



Mystery Science Alignment with Florida Next Generation Sunshine State Standards (NGSSS)

Mystery Science - FL NGSSS Alignment

Mystery Science aligns to the Florida Next Generation Sunshine State Standards (NGSSS). The core Mystery (exploration & activity) is designed to take one hour per week. To view each Mystery's alignment to 3 dimensional learning (disciplinary core ideas, science and engineering practices, and crosscutting concepts) view our <u>NGSS Alignment</u> document. Mini-lessons are 5-minute videos that answer K-5 student questions and can be used as a jumping off point to engage learners for a full lesson planned by the teacher.

Lesson Extensions. Extensions are available for each Mystery and offer an opportunity for students to continue their science content learning. They include assessments and a curated collection of additional activity suggestions, online resources, project ideas, and readings to help extend the learning.

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Kindergarten

Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons	
		K.L.14.1 Recognize the five senses and related body parts.		Florida specific standard	
	Organization/	K.L.14.2 Recognize that some books and other media portray animals and plants with characteristics and behaviors they do not have in real life.		Florida specific standard	
Life Science	Organization Development of Living Organisms	K.L.14.3 Observe plants and animals, describe how they are alike and how they are different in the way they look and in the things they do.	<u>Plant &</u> <u>Animal</u> <u>Secrets</u>	Mystery 1: Why do woodpeckers peck wood? Mystery 2, Read Along: Where do animals live? Mystery 3: How can you find animals in the woods? Mystery 4, Read Along: How do animals make their homes in the forest? Mystery 5: How do plants and trees grow? Mystery 6, Read Along: Why would you want an old log in your backyard?	
		K.E.5.1 Explore the Law of Gravity by investigating how objects are pulled toward the ground unless something holds them up.		Florida specific standard	
		K.E.5.2 Recognize the repeating pattern of day and night.		Mystery 1: Could a statue's shadow move? Mystery 2, Read Along: What does a shadow do when	
Earth & Space	Earth & Space in Time	K.E.5.3 Recognize that the Sun can only be seen in the daytime.	<u>Spinning Sky</u>	you're not looking? Mystery 3: How can the sun help you if you're lost? Mystery 4, Read Along: Why do you have to go to bed early in the summer?	
Science		K.E.5.4 Observe that sometimes the Moon can be seen at night and sometimes during the day.		Florida specific standard	
		K.E.5.5 Observe that things can be big and things can be small as seen from Earth.		Florida specific standard	
		K.E.5.6 Observe that some objects are far away and some are nearby as seen from Earth.		Florida specific standard	





Kindergarten, continued

Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons
	Properties of Matter	K.P.8.1 Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture.		Florida specific standard
	Changes in Matter	K.P.9.1 Recognize that the shape of materials such as paper and clay can be changed by cutting, tearing,crumpling, smashing, or rolling.		Florida specific standard
Physical Science	Forms of Energy	K.P.10.1 Observe that things that make sound vibrate.	<u>Lights &</u> <u>Sounds</u>	Mystery 1: How do they make silly sounds in cartoons? Mystery 2, Read Along: Where do sounds come from? Mystery 6, Read Along: How do boats find their way in the fog?
	Motion of Objects	K.P.12.1 Investigate that things move in different ways, such as fast, slow, etc.		Mystery 1: What's the biggest excavator?
	Forces & Changes in Motion	K.P.13.1 Observe that a push or pull can change the way an object is moving.	Force Olympics	Mystery 2, Read Along: Why do builders need so many big machines?





Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons
		1.L.14.1 Make observations of living things and their environments using the five senses.		Florida specific standard
	Organization/ Development of Living Organisms	1.L.14.2 Identify the major parts of plants, including stem, roots, leaves, and flowers.	Plant & Animal Superpowers	Mystery 5: Why don't trees blow down in the wind? Mystery 6, Read Along: What do sunflowers do when you're not looking?
Life Science		1.L.14.3 Differentiate between living and nonliving things.		Florida specific standard
	Heredity/ Reproduction	1.L.16.1 Make observations that plants and animals closely resemble their parents, but variations exist among individuals within a population.	<u>Plant & Animal</u> <u>Superpowers</u>	Mystery 4, Read Along: Why do family members look alike?
	Interdependence	1.L.17.1 Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.	<u>Plant & Animal</u> <u>Superpowers</u>	Mystery 1: Why do birds have beaks? Mystery 2, Read Along: Why do birds follow their mother? Mystery 3: Why are polar bears white?
		1.E.5.1 Observe and discuss that there are more stars in the sky than anyone can easily count and that they are not scattered evenly in the sky.		Florida specific standard
Earth & Space Science	Earth & Space in	1.E.5.2 Explore the Law of Gravity by demonstrating that Earth's gravity pulls any object on or near Earth toward it even though nothing is touching the object.		Florida specific standard
	Time	1.E.5.3 Investigate how magnifiers make things appear bigger and help people see things they could not see without them.		Florida specific standard
		1.E.5.4 Identify the beneficial and harmful properties of the Sun.		Florida specific standard





Grade 1, continued

Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons
		1.E.6.1 Recognize that water, rocks, soil, and living organisms are found on Earth's surface.	Work of	Mystery 1: If you floated down a river where would you end up? Mystery 2: Why is there sand at the beach?
Earth & Space	Earth Structures	1.E.6.3 Recognize that some things in the world around us happen fast and some happen slowly.	<u>Water</u>	Mystery 3: What's strong enough to make a canyon? Mystery 4: How can you stop a landslide?
Science	1.E.6.2 Describe the need for water and how to be safe around water.	Florida specific standard		
	Properties of Matter	1.P.8.1 Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight(heavy or light), texture, and whether objects sink or float.		Florida specific standard
Physical Science	Motion of Objects	1.P.12.1 Demonstrate and describe the various ways that objects can move, such as in a straight line, zigzag, back-and-forth, round-and-round, fast, and slow.	Force	Mystery 3: How can you knock down a wall made of concrete? Mystery 4, Read Along: How can you knock down the most bowling pins?
	Forces & Changes in Motion	1.P.13.1 Demonstrate that the way to change the motion of an object is by applying a push or a pull.	<u>Olympics</u>	Mystery 5: How can we protect a mountain town from falling rocks? Mystery 6, Read Along: How could you invent a trap?





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Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons
	Organization/ Development of Living Organisms	2.L.14.1 Distinguish human body parts (brain, heart, lungs, stomach, muscles, and skeleton) and their basic functions.	Mini-lessons	Mini-lesson: Why do our skeletons have so many bones?** Mini-lesson: How does the heart pump blood?**
Life	Heredity/ Reproduction	2.L.16.1 Observe and describe major stages in the life cycle of plants and animals, including beans and butterflies.		Florida specific standard
Science		2.L.17.1 Compare and contrast the basic needs that all living things, including humans, have for survival.	Animal	Mystery 2: Why do frogs say "ribbit"?
	Interdependence	2.L.17.2 Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs.	<u>Adventures</u>	Mystery 2: Willy do hogs say fibbit ? Mystery 3: How could you get more birds to visit a birdfeeder?
	Earth StructuresRocks come in ma2.E.6.2 Describe h plant and animal p explain the proces2.E.6.3 Classify so (size of particles), ability to support the	2.E.6.1 Recognize that Earth is made up of rocks. Rocks come in many sizes and shapes.	Mini-lessons	Mini-lesson: Why does this rock look like a sponge?
		2.E.6.2 Describe how small pieces of rock and dead plant and animal parts can be the basis of soil and explain the process by which soil is formed.		Florida specific standard
Earth & Space		2.E.6.3 Classify soil types based on color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants.		Florida specific standard
Science	Earth Systems	2.E.7.1 Compare and describe changing patterns in nature that repeat themselves, such as weather conditions including temperature and precipitation, day to day and season to season.	<u>Weather</u> <u>Watching</u> *	Mystery 1: Have you ever watched a storm? Mystery 2, Read Along: How can you get ready for a big storm? Mystery 3: What would the weather be like on your birthday? Mystery 4, Read Along: How do you know what to wear for the
	& Patterns	2.E.7.2 Investigate by observing and measuring, that the Sun's energy directly and indirectly warms the water, land, and air.		weather? Mystery 5: How could you warm up a frozen playground? Mystery 6, Read Along: How could you walk barefoot across ho pavement without burning your feet?

