207 Landslides and Floods, 212 Inquiry Investigate It! How does the steepness of a stream affect how fast it flows?, 226-227 Chapter 5 Chapter Review, 234 Forms of Potential Energy/Gravitational, 300</p> <p>Realize™ Digital Resources: Chapter 5: Earth's Resources: >Lesson 3: What are weathering and Erosion?> Weathering and Erosion 60-Sec Video;>Weathering, Erosion and Deposition Graphic Organizer;>Weathering, Erosion, and Deposition Editable Pres >Chapter Leveled Readers>Earth's Resources</p>

**A Correlation of Ohio Interactive Science Grade 4 ©2017
To the
Ohio 2018 Learning Standards for Science, Grade 4**

Ohio 2018 Learning Standards for Science Grade 4	Ohio Interactive Science ©2017 Grade 4
(LS) Life Science	
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.	
<p>(4.LS.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.</p>	<p>SE/TE: Adaptations, 93 Parents, Offspring, and Advantages, 102-103 Animal Instincts, 106-107 Chapter 3 Study Guide, 117 Kinds of Ecosystems, 128 Removal of One Component, 137 Balance in Ecosystems, 144 Inquiry Explore It! What happens when one part of an ecosystem is removed?, 146 Changes to the Environment, 147 Plants Cause Change, 148 Animals Cause Change, 149-150 Humans Cause Sudden Change, 151 Chapter 4 Study Guide, 171 Chapter 4 Chapter Review, 173 Unit B Performance-Based Assessment, 180</p> <p>TE Only: Chapter 3 Test, 119A-119B Chapter 4 Test 173A-173B</p> <p>Realize™ Digital Resources: Chapter 3: Plants and Animals: >Lesson 2: What are adaptations?>Bear Adaptation Virtual Lab >Lesson 4: How do animals respond to their environment?>Behavior and Survival Chapter 4: Ecosystems: >Lesson 4: How do living things affect the environment?> How do living things affect the environment?;>Removing One Part of an Ecosystem;>The Forest of Change Virtual Lab;> How do living things affect the environment? 60-Sec Video;>Environmental Changes</p>

**A Correlation of Ohio Interactive Science Grade 4 ©2017
To the
Ohio 2018 Learning Standards for Science, Grade 4**

Ohio 2018 Learning Standards for Science Grade 4	Ohio Interactive Science ©2017 Grade 4
<p>(4.LS.1.b) Ecosystems are based on interrelationships among and between biotic and abiotic factors. These include the diversity of other organisms present, the availability of food and other resources, and the physical attributes of the environment.</p>	<p>SE/TE: Animal Adaptations, 94-95 Plant Adaptations, 96-97 Inquiry Try It! How can you estimate how many animals live in an ecosystem?, 124 Parts of an Ecosystem, 127 Kinds of Ecosystems, 128-129 Structures for Survival, 131 Producers, 133 Consumers, 134-135 Decomposers, 136 Removal of One Component, 137 Inquiry Explore It! How do food webs show connections?, 138 Energy Pyramids, 139 Food Chains, 140-141 Food Webs, 142-143 Balance in Ecosystems, 144-145 Inquiry Investigate It! How do earthworms meet their needs in a model of an ecosystem?, 164-165 Chapter 4 Study Guide, 171 Chapter 4 Chapter Review, 172 Chapter 4 Ohio Benchmark Practice, 174 Unit B Performance-Based Assessment, 180</p> <p>Realize™ Digital Resources: Chapter 3: Plants and Animals: >Lesson 2: What are adaptations?>What are adaptations?>What are adaptations? Editable Pres;>What are adaptations? Graphic Organizer;>Animal Adaptations Savvas Flipped Video for Science;>Adaptations;>What are adaptations? 60-Sec Video Chapter 4: Ecosystems: >Lesson 1: What are ecosystems?>What are ecosystems?>What are ecosystems? 60-Sec Video;>What are ecosystems? Graphic Organizer;>What are ecosystems? Editable Pres;>Ecosystems >Lesson 2: How do living things get energy?>How do living things get energy? 60-Sec Video >Lesson 3: What are food chains and food webs?>How do food webs show connections?>What are food chains and food webs? 60-Sec Video >Chapter Leveled Readers>Ecosystems;>Ecosystem Life;>Life in a Pond Quests, STEM, and Program Resources >STEM>Home, Sweet Home! STEM Activity Program Resources>Social Studies and Language Arts Connections>Animal Adaptations</p>

