



## Florida Next Generation Sunshine State Standards for Science Correlation to *PhD Science*™

 Green indicates that *PhD Science*™ fully addresses the standard within the grade level.

 Blue indicates that *PhD Science* covers the standard but in a different grade level.







 Yellow indicates that *PhD Science* partially covers the standard within the grade level.

 Red indicates that *PhD Science* does not cover the standard.

**Key:** Module (M), Lesson (L)

### *PhD Science* Level 3

The Grade 3 Florida Next Generation Sunshine State Standards for Science are fully covered by *PhD Science* but sometimes out of grade level. A detailed analysis of alignment appears in the table below.

Grade 3 Standards		Aligned <i>PhD Science</i> Lessons
<b>SC.3.L Life Science</b>		
<b>SC.3.L.14 Organization and Development of Living Organisms</b>		
SC.3.L.14.1	Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.	 Level 4 M3 L1–L6 Level 4 M3 L20 Level 4 M3 L26–L31
SC.3.L.14.2	Investigate and describe how plants respond to stimuli (heat, light, gravity), such as the way plant stems grow toward light and their roots grow downward in response to gravity.	 Level 3 M3 L9–L13 Level 3 M3 L19–L20 Level 3 M3 L26–L28
<b>SC.3.L.15 Diversity and Evolution of Living Organisms</b>		
SC.3.L.15.1	Classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics and behaviors.	 Level 3 M3 L1–L3 Level 4 M3 L1–L6 Level 4 M3 L11 Level 4 M3 L14 Level 4 M3 L18–L25 Level 4 M3 L29–L31
SC.3.L.15.2	Classify flowering and nonflowering plants into major groups such as those that produce seeds, or those like ferns and mosses that produce spores, according to their physical characteristics.	 Level 3 M2 L1–L3 Level 3 M2 L6–L8 Level 3 M2 L10–L11 Level 3 M2 L14 Level 3 M2 L24–L26
<b>SC.3.L.17: Interdependence</b>		
SC.3.L.17.1	Describe how animals and plants respond to changing seasons.	 Level 3 M1 L1–L15 Level 3 M1 L19–L20 Level 3 M1 L27–L29
SC.3.L.17.2	Recognize that plants use energy from the Sun, air, and water to make their own food.	 Level 5 M2 L15–L19 Level 5 M2 L24–L26

<b>SC.3.P Physical Science</b>		
<b>SC.3.P.10: Forms of Energy</b>		
SC.3.P.10.1	Identify some basic forms of energy such as light, heat, sound, electrical, and mechanical.	Level 4 M2 L1–L5 Level 4 M2 L10–L11 Level 4 M2 L24–L26
SC.3.P.10.2	Recognize that energy has the ability to cause motion or create change.	Level 4 M2 L1–L5 Level 4 M2 L10–L11 Level 4 M2 L24–L26
SC.3.P.10.3	Demonstrate that light travels in a straight line until it strikes an object or travels from one medium to another.	Level 4 M4 L3–L4 Level 4 M4 L7–L8
SC.3.P.10.4	Demonstrate that light can be reflected, refracted, and absorbed.	Level 5 M4 L5–L6 Level 5 M4 L9–L12 Level 5 M4 L16–L17
<b>SC.3.P.11 Energy Transfer and Transformations</b>		
SC.3.P.11.1	Investigate, observe, and explain that things that give off light often also give off heat.	Level 4 M2 L4–L5 Level 4 M2 L10–L11 Level 4 M2 L24–L26
SC.3.P.11.2	Investigate, observe, and explain that heat is produced when one object rubs against another, such as rubbing one’s hands together.	Level 3 M4 L16
<b>SC.3.P.8 Properties of Matter</b>		
SC.3.P.8.1	Measure and compare temperatures of various samples of solids and liquids.	Level 5 M1 L3–L4 Level 5 M1 L9–L17 Level 5 M1 L23–L26 Level 5 M3 L6–L11 Level 5 M3 L24–L27
SC.3.P.8.2	Measure and compare the mass and volume of solids and liquids.	Level 5 M1 L5–L8 Level 5 M1 L23–L26
SC.3.P.8.3	Compare materials and objects according to properties such as size, shape, color, texture, and hardness.	Level 5 M1 L3–L4 Level 5 M1 L10–L11
<b>SC.3.P.9 Changes in Matter</b>		
SC.3.P.9.1	Describe the changes water undergoes when it changes state through heating and cooling by using familiar scientific terms such as melting, freezing, boiling, evaporation, and condensation.	Level 5 M1 L9–L17 Level 5 M1 L23–L26
<b>SC.3.E Earth and Space Science</b>		
<b>SC.3.E.5 Earth in Space and Time</b>		
SC.3.E.5.1	Explain that stars can be different; some are smaller, some are larger, and some appear brighter than others; all except the Sun are so far away that they look like points of light.	Level 5 M4 L18–L19 Level 5 M4 L24–L26
SC.3.E.5.2	Identify the Sun as a star that emits energy; some of it in the form of light.	Level 5 M2 L15–L19 Level 5 M2 L24–L26
SC.3.E.5.3	Recognize that the Sun appears large and bright because it is the closest star to Earth.	Level 5 M4 L18–L19 Level 5 M4 L24–L26
SC.3.E.5.4	Explore the Law of Gravity by demonstrating that gravity is a force that can be overcome.	Level 5 M4 L3–L4 Level 5 M4 L24–L26
SC.3.E.5.5	Investigate that the number of stars that can be seen through telescopes is dramatically greater than those seen by the unaided eye.	Level 5 M4 L18–L19 Level 5 M4 L24–L26

