A Correlation of

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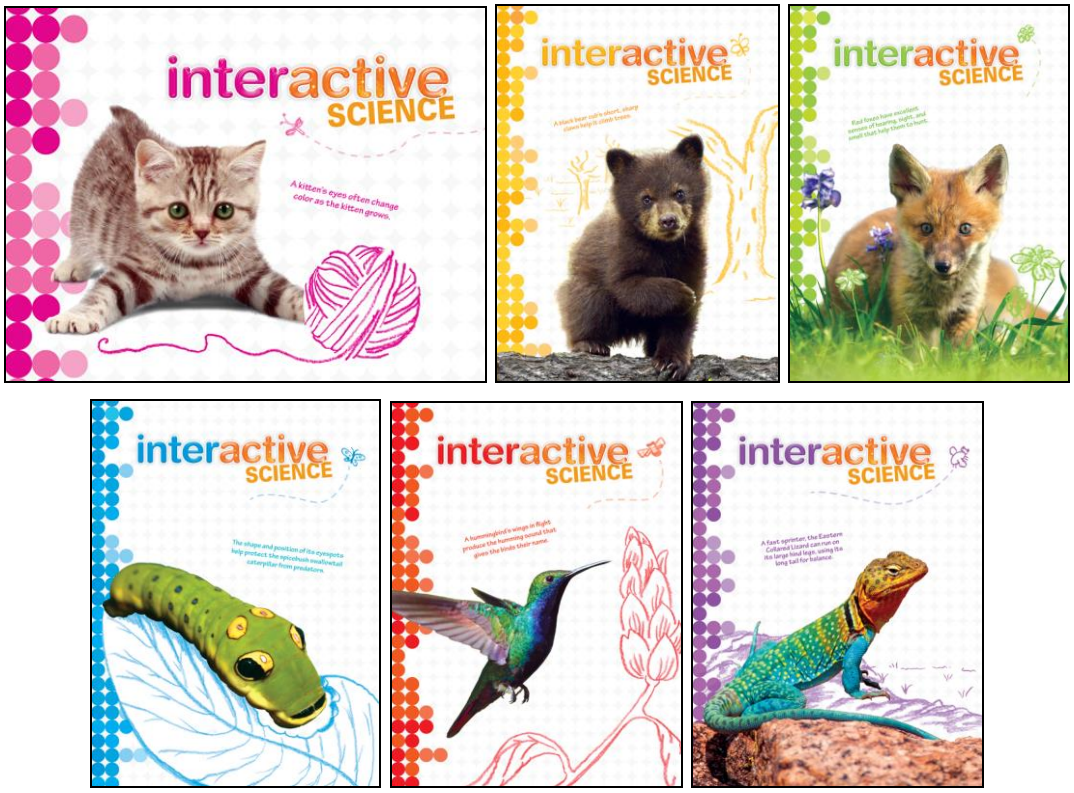

To the

Ohio's New Learning Standards
Science Standards

Grades Kindergarten-5

ALWAYS LEARNING PEARSON

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Introduction

The following document indicates where ***Interactive Science,* ©2016, Grades K-5,** supports Ohio's New Learning Standards for Science, Grades K-5. Correlation references are to the Student Edition and Teacher Edition. Please note that the Kindergarten Student Edition text pages are two-sided; each singular page contains a corresponding Activity Page on the reverse side.

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 2016 editions 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.

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Kindergarten
Kindergarten	
Science Inquiry and Application	
During the years of PreK–4 all students must become proficient in the use of the following scientific processes, with appropriate laboratory safety techniques, to construct their knowledge and understanding in all science content areas.	
• Observe and ask questions about the natural environment.	**SE:** 62-74, 75, 76, 81, 82, 84 **TE:** 116-123, 124-125, 126-127, 136, 137, 142-143, 154
• Plan and conduct simple investigations.	**SE:** 81, 85, 86-87, 97, 99, 171 **TE:** 136, 141, 155, 156-157, 158-159, 162-163, 166, 168-169
• Employ simple equipment and tools to gather data and extend the senses.	**SE:** 79, 80 **TE:** 132-133, 134-135, 169, 175
• Use appropriate mathematics with data to construct reasonable explanations.	**TE:**112, 148
• Communicate about observations, investigations and explanations.	**SE:** 78, 98 **TE:** 130-131, 164-165
• Review and ask questions about the observations and explanations of others.	**SE:** 77 **TE:** 128-129
EARTH AND SPACE SCIENCE (ESS)	
Topic: Daily and Seasonal Changes	
This topic focuses on observing, exploring, describing and comparing weather changes, patterns in the sky and changing seasons.	
Weather changes are long term and short term.	
Weather changes occur throughout the day and from day to day.	**SE:** 42, 43, 57 **TE:** 80-81, 90-93, 100-101, 109a
Air is a nonliving substance that surrounds Earth and wind is air that is moving.	**SE:** 65-66, 67-74 **TE:** 120-121, 122-123
Wind, temperature and precipitation can be used to document short-term weather changes that are observable.	**SE:** 42, 43, 57, 61 **TE:** 76-77, 80-81, 92-93, 99, 100-101, 107-109, 109a, 109b
Yearly weather changes (seasons) are observable patterns in the daily weather changes.	**SE:** 57 **TE:** 92-93, 101, 104
The moon, sun and stars can be observed at different times of the day or night.	