**A Correlation of Ohio Interactive Science Grade 4 ©2017
To the
Ohio 2018 Learning Standards for Science, Grade 4**

Ohio 2018 Learning Standards for Science Grade 4	Ohio Interactive Science ©2017 Grade 4
(4.LS.2.a) The concept of biodiversity is expanded to include different classification schemes based upon shared internal and external characteristics of organisms.	<p>SE/TE: Inquiry Try It! How can flower parts be classified?, 82 Inquiry Explore It! What are some ways you can classify animals?, 84 Classifying Organisms, 85 Classifying Plants, 86-87 Go Green: Investigate Plants, 86 Classifying Animals, 88-91 Chapter 3 Study Guide, 117 Chapter 3 Chapter Review, 118 Chapter 3 Ohio Benchmark Practice, 120</p> <p>Realize™ Digital Resources: Chapter 3: Plants and Animals: >Lesson 1: How are plants and animals classified?>How are plants and animals classified?;>What are some ways you can classify animals?;>How Plants and Animals Are Classified;>How are plants and animals classified? 60-Sec Video >Chapter Leveled Readers>Animal and Plant Classification</p>
(4.LS.2.b) Most species that have lived on Earth are extinct.	<p>SE/TE: Fossil Clues, 153 Fossils and Living Organisms, 160</p>
(4.LS.2.c) Fossils provide a point of comparison between the types of organisms that lived long ago and those existing today.	<p>SE/TE: Fossil Clues, 153 Windows to the Past, 159 Fossils and Living Organisms, 160 Fossils and the Environment, 161 Chapter 4 Study Guide, 171 Chapter 4 Chapter Review, 173 Chapter 4 Ohio Benchmark Practice, 174 Chapter 4 Test, 173B</p> <p>Realize™ Digital Resources: Chapter 4: Ecosystems: >Lesson 5: What are fossils?>What Story Can Fossils Tell? Savvas Flipped Video for Science >Lesson 6: What can fossils tell us?>What can fossils tell us?>What can fossils tell us? 60-Sec Video;>Piecing Together the Past</p>

**A Correlation of Ohio Interactive Science Grade 4 ©2017
To the
Ohio 2018 Learning Standards for Science, Grade 4**

Ohio 2018 Learning Standards for Science Grade 4	Ohio Interactive Science ©2017 Grade 4
(PS) Physical Science	
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.	
<p>(4.PS.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.</p>	<p>SE/TE: More Properties of Matter, 250 Inquiry Explore It! How does dividing clay affect its mass?, 252 Mass, 253 Law of Conservation of Mass, 254 At-Home Lab: Measure Up Matter, 254 Inquiry Explore It! How does freezing affect the volume of water?, 260 Phase Changes, 264 Solutions, 270 Chapter 6 Ohio Benchmark Practice, 288 Unit D Performance-Based Assessment, 360</p> <p>TE Only: Chapter 6 Test, 287A-287B</p> <p>Realize™ Digital Resources: Chapter 6 Matter: >Lesson 1: What are properties of matter?>What are properties of matter? 60-Sec Video >Lesson 2: How is matter measured?>How does dividing clay affect its mass? >Chapter Leveled Readers>Matter;>What are the Properties of Matter?</p>
<p>(4.PS.2.a) Energy transfers from hot objects to cold objects as heat, resulting in a temperature change.</p>	<p>SE/TE: Forms of Energy, 296 Inquiry Explore It! How does heat move?, 302 Conduction, 303 A Conduction Example, 304 At-Home Lab: Heat on the Move, 304 Convection/Radiation, 305 Inquiry Investigate It! Which material is the better heat conductor?, 308-309 Chapter 7 Study Guide, 315 Chapter 7 Chapter Review, 317 Chapter 7 Ohio Benchmark Practice, 318</p> <p>TE Only: Chapter 7 Test, 317B</p>

