

Mystery Science Alignment with the MA Science and Technology/ Engineering Framework (2016)

Mystery Science - Massachusetts Alignment
Mystery Science aligns to the Massachusetts Science and Technology/ Engineering Framework (2016). 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 NGSS Alignment 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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MYSTERY science

Kindergarten

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Strand	Topic	MA STE Framework Learning Standards	Mystery Science Unit	Mystery Science Lessons
Life Science	*From Molecules to Organisms*	**K-LS1-1** Observe and communicate that animals (including humans) and plants need food, water, and air to survive. Animals get food from plants and other animals. Plants make their food and need light to live and grow.	Plant & Animal Secrets	**Mystery 1:** Why do woodpeckers peck wood? **Mystery 3:** How can you find animals in the woods? **Mystery 5:** How do plants and trees grow?
		K-LS1-2(MA) Recognize that all plants and animals grow and change over time.	Plant & Animal Secrets Mini-lessons	**Mystery 5:** How do plants and trees grow? **Mini-lesson:** Why do baby animals look so cute? **Mini-lesson:** Why do snakes shed their skin?
Earth & Space Science	*Earth's Systems*	**K-ESS2-1** Use and share quantitative observations of local weather conditions to describe patterns over time.	Weather Watching	**Mystery 1:** Have you ever watched a 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?
		K-ESS2-2 Construct an argument supported by evidence for how plants and animals (including humans) can change the environment.	Plant & Animal Secrets	**Mystery 2, Read-Along:** Where do animals live? **Mystery 4, Read-Along:** How do animals make their homes in the forest?
	Earth & Human Activity	**K-ESS3-2** Obtain and use information about weather forecasting to prepare for, and respond to, different types of local weather.	Weather Watching	**Mystery 2, Read-Along:** How can you get ready for a big storm?
		K-ESS3-3 Communicate solutions to reduce the amount of natural resources an individual uses.	Plant & Animal Secrets	**Mystery 6, Read-Along:** Why would you want an old log in your backyard?



MYSTERY science

Kindergarten, continued

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Strand	Topic	MA STE Framework Learning Standards	Mystery Science Unit	Mystery Science Lessons
Physical Science	*Matter & Its Interactions*	**K-PS1-1(MA)** Investigate and communicate the idea that different kinds of materials can be solid or liquid depending on temperature.	Mini-lessons	**Mini-lesson:** Can you make lava?
	Motion & Stability: Forces & Interactions	**K-PS2-1** Compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.	Force Olympics	**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?
	Energy	**K-PS3-1** Make observations to determine that sunlight warms materials on Earth's surface. **K-PS3-2** Use tools and materials to design and build a model of a structure that will reduce the warming effect of sunlight on an area.	Weather Watching	**Mystery 5:** How could you warm up a frozen playground?* **Mystery 6, Read-Along:** How could you walk barefoot across a frozen playground?

* **Note:** This Mystery uses an activity that *increases* the warming effect of sunlight on an area.



MYSTERY science

Grade 1

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Strand	Topic	MA STE Framework Learning Standards	Mystery Science Unit	Mystery Science Lessons
Life Science	*From Molecules to Organisms*	**1-LS1-1** Use evidence to explain that (a) different animals use their body parts and senses in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water, and air, and (b) plants have roots, stems, leaves, flowers, and fruits that are used to take in water, air, and other nutrients, and produce food for the plant.	Plant & Animal Superpowers	**Mystery 1:** Why do birds have beaks? **Mystery 3:** Why are polar bears white? **Mystery 5:** Why don't trees blow down in the wind? **Mystery 6, Read-Along:** What do sunflowers do when you're not looking?
		1-LS1-2 Obtain information to compare ways in which the behavior of different animal parents and their offspring help the offspring to survive.	Plant & Animal Superpowers	**Mystery 2, Read-Along:** Why do baby ducks follow their mother?
	Heredity	**1-LS3-1** Use information from observations (first-hand and from media) to identify similarities and differences among individual plants or animals of the same kind.	Plant & Animal Superpowers	**Mystery 4, Read-Along:** Why do family members look alike?
Earth & Space Science	*Earth's Place in the Universe*	**1-ESS1-1** Use observations of the Sun, Moon, and stars to describe that each appears to rise in one part of the sky, appears to move across the sky, and appears to set.	Spinning Sky	**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 5:** Why do the stars come out at night? **Mystery 6, Read-Along:** How can stars help you if you get lost?
		1-ESS1-2 Analyze provided data to identify relationships among seasonal patterns of change, including relative sunrise and sunset time changes, seasonal temperature, and rainfall or snowfall patterns, and seasonal changes to the environment.	Spinning Sky	**Mystery 4, Read-Along:** Why do you have to go to bed early in the summer?