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The moon, sun and stars are in different positions at different times of the day or night.	**SE**: 41, 54, 55 **TE:** 78-79, 86-87, 88-89, 100-101
Sometimes the moon is visible during the night, sometimes the moon is visible during the day, and at other times, the moon is not visible at all.	**SE:** 54 **TE:** 86-87, 101
The observable shape of the moon changes in size very slowly throughout each day of every month.	The Interactive Science program covers the changing shape of the moon in Grade 1, Chapter 3, Lesson 2
The sun is visible only during the day.	**SE:** 54 **TE:** 86-87, 101
The sun's position in the sky changes in a single day and from season to season.	**SE:** 55 **TE:** 88-89, 100 For seasonal changes in the position of the sun, see Grade 1, Chapter 3, Lesson 3.
Stars are visible at night, some are visible in the evening or morning, and some are brighter than others.	The Interactive Science program covers stars in Grade 1, Chapter 3, Lesson 1
Earth and Space Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE:** 44-53 **TE:** 82-85, 103
Demonstrating Science Knowledge	**SE:** 42, 43, 60 **TE:** 76E-76F, 80, 81, 100-101, 104-105
Interpreting and Communicating Science Concepts	**TE:** 100-101, 105-106
Recalling Accurate Science	**SE:** 54-59 **TE:** 100-101, 104-106
LIFE SCIENCE (LS)	
Topic: Physical and Behavioral Traits of Living Things	
This topic focuses on observing, exploring, describing and comparing living things in Ohio.	
Living things are different from nonliving things.	**SE:** 33, 34 **TE:** 48-49, 50-51, 62-63
Living things include anything that is alive or has ever been alive.	**SE:** 34 **TE:** 50-51, 62-63
Living things have specific characteristics and traits.	**SE:** 34 **TE:** 50-51, 62-63

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Living things grow and reproduce.	**SE:** 34 **TE:** 50-51, 62-63
Living things are found almost everywhere in the world.	**SE:** 34, 35, 36, 37 **TE:** 50-51, 52-53, 54-55, 56-57, 62-63
There are somewhat different kinds in different places.	**SE:** 34, 35, 36, 37 **TE:** 50-51, 52-53, 54-55, 56-57, 69a
Living things have physical traits and behaviors, which influence their survival.	**SE:** 38 **TE:** 58-59, 62-63
Living things are made up of a variety of structures.	The Interactive Science program covers plant and animal structures in Grade 1, Chapter 2. For supporting content, see the following locations in Grade K: **TE:** 62-63
Some of these structures and behaviors influence their survival.	**SE:** 38, 39 **TE:** 58-59, 60, 62-63, 67
Life Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE:** 23-32 **TE:** 44-47, 64-65
Demonstrating Science Knowledge	**SE:** 21, 39 **TE:** 42, 60, 62-63, 64-65
Interpreting and Communicating Science Concepts	**SE:** 20, 22 **TE:** 41, 43, 62-63, 67
Recalling Accurate Science	**SE:** 33-38 **TE:** 48-59, 62-63, 66-67

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Kindergarten
PHYSICAL SCIENCE (PS)	
Topic: Properties of Everyday Objects and Materials	
This topic focuses on the production of sound and on observing, exploring, describing and comparing the properties of objects and materials with which the student is familiar	
Objects and materials can be sorted and described by their properties.	The Interactive Science program covers properties of the materials from which objects are made in Grade 1, Part 2, Lesson 2.
Objects can be sorted and described by the properties of the materials from which they are made. Some of the properties can include color, size and texture.	For related content, see the following locations in Grade K: **SE:** 27, Activity 59, 69-70 **TE:** 33, 36-37, 47, 69, 74, 100, 123
Some objects and materials can be made to produce sound.	The Interactive Science program covers sounds produced by objects and materials in Grade 1, Chapter 1, Lesson 4.
Sound is produced by touching, blowing or tapping objects.	The Interactive Science program covers ways to make objects produce sound in Grade 1, Chapter 1, Lesson 4.
The sounds that are produced vary depending on the properties of objects.	The Interactive Science program covers volume and pitch in Grade 1, Chapter 1, Lesson 4.
Sound is produced when objects vibrate.	The Interactive Science program covers the production of sound by vibration in Grade 1, Chapter 1, Lesson 4.
Physical Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	In the context of Properties of Everyday Objects and Materials, the Interactive Science program covers this Cognitive Demand in the Investigate It! activity for Grade 1, Chapter 1.
Demonstrating Science Knowledge	In the context of Properties of Everyday Objects and Materials, the Interactive Science program covers this Cognitive Demand in the Explore It! activity for Grade 1, Chapter 1, Lesson 4.
Interpreting and Communicating Science Concepts	In the context of Properties of Everyday Objects and Materials, the Interactive Science program covers this Cognitive Demand throughout Grade 1, Chapter 1, Lesson 4.

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Recalling Accurate Science	In the context of Properties of Everyday Objects and Materials, the Interactive Science program covers this Cognitive Demand throughout Grade 1, Chapter 1, Lesson 4.

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 1
Grade 1	
Science Inquiry and Application	
During the years of PreK–4 all students must become proficient in the use of the following scientific processes, with appropriate laboratory safety techniques, to construct their knowledge and understanding in all science content areas.	
• Observe and ask questions about the natural environment.	**SE/TE:** 154-156, 158-160 **TE Only:** 157a, 157b
• Plan and conduct simple investigations.	**SE/TE:** 86-87, 128-129, 176-177, 214-215 **TE Only:** 87a-87d, 129a-129d, 177a-177d, 215a-215d
• Employ simple equipment and tools to gather data and extend the senses.	**SE/TE:** 41, 42, 102, 137, 158, 162-165, 171, 176-177, 188 **TE Only:** 140C, 161a, 167a, 177a-177d
• Use appropriate mathematics with data to construct reasonable explanations.	**SE/TE:** 88, 175 **TE Only:** 44C, 140C, 186D
• Communicate about observations, investigations and explanations.	**SE/TE:** 20, 22, 25, 26, 27, 56-57, 64, 68, 70, 71, 87, 97, 98, 99, 101, 102, 112-113, 118, 122, 127, 137, 138, 139, 142, 154, 157, 158, 160, 161, 162, 168, 170-171, 172, 175, 177, 188, 198-199, 200, 201, 204, 205, 206, 207, 208, 215, 228
• Review and ask questions about the observations and explanations of others.	**SE/TE:** 172, 213, 227 **TE Only:** 23, 27, 63, 67, 71, 87c, 96, 117, 123, 127, 136, 154, 157, 161, 167, 171, 175, 177c, 203, 207
EARTH AND SPACE SCIENCE (ESS)	
Topic: Sun, Energy and Weather	
This topic focuses on the sun as a source of energy and energy changes that occur to land, air and water.	
The sun is the principal source of energy.	**SE/TE:** 116
Sunlight warms Earth's land, air and water.	**SE/TE:** 21, 103, 116, 168
The amount of exposure to sunlight affects the amount of warming or cooling of air, water and land.	**SE/TE:** 21, 103, 116-117, 136-137, 168
The physical properties of water can change.	The Interactive Science program covers changes in the physical properties of water in Grade 2, Chapter 1, Lesson 4.