<b>SC.3.E.6 Earth Structures</b>		
SC.3.E.6.1	Demonstrate that radiant energy from the Sun can heat objects and when the Sun is not present, heat may be lost.	Level 5 M1 L11 Level 5 M2 L3 Level 5 M3 L6 Level 5 M4 L18
<b>SC.3.N Nature of Science</b>		
<b>SC.3.N.1 The Practice of Science</b>		
SC.3.N.1.1	Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.	Level 3 M1 L21–L26 Level 3 M2 L22–L25 Level 3 M4 L22–L27
SC.3.N.1.2	Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups.	Level 3 M3 L21–L28
SC.3.N.1.3	Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted.	Level 3 M1 L4–L15 Level 3 M1 L19–L20 Level 3 M1 L27–L29 Level 3 M2 L3–L8 Level 3 M2 L16–L19 Level 3 M3 L4–L8 Level 3 M3 L14–L20 Level 3 M4 L4–L9
SC.3.N.1.4	Recognize the importance of communication among scientists.	Level 3 M1 L11–L17 Level 3 M2 L13–L15 Level 3 M2 L20–L21 Level 3 M4 L22
SC.3.N.1.5	Recognize that scientists question, discuss, and check each other’s evidence and explanations.	Level 3 M1 L13–L15 Level 3 M1 L18 Level 3 M1 L21–L29 Level 3 M2 L6–L8 Level 3 M2 L22–L28 Level 3 M3 L9–L11 Level 3 M3 L14–L15 Level 3 M3 L21–L28 Level 3 M4 L10–L14 Level 3 M4 L19–L21 Level 3 M4 L28–L30
SC.3.N.1.6	Infer based on observation.	Level 3 M1 L13–L15 Level 3 M1 L18 Level 3 M1 L21–L29 Level 3 M2 L6–L8 Level 3 M2 L22–L28 Level 3 M3 L9–L11 Level 3 M3 L14–L15 Level 3 M3 L21–L28 Level 3 M4 L10–L14 Level 3 M4 L19–L21 Level 3 M4 L28–L30

SC.3.N.1.7	Explain that empirical evidence is information, such as observations or measurements, that is used to help validate explanations of natural phenomena.	Level 3 M1 L11–L17 Level 3 M2 L13–L15 Level 3 M2 L20–L21 Level 3 M4 L22
<b>SC.3.N.3 The Role of Theories, Laws, Hypotheses, and Models</b>		
SC.3.N.3.1	Recognize that words in science can have different or more specific meanings than their use in everyday language; for example, energy, cell, heat/cold, and evidence.	Level 4 M2 L1–L26
SC.3.N.3.2	Recognize that scientists use models to help understand and explain how things work.	Level 3 M1 L1–L3 Level 3 M1 L19–L20 Level 3 M2 L1–L3 Level 3 M2 L6–L12 Level 3 M2 L22–L25 Level 3 M3 L7–L11 Level 3 M3 L21–L25 Level 3 M4 L1–L3 Level 3 M4 L17–L18 Level 3 M4 L23–L27
SC.3.N.3.3	Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations.	Level 3 M1 L1–L3 Level 3 M1 L19–L20 Level 3 M2 L1–L3 Level 3 M2 L6–L12 Level 3 M2 L22–L25 Level 3 M3 L7–L11 Level 3 M3 L21–L25 Level 3 M4 L1–L3 Level 3 M4 L17–L18 Level 3 M4 L23–L27

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### *PhD Science* Level 4

The Grade 4 Florida Next Generation Sunshine State Standards for Science are partially covered by *PhD Science* but sometimes out of grade level. A detailed analysis of alignment appears in the table below.