**A Correlation of Ohio Interactive Science Grade 4 ©2017
To the
Ohio 2018 Learning Standards for Science, Grade 4**

Ohio 2018 Learning Standards for Science Grade 4	Ohio Interactive Science ©2017 Grade 4
Continued:	Continued: Realize™ Digital Resources: Chapter 7: Energy and Heat: >Lesson 2: What is heat?>How does heat move?;>What is heat? 60-Sec Video;> What is heat? Graphic Organizer;> What is heat? Editable Pres;>How heat moves >Chapter Labs>How could you further explore heat transfer? Open Inquiry;>Which material is the better heat conductor? Directed Inquiry >Chapter Leveled Readers>Energy and Heat Quests, STEM, and Program Resources STEM>How Can You Keep Liquids Warm or Cold> STEM Activity
(4.PS.2.b) Electric circuits require a complete loop of conducting materials through which electrical energy can be transferred.	SE/TE: Inquiry Try It! What can electricity flow through?, 322 Inquiry Explore It! How can a switch make a complete circuit?, 324 Electric Currents, 325 How Electric Charges Flow, 326 Classify Conductors and Insulators, 326 Types of Circuits, 328-329 Uses of Electromagnets, 341 Chapter 8 Study Guide, 351 Chapter 8 Chapter Review, 352 Chapter 8 Ohio Benchmark Practice, 354 TE Only: Chapter 8 Test. 353A-3553B Realize™ Digital Resources: Chapter 8: Electricity and Magnetism: >Lesson 1: How do electrical charges flow in a circuit?>Which Circuit Design is Best? Virtual Lab;>How does electric current flow? Graphic Organizer;>How does electric current flow? Editable Pres;>Electric Charges Flow In a Circuit 60-Sec Video

**A Correlation of Ohio Interactive Science Grade 4 ©2017
To the
Ohio 2018 Learning Standards for Science, Grade 4**

Ohio 2018 Learning Standards for Science Grade 4	Ohio Interactive Science ©2017 Grade 4
<p>(4.PS.2.c) Electrical energy in circuits can be transformed to other forms of energy, including light, heat, sound and motion. Electricity and magnetism are closely related.</p>	<p>SE/TE: Let's Read Science! Cause and Effect, 323 Types of Circuits, 328-329 Energy Changing Form, 331 Light from Electricity, 332 Heat from Electricity, 333 Magnetism, 335 Inquiry Explore It! How can energy be transformed and transferred?, 338 Electric Current and Magnetism, 339 Electromagnets, 340 Uses of Electromagnets, 341 Transforming Magnetism into Electricity, 342 Generators, 343 Inquiry Investigate It! What is an electromagnet?, 344-345 Chapter 8 Study Guide, 351 Chapter 8 Chapter Review, 352-353 Chapter 8 Ohio Benchmark Practice, 354</p> <p>TE Only: Chapter 8 Test. 353A-3553B</p> <p>Realize™ Digital Resources: Chapter 8: Electricity and Magnetism: >Lesson 2: How does electricity transfer energy?>How does electricity transfer energy?>How does electricity transfer energy? 60-Sec Video >Lesson 4: How are electricity and magnetism transformed?>How can energy be transformed and transferred?>How are electricity and magnetism transformed?>How are electricity and magnetism transformed? >Chapter Labs>What is an electromagnet? Open Inquiry, Directed Inquiry, Guided Inquiry >Chapter Leveled Readers>Magnetism and Electricity;>Electricity and Magnets</p>

©2021 Savvas Learning Company LLC