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 1
These changes occur due to changing energy.	For supporting content, see the following locations in Grade 1: **SE/TE:** 21, 136-137
Water can change from a liquid to a solid and from a solid to a liquid.	The Interactive Science program covers changes in state of water in Grade 2, Chapter 1, Lesson 4.
Weather observations can be used to examine the property changes of water.	**SE/TE:** 21, 127
Earth and Space Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 104-113
Demonstrating Science Knowledge	**SE/TE:** 102, 118 **TE Only:** 117b, 123b, 127b
Interpreting and Communicating Science Concepts	**SE/TE:** 102-103, 116, 117, 118 **TE Only:** 117a, 123a, 127a
Recalling Accurate Science	**SE/TE:** 115, 116, 117, 134-135 **TE Only:** 135a-135b
LIFE SCIENCE (LS)	
Topic: Basic Needs of Living Things	
This topic focuses on the physical needs of living things in Ohio. Energy from the sun or food, nutrients, water, shelter and air are some of the physical needs of living things.	
Living things have basic needs, which are met by obtaining materials from the physical environment.	
Living things require energy, water and a particular range of temperatures in their environments.	**SE/TE:** 64, 66-67, 70, 86, 89-90, 116, 125-127, 222 See also Grade K, Lessons 2.3, 2.4, and 2.5 and Grade 2, Lessons 2.4 and 2.5.
Plants get energy from sunlight.	**SE/TE:** 116, 125-127 See also Grade K, Lesson 2.3 and Grade 2, Lessons 2.1 and 2.5.
Animals get energy from plants and other animals.	**SE/TE:** 125-127 See also Grade K, Lesson 2.4 and Grade 2, Lesson 2.5.
Living things acquire resources from the living and nonliving components of the environment.	**SE/TE:** 48, 70, 71, 86, 90, 116, 125-127, 222 See also Grade 2, Lesson 2.4.

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 1
Living things survive only in environments that meet their needs.	
Resources are necessary to meet the needs of an individual and populations of individuals.	**SE/TE:** 58, 99, 222-227 See also Grade 2, Lesson 2.4.
Living things interact with their physical environments as they meet those needs.	**SE/TE:** 125-127, 208, 222-227 **TE Only:** 127b, 215a See also Grade K, Lesson 2.6 and Grade 2, Lesson 2.4.
Effects of seasonal changes within the local environment directly impact the availability of resources.	**SE/TE:** 125-127
Life Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 48-57, 208, 209-213, 222-227 **TE Only:** 213a
Demonstrating Science Knowledge	**SE/TE:** 46, 68, 86-87, 96-97 **TE Only:** 87a-87d
Interpreting and Communicating Science Concepts	**SE/TE**: 47, 58, 59, 64, 65, 66 **TE Only:** 63a, 67a, 69
Recalling Accurate Science	**SE/TE:** 67, 94-95 **TE Only:** 63b, 67b
PHYSICAL SCIENCE (PS)	
Topic: Motion and Materials	
This topic focuses on the changes in properties that occur in objects and materials. Changes of position of an object are a result of pushing or pulling.	
Properties of objects and materials can change.	The Interactive Science program covers the properties of matter in Grade 2, Chapter 1.
Objects and materials change when exposed to various conditions, such as heating or freezing.	The Interactive Science program covers changes in the states of matter in Grade 2, Lesson 1.4.
Not all materials change in the same way.	The Interactive Science program covers the states of matter in Grade 2, Lessons 1.3 and 1.4.
Objects can be moved in a variety of ways, such as straight, zigzag, circular and back and forth.	The Interactive Science program covers motion in Grade K, Chapter 1.
The position of an object can be described by locating it relative to another object or to the object's surroundings.	The Interactive Science program covers position in Grade K, Lesson 1.1.

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An object is in motion when its position is changing.	The Interactive Science program covers motion in Grade K, Chapter 1.
The motion of an object can be affected by pushing or pulling.	The Interactive Science program covers pushing and pulling in Grade K, Lesson 1.2.
A push or pull is a force that can make an object move faster, slower or go in a different direction.	The Interactive Science program covers changes in motion due to pushes and pulls in Grade K, Lessons 1.3 and 1.4.
Physical Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	In the contexts of Motion and Materials, the Interactive Science program covers this Cognitive Demand in the STEM Activities in Grade K, Chapter 1 and Grade 2, Chapter 1.
Demonstrating Science Knowledge	In the contexts of Motion and Materials, the Interactive Science program covers this Cognitive Demand in the Try It! and Investigate It! activities in Grade K, Chapter 1 and in the Try It!, Explore It!, Investigate It!, and Apply It! activities in Grade 2, Chapter 1.
Interpreting and Communicating Science Concepts	In the contexts of Motion and Materials, the Interactive Science program covers this Cognitive Demand throughout Grade K, Chapter 1 and Grade 2, Chapter 1.
Recalling Accurate Science	In the contexts of Motion and Materials, the Interactive Science program covers this Cognitive Demand throughout Grade K, Chapter 1 and Grade 2, Chapter 1.