Grade 4 Standards		Aligned <i>PhD Science</i> Lessons
<b>SC.4.L Life Science</b>		
<b>SC.4.L.16 Heredity and Reproduction</b>		
SC.4.L.16.1	Identify processes of sexual reproduction in flowering plants, including pollination, fertilization (seed production), seed dispersal, and germination.	Level 4 M3 L1–L6 Level 4 M3 L20 Level 4 M3 L26–L31
SC.4.L.16.2	Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.	Level 3 M3 L9–L13 Level 3 M3 L19–L20 Level 3 M3 L26–L28
SC.4.L.16.3	Recognize that animal behaviors may be shaped by heredity and learning.	Level 3 M3 L1–L6 Level 3 M3 L14–L18 Level 3 M3 L26–L28
SC.4.L.16.4	Compare and contrast the major stages in the life cycles of Florida plants and animals, such as those that undergo incomplete and complete metamorphosis, and flowering and nonflowering seed-bearing plants.	Level 3 M3 L7–L8 Level 3 M3 L23–L28
<b>SC.4.L.17 Interdependence</b>		
SC.4.L.17.1	Compare the seasonal changes in Florida plants and animals to those in other regions of the country.	Level 3 M1 L1–L15 Level 3 M1 L19–L20 Level 3 M1 L27–L29
SC.4.L.17.2	Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them.	Level 5 M2 L15–L19 Level 5 M2 L24–L26
SC.4.L.17.3	Trace the flow of energy from the Sun as it is transferred along the food chain through the producers to the consumers.	Level 5 M2 L15–L19 Level 5 M2 L24–L26
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	Level 5 M3 L14–L27
<b>SC.4.P Physical Science</b>		

<b>SC.4.P.10 Forms of Energy</b>		
SC.4.P.10.1	Observe and describe some basic forms of energy, including light, heat, sound, electrical, and the energy of motion.	Level 4 M2 L1–L26
SC.4.P.10.2	Investigate and describe that energy has the ability to cause motion or create change.	Level 4 M2 L1–L5 Level 4 M2 L8–L9 Level 4 M2 L24–L26
SC.4.P.10.3	Investigate and explain that sound is produced by vibrating objects and that pitch depends on how fast or slow the object vibrates.	Level 4 M2 L10 Level 4 M4 L3–L8 Level 4 M4 L26
SC.4.P.10.4	Describe how moving water and air are sources of energy and can be used to move things.	Level 4 M3 L7–L14 Level 4 M3 L29–L31
<b>SC.4.P.11 Energy Transfer and Transformations</b>		
SC.4.P.11.1	Recognize that heat flows from a hot object to a cold object and that heat flow may cause materials to change temperature.	Level 5 M1 L9–L12
SC.4.P.11.2	Identify common materials that conduct heat well or poorly.	
<b>SC.4.P.12 Motion of Objects</b>		
SC.4.P.12.1	Recognize that an object in motion always changes its position and may change its direction.	Level 3 M4 L10–L18 Level 3 M4 L28–L30
SC.4.P.12.2	Investigate and describe that the speed of an object is determined by the distance it travels in a unit of time and that objects can move at different speeds.	Level 4 M2 L6–L7 Level 4 M2 L24–L26
<b>SC.4.P.8 Properties of Matter</b>		
SC.4.P.8.1	Measure and compare objects and materials based on their physical properties including: mass, shape, volume, color, hardness, texture, odor, taste, attraction to magnets.	Level 5 M1 L1–L4 Level 5 M1 L11–L17 Level 5 M1 L23–L26
SC.4.P.8.2	Identify properties and common uses of water in each of its states.	Level 5 M3 L24–L27
SC.4.P.8.3	Explore the Law of Conservation of Mass by demonstrating that the mass of a whole object is always the same as the sum of the masses of its parts.	Level 5 M1 L9–L17 Level 5 M1 L23–L26
SC.4.P.8.4	Investigate and describe that magnets can attract magnetic materials and attract and repel other magnets.	Level 3 M4 L19–L21 Level 3 M4 L28–L30
<b>SC.4.P.9 Changes in Matter</b>		
SC.4.P.9.1	Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.	Level 5 M1 L9–L17 Level 5 M1 L23–L26
<b>SC.4.E Earth and Space Science</b>		
<b>SC.4.E.5 Earth in Space and Time</b>		
SC.4.E.5.1	Observe that the patterns of stars in the sky stay the same although they appear to shift across the sky nightly, and different stars can be seen in different seasons.	Level 5 M4 L1–L2 Level 5 M4 L5–L17 Level 5 M4 L20–L26
SC.4.E.5.2	Describe the changes in the observable shape of the moon over the course of about a month.	Level 5 M4 L13–L17
SC.4.E.5.3	Recognize that Earth revolves around the Sun in a year and rotates on its axis in a 24-hour day.	Level 5 M4 L1–L2 Level 5 M4 L5–L17 Level 5 M4 L20–L26
SC.4.E.5.4	Relate that the rotation of Earth (day and night) and apparent movements of the Sun, Moon, and stars are connected.	Level 5 M4 L1–L2 Level 5 M4 L5–L17 Level 5 M4 L20–L26

