



### Mystery Science Alignment with Texas Essential Knowledge and Skills (TEKS)

#### Mystery Science - Texas Essential Knowledge and Skills (TEKS) Alignment

Mystery Science aligns to the streamlined 2017 Science Texas Essential Knowledge and Skills (TEKS). Each lesson (exploration & activity) is designed to take one hour per week. To view each lesson's alignment to three-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. Each TEKS statement is color-coded to indicate the following:

Identified by TEA as a Readiness Standard of the assessed curriculum Identified by TEA as a Supporting Standard of the assessed curriculum Not identified by TEA as part of the assessed curriculum

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Grade 5	Matter & Energy	Force, Motion, & Energy	Earth and Space	Organisms and Environments





# Kindergarten

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
es of ts		<b>K.5A</b> Observe and record properties of objects, including bigger or smaller, heavier or lighter, shape, color, and texture.		
Properties Objects	Matter & Energy	<b>K.5B</b> Observe, record, and discuss how materials can be changed by heating or cooling.	<u>Weather</u> <u>Watching</u>	<b>Lesson 5:</b> How could you warm up a frozen playground? <b>Lesson 6 Read Along:</b> How could you walk barefoot across hot pavement without burning your feet?
Energy	Force, Motion, & Energy	<b>K.6A</b> Use the senses to explore different forms of energy such as light, thermal, and sound.	<u>Weather</u> <u>Watching</u>	<b>Lesson 5:</b> How could you warm up a frozen playground? <b>Lesson 6 Read Along:</b> How could you walk barefoot across hot pavement without burning your feet?
σ		<b>K.6B</b> Explore interactions between magnets and various materials.		Addressed in Grade 3
Position and Motion		<b>K.6C</b> Observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside.		
- G	Force, Motion, & Energy	<b>K.6D</b> Observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow.	Force Olympics	<ul> <li>Lesson 1: What's the biggest excavator?</li> <li>Lesson 2 Read Along: Why do builders need so many big machines?</li> <li>Lesson 3: How can you knock down a wall made of concrete?</li> <li>Lesson 4 Read Along: How can you knock down the most bowling pins?</li> <li>Lesson 5: How can we protect a mountain town from falling rocks?</li> <li>Lesson 6 Read Along: How could you invent a trap?</li> </ul>





#### Kindergarten, continued

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
rials		<b>K.7A</b> Observe, describe, and sort rocks by size, shape, color, and texture.		
Earth Materials	Earth and Space	<b>K.7B</b> Observe and describe physical properties of natural sources of water, including color and clarity.		
Eart		<b>K.7C</b> Give examples of ways rocks, soil, and water are useful.		
Weather	Earth and Space	<b>K.8A</b> Observe and describe weather changes from day to day and over seasons.	<u>Weather</u> Watching	Lesson 1: Have you ever watched a storm? Lesson 2 Read Along: How can you get ready for a big storm? Lesson 3: What will the weather be like on your birthday? Lesson 4 Read Along: How do you know what to wear for the weather?
We		<b>K.8C</b> Observe, describe, and illustrate objects in the sky such as the clouds, Moon, and stars, including the Sun.		Addressed in Grade 1
Objects in the Sky	Earth and	<b>K.8B</b> Identify events that have repeated patterns, including seasons of the year and day and night.	<u>Weather</u> <u>Watching</u>	Lesson 3: What will the weather be like on your birthday? Lesson 4 Read Along: How do you know what to wear for the weather?
Obje the	Space	<b>K.8C</b> Observe, describe, and illustrate objects in the sky such as the clouds, Moon, and stars, including the Sun.		Addressed in Grade 1
Seasons	Earth and Space	<b>K.8A</b> Observe and describe weather changes from day to day and over seasons.	Weather Watching	Lesson 1: Have you ever watched a storm? Lesson 2 Read Along: How can you get ready for a big storm? Lesson 3: What will the weather be like on your birthday? Lesson 4 Read Along: How do you know what to wear for the weather?
Se	Opuoo	<b>K.8B</b> Identify events that have repeated patterns, including seasons of the year and day and night.	<u>Weather</u> <u>Watching</u>	Lesson 3: What will the weather be like on your birthday? Lesson 4 Read Along: How do you know what to wear for the weather?