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 2
Grade 2	
Science Inquiry and Application	
During the years of PreK–4, all students must become proficient in the use of the following scientific processes, with appropriate laboratory safety techniques, to construct their knowledge and understanding in all science content areas:	
• Observe and ask questions about the natural environment.	**SE/TE:** 178-181, 182-187, 188-191, 192-195, 222-227, 228-223 **TE Only:** 181a-181b, 187a, 191a, 195a, 223a, 227a
• Plan and conduct simple investigations.	**SE/TE:** 196-197, 234-235 **TE Only:** 197a-197d, 235a-235d
• Employ simple equipment and tools to gather data and extend the senses.	**SE/TE:** 182-187 **TE Only:** 187a
• Use appropriate mathematics with data to construct reasonable explanations.	**SE/TE:** 192-195, 197, 199-200, 201, 222 **TE Only:** 2C, 62C, 118C, 160C, 195a, 197b, 204C
• Communicate about observations, investigations and explanations.	**SE/TE:** 192-195 **TE Only:** 195a-195b
• Review and ask questions about the observations and explanations of others.	**SE/TE:** 179 **TE Only:** 177a, 195a
EARTH AND SPACE SCIENCE (ESS)	
Topic: The Atmosphere	
This topic focuses on air and water as they relate to weather and weather changes that can be observed and measured.	
The atmosphere is made up of air.	
Air has properties that can be observed and measured.	**SE/TE:** 17, 23, 79, 96, 141, 143
The transfer of energy in the atmosphere causes air movement, which is felt as wind.	**SE/TE:** 141, 143
Wind speed and direction can be measured.	The Interactive Science program covers wind speed and direction in Grade 3, Chapter 6, Lesson 3 and Part 1, Lesson 2
Water is present in the air.	
Water is present in the air as clouds, steam, fog, rain, ice, snow, sleet or hail.	**SE/TE:** 5, 38

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 2
When water in the air cools (change of energy), it forms small droplets of water that can be seen as clouds.	The Interactive Science program covers the water cycle in Grade 3, Lesson 6.1 and 6.2.
Water can change from liquid to vapor in the air and from vapor to liquid.	**SE/TE:** 4-5, 38-39 **TE Only:** 39b
The water droplets can form into raindrops.	The Interactive Science program covers the formation of rain in Grade 3, Lesson 6.1.
Water droplets can change to solid by freezing into snow, sleet or hail.	**SE/TE:** 24, 36-39
Clouds are moved by flowing air.	The Interactive Science program covers cloud movement in Grade 3, Lesson 6.2.
Long- and short-term weather changes occur due to changes in energy.	The Interactive Science program covers weather changes in Grade 3, Chapter 6.
Changes in energy affect all aspects of weather, including temperature, precipitation amount and wind.	For supporting content, see the following Grade 2 locations: **SE/TE:** 37-39
Earth and Space Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	In the context of The Atmosphere, the interactive Science program covers this Cognitive Demand in the "Explore It!" activity for Grade 3, Lesson 6.3.
Demonstrating Science Knowledge	In the context of The Atmosphere, the interactive Science program covers this Cognitive Demand in the "Try It!", "Explore It!", and "Investigate It!" activities for Grade 3, Chapter 6.
Interpreting and Communicating Science Concepts	In the context of The Atmosphere, the interactive Science program covers this Cognitive Demand throughout Grade 3, Chapter 6.
Recalling Accurate Science	In the context of The Atmosphere, the interactive Science program covers this Cognitive Demand throughout Grade 3, Chapter 6.

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LIFE SCIENCE (LS)	
Topic: Interactions within Habitats	
This topic focuses on how ecosystems work by observations of simple interactions between the biotic/living and abiotic/nonliving parts of an ecosystem. Just as living things impact the environment in which they live, the environment impacts living things.	
Living things cause changes on Earth.	
Living things function and interact with their physical environments.	**SE/TE:** 89-93, 94-99, 101-103, 104-105, 116, 117 **TE Only:** 93a, 93b, 103a, 105a-105d
Living things cause changes in the environments where they live; the changes can be very noticeable or slightly noticeable, fast or slow.	**SE/TE:** 94-99 **TE Only:** 99a-99b
Some kinds of individuals that once lived on Earth have completely disappeared, although they were something like others that are alive today.	The Interactive Science program covers comparisons between extinct life forms and living things today in Grade 3, Lesson 5.5 and in a Grade 3, Chapter 5 Performance Expectation Activity.
Living things that once lived on Earth no longer exist; their basic needs were no longer met.	**SE/TE:** 144-147, 151-152, 153 **TE Only:** 147b
Life Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 66-75 **TE Only:** 117b
Demonstrating Science Knowledge	**SE/TE:** 88, 94, 100, 104-105 **TE Only:** 93a, 99a, 103a, 105a-105d
Interpreting and Communicating Science Concepts	**SE/TE:** 76, 77, 89-93, 95,-99, 100, 101 **TE Only:** 81a, 93b, 99b, 103b, 117a, 117c
Recalling Accurate Science	**SE/TE:** 102, 103, 112-113 **TE Only:** 99b, 103b, 113a-113b
PHYSICAL SCIENCE (PS)	
Topic: Changes in Motion	
This topic focuses on observing the relationship between forces and motion.	
Forces change the motion of an object.	The Interactive Science program covers forces and motion in Grade 3, Chapter 1.
Motion can increase, change direction or stop depending on the force applied.	The Interactive Science program covers changes in motion in Grade 3, Lesson 1.2.

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The change in motion of an object is related to the size of the force.	The Interactive Science program covers changes in motion in Grade 3, Lesson 1.2.
Some forces act without touching, such as using a magnet to move an object or objects falling to the ground.	The Interactive Science program covers noncontact forces in Grade 3, Lessons 1.2 and 1.3.
Physical Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	In the context of Changes in Motion, the Interactive Science program covers this Cognitive Demand in the STEM Activity for Grade 3, Chapter 1.
Demonstrating Science Knowledge	In the context of Changes in Motion, the Interactive Science program covers this Cognitive Demand in the "Try It!", "Explore It!" and "Investigate It!" activities for Grade 3, Chapter 1.
Interpreting and Communicating Science Concepts	In the context of Changes in Motion, the Interactive Science program covers this Cognitive Demand throughout Grade 3, Chapter 1.
Recalling Accurate Science	In the context of Changes in Motion, the Interactive Science program covers this Cognitive Demand throughout Grade 3, Chapter 1.