SC.4.E.5.5	Investigate and report the effects of space research and exploration on the economy and culture of Florida.		
<b>SC.4.E.6 Earth Structures</b>			
SC.4.E.6.1	Identify the three categories of rocks: igneous (formed from molten rock); sedimentary (pieces of other rocks and fossilized organisms); and metamorphic (formed from heat and pressure).		
SC.4.E.6.2	Identify the physical properties of common earth-forming minerals, including hardness, color, luster, cleavage, and streak color, and recognize the role of minerals in the formation of rocks.		
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.		Level 4 M1 L21–L27
SC.4.E.6.4	Describe the basic differences between physical weathering (breaking down of rock by wind, water, ice, temperature change, and plants) and erosion (movement of rock by gravity, wind, water, and ice).		Level 4 M1 L8–L11 Level 5 M3 L12–L14
SC.4.E.6.5	Investigate how technology and tools help to extend the ability of humans to observe very small things and very large things.		Level 4 M1 L9 Level 4 M1 L12 Level 4 M1 L24 Level 4 M2 L2–L3 Level 4 M4 L10 Level 5 M1 L18 Level 5 M4 L7–L8 Level 5 M4 L10 Level 5 M4 L19
SC.4.E.6.6	Identify resources available in Florida (water, phosphate, oil, limestone, silicon, wind, and solar energy).		
<b>SC.4.N Nature of Science</b>			
<b>SC.4.N.1 The Practice of Science</b>			
SC.4.N.1.1	Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.		Level 4 M1 L12–L17 Level 4 M1 L23–L24 Level 4 M2 L15–L23 Level 4 M4 L14–L17
SC.4.N.1.2	Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups.		Level 4 M1 L6–L11 Level 4 M1 L21–L22 Level 4 M2 L6–L7 Level 4 M2 L10–L14 Level 4 M3 L15–L19 Level 4 M4 L7–L9 Level 4 M4 L14–L21
SC.4.N.1.3	Explain that science does not always follow a rigidly defined method (“the scientific method”) but that science does involve the use of observations and empirical evidence.		Level 4 M3 L7–L9

SC.4.N.1.4	Attempt reasonable answers to scientific questions and cite evidence in support.	Level 4 M1 L3–L5 Level 4 M1 L23–L24 Level 4 M3 L4–L6 Level 4 M3 L10–L11 Level 4 M3 L20–L23 Level 4 M3 L26–L28 Level 4 M4 L22–L24
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	Level 4 M3 L21–L23 Level 4 M3 L26–L28 Level 4 M4 L7–L8
SC.4.N.1.6	Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	Level 4 M1 L6–L11 Level 4 M1 L21–L22 Level 4 M2 L6–L7 Level 4 M2 L10–L14 Level 4 M3 L15–L19 Level 4 M4 L7–L9 Level 4 M4 L14–L21
SC.4.N.1.7	Recognize and explain that scientists base their explanations on evidence.	Level 4 M1 L3–L7 Level 4 M1 L12–L18 Level 4 M1 L21–L22 Level 4 M1 L25–L27 Level 4 M2 L4–L5 Level 4 M2 L15–L26 Level 4 M3 L4–L5 Level 4 M3 L24–L25 Level 4 M3 L29–L31 Level 4 M4 L14–L27
SC.4.N.1.8	Recognize that science involves creativity in designing experiments.	Level 5 M3 L19–L23
<b>SC.4.N.2 The Characteristics of Scientific Knowledge</b>		
SC.4.N.2.1	Explain that science focuses solely on the natural world.	Level 4 M1 L12–L17 Level 4 M1 L23–L24 Level 4 M2 L15–L23 Level 4 M4 L14–L17
<b>SC.4.N.3 The Role of Theories, Laws, Hypotheses, and Models</b>		
SC.4.N.3.1	Explain that models can be three dimensional, two dimensional, an explanation in your mind, or a computer model.	Level 4 M1 L1–L2 Level 4 M2 L1–L3 Level 4 M2 L8–L11 Level 4 M2 L15–L16 Level 4 M3 L1–L3 Level 4 M3 L7–L14 Level 4 M4 L1–L8 Level 4 M4 L10–L24