#### Kindergarten, continued

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
and nts		<b>K.9A</b> Differentiate between living and nonliving things based upon whether they have basic needs and produce offspring.		
Organisms and Environments	Organisms and Environments	<b>K.9B</b> Examine evidence that living organisms have basic needs such as food, water, and shelter for animals and air, water, nutrients, sunlight, and space for plants.	<u>Plant &amp; Animal</u> <u>Secrets</u>	Lesson 1: Why do woodpeckers peck wood? Lesson 2, Read-Along: Where do animals live? Lesson 3: How can you find animals in the woods? Lesson 4, Read-Along: How do animals make their homes in the forest? Lesson 5: How do plants and trees grow? Lesson 6, Read-Along: Why would you want an old log in your backyard?
Physical aracteristics Organisms		<b>K.10A</b> Sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape.		Addressed in Grade 2
Physical Characteristics of Organisms	Organisms and Environments	<b>K.10B</b> Identify basic parts of plants and animals.		
ant Life Cycle	Organisms and Environments	<b>K.10C</b> Identify ways that young plants resemble the parent plant.	Plant & Animal Secrets	Lesson 5: How do plants and trees grow?
Plant   Cycl	Environments	<b>K.10D</b> Observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower, and fruit.		





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s of s		<b>1.5A</b> Classify objects by observable properties such as larger and smaller, heavier and lighter, shape, color, and texture.		
Properties Objects	Matter & Energy	<b>1.5B</b> Predict and identify changes in materials caused by heating and cooling.		Addressed in Kindergarten Addressed in Grade 2
Pr		<b>1.5C</b> Classify objects by the materials from which they are made.		
Energy	Force, Motion, & Energy	<b>1.6A</b> Identify and discuss how different forms of energy such as light, thermal, and sound are important to everyday life.	<u>Lights &amp;</u> <u>Sounds</u>	<ul> <li>Lesson 1: How do they make silly sounds in cartoons?</li> <li>Lesson 2 Read Along: Where do sounds come from?</li> <li>Lesson 3: What if there were no windows?</li> <li>Lesson 4 Read Along: Can you see in the dark?</li> <li>Lesson 5: How could you send a secret message to someone far away?</li> <li>Lesson 6 Read Along: How do boats find their way in the fog?</li> </ul>
jects e		<b>1.6B</b> Predict and describe how a magnet can be used to push or pull an object.		Addressed in Grade 3
How Objects Move	Force, Motion, & Energy	<b>1.6C</b> Demonstrate and record the ways that objects can move such as in a straight line, zig zag, up and down, back and forth, round and round, and fast and slow.		Addressed in Kindergarten





### Grade 1, continued

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
and		<b>1.7A</b> Observe, compare, describe, and sort components of soil by size, texture, and color.		
Rocks, Soil, and Water	Earth and Space	<b>1.7B</b> Identify and describe a variety of natural sources of water, including streams, lakes, and oceans.		
Rocks		<b>1.7C</b> Identify how rocks, soil, and water are used to make products.	<u>Mini-lessons</u>	Mini-lesson: Where does salt come from?
the Sky		<b>1.8B</b> Observe and record changes in the appearance of objects in the sky such as the Moon and stars, including the Sun.	<u>Spinning Sky</u>	Lesson 1: Could a statue's shadow move? Lesson 2 Read Along: What does your shadow do when you're not looking? Lesson 3: How can the Sun help you if you're lost?
Objects in the Sky	Earth and Space	<b>1.8C</b> Identify characteristics of the seasons of the year and day and night.	<u>Spinning Sky</u>	Lesson 4 Read Along: Why do you have to go to bed early in the summer? Lesson 5: Why do the stars come out at night? Lesson 6 Read Along: How can stars help you if you get lost?
Ŭ			Mini-lessons	Mini-lesson: Why does it get cold in winter?
Seasons		<b>1.8A</b> Record weather information, including relative temperature such as hot or cold, clear or cloudy, calm or windy, and rainy or icy.		Addressed in Kindergarten.
Weather and Se	Earth and Space	<b>1.8C</b> Identify characteristics of the seasons of the year and day and night.	<u>Spinning Sky</u>	Lesson 4 Read Along: Why do you have to go to bed early in the summer? Lesson 5: Why do the stars come out at night? Lesson 6 Read Along: How can stars help you if you get lost?
Weath		<b>1.8D</b> Demonstrate that air is all around us and observe that wind is moving air.		