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 3
Grade 3	
Science Inquiry and Application	
During the years of PreK–4, all students must become proficient in the use of the following scientific processes, with appropriate laboratory safety techniques, to construct their knowledge and understanding in all science content areas.	
• Observe and ask questions about the natural environment.	**SE/TE:** 290-291, 298-301, 328 **TE Only:** 290C, 301b
• Plan and conduct simple investigations.	**SE/TE:** 302, 294-297, 314, 316, 319, 326-327 **TE only:** 311, 327a-327d
• Employ simple equipment and tools to gather data and extend the senses.	**SE/TE:** 304, 308-313, 320-325, 326-327 **TE Only:** 290D, 325a-325b, 327a-327d
• Use appropriate mathematics with data to construct reasonable explanations.	**SE/TE:** 306, 314, 317, 322 **TE Only:** 99a-99c, 245a-245g, 289a
• Communicate about observations, investigations and explanations.	**SE/TE:** 292, 297, 300, 302, 308, 314, 315, 318, 319, 327 **TE Only:** 290D, 307a, 313a-313b, 314, 319a, 319b
• Review and ask questions about the observations and explanations of others.	**SE/TE:** 296-297, 319, 320 **TE only:** 314
EARTH AND SPACE SCIENCE (ESS)	
Topic: Earth's Resources	
This topic focuses on Earth's resources. While resources can be living and nonliving, within this strand, the emphasis is on Earth's nonliving resources, such as water, air, rock, soil and the energy resources they represent.	
Earth's nonliving resources have specific properties.	
Soil is composed of pieces of rock, organic material, water and air and has characteristics that can be measured and observed.	Supporting content on weathering and erosion appears in Grade 2, Lesson 3.2 and Grade 4, Lesson 6.3
Rocks have unique characteristics that allow them to be sorted and classified.	The Interactive Science program covers rock formation and classification in Grade 4, Chapter 6, Lesson 2.
Rocks form in different ways.	The Interactive Science program covers rock formation and classification in Grade 4, Chapter 6, Lesson 2.

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 3
Air and water are nonliving resources.	**SE/TE:** 204-207 **TE Only:** 209b
Earth's resources can be used for energy.	
Many of Earth's resources can be used for the energy they contain.	**SE/TE:** 42-43, 46-51, 53, 54, 59, 211, 250
Renewable energy is an energy resource, such as wind, water or solar energy that is replenished within a short amount of time by natural processes.	**SE/TE:** 42-43, 59, 68, 93, 346-347, 250-251
Nonrenewable energy is an energy resource, such as coal or oil that is a finite energy source that cannot be replenished in a short amount of time.	**SE/TE:** 54, 68, 93
Some of Earth's resources are limited.	
Some of Earth's resources become limited due to overuse and/or contamination.	**SE/TE:** 46, 54, 93, 204
Reducing resource use, decreasing waste and/or pollution, recycling and reusing can help conserve these resources.	**SE/TE:** 46, 48, 54, 80, 93, 131, 181, 220, 256, 313, 358 **TE Only:** 51a
Earth and Space Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 42-45 **TE Only:** 55
Demonstrating Science Knowledge	**SE/TE:** 55, 58
Interpreting and Communicating Science Concepts	**SE/TE:** 46, 54, 80, 93 **TE Only:** 51a, 57b
Recalling Accurate Science	**SE/TE:** 51, 53, 57
LIFE SCIENCE (LS)	
Topic: Behavior, Growth, and Changes	
This topic explores life cycles of organisms and the relationship between the natural environment and an organism's (physical and behavioral) traits, which affect its ability to survive and reproduce.	
Offspring resemble their parents and each other.	**SE/TE:** 169, 170, 245
Individual organisms inherit many traits from their parents indicating a reliable way to transfer information from one generation to the next.	**SE/TE:** 170, 172 **TE Only:** 245c

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Some behavioral traits are learned through interactions with the environment and are not inherited.	**SE/TE:** 171, 173, 208 **TE Only:** 175b, 245d
Individuals of the same kind differ in their traits and sometimes the differences give individuals an advantage in surviving and reproducing.	
Plants and animals have physical features that are associated with the environments where they live.	**SE/TE:** 114, 126-127, 171, 162-165 **TE Only:** 223b
Plants and animals have certain physical or behavioral characteristics that improve their chances of surviving in particular environments.	**SE/TE:** 126, 139, 171, 173-175, 208 **TE Only:** 209b
Individuals of the same kind have different characteristics that they have inherited. Sometimes these different characteristics give individuals an advantage in surviving and reproducing.	**SE/TE:** 169-170, 174-175 **TE Only:** 245b
Plants and animals have life cycles that are part of their adaptations for survival in their natural environments.	
Over the whole earth, organisms are growing, reproducing, dying and decaying.	**SE/TE:** 134-139, 143, 145, 176-183 **TE Only:** 139a, 139b, 183a, 183b
The details of the life cycle are different for different organisms, which affects their ability to survive and reproduce in their natural environments.	**SE/TE:** 134-139, 176-183 **TE Only:** 139a, 139b, 183a, 183b
Life Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 104-107, 156-159
Demonstrating Science Knowledge	**SE/TE:** 102, 116, 122, 128, 140-141, 160, 176, 184-185 **TE Only:** 121a, 127a, 133a, 141a-141d, 167a, 183a, 185a-185d
Interpreting and Communicating Science Concepts	**SE/TE:** 134, 168, 172-173, 178, 195 **TE Only:** 115b, 121b, 127b, 133b, 139b, 167b, 175a, 175b, 183a, 183b
Recalling Accurate Science	**SE/TE:** 108, 169, 170, 171, 183, 192-193 **TE Only:** 115b, 121b, 127b, 133b, 139b, 167b, 175b, 183b, 193a-193b