* Weather Watching is designed for Grade K NGSS, but can be taught in grade 2 with modifications.





Grade 2, continued

Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons
Earth &	Earth	2.E.7.3 Investigate, observe and describe how water left in an open container disappears (evaporates), but water in a closed container does not disappear (evaporate).		Mystery 1: Where do clouds come from? Mystery 2: How can we predict when it's going to storm?
Space Science	Systems & Patterns	2.E.7.4 Investigate that air is all around us and that moving air is wind.	Stormy Skies	Mystery 3: Why are some places always hot? Mystery 4: How can you keep a house from blowing away
	(Continued)	2.E.7.5 State the importance of preparing for severe weather, lightning, and other weather related events.		in a windstorm?
		2.P.8.1 Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in water, and attraction and repulsion of magnets.		Florida specific standard
		2.P.8.2 Identify objects and materials as solid, liquid, or gas.		Florida specific standard
	Properties of Matter	2.P.8.3 Recognize that solids have a definite shape and that liquids and gases take the shape of their container.		Florida specific standard
Physical	Watter	2.P.8.4 Observe and describe water in its solid, liquid, and gaseous states.	Stormy Skies	Mystery 1: Where do clouds come from?
Science		2.P.8.5 Measure and compare temperature taken every day at the same time.		Florida specific standard
	Changes in Matter	2.P.8.6 Measure and compare the volume of liquids using containers of various shapes and sizes.		Florida specific standard
		2.P.9.1 Investigate that materials can be altered to change some of their properties, but not all materials respond the same way to any one alteration.	Material Magic	 Mystery 1: Why do we wear clothes? Mystery 2: Can you really fry an egg on a hot sidewalk? Mystery 3: Why are toys made out of plastic? Mystery 4: What materials might be invented in the future? Mystery 5: Could you build a house out of paper?





Grade 2, continued

Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons
	Forms of Energy	2.P.10.1 Discuss that people use electricity or other forms of energy to cook their food, cool or warm their homes, and power their cars.		Florida specific standard
		2.P.13.1 Investigate the effect of applying various pushes and pulls on different objects.		
Physical		2.P.13.3 Recognize that objects are pulled toward the ground unless something holds them up.	Invisible Forces	Mystery 1: How could you win a tug-of-war against a bunch of adults? Mystery 2: What makes bridges so strong?
Science	Forces & Changes in Motion	2.P.13.4 Demonstrate that the greater the force (push or pull) applied to an object, the greater the change in motion of the object.		
		2.P.13.2 Demonstrate that magnets can be used to make some things move without touching them.		Florida specific standard





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	Organization &	3.L.14.1 Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.		Mystery 1: Why did a tree travel halfway around the world?
	Development of Living Organisms	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.	Plant Adventures	Mystery 2: Could a plant survive without light? Mystery 3: Why do trees grow so tall? Mystery 4: Should you water a cactus? Mystery 5: Where do plants grow best?
			Animal Adventures	Mystery 1: How many different kinds of animals are there?
	Diversity & Evolution of Living Organisms	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.	<u>Animals Through</u> <u>Time</u>	Mystery 1: Where can you find whales in a desert? Mystery 2: How do we know what dinosaurs looked like? Mystery 3: Can you outrun a dinosaur?
Life Science			Mini-lessons	Mini-lesson: What is the biggest spider in the world?** Mini-lesson: Why are butterflies so colorful?**
		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.		Florida specific standard
	Interdependence	3.L.17.1 Describe how animals and plants respond to changing seasons.	<u>Mini-lessons</u>	Mini-lesson: Why do leaves change color in the fall?** Mini-lesson: How do flowers bloom in the spring?** Mini-lesson: Why do birds lay eggs in the spring? Mini-lesson: Where do bugs go in winter? Mini-lesson: Why do animals come back after going to warm places in the winter?
		3.L.17.2 Recognize that plants use energy from the Sun, air, and water to make their own food.	Plant Adventures	Mystery 2: Could a plant survive without light? Mystery 3: Why do some trees grow so tall?