### Grade 1, continued

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
and nts		<b>1.9A</b> Sort and classify living and nonliving things based upon whether they have basic needs and produce offspring.		
Organisms anc Environments	Organisms and Environments	<b>1.9B</b> Analyze and record examples of interdependence found in various situations such as terrariums and aquariums or pet and caregiver.		
Orç En		<b>1.9C</b> Gather evidence of interdependence among living organisms such as energy transfer through food chains or animals using plants for shelter.		Addressed in Kindergarten
al lics of ms			Plant & Animal Superpowers	Lesson 1: Why do birds have beaks? Lesson 3: Why are polar bears white?
Physical Characteristics Organisms	Organisms and		Mini-lessons	Mini-lesson: What is the biggest spider in the world?** Mini-lesson: Why do penguins have wings if they don't fly?
P Chara Or	Environments	<b>1.10B</b> Identify and compare the parts of plants.	Plant & Animal Superpowers	Lesson 5: Why don't trees blow down in the wind? Lesson 6, Read-along: What do sunflowers do when you're not looking?
			Mini-lessons	Mini-lesson: What is the biggest apple in the world?**
cles	Organisms and	<b>1.10C</b> Compare ways that young animals resemble their parents.	Plant & Animal Superpowers	Lesson 2, Read-Along: Why do baby ducks follow their mother? Lesson 4, Read-Along: Why do family members look alike?
fe Cy	Organisms and Environments		Mini-lessons	Mini-lesson: Why do baby animals look so cute?
Ċ		<b>1.10D</b> Observe and record life cycles of animals such as a chicken, frog, or fish.		





TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
		<b>2.5A</b> Classify matter by physical properties, including relative temperature, texture, flexibility, and whether material is a solid or liquid.	Material Magic	Lesson 1: Why do we wear clothes?
		<b>2.5B</b> Compare changes in materials caused by heating and cooling.	Material Magic	Lesson 2: Can you really fry an egg on a hot sidewalk? Lesson 3: Why are so many toys made out of plastic?
Matter	Matter &		Mini-lessons	Mini-lesson: Can you make lava?
M	Energy	<b>2.5C</b> Demonstrate that things can be done to materials such as cutting, folding, sanding, and melting to change their physical properties.	Material Magic	Lesson 5: Could you build a house out of paper?
		<b>2.5D</b> Combine materials that when put together can do things that they cannot do by themselves such as building a tower or a bridge and justify the selection of those materials based on their physical properties.	Material Magic	<b>Lesson 4:</b> What materials might be invented in the future? <b>Lesson 5:</b> Could you build a house out of paper?
Energy	Force, Motion, & Energy	<b>2.6A</b> Investigate the effects on objects by increasing or decreasing amounts of light, heat, and sound energy such as how the color of an object appears different in dimmer light or how heat melts butter.		Addressed in Kindergarten Addressed in Grade 1
and on	Force, Motion, & Energy	<b>2.6B</b> Observe and identify how magnets are used in everyday life.		Addressed in Grade 3
Force ar Motion		<b>2.6C</b> Trace and compare patterns of movement of objects such as sliding, rolling, and spinning over time.		Addressed in Grade 3





#### Grade 2, continued

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
and ces		<b>2.7A</b> Observe, describe, and compare rocks by size, texture, and color.		
<u> </u>		2.7B Identify and compare the properties of natural	Work of Water	Lesson 1: If you floated down a river, where would you end up?
า Materials ıral Resou		sources of freshwater and saltwater.	Mini-lessons	Mini-lesson: How deep does the ocean go? Mini-lesson: Why is the ocean salty?
Earth Natur		<b>2.7C</b> Distinguish between natural and manmade resources.	<u>Mini-lessons</u>	Mini-lesson: Where does metal come from? Mini-lesson: How are diamonds made? Mini-lesson: How is plastic made? Mini-lesson: How is gold made?
ather nce of		<b>2.8A</b> Measure, record, and graph weather information, including temperature, wind conditions, precipitation, and cloud coverage, in order to identify patterns in the data		
Patterns in Weathe and the Appearance the Moon	Earth and Space	<b>2.8B</b> Identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation		Addressed in Kindergarten
Patterr and the , th		<b>2.8C</b> Observe, describe, and record patterns of objects in the sky, including the appearance of the Moon.		Addressed in Grade 1