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 3
PHYSICAL SCIENCE (PS)	
Topic: Matter and Forms of Energy	
This topic focuses on the relationship between matter and energy. Matter has specific properties and is found in all substances on Earth. Heat is a familiar form of energy that can change the states of matter.	
All objects and substances in the natural world are composed of matter.	The Interactive Science program covers matter in Grade 2, Chapter 1.
Matter takes up space and has mass.	The Interactive Science program covers the properties of matter in Grade 2, Lesson 1.1. For supporting content, see the following locations in Grade 3: **SE/TE:** 67, 71-72, 77, 294, 323
Matter exists in different states, each of which has different properties.	The Interactive Science program covers the states of matter in Grade 2, Chapter 1. For supporting content, see the following locations in Grade 3: **SE/TE:** 60-62, 67, 73, 80
The most common states of matter are solids, liquids and gases.	The Interactive Science program defines the common states of matter in Grade 2, Lesson 1.2. For supporting content, see the following locations in Grade 3: **SE/TE:** 60, 256-257
Shape and compressibility are properties that can distinguish between the states of matter.	The Interactive Science program covers the distinguishing properties of the states of matter in Grade 2, Lesson 1.2.
One way to change matter from one state to another is by heating or cooling.	The Interactive Science program covers changes in the state of matter in Grade 2, Lesson 1.4. For supporting content, see the following locations in Grade 3: **SE/TE:** 256-257
Heat, electrical energy, light, sound and magnetic energy are forms of energy.	**SE/TE:** 48-49, 53, 54, 59, 67-69, 71-73, 90-91
There are many different forms of energy.	**SE/TE:** 42-45, 46-51, 52-57 **TE Only:** 38
Energy is the ability to cause motion or create change.	**SE/TE:** 40-41, 46-51, 94-97, 98 **TE Only:** 51a, 51b
Physical Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 42-45, 99 **TE Only:** 99d

A Correlation of Pearson Interactive Science, ©2016
to Ohio's New Learning Standards: Science Standards, Grades K-5

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 3
Demonstrating Science Knowledge	**SE/TE:** 40, 52, 55, 58, 65, 70, 76, 82-83 **TE Only:** 57a, 65a, 75a, 81a, 83a-83d
Interpreting and Communicating Science Concepts	**SE/TE:** 40, 41, 46, 48-49, 50, 53, 54-55, 60-62, 64, 68-69, 72-73, 75, 81 **TE Only:** 51a, 51b, 65b, 69a, 69b, 75b, 81b
Recalling Accurate Science	**SE/TE:** 51, 53, 56, 63, 69, 75, 81, 90-91 **TE Only:** 51b, 65b, 75b, 81b, 91a-91b

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 4
Grade 4	
Science Inquiry and Application	
During the years of PreK–4, all students must become proficient in the use of the following scientific processes, with appropriate laboratory safety techniques, to construct their knowledge and understanding in all science content areas.	
• Observe and ask questions about the natural environment.	**SE/TE:** 298, 304-307
• Plan and conduct simple investigations.	**SE/TE:** 300-303, 314-321, 322-325, 330-331 **TE Only:** 321a, 321b, 329a, 329b, 331a-331d
• Employ simple equipment and tools to gather data and extend the senses.	**SE/TE:** 308-313 **TE Only:** 313a, 313b
• Use appropriate mathematics with data to construct reasonable explanations.	**SE/TE:** 329
• Communicate about observations, investigations and explanations.	**SE/TE:** 307, 321, 326-328, 338-339 **TE Only:** 307a, 307b, 313a, 313b, 321a, 321b, 339a-339b
• Review and ask questions about the observations and explanations of others.	**TE Only:** 307a, 313b, 339b
EARTH AND SPACE SCIENCE (ESS)	
Topic: Earth's Surface	
This topic focuses on the variety of processes that shape and reshape Earth's surface.	
Earth's surface has specific characteristics and landforms that can be identified.	**SE/TE:** 255, 260-263, 295 **TE Only:** 295b
About 70 percent of the Earth's surface is covered with water and most of that is the ocean.	**SE/TE:** 267-269 **TE Only:** 271b
Only a small portion of the Earth's water is freshwater, which is found in rivers, lakes and groundwater.	**SE/TE:** 266, 268-271 **TE Only:** 271b, 295b
Earth's surface can change due to erosion and deposition of soil, rock or sediment.	**SE/TE:** 234, 254-258, 265, 281-284 **TE Only:** 230D

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 4
Catastrophic events such as flooding, volcanoes and earthquakes can create landforms.	**SE/TE:** 255, 258-259, 260-265 **TE Only:** 265b
The surface of Earth changes due to weathering.	**SE/TE:** 254, 256-257
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:** 246-253, 254-259, 260-265 **TE Only:** 259b, 265b
The surface of Earth changes due to erosion and deposition.	**SE/TE:** 258-259
Water, wind and ice physically remove and carry (erosion) rock, soil and sediment and deposit the material in a new location.	**SE/TE:** 258-259, 264 **TE Only:** 259b
Gravitational force affects movements of water, rock and soil.	**SE/TE:** 255, 258, 264 **TE Only:** 230D
Earth and Space Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 232-237 **TE Only:** 295c
Demonstrating Science Knowledge	**SE/TE:** 244, 254, 258, 266, 278-279, 290-29, 294 **TE Only:** 253a, 259a, 279a-279d, 295a
Interpreting and Communicating Science Concepts	**SE/TE:** 245, 246-247, 249, 250-251, 252-253, 257, 258, 260, 262, 263, 264, 265, 267, 280, 288, 295 **TE Only:** 244b, 253b, 259b, 265b, 271b, 287a-287b, 295b
Recalling Accurate Science	**SE/TE:** 253, 259, 271, 274-275, 277, 286-287 **TE Only:** 253b, 259b, 265b, 271b, 287a-287b