Grade 3, continued

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		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.		
		3.E.5.2 Identify the Sun as a star that emits energy; some of it in the form of light.	<u>Spinning Sky</u> *	Mystery 5: Why do the stars come out at night? Mystery 6, Read Along: How can stars help you if
Earth & Space	Earth & Space in Time	3.E.5.3 Recognize that the Sun appears large and bright because it is the closest star to Earth.		you get lost?
Science		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.		
		3.E.5.4 Explore the Law of Gravity by demonstrating that gravity is a force that can be overcome.	Mini-lessons	Mini-lesson: What is a black hole? Mini-lesson: Why can't airplanes fly to space?**
	Earth Structures	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.		Florida specific standard
		3.P.8.1 Measure & compare temperatures of various samples of solids & liquids.		Florida specific standard
Physical	Properties of Matter	3.P.8.2 Measure and compare the mass and volume of solids and liquids.		Florida specific standard
Science		3.P.8.3 Compare materials and objects according to properties such as size, shape, color, texture, and hardness.		Florida specific standard
	Changes in Matter	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.		Florida specific standard

* Spinning Sky is designed for Grade 1 NGSS, but can be taught in Grade 3 with modifications.





Grade 3, continued

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Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons
		3.P.10.2 Recognize that energy has the ability to cause motion or create change.	<u>Energizing</u> Everything	 Mystery 1: How is your body similar to a car? Mystery 2: What makes roller coasters go so fast? Mystery 3: Why is the first hill of a roller coaster always highest? Mystery 4: Could you knock down a building using only dominoes? Mystery 5: Can you build a chain reaction machine?
	Forms of Energy	3.P.10.1 Identify some basic forms of energy such as light, heat, sound, electrical, and mechanical.	Lights & Sounds* Mystery 3: What if there were no windows? Mystery 4, Read Along: Can you see in the dark?	
Physical Science		3.P.10.3 Demonstrate that light travels in a straight line until it strikes an object or travels from one medium to another.	<u>Lights & Oburids</u>	Mystery 5: How could you send a secret message to
		3.P.10.4 Demonstrate that light can be reflected, refracted, and absorbed.	<u>Mini-lessons</u>	Mini-lesson: Why is snow white?** Mini-lesson: How is a rainbow made?**
		3.P.11.1 Investigate, observe, and explain that things that give off light often also give off heat.		Florida specific standard
	Energy Transfer & Transformations	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.		Florida specific standard

* Lights & Sounds is designed for Grade 1 NGSS, but can be taught in Grade 3 with modifications.





Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons
		4.L.16.1 Identify processes of sexual reproduction in flowering plants, including pollination, fertilization (seed production), seed dispersal, and germination.	Power of Flowers	 Mystery 1: Why do plants grow flowers? Mystery 2: Why do plants give us fruit? Mystery 3: Why are some apples red and some green? Mystery 4: How could you make the biggest fruit in the world?
	Heredity &	4.L.16.2 Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.	<u>Animals</u> <u>Through Time</u>	Mystery 8: How long can people (and animals) survive in outer space?
	Reproduction	4.L.16.3 Recognize that animal behaviors may be shaped by heredity and learning.	<u>Animals</u> <u>Through Time</u>	Mystery 6: Why do dogs wag their tails?
Life Science		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 non-flowering seed-bearing plants.		Florida specific standard
	Interdependence	4.L.17.1 Compare the seasonal changes in Florida plants and animals to those in other regions of the country.		Florida specific standard
		4L.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.		Mystery 1: Why would a hawk move to New York City? Mystery 2: What do plants eat? Mystery 3: Where do fallen leaves go?
		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.	Web of Life	Mystery 4: Do worms really eat dirt? Mystery 5: Why do you have to clean a fish tank but not a pond?
		4.L.17.4 Recognize ways plants and animals, including humans, can impact the environment.		Mystery 6: Why did the dinosaurs go extinct?