### Grade 2, continued

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
nts		<b>2.9A</b> Identify the basic needs of plants and animals.		Addressed in Kindergarten
Organisms and Environments	Organisms &	<b>2.9B</b> Identify factors in the environment, including temperature and precipitation, that affect growth and behavior such as migration, hibernation, and dormancy of living things.	<u>Mini-lessons</u>	Mini-lesson: Why do bears hibernate?** Mini-lesson: Why do animals come back after going to warm places in the winter? Mini-lesson: Where do bugs go in winter? Mini-lesson: Why do birds lay eggs in the spring?
isms and	Environments	<b>2.9C</b> Compare the ways living organisms depend on each other and on their environments such as through	<u>Animal</u> Adventures	Lesson 1: How many different kinds of animals are there? Lesson 2: Why do frogs say "ribbit"? Lesson 3: How could you get more birds to visit a feeder?
Organ		food chains	Mini-lessons	Mini-lesson: Why are butterflies so colorful?** Mini-lesson: Why are flamingos pink?** Mini-lesson: Do bats really drink blood?
eristics s of		<b>2.10A</b> Observe, record, and compare how the physical characteristics and behaviors of animals help them meet	<u>Animal</u> Adventures	Lesson 3: How could you get more birds to visit a feeder?
al Characte I Behaviors Organisms	Organisms &	their basic needs.	Mini-lessons	Mini-lesson: Why do owls say 'hoo'?** Mini-lesson: Can animals get a sunburn?
Physical Characteristics and Behaviors of Organisms	Environments		<u>Plant</u> Adventures	<b>Lesson 1:</b> How did a tree travel halfway around the world? <b>Lesson 2:</b> Could a plant survive without light?
Рһу		needs such as stems carry water throughout the plant.	Mini-lessons	Mini-lesson: Why do leaves change color in the fall?** Mini-lesson: How do flowers bloom in the spring?**
Insect Life Cycles	Organisms & Environments	<b>2.10C</b> Investigate and record some of the unique stages that insects such as grasshoppers and butterflies undergo during their life cycle.		





TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
		<b>3.5A</b> Measure, test, and record physical properties of matter, including temperature, mass, magnetism, and the ability to sink or float		
of Matter	Matter &	<b>3.5B</b> Describe and classify samples of matter as solids, liquids, and gases and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container		
Properties of Matter	Energy	<b>3.5C</b> Predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water, condensation forming on the outside of a glass of ice water, or liquid water being heated to the point of becoming water vapor		Partially addressed in Grade 4
		<b>3.5D</b> Explore and recognize that a mixture is created when two materials are combined such as gravel and sand or metal and plastic paper clips		
Energy	Force, Motion, & Energy	<b>3.6A</b> Explore different forms of energy, including mechanical, light, sound, and thermal in everyday life		Addressed in Grade 4
orce and Motion	Force, Motion, &	<b>3.6B</b> Demonstrate and observe how position and motion can be changed by pushing and pulling objects such as swings, balls, and wagons.	Invisible Forces	Lesson 1: How could you win a tug-of-war against a bunch of adults? Lesson 2: What makes bridges so strong? Lesson 3: How can you go faster down a slide?
Force Moti	Energy	<b>3.6C</b> Observe forces such as magnetism and gravity acting on objects.	Invisible Forces	Lesson 4: What can magnets do? Lesson 5: How could you unlock a door using a magnet?