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**Key:** Module (M), Lesson (L)

### *PhD Science* Level 5

The Grade 5 Florida Next Generation Sunshine State Standards for Science are partially covered by *PhD Science* but sometimes out of grade level. A detailed analysis of alignment appears in the table below.

Grade 5 Standards		Aligned <i>PhD Science</i> Lessons
<b>SC.5.L: Life Science</b>		
<b>SC.5.L.14: Organization and Development of Living Organisms</b>		
SC.5.L.14.1	Identify the organs in the human body and describe their functions, including the skin, brain, heart, lungs, stomach, liver, intestines, pancreas, muscles and skeleton, reproductive organs, kidneys, bladder, and sensory organs.	
SC.5.L.14.2	Compare and contrast the function of organs and other physical structures of plants and animals, including humans, for example: some animals have skeletons for support—some with internal skeletons, others with exoskeletons—while some plants have stems for support.	
<b>SC.5.L.15 Diversity and Evolution of Living Organisms</b>		
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.	Level 3 M2 L16–L28
<b>SC.5.L.17 Interdependence</b>		
SC.5.L.17.1	Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors, and physical characteristics.	Level 3 M2 L1–L2 Level 3 M2 L9–L12 Level 3 M2 L16–L19 Level 3 M2 L22–L28
<b>SC.5.P Physical Science</b>		
<b>SC.5.P.10 Forms of Energy</b>		
SC.5.P.10.1	Investigate and describe some basic forms of energy, including light, heat, sound, electrical, chemical, and mechanical.	Level 4 M2 L1–L5 Level 4 M2 L10–L11 Level 4 M2 L24–L26
SC.5.P.10.2	Investigate and explain that energy has the ability to cause motion or create change.	Level 4 M2 L1–L5 Level 4 M2 L10–L11

			Level 4 M2 L24–L26
SC.5.P.10.3	Investigate and explain that an electrically-charged object can attract an uncharged object and can either attract or repel another charged object without any contact between the objects.		Level 3 M4 L20–L21
SC.5.P.10.4	Investigate and explain that electrical energy can be transformed into heat, light, and sound energy, as well as the energy of motion.		Level 4 M2 L4–L5 Level 4 M2 L8–L26
<b>SC.5.P.11 Energy Transfer and Transformations</b>			
SC.5.P.11.1	Investigate and illustrate the fact that the flow of electricity requires a closed circuit (a complete loop).		
SC.5.P.11.2	Identify and classify materials that conduct electricity and materials that do not.		
<b>SC.5.P.13 Forces and Changes in Motion</b>			
SC.5.P.13.1	Identify familiar forces that cause objects to move, such as pushes or pulls, including gravity acting on falling objects.		Level 3 M4 L10–L18 Level 3 M4 L28–L30 Level 5 M4 L3–L4 Level 5 M4 L24–L26
SC.5.P.13.2	Investigate and describe that the greater the force applied to it, the greater the change in motion of a given object.		Level 3 M4 L10–L18
SC.5.P.13.3	Investigate and describe that the more mass an object has, the less effect a given force will have on the object’s motion.		Level 3 M4 L10–L18
SC.5.P.13.4	Investigate and explain that when a force is applied to an object but it does not move, it is because another opposing force is being applied by something in the environment so that the forces are balanced.		Level 3 M4 L10–L18 Level 3 M4 L28–L30
<b>SC.5.P.8 Properties of Matter</b>			
SC.5.P.8.1	Compare and contrast the basic properties of solids, liquids, and gases, such as mass, volume, color, texture, and temperature.		Level 5 M1 L1–L4 Level 5 M1 L11–L17 Level 5 M1 L23–L26
SC.5.P.8.2	Investigate and identify materials that will dissolve in water and those that will not and identify the conditions that will speed up or slow down the dissolving process.		Level 5 M1 L14
SC.5.P.8.3	Demonstrate and explain that mixtures of solids can be separated based on observable properties of their parts such as particle size, shape, color, and magnetic attraction.		Level 5 M1 L13–L17
SC.5.P.8.4	Explore the scientific theory of atoms (also called atomic theory) by recognizing that all matter is composed of parts that are too small to be seen without magnification.		Level 5 M1 L5–L10 Level 5 M1 L23–L26
<b>SC.5.P.9 Changes in Matter</b>			
SC.5.P.9.1	Investigate and describe that many physical and chemical changes are affected by temperature.		Level 5 M1 L9–L17 Level 5 M1 L23–L26
<b>SC.5.E Earth and Space Science</b>			
<b>SC.5.E.5 Earth in Space and Time</b>			
SC.5.E.5.1	Recognize that a galaxy consists of gas, dust, and many stars, including any objects orbiting the stars. Identify our home galaxy as the Milky Way.		
SC.5.E.5.2	Recognize the major common characteristics of all planets and compare/contrast the properties of inner and outer planets.		
SC.5.E.5.3	Distinguish among the following objects of the Solar System—Sun, planets, moons, asteroids, comets—and identify Earth’s position in it.		
<b>SC.5.E.7 Earth Systems and Patterns</b>			