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 4
LIFE SCIENCE (LS)	
Topic: 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.	
Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful.	**SE/TE:** 153, 188-193, 214, 228-229
Ecosystems can change gradually or dramatically.	**SE/TE:** 182-184, 188-193
When the environment changes, some plants and animals survive and reproduce and others die or move to new locations.	**SE/TE:** 143-147, 156-157, 188-193 **TE Only:** 147b
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:** 152, 155-159, 183, 188-193, 223, 229 **TE Only:** 159b
Fossils can be compared to one another and to present-day organisms according to their similarities and differences.	
The concept of biodiversity is expanded to include different classification schemes based upon shared internal and external characteristics of organisms.	**SE/TE:** 114, 120-127 **TE Only:** 127a, 127b
Most types of organisms that have lived on Earth no longer exist.	**SE/TE:** 200, 201, 203, 204-205, 206-210 **TE Only:** 205b
Fossils provide a point of comparison between the types of organisms that lived long ago and those existing today.	**SE/TE:** 204-205, 208, 211 **TE Only:** 205a, 211a, 229c
Life Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 116-119, 178-181
Demonstrating Science Knowledge	**SE/TE:** 114, 120, 142, 148, 160-161, 188, 212-213, 224-227 **TE Only:** 127a, 147a, 153a, 161a-161d, 193a, 213a-213d
Interpreting and Communicating Science Concepts	**SE/TE:** 127, 128, 135, 147, 153, 200, 206, 222 **TE Only:** 127b, 135a, 135b, 147b, 153b, 159a, 159b, 171a-171b, 193b, 205a, 205b, 211a, 211b, 221a-221b

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 4
Recalling Accurate Science	**SE/TE:** 141, 159, 170-171, 220-221, 222 **TE Only:** 171a-171b, 221a-221b
PHYSICAL SCIENCE (PS)	
Topic: 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.	
The total amount of matter is conserved when it undergoes a change.	The Interactive Science program covers changes in matter in Grade 5, Lessons 1.3 and 1.5.
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.	The Interactive Science program covers conservation of matter in the "Try It!" activity and a Performance Expectation Activity in Grade 5, Chapter 1.
Energy can be transformed from one form to another or transferred from one location to another.	**SE/TE:** 8, 11, 14-15, 28-33, 36, 93-95, 111 **TE Only:** 15b, 33a, 33b, 95b, 111b, 111c, 111d
Energy transfers from hot objects to cold objects as heat, resulting in a temperature change.	**SE/TE:** 10, 28-31, 34-35, 82 **TE Only:** 33a, 33b, 35a-35d
Electric circuits require a complete loop of conducting materials through which electrical energy can be transferred.	**SE/TE:** 80, 88, 90-91, 92, 102 **TE Only:** 91b, 95a, 103a-103b
Electrical energy in circuits can be transformed to other forms of energy, including light, heat, sound and motion.	**SE/TE:** 92-95, 96-97, 103, 104, 111 **TE Only:** 95b, 97a-97d, 103a-103b, 111d
Electricity and magnetism are closely related.	**TE only:** 78G-78H
Physical Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 4-7, 45, 82-85, 96-97, 106-109, 111 **TE Only:** 97a-97d, 111d
Demonstrating Science Knowledge	**SE/TE:** 2, 28, 34-35, 80, 92 **TE Only:** 33a, 35a-35d, 95a, 111c
Interpreting and Communicating Science Concepts	**SE/TE:** 12, 15, 18, 23, 33, 36, 42-43, 44, 91, 95, 102-103, 104 **TE Only:** 15b, 33b, 43a-43b, 91b, 95b, 103a-103b, 111b

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 4
Recalling Accurate Science	**SE/TE:** 42-43, 44, 102-103, 104 **TE Only:** 15b, 33b, 43a-43b, 91b, 95b, 103a-103b

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 5
Grade 5	
Science Inquiry and Application	
During the years of grades 5–8, all students must use the following scientific processes, with appropriate laboratory safety techniques, to construct their knowledge and understanding in all science content areas.	
• Identify questions that can be answered through scientific investigations.	**SE/TE:** 316-317, 318-321
• Design and conduct a scientific investigation.	**SE/TE:** 318-321, 328-335, 344-347, 348-349 **TE Only:** 335a, 347a, 349a-349d
• Use appropriate mathematics, tools and techniques to gather data and information.	**SE/TE:** 322-323, 336-341, 350, 370-371 **TE Only:** 314D, 343a
• Analyze and interpret data.	**SE/TE:** 321, 322-327, 342 **TE Only:** 327a
• Develop descriptions, models, explanations and predictions.	**SE/TE:** 320-321, 343
• Think critically and logically to connect evidence and explanations.	**SE/TE:** 324, 342-343 **TE Only:** 327b
• Recognize and analyze alternative explanations and predictions.	**SE/TE:** 325, 327 **TE Only:** 347a, 347b
• Communicate scientific procedures and explanations.	**SE/TE:** 320, 328, 336, 344 **TE Only:** 327b, 335a, 335b, 343a, 343b, 347a, 347b
EARTH AND SPACE SCIENCE (ESS)	
Topic: Cycles and Patterns in the Solar System	
This topic focuses on the characteristics, cycles and patterns in the solar system and within the universe.	
The solar system includes the sun and all celestial bodies that orbit the sun. Each planet in the solar system has unique characteristics.	
The distance from the sun, size, composition and movement of each planet are unique.	**SE/TE:** 259, 276-283, 284-289 **TE Only:** 256C, 256D, 283a, 283b, 289a, 289b
Planets revolve around the sun in elliptical orbits.	**SE/TE:** 265, 267
Some of the planets have moons and/or debris that orbit them.	**SE/TE:** 281, 282, 286-288, 295