#### Grade 3, continued

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
p		<b>3.7A</b> Explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains	Work of Water	Lesson 2: Why is there sand at the beach?
The Natural World	Earth and Space	<b>3.7B</b> Investigate rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides.	<u>The Birth of</u> <u>Rocks</u>	Lesson 1: Could a volcano pop up where you live? Lesson 2: Why do some volcanoes explode? Lesson 4: How could you survive a landslide?
Na	Space		Mini-lessons	Mini-lesson: How do earthquakes happen?
Тһе		<b>3.7C</b> Explore the characteristics of natural resources that make them useful in products and materials such as clothing and furniture and how resources may be conserved	<u>Mini-lessons</u>	Mini-lesson: How do they turn wood into paper? Mini-lesson: Where does chocolate come from? Mini-lesson: How is glass made? Mini-lesson: How is syrup made? Mini-lesson: How are pencils made?
E		<b>3.8B</b> Describe and illustrate the Sun as a star composed of gases that provides light and thermal energy	<u>Spaceship</u> <u>Earth</u> *	Lesson 8: Could there be life on other planets?
The Solar System	Earth and Space	<b>3.8C</b> Construct models that demonstrate the relationship of the Sun, Earth, and Moon, including orbits and positions		Addressed in Grade 4
The Sol	opuee	<b>3.8D</b> Identify the planets in Earth's solar system and their position in relation to the Sun.	<u>Spaceship</u> <u>Earth</u> *	Lesson 6: What are the wandering stars?
			Mini-lessons	Mini-lesson: Why is Mars red?
Weather	Earth and Space	<b>3.8A</b> Observe, measure, record, and compare day-to-day weather changes in different locations at the same time that include air temperature, wind direction, and precipitation.		





#### Grade 3, continued

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
	Organisms and Environments	<b>3.9A</b> Observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem.	<u>Power of</u> <u>Flowers</u>	Lesson 1: Why do plants grow flowers?
Ecosystems		<b>3.9B</b> Identify and describe the flow of energy in a food chain and predict how changes in a food chain affect the ecosystem such as removal of frogs from a pond or bees from a field	Web of Life	Lesson 1: Why would a hawk move to New York City?*
Ш		<b>3.9C</b> Describe environmental changes such as floods and droughts where some organisms thrive and others perish or move to new locations.		
and t of ns	Organisms and Environments	<b>3.10A</b> Explore how structures and functions of plants and animals allow them to survive in a particular environment.	<u>Plant</u> Adventures	Lesson 3: Why do trees grow so tall? Lesson 4: Should you water a cactus? Lesson 5: Where do plants grow best?
Structures and Functions of Organisms			<u>Power of</u> <u>Flowers</u>	Lesson 1: Why do plants grow flowers? Lesson 2: Why do plants give us fruit?
Str Fu O			Mini-lessons	Mini-lesson: How do polar animals survive the cold?**
Life Cycles	Organisms and Environments	<b>3.10B</b> Investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles such as tomato plants, frogs, and lady beetles.		





TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
Physical Properties of Matter	Matter & Energy	<b>4.5A</b> Measure, compare, and contrast physical properties of matter, including mass, volume, states (solid, liquid, gas), temperature, magnetism, and the ability to sink or float.		
Mixtures	Matter & Energy	<b>4.5B</b> Compare and contrast a variety of mixtures, including solutions		
Energy	Force, Motion, & Energy	<b>4.6A</b> Differentiate among forms of energy, including mechanical, sound, electrical, light, and thermal.	Energizing Everything Waves of Sound	<ul> <li>Lesson 1: How is your body similar to a car?</li> <li>Lesson 2: What makes roller coasters go so fast?</li> <li>Lesson 3: Why is the first hill of a roller coaster always the highest?</li> <li>Lesson 1: How far can a whisper travel?</li> <li>Lesson 2: What would happen if you screamed in outer space?</li> <li>Lesson 3: Why are some sounds high and some sounds low?</li> </ul>
_		<b>4.6B</b> Differentiate between conductors and insulators of thermal and electrical energy.		
		<b>4.6C</b> Demonstrate that electricity travels in a closed path, creating an electrical circuit.		Addressed in Grade 5.
Force and Motion	Force, Motion, & Energy	<b>4.6D</b> Design a descriptive investigation to explore the effect of force on an object such as a push or a pull, gravity, friction, or magnetism.	<u>Spaceship</u> <u>Earth</u>	Lesson 7: Why is gravity different on other planets?