SC.5.E.7.1	Create a model to explain the parts of the water cycle. Water can be a gas, a liquid, or a solid and can go back and forth from one state to another.		Level 5 M3 L8
SC.5.E.7.2	Recognize that the ocean is an integral part of the water cycle and is connected to all of Earth’s water reservoirs via evaporation and precipitation processes.		Level 5 M3 L1–L13 Level 5 M3 L24–L27
SC.5.E.7.3	Recognize how air temperature, barometric pressure, humidity, wind speed and direction, and precipitation determine the weather in a particular place and time.		Level 3 M1 L1–L15 Level 3 M1 L19–L20 Level 3 M1 L27–L29
SC.5.E.7.4	Distinguish among the various forms of precipitation (rain, snow, sleet, and hail), making connections to the weather in a particular place and time.		Level 3 M1 L1–L15 Level 3 M1 L19–L20 Level 3 M1 L27–L29
SC.5.E.7.5	Recognize that some of the weather-related differences, such as temperature and humidity, are found among different environments, such as swamps, deserts, and mountains.		Level 3 M1 L11–L15 Level 3 M1 L27–L29
SC.5.E.7.6	Describe characteristics (temperature and precipitation) of different climate zones as they relate to latitude, elevation, and proximity to bodies of water.		Level 3 M1 L11–L15 Level 3 M1 L27–L29
SC.5.E.7.7	Design a family preparedness plan for natural disasters and identify the reasons for having such a plan.		Level 3 M1 L1–L3 Level 3 M1 L16–L29
<b>SC.5.N Nature of Science</b>			
<b>SC.5.N.1 The Practice of Science</b>			
SC.5.N.1.1	Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.		Level 5 M1 L13–L14 Level 5 M1 L18–L22 Level 5 M2 L3–L5 Level 5 M3 L10–L11 Level 5 M4 L5–L6 Level 5 M4 L18–L19
SC.5.N.1.2	Explain the difference between an experiment and other types of scientific investigation.		
SC.5.N.1.3	Recognize and explain the need for repeated experimental trials.		Level 5 M1 L18–L22 Level 5 M3 L19–L23
SC.5.N.1.4	Identify a control group and explain its importance in an experiment.		Level 5 M1 L18–L22
SC.5.N.1.5	Recognize and explain that authentic scientific investigation frequently does not parallel the steps of “the scientific method.”		
SC.5.N.1.6	Recognize and explain the difference between personal opinion/interpretation and verified observation.		Level 3 M2 L21 Level 3 M3 L2
<b>SC.5.N.2 The Characteristics of Scientific Knowledge</b>			
SC.5.N.2.1	Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.		Level 5 M3 L10–L11 Level 5 M4 L5–L8
SC.5.N.2.2	Recognize and explain that when scientific investigations are carried out, the evidence produced by those investigations should be replicable by others.		Level 5 M1 L1–L2 Level 5 M2 L1–L2 Level 5 M2 L21–L23 Level 5 M3 L1–L3 Level 5 M3 L19–L23 Level 5 M4 L1–L2 Level 5 M4 L13