MYSTERY science

Grade 1, continued

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Strand	Topic	MA STE Framework Learning Standards	Mystery Science Unit	Mystery Science Lessons
Physical Science	Waves and their Applications	**1-PS4-1** Demonstrate that vibrating materials that make sound and that sound can make materials vibrate.	Lights & Sounds	**Mystery 1:** How do they make silly sounds in cartoons? **Mystery 2, Read-Along:** Where do sounds come from?
		1-PS4-3 Conduct an investigation to determine the effect of placing materials that allow light to pass through them, allow only some light through them, block all the light, or redirect light when put in the path of a beam of light.	Lights & Sounds	**Mystery 3:** What if there were no windows? **Mystery 4, Read-Along:** Can you see in the dark?
		1-PS4-4 Use tools and materials to design and build a device that uses light or sound to send a signal over a distance.	Lights & Sounds	**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?
Technology/ Engineering	*Engineering Design*	**1.K-2-ETS1-1** Ask questions, make observations, and gather information about a situation people want to change that can be solved by developing or improving an object or tool.	Plant & Animal Superpowers	**Mystery 5:** Why don't trees blow down in the wind?
		1.K-2.ETS1-2 Generate multiple solutions to a design problem and make a drawing (plan) to represent one or more of the solutions.	Lights & Sounds	**Mystery 5:** How could you send a secret message to someone far away?



MYSTERY science

Grade 2

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Life Science	*Ecosystems*	**2-LS2-3(MA)** Develop and use models to compare how plants and animals depend on their surroundings and other living things to meet their needs in the places they live.	Plant Adventures Animal Adventures	**Mystery 3:** Why do trees grow so tall?* **Mystery 4:** Should you water a cactus? **Mystery 5:** Where do plants grow best? **Mystery 3:** How could you get more birds to visit a feeder?
	Biological Evolution	**2-LS4-1** Use texts, media, or local environments to observe and compare (a) different kinds of living things in an area, and (b) differences in the kinds of living things living in different types of areas.	Animal Adventures	**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 feeder?
Earth & Space Science	*Earth's Systems*	**2-ESS2-4(MA)** Observe how blowing and flowing water can move Earth materials from one place to another and change the shape of a landform.	Work of Water	**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-ESS2-1 Investigate and compare the effectiveness of multiple solutions designed to slow or prevent wind or water from changing the shape of the land.		
		2-ESS2-2 Map the shapes and types of landforms and bodies of water in an area.	Work of Water	**Mystery 1:** If you floated down a river, where would you end up? **Mystery 2:** Why is there sand at the beach?
		2-ESS2-3 Use examples obtained from informational sources to explain that water is found in the ocean, rivers and streams, lakes and ponds, and may be solid or liquid.	Work of Water	**Mystery 1:** If you floated down a river, where would you end up?