### Grade 4, continued

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
urces	Earth and Space	<b>4.7A</b> Examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants		
Natural Resources		<b>4.7C</b> Identify and classify Earth's renewable resources, including air, plants, water, and animals, and nonrenewable resources, including coal, oil, and natural gas, and the importance of conservation.	Watery Planet	Lesson 1: How much water is in the world? Lesson 2: When you turn on the faucet, where does the water come from?
			<u>Everything</u>	Lesson 8: Where does energy come from?
Changing Earth	Earth and Space	<b>4.7B</b> Observe and identify slow changes to Earth's surface caused by weathering, erosion, and deposition from water, wind, and ice.	<u>The Birth of</u> <u>Rocks</u>	Lesson 3: Will a mountain last forever?
Cha			Mini-lessons	Mini-lesson: How old is the Earth?
the le		<b>4.8A</b> Measure, record, and predict changes in weather	Stormy Skies	<b>Lesson 2:</b> How can we predict when it's going to storm? <b>Lesson 4:</b> How can you keep a house from blowing away in a windstorm?
Weather and th Water Cycle			Mini-lessons	Mini-lesson: Why are tornadoes so hard to predict?
	Earth and Space	<b>4.8B</b> Describe and illustrate the continuous movement of water above and on the surface of Earth through the water cycle and explain the role of the Sun as a major source of energy in this process	Stormy Skies	kies Lesson 1: Where do clouds come from?





### Grade 4, continued

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
Patterns of the Sun, Moon, and Earth Systems	Earth and Space	<b>4.8C</b> Collect and analyze data to identify sequences and predict patterns of change in shadows, seasons, and the observable appearance of the Moon over time	<u>Spaceship</u> <u>Earth</u>	Lesson 2: Who set the first clock? Lesson 3: How can the Sun tell you the season? Lesson 4: Why do the stars change with the seasons? Lesson 5: Why does the Moon change shape?
Energy Flow in Living Systems	Organisms	<b>4.9A</b> Investigate that most producers need sunlight, water, and carbon dioxide to make their own food, while consumers are dependent on other organisms for food	Web of Life	Lesson 2: What do plants eat?
Energy Flov in Living Systems	and Environments	<b>4.9B</b> Describe the flow of energy through food webs, beginning with the Sun, and predict how changes in the ecosystem affect the food web		Addressed in Grade 5
Structure and Behaviors of Organisms	Organisms and Environments	<b>4.10A</b> Explore how structures and functions enable organisms to survive in their environment.	<u>Human</u> <u>Machine</u> <u>Mini-lessons</u>	Lesson 1: Why do biceps bulge? Lesson 4: How does your brain control your body? Mini-lesson: Why do our skeletons have so many bones?** Mini-lesson: What would happen if you didn't have a skull?** Mini-lesson: How does the heart pump blood?** Mini-lesson: Why do we sweat when we play sports?
Structure Behaviors of O		<b>4.10B</b> Explore and describe examples of traits that are inherited from parents to offspring such as eye color and shapes of leaves and behaviors that are learned such as reading a book and a wolf pack teaching their pups to hunt effectively	<u>Power of</u> <u>Flowers</u>	Lesson 3: Why are some apples red and some green? Lesson 4: How could you make the biggest fruit in the world?
Life Cycles	Organisms and Environments	<b>4.10C</b> Explore, illustrate, and compare life cycles in living organisms such as beetles, crickets, radishes, or lima beans		





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TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
Physical Properties of Matter	Matter & Energy	<b>5.5A</b> Classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy.	<u>Chemical</u> <u>Magic</u>	Lesson 3: What would happen if you drank a glass of acid? Lesson 4: What do fireworks, rubber, and silly putty have in common? Lesson 5: Why do some things explode?
al Proper		<b>5.5B</b> Demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand and sand and water.		
Physica		<b>5.5C</b> Identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water.	<u>Chemical</u> <u>Magic</u>	Lesson 1: Are magic potions real? Lesson 2: Could you transform something worthless into gold?
gy		<b>5.6A</b> explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy.	Energizing Everything	<ul> <li>Lesson 4: Could you knock down a building using only dominoes?</li> <li>Lesson 5: Can you build a chain reaction machine?</li> <li>Lesson 7: How long did it take to travel across the country before cars and planes?</li> </ul>
Forms of Energy	Force, Motion, &	<b>5.6B</b> demonstrate that the flow of electricity in closed circuits can produce light, heat, or sound.	<u>Energizing</u> Everything	Lesson 6: What if there were no electricity?
Forms	Energy	<b>5.6C</b> Demonstrate that light travels in a straight line until it strikes an object and is reflected or travels through one	Human MachineLesson 2: What do people who are blind see? Lesson 3: How can some animals see in the dark?Mini-lessonsMini-lesson: How are rainbows made?** Mini-lesson: Why is snow white?**	
		medium to another and is refracted.		
Forces	Force, Motion, & Energy	<b>5.6D</b> Design a simple experimental investigation that tests the effect of force on an object.		Addressed in Grade 3 Addressed in Grade 4



\*\*Indicates a mini-lesson that includes a hands-on STEAM activity from Mystery Science



### Grade 5, continued

Mystery Science aligns to the streamlined 2017 Science Texas Essential Knowledge and Skills (TEKS). Each lesson (exploration & activity) is designed to take one hour per week. Extensions can expand upon each lesson. To view each lesson's alignment to three-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.

