

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). The core Mystery (exploration and activity) is designed to take one hour per week, with Optional Extras that can extend the lesson. View our NGSS Alignment to see how our lessons align to the 3 dimensions of the NGSS (disciplinary core ideas, science and engineering practices, and crosscutting concepts).

> ***Have extra time?*** "Optional Extras" are extensions to each Mystery. We recommend you use them during your unit or to extend the length of each unit. They include an informational text reading that builds on the Mystery's topic, assessments, and suggestions for supplemental activities.

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Kindergarten

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Force Olympics *Forces, Machines & Engineering*	**Mystery 1:** What's the biggest excavator? **Mystery 2 Read Along:** Why do builders need so many big machines? **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? **Mystery 5:** How can we protect a mountain town from falling rocks? **Mystery 6 Read Along:** How could you invent a trap?	**K.6** Force, Motion, and Energy	**K.6.C** Observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside. **K.6.D** 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.
Weather Watching *Weather & Seasons*	**Mystery 1:** Have you ever watched a storm? **Mystery 2 Read Along:** How can you get ready for a big storm? **Mystery 3:** What will the weather be like on your birthday? **Mystery 4 Read Along:** How do you know what to wear for the weather? **Mystery 5:** How could you warm up a frozen playground? **Mystery 6 Read Along:** How could you walk barefoot across hot pavement without burning your feet?	**K.8** Earth and Space	**K.8.A** Observe and describe weather changes from day to day and over seasons **K.8.B** Identify events that have repeated patterns, including seasons of the year and day and night **K.8.C** Observe, describe, and illustrate objects in the sky such as the clouds, Moon, and stars, including the Sun.
Plant & Animal Secrets *Plant & Animal Needs*	**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 5 - Part 2**: How do plants and trees grow? **Mystery 6 Read Along:** Why would you want an old log in your backyard?	**K.9** Organisms and Environments	**K.9.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.

Grade 1

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Lights & Sounds *Properties of Light & Sound*	**Mystery 1:** How do they make silly sounds in cartoons? **Mystery 2 Read Along:** Where do sounds come from? **Mystery 3:** What if there were no windows? **Mystery 4 Read Along:** Can you see in the dark? **Mystery 5:** How could you send a secret message to someone far away? **Mystery 6 Read Along:** How do boats find their way in the fog?	**1.6** Force, Motion, and Energy	**1.6.A** Identify and discuss how different forms of energy such as light, thermal, and sound are important to everyday life.
Spinning Sky *Sun, Moon, & Stars*	**Mystery 1:** Could a statue's shadow move? **Mystery 2 Read Along:** What does your shadow do when 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? **Mystery 5:** Why do the stars come out at night? **Mystery 6 Read Along:** How can stars help you if you get lost?	**1.8** Earth and Space	**1.8.B** Observe and record changes in the appearance of objects in the sky such as the Moon and stars, including the Sun. **1.8.C** Identify characteristics of the seasons of the year and day and night.
Plant & Animal Superpowers *Plant & Animal Structures and Survival*	**Mystery 1:** Why do birds have beaks? **Mystery 2 Read Along:** Why do baby ducks follow their mother? **Mystery 3:** Why are polar bears white? **Mystery 4 Read Along:** Why do family members look alike? **Mystery 5:** Why don't trees blow down in the the wind? **Mystery 6 Read Along:** What do sunflowers do when you're not looking?	**1.10** Organisms and Environments	**1.10.A** Investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats. **1.10.B** Identify and compare the parts of plants. **1.10.C** Compare ways that young animals resemble their parents

Grade 2

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Material Magic *Properties & Phases of Matter*	**Mystery 1:** Why do we wear clothes? **Mystery 2:** Can you really fry an egg on a hot sidewalk? **Mystery 3:** Why are so many 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?	**2.5** Matter and Energy	**2.5.A** classify matter by physical properties, including relative temperature, texture, flexibility, and whether material is a solid or liquid. **2.5.B** Compare changes in materials caused by heating and cooling. **2.5.C** Demonstrate that things can be done to materials such as cutting, folding, sanding, and melting to change their physical properties. **2.5.D** 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.
Work of Water *Erosion & Earth's Surface*	**Mystery 1:** If you floated down a river, where would you end up? **Mystery 2:** Why is there sand at the beach? **Mystery 3:** What's strong enough to make a canyon? **Mystery 4:** How can you stop a landslide?	**2.7** Earth and Space	**2.7.A** Observe, describe, and compare rocks by size, texture, and color. **2.7.B** Identify and compare the properties of natural sources of freshwater and saltwater.
Plant Adventures *Plant Adaptations*	**Mystery 1:** How did a tree travel halfway around the world? **Mystery 2:** Do plants eat dirt? **Mystery 3:** Why do trees grow so tall? **Mystery 3 - Activity Part 2**: Why do trees grow so tall? **Mystery 4:** Should you water a cactus? **Mystery 5:** Where do plants grow best?	**2.9 & 2.10** Organisms and Environments	**2.9.A** Identify the basic needs of plants and animals. **2.9.B** Identify factors in the environment, including temperature and precipitation, that affect growth and behavior such as migration, hibernation, and dormancy of living things. **2.10.B** Observe, record, and compare how the physical characteristics and behaviors of animals help them meet their basic needs. **2.10.C** Observe, record, and compare how the physical characteristics of plants help them meet their basic needs such as stems carry water throughout the plant.
Animal Adventures *Animal Biodiversity*	**Mystery 1:** How many different kinds of animals are there? **Mystery 2:** Why do frogs say "ribbit"? **Mystery 3:** How could you get more birds to visit a bird feeder?		