MYSTERY science

Grade 2, continued

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Physical Science	*Matter & Its Interactions*	**2-PS1-1** Describe and classify different kinds of materials by observable properties of color, flexibility, hardness, texture, and absorbency.	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 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-PS1-2 Test different materials and analyze the data obtained to determine which materials have the properties that are best suited for an intended purpose.		
		2-PS1-3 Analyze a variety of evidence to conclude that when a chunk of material is cut or broken into pieces, each piece is still the same material and, however small each piece is, has weight. Show that the material properties of a small set of pieces do not change when the pieces are used to build larger objects.	Material Magic	**Mystery 5:** Could you build a house out of paper?
		2-PS1-4 Construct an argument with evidence that some changes to materials caused by heating or cooling can be reversed and some cannot.	Material Magic	**Mystery 3:** Why are so many toys made out of plastic?
	Energy	**2-PS3-1(MA)** Design and conduct an experiment to show the effects of friction on the relative temperature and speed of objects that rub against each other.		*MA specific standard addressed in Invisible Forces (grade 3)*
Technology/ Engineering	*Engineering Design*	**1.K-2.ETS1-3** Analyze data from tests of two objects designed to solve the same design problem to compare the strengths and weaknesses of how each object performs.	Animal Adventures Work of Water	**Mystery 3:** How could you get more birds to visit a feeder? **Mystery 4:** How can you stop a landslide?



MYSTERY science

Grade 3

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Strand	Topic	MA STE Framework Learning Standards	Mystery Science Unit	Mystery Science Lessons
Life Science	*From Molecules to Organisms*	**3-LS1-1** Use simple graphical representations to show that different types of organisms have unique and diverse life cycles. Describe that all organisms have birth, growth, reproduction, and death in common but there are a variety of ways in which these happen.	Plant Adventures Power of Flowers*	**Mystery 1:** How did a tree travel halfway around the world? **Mystery 2:** Could a plant survive without light? **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	**3-LS3-1** Provide evidence, including through the analysis of data, that plants and animals have traits inherited from parents and that variation of these traits exist in a group of similar organisms.	Animals Through Time Power of Flowers	**Mystery 4:** What kind of animals might there be in the future? **Mystery 5:** Can selection happen without people? **Mystery 8:** How long can people (and animals) survive in outer space? **Mystery 3:** Why are some apples red and some green? **Mystery 4:** How could you make the biggest fruit in the world?
		3-LS3-2 Distinguish between inherited characteristics and those characteristics that result from a direct interaction with the environment. Give examples of characteristics of living organisms that are influenced by both inheritance and the environment.		

* **Note**: Power of Flowers picks up where Plant Adventures leaves off. We suggest that you teach Plant Adventures first.



MYSTERY science

Grade 3, continued

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Strand	Topic	MA STE Framework Learning Standards	Mystery Science Unit	Mystery Science Lessons
Life Science ***(Cont.)***	*Biological Evolution*	**3-LS4-1** Use fossils to describe types of organisms and their environments that existed long ago and compare those to living organisms and their environments. Recognize that most kinds of plants and animals that once lived on Earth are no longer found anywhere.	Animals Through Time	**Mystery 1:** Where can you find whales in the desert? **Mystery 2:** How do we know what dinosaurs looked like? **Mystery 3:** Can you outrun a dinosaur?
		3-LS4-2 Use evidence to construct an explanation for how the variations in characteristics among individuals within the same species may provide advantages to these individuals in their survival and reproduction.	Animals Through Time	**Mystery 4:** What kind 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?
		3-LS4-3 Construct an argument with evidence that in a particular environment some organisms can survive well, some survive less well, and some cannot survive.		
		3-LS4-4 Analyze and interpret given data about changes in a habitat and describe how the changes may affect the ability of organisms that live in that habitat to survive and reproduce.	Animals Through Time	**Mystery 7:** What's the best way to get rid of mosquitoes?
		3-LS4-5(MA) Provide evidence to support a claim that the survival of a population is dependent upon reproduction.	Animals Through Time	**Mystery 5:** Can selection happen without people **Mystery 7:** What's the best way to get rid of mosquitoes?
Earth & Space Science	*Earth's Systems*	**3-ESS2-1** Use graphs and tables of local weather data to describe and predict typical weather during a particular season in an area.	Stormy Skies	**Mystery 1:** Where do clouds come from? **Mystery 2:** How can we predict when it's going to storm?
		3-ESS2-2 Obtain and summarize information about the climate of different regions of the world to illustrate that typical weather conditions over a year vary by region.	Stormy Skies	**Mystery 3:** Why are some places always hot?
	Earth & Human Activity	**3-ESS3-1** Evaluate the merit of design solutions that reduces the damage caused by weather.	Stormy Skies	**Mystery 4:** How can you keep a house from blowing away in a windstorm?