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
nges	Earth and Space	<b>5.7A</b> Explore the processes that led to the formation of sedimentary rocks and fossil fuels		
Earth's Changes		<b>5.7B</b> Recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth's surface by wind, water, or ice.	Work of Water*	Lesson 3: What's strong enough to make a canyon? Lesson 4: How can you stop a landslide?
Weather rns	Earth and Space	<b>5.8A</b> Differentiate between weather and climate.	Stormy Skies	Lesson 3: Why are some places always hot?
l Wea			Mini-lessons	Mini-lesson: What is the coldest place on Earth?
Water and We Patterns		<b>5.8B</b> Explain how the Sun and the ocean interact in the water cycle.	Watery Planet	Lesson 3: Can we make it rain? Lesson 4: How can you save a town from a hurricane?
Moon		<b>5.8C</b> Demonstrate that Earth rotates on its axis once	<u>Spaceship</u> <u>Earth</u>	Lesson 1: How fast does the Earth spin?
Sun, Earth, and N Systems	Earth and	approximately every 24 hours causing the day/night cycle and the apparent movement of the Sun across the sky.	Mini-lessons Mini-lesson: Why do places have different times?	Mini-lesson: Why do places have different times?
	Space	<b>5.8D</b> Identify and compare the physical characteristics of the Sun, Earth, and Moon.	<u>Mini-lessons</u>	Mini-lesson: What is the Moon made of? Mini-lesson: How close could an astronaut get to the Sun? Mini-lesson: Is Earth the only planet with life?



\*<u>Work of Water</u> was initially developed for Grade 2, but can be adapted for Grade 5.



### Grade 5, continued

TEKS Unit	TEKS Strand	TEKS Statement	Mystery Science Unit	Mystery Science Lessons
۲S	Organisms and Environments	<b>5.9A</b> Observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving components.	Web of Life	Lesson 3: Where do fallen leaves go? Lesson 4: Do worms really eat dirt? Lesson 5: Why do you have to clean a fish tank but not a pond?
Ecosystem Interactions		<b>5.9B</b> Describe the flow of energy within a food web, including the roles of the Sun, producers, consumers, and decomposers.	Web of Life	Lesson 6: Why did the dinosaurs go extinct?
ш <u>с</u>		<b>5.9C</b> Predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways	Web of Life	Lesson 5: Why do you have to clean a fish tank but not a pond?
s and rs of ims		<b>5.10A</b> compare the structures and functions of different species that help them live and survive in a specific environment such as hooves on prairie animals or webbed feet in aquatic animals	<u>Animals</u> <u>Through Time</u>	Lesson 1: Where can you find whales in a desert? Lesson 7: What's the best way to get rid of mosquitoes? Lesson 8: How long can people (and animals) survive in outer space?
Structures and Behaviors of Organisms	Organisms and Environments	<b>5.10B</b> Differentiate between inherited traits of plants and animals such as spines on a cactus or shape of a beak and learned behaviors such as an animal learning tricks or a child riding a bicycle	<u>Animals</u> <u>Through Time</u>	Lesson 4: What kinds of animals might there be in the future? Lesson 5: Can selection happen without people? Lesson 6: Why do dogs wag their tails?
Fossils and Environments	Organisms and	<b>5.9D</b> Identify fossils as evidence of past living organisms and the nature of the environments at the time using models	<u>Animals</u> <u>Through Time</u>	Lesson 1: Where can you find whales in a desert? Lesson 2: How do we know what dinosaurs looked like? Lesson 3: Can you outrun a dinosaur?
	Environments models <u>Mini-lessons</u>		Mini-lesson: Were dragons ever real? Mini-lesson: Are unicorns real?	