Grade 4, continued

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Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons	
	Earth & Space in Time	4.E.5.1 Observe 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,	<u>Spaceship</u> <u>Earth</u>	Mystery 1: How fast does the Earth spin? Mystery 2: Who set the first clock? Mystery 3: How can the sun tell you the season? Mystery 4: Why do stars change with the seasons? Mystery 5: Why does the moon change shape?	
		4.E.5.2 Describe the changes in the observable shape of the moon over the course of about a month.			
		4.E.5.4 Relate that the rotation of Earth (day and night) and apparent movements of the Sun, moon, and stars are connected.			
		4.E.5.3 Recognize that Earth revolves around the Sun in a year and rotates on its axis in a 24-hour day.			
		4.E.5.5 Investigate and report the effects of space research and exploration on the economy and culture of Florida.		Florida Specific Standard	
Earth & Space Science	Earth Structures	4.E.6.1 Identify three categories of rocks: igneous, (formed from molten); sedimentary (pieces of other rocks and fossilized organisms); and metamorphic (formed from heat and pressure).	<u>The Birth of</u> <u>Rocks</u>	Mystery 1: Could a volcano pop up where you live? Mystery 2: Why do some volcanoes explode? Mystery 3: Will a mountain last forever? Mystery 4: How could you survive a landslide?	
		4.E.6.2 Identify the physical properties of common earth-forming materials, including hardness, color, luster, cleavage, and streak color, and recognize the role of minerals in the formation of rocks.			
		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).			
		4.E.6.3 Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	Energizing		
		4.E.6.6 Identify resources available in Florida (water, phosphate, oil, limestone, silicon, wind, and solar energy).	Everything	Mystery 8: Where does energy come from?	
		4.E.6.5 Investigate how technology & tools help extend the ability of humans to observe very small things & very large things.	Mini-lessons	Mini-lesson: Is Pluto a planet? Mini-lesson: How deep does the ocean go?	

SCIENCE



Grade 4, continued

Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons
	Properties of Matter	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.		Florida specific standard
		4.P.8.2 Identify properties and common uses of water in each of its states.		Florida specific standard
		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.		Florida Specific standard
		4.P.8.4 Investigate and describe that magnets can attract magnetic materials and attract and repel other magnets.	Invisible Forces	Mystery 4: What can magnets do? Mystery 5: How can you unlock a door using a magnet?
	Changes in Matter	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.	Mini-lessons	Mini-lesson: How is glass made?
	Forms of Energy	4.P.10.2 Investigate and describe that energy has the ability to cause motion or create change.		Florida Specific standard
Physical Science		4.P.10.1 Observe and describe some basic forms of energy, including light, heat, sound, electrical, and the energy of motion.	<u>Waves of</u> Sound	Mystery 1: How far can a whisper travel?
		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.		Mystery 2: What would happen if you screamed in outer space? Mystery 3: Why are some sounds high and some sounds low?
		4.P.10.4 Describe how moving water and air are sources of energy and can be used to move things.		
	Energy Transfer & Transform- ations	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.		Florida Specific standard
		4.P.11.2 Identify common materials that conduct heat well or poorly.		Florida Specific standard
	Motion of Objects	4.P.12.1 Recognize that an object in motion always changes its position and may change its direction.		Florida Specific standard
		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.		Florida Specific standard