Grade 3

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Invisible Forces *Forces, Motion, & Magnets*	**Mystery 1:** How could you win a tug-of-war against a bunch of adults? **Mystery 2:** What makes bridges so strong? **Mystery 3**: How can you go faster down a slide? **Mystery 4:** What can magnets do? **Mystery 5:** How could you unlock a door using a magnet?	**3.6** Force, Motion, and Energy	**3.6.B** Demonstrate and observe how position and motion can be changed by pushing and pulling objects such as swings, balls, and wagons. **3.6.C** Observe forces such as magnetism and gravity acting on objects.
Stormy Skies *Weather & Climate*	**Mystery 1:** Where do clouds come from? **Mystery 2:** How can we predict when it's going to storm? **Mystery 3:** Why are some places always hot? **Mystery 4:** How can you keep a house from blowing away in a windstorm?	**3.7 & 3.8** Earth and Space	**3.7.B** Investigate rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides. **3.8.A** 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.
Power of Flowers *Plant Life Cycle & Heredity*	**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?	**3.9 & 3.10** Organisms and Environments	**3.9.A** Observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem. **3.9.C** Describe environmental changes such as floods and droughts where some organisms thrive and others perish or move to new locations. **3.10.A** Explore how structures and functions of plants and animals allow them to survive in a particular environment; and **3.10.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.
Animals Through Time *Animal Life Cycle & Heredity*	**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? **Mystery 4:** What kinds of animals might there be in the future? **Mystery 5:** Can selection happen without people? **Mystery 6:** Why do dogs wag their tails? **Mystery 7:** What's the best way to get rid of mosquitoes? **Mystery 8:** How long can people (and animals) survive in outer space?		

Grade 4

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Energizing Everything *Energy, Motion, & Electricity*	**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 the highest? **Mystery 4:** Could you knock down a building using only dominoes? **Mystery 5:** Can you build a chain reaction machine? **Mystery 6:** What if there were no electricity? **Mystery 7:** How long did it take to travel across the country before cars and planes? **Mystery 8:** Where does energy come from?	**4.6** Force, Motion, and Energy	**4.6.A** Differentiate among forms of energy, including mechanical, sound, electrical, light, and thermal. **4.6.B** Differentiate between conductors and insulators of thermal and electrical energy. **4.6.C** Demonstrate that electricity travels in a closed path, creating an electrical circuit. **4.6.D** Design a descriptive investigation to explore the effect of force on an object such as a push or a pull, gravity, friction, or magnetism.
Waves of Sound *Sound, Waves, & Communication*	**Mystery 1:** How far can a whisper travel? **Mystery 2:** What would happen if you screamed in outer space? **Mystery 3:** Why are some sounds high and some sounds low?	**4.7** Earth and Space	**4.7.C** 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.
The Birth of Rocks *Rock Cycle & Earth's Processes*	**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?	**4.7** Earth and Space	**4.7.B** Observe and identify slow changes to Earth's surface caused by weathering, erosion, and deposition from water, wind, and ice.
Human Machine *Human Body, Senses, & the Brain*	**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?	**4.10** Organisms and Environments	**4.10.A** Explore how structures and functions enable organisms to survive in their environment.

Grade 5

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Chemical Magic *Chemical Reactions & Properties of Matter*	**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?	**5.5** Force, Motion, and Energy	**5.5.A** 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. **5.5.B** Demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand and sand and water. **5.5.C** 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.
Watery Planet *Rock Cycle & Earth's Processes*	**Mystery 1:** How much water is in the world? **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?	**5.7 & 5.8** Earth and Space	**5.7.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. **5.8.B** Explain how the Sun and the ocean interact in the water cycle.
Spaceship Earth *Sun, Moon, Stars, & Planets*	**Mystery 1:** Why does the sun rise and set? **Mystery 2:** Who set the first clock? **Mystery 3:** How can the sun tell you the season? **Mystery 4:** Why do the stars change with the seasons? **Mystery 5:** Why does the moon change shape? **Mystery 6:** What are wandering stars? **Mystery 7:** Why is gravity different on other planets? **Mystery 8:** Could there be life on other planets?	**5.8** Earth and Space	**5.8.C** Demonstrate that Earth rotates on its axis once approximately every 24 hours causing the day/night cycle and the apparent movement of the Sun across the sky. **5.8.D** Identify and compare the physical characteristics of the Sun, Earth, and Moon.
Web of Life *Ecosystems & the Food Web*	**Mystery 1:** Why would a hawk move to New York City? **Mystery 2:** What do plants eat? **Mystery 3:** Where do fallen leaves go? **Mystery 4:** Do worms really eat dirt? **Mystery 5:** Why do you have to clean a fish tank but not a pond? **Mystery 6:** Why did the dinosaurs go extinct?	**5.9** Organisms and Environments	**5.9.A** Observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving components. **5.9.B** Describe the flow of energy within a food web, including the roles of the Sun, producers, consumers, and decomposers.