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 5
Comets, asteroids and meteoroids orbit the sun.	**SE/TE:** 290-295 **TE Only:** 256D, 295a, 295b
The sun is one of many stars that exist in the universe.	**SE/TE:** 271 **TE Only:** 256C, 313c
The sun appears to be the largest star in the sky because it is the closest star to Earth.	**SE/TE:** 271, 274, 275 **TE Only:** 275b
Some stars are larger than the sun and some stars are smaller than the sun.	**SE/TE:** 270-271, 275 **TE Only:** 275b
Most of the cycles and patterns of motion between the Earth and sun are predictable.	**TE Only:** 313d
Earth's revolution around the sun takes approximately 365 days.	**SE/TE:** 267
Earth completes one rotation on its axis in a 24-hour period, producing day and night.	**SE/TE:** 266 **TE Only:** 269b
This rotation makes the sun, stars and moon appear to change position in the sky.	**SE/TE:** 266, 269, 275, 298 **TE Only:** 269b, 275b
Earth's axis is tilted at an angle of 23.5°. This tilt, along with Earth's revolution around the sun, affects the amount of direct sunlight that the Earth receives in a single day and throughout the year.	**SE/TE:** 264, 266, 268-269 **TE Only:** 269a, 269b
The average daily temperature is related to the amount of direct sunlight received.	**SE/TE:** 268 **TE Only:** 269a
Changes in average temperature throughout the year are identified as seasons.	**SE/TE:** 268-269 **TE Only:** 269a
Earth and Space Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 260-263
Demonstrating Science Knowledge	**SE/TE:** 258, 264, 276, 284, 290, 296-297, 298, 308-311 **TE Only:** 269a, 283a, 289a, 295a, 297a-297d

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 5
Interpreting and Communicating Science Concepts	**SE/TE:** 265, 267-269, 275, 280, 282-283, 285, 289, 293, 295 **TE Only:** 269b, 275a, 275b 283b, 289b, 295b
Recalling Accurate Science	**SE/TE:** 259, 271, 304-305 **TE Only:** 269b, 275b, 283b, 289b, 295b, 305a-305b
LIFE SCIENCE (LS)	
Topic: Interconnections within Ecosystems	
This topic focuses on foundational knowledge of the structures and functions of ecosystems.	
Organisms perform a variety of roles in an ecosystem.	**SE/TE:** 159, 160-161, 164-165 **TE Only:** 142C, 165b
Populations of organisms can be categorized by how they acquire energy.	**SE/TE:** 160-161 **TE Only:** 165b
Food webs can be used to identify the relationships among producers, consumers and decomposers in an ecosystem.	**SE/TE:** 160-163, 165, 195 **TE Only:** 165b
All of the processes that take place within organisms require energy.	**SE/TE:** 160-161 **TE Only:** 195a
For ecosystems, the major source of energy is sunlight.	**SE/TE:** 151, 154-157, 160-163 **TE Only:** 157b, 195a
Energy entering ecosystems as sunlight is transferred and transformed by producers into energy that organisms use through the process of photosynthesis. That energy then passes from organism to organism as illustrated in food webs.	**SE/TE:** 151, 154-157, 160, 162-163 **TE Only:** 157b, 195c
In most ecosystems, energy derived from the sun is transferred and transformed into energy that organisms use by the process of photosynthesis in plants and other photosynthetic organisms.	**SE/TE:** 151, 154-157 **TE Only:** 157b, 195c
Life Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 146-149
Demonstrating Science Knowledge	**SE/TE:** 144, 158 **TE Only:** 165a

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 5
Interpreting and Communicating Science Concepts	**SE/TE:** 151, 152, 154, 157, 162-165, 186-187, 188 **TE Only:** 157a, 157b, 165a, 165b, 187a-187b
Recalling Accurate Science	**SE/TE:** 186, 188 **TE Only:** 157b, 165b, 187a-187b
PHYSICAL SCIENCE (PS)	
Topic: Light, Sound, and Motion	
This topic focuses on the forces that affect motion. This includes the relationship between the speed of an object, the amount of force applied and the mass of the object. Light and sound are explored as forms of energy that move in predictable ways, depending on the matter through which they move.	
The amount of change in movement of an object is based on the mass of the object and the amount of force exerted.	**SE/TE:** 54-59, 61, 70-71
Movement can be measured by speed.	**SE/TE:** 61, 67 **TE Only:** 73a, 73b
The speed of an object is calculated by determining the distance (d) traveled in a period of time (t).	The Interactive Science program covers the formula for speed of an object in Grade 4, Chapter 2, Lesson 2.
Earth pulls down on all objects with a gravitational force.	**SE/TE:** 60, 64, 76, 85-88, 280
Weight is a measure of the gravitational force between an object and the Earth.	**SE/TE:** 64, 65
Any change in speed or direction of an object requires a force and is affected by the mass of the object and the amount of force applied.	**SE/TE:** 61, 67, 70-72, 73 **TE only:** 60, 66,
Light and sound are forms of energy that behave in predictable ways.	
Light travels and maintains its direction until it interacts with an object or moves from one medium to another, and then it can be reflected, refracted or absorbed.	**SE/TE:** 78-81 **TE Only:** 81a, 81b
Sound is produced by vibrating objects and requires a medium through which to travel.	The Interactive Science program covers the production of sound in Grade 4, Chapter 1, Lesson 2.
The rate of vibration is related to the pitch of the sound.	The Interactive Science program covers pitch in Grade 4, Chapter 1, Lesson 2.

Ohio's New Learning Standards Standards for Science	Interactive Science, ©2016 Grade 5
Physical Science Expectations for Learning: Cognitive Demands	
Designing Technological/Engineering Solutions Using Science Concepts	**SE/TE:** 56-59, 82-83, 98 **TE Only:** 83a-83d
Demonstrating Science Knowledge	**SE/TE:** 54, 66, 72, 74, 78, 94-97 **TE Only:** 73a, 77a, 81a
Interpreting and Communicating Science Concepts	**SE/TE:** 65, 66, 68-69, 73, 75, 77, 79-81 **TE Only:** 65a, 65b, 73a, 73b, 77a, 77b, 81a, 81b
Recalling Accurate Science	**SE/TE:** 90-91 **TE Only:** 65b, 73b, 77b, 81b, 91a-91b