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		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.	<u>Human</u> <u>Machine</u>	Mystery 1: Why do your biceps bulge? Mystery 2: What do people who are blind see? Mystery 3: How can some animals see in the dark? Mystery 4: How does your brain control your body?
Life Science	Organization & Development of Living Organisms	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.	<u>Mini-lessons</u>	Mini-lesson: Why do our skeletons have so many bones?** Mini-lesson: How does the heart pump blood?** Mini-lesson: Why can't fish breathe on land? Mini-lesson: Why do we get goosebumps? Mini-lesson: Can animals get a sunburn?
	Diversity & Evolution of Living Organisms	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.	<u>Animals</u> <u>Through Time</u>	Mystery 4: What kinds of animals might there be in the future? Mystery 5: Can selection happen without people?
	Interdependence	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.	<u>Animals</u> <u>Through Time</u>	Mystery 7 : What's the best way to get rid of mosquitoes?
		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.		Florida Specific Standard
Earth & Space Science	Earth & Space in Time	5.E.5.2 Recognize the major common characteristics of all planets and compare/contrast the properties of inner and outer planets.	<u>Spaceship</u> Earth	Mystery 6: What are the wandering stars? Mystery 8: Could there be life on other planets?
		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.	Mini-lessons	Mini-lesson: What would it be like to live on the moon?

* <u>Animals Through Time</u> is designed for Grade 3 NGSS, but can be taught in Grade 5 with modifications.





Grade 5, continued

Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons	
Earth & Space Science	Earth Systems & Patterns	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 the other.		Mystery 1: How much water is in the world?	
		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.	Watery Planet	Mystery 2: When you turn on the faucet, where does the water come from? Mystery 3: Can we make it rain? Mystery 4: How can you save a town from a hurricane?	
		5.E.7.7 Design a family preparedness plan for natural disasters and identify the reasons for having such a plan.			
		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.		Florida Specific Standard	
		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.		Florida Specific Standard	
		5.E.7.5 Recognize that some weather-related differences, such as temperature and humidity, are found among different environments, such as swamps, deserts, and mountains.		Florida Specific Standard	
Physical Science	Properties of Matter	5.P.8.1 Compare and contrast the basic properties of solids, liquids, and gases, such as mass, volume, color, texture, and temperature.		Mystery 1: Are magic potions real? Mystery 2: Could you transform something worthless into gold? Mystery 3: What would happen if you drank a glass of acid? Mystery 4: What do fireworks, rubber, and silly putty have in common? Mystery 5: Why do some things explode?	
		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.	Chemical Magic		
		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.			
		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.		Florida specific standard	





Grade 5, continued

Strand	Торіс	Florida Next Generation Sunshine State Standard	Mystery Science Unit	Mystery Science Lessons	
	Changes in Matter	5.P.9.1 Investigate and describe that many physical and chemical changes are affected by temperature.		Florida specific standard	
	Forms of Energy	5.P.10.1 Investigate and describe some basic forms of energy, including light, heat, sound, electrical, chemical, and mechanical.		Mystery 6: What if there were no electricity? Mystery 7: How long did it take to travel across the country before cars and planes? Mini-lesson: How do batteries work?	
		5.P.10.2 Investigate and explain that energy has the ability to cause motion or create change.	Energizing Everything		
		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.	Mini-lessons		
		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.	<u>IMITI-10330113</u>		
Physical Science	Energy Transfer/ Tranform- ations	5.P.11.1 Investigate and illustrate the fact that the flow of electricity requires a closed circuit (a complete loop).		Mystery 6: What if there were no electricity? Mystery 7: How long did it take to travel across the country before cars and planes?	
		5.P.11.2 Identify & classify materials that conduct electricity & materials that do not.	Energizing Everything		
	Forces & Changes in Motion	5.P.13.1 Identify familiar forces that cause objects to move, such as pushes or pulls, including gravity acting on falling objects.		Mystery 7: Why is gravity different on other planets?	
		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.	Spaceship Earth		
		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.			
		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.		Florida specific standard	