* **Note**: Power of Flowers picks up where Plant Adventures leaves off. We suggest that you teach Plant Adventures first.



MYSTERY science

Grade 3, continued

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Physical Science	*Motion & Stability*	**3-PS2-1** Provide evidence to explain the effect of multiple forces, including friction, on an object. Include balanced forces that do not change the motion of the object and unbalanced forces that do change the motion of the object.	Invisible Forces	**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?
		3-PS2-3 Conduct an investigation to determine the nature of the forces between two magnets based on their orientations and distance relative to each other.	Invisible Forces	**Mystery 4:** What can magnets do? **Mystery 5:** How can you unlock a door using a magnet?
		3-PS2-4 Define a simple design problem that can be solved by using interactions between magnets.		
Technology/ Engineering	*Engineering Design*	**3.3-5-ETS1-2** Generate several possible solutions to a given design problem. Compare each solution based on how well each is likely to meet the criteria and constraints of the design problem.	Animals Through Time Stormy Skies Invisible Forces	**Mystery 7:** What's the best way to get rid of mosquitoes? **Mystery 4:** How can you keep a house from blowing away in a windstorm? **Mystery 2:** What makes bridges so strong? **Mystery 5:** How can you unlock a door using a magnet?
		3.3-5-ETS1-4(MA) Gather information using various informational resources on possible solutions to a design problem. Present different representations of a design solution.		



MYSTERY science

Grade 4

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Strand	Topic	MA STE Framework Learning Standards	Mystery Science Unit	Mystery Science Lessons
Life Science	*From Molecules to Organisms*	**4-LS1-1** Construct an argument that animals and plants have internal and external structures that support their survival, growth, behavior, and reproduction.	Human Machine	**Mystery 1:** Why do your biceps bulge? **Mystery 2:** What do blind people see? **Mystery 3:** How can some animals see in the dark? **Mystery 4:** How does your brain control your body?
Earth & Space Science	*Earth's Place in the Universe*	**4-ESS1-1** Use evidence from a given landscape that includes simple landforms and rock layers to support a claim about the role of erosion or deposition in the formation of the landscape over long periods of time.	The Birth of Rocks	**Mystery 1:** Could a volcano pop up where you live? **Mystery 2:** Why do volcanoes explode? **Mystery 3:** Will a mountain last forever?
	Earth's Systems	**4-ESS2-1** Make observations and collect data to provide evidence that rocks, soils, and sediments are broken into smaller pieces through mechanical weathering and moved around through erosion.	The Birth of Rocks	**Mystery 3:** Will a mountain last forever? **Mystery 4:** How could you survive a landslide?
		4-ESS2-2 Analyze and interpret maps of Earth's mountain ranges, deep ocean trenches, volcanoes, and earthquake epicenters to describe patterns of these features and their locations relative to boundaries between continents and oceans.	The Birth of Rocks	**Mystery 1:** Could a volcano pop up where you live?
	Earth & Human Activity	**4-ESS3-1** Obtain information to describe that energy and fuels humans use are derived from natural resources and that some energy and fuel sources are renewable and some are not.	Energizing Everything	**Mystery 8:** Where does energy come from?
		4-ESS3-2 Evaluate different solutions to reduce the impacts of a natural event such as an earthquake, blizzard, or flood on humans.	The Birth of Rocks	**Mystery 4:** How could you survive a landslide?



MYSTERY science

Grade 4, continued

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Physical Science	*Energy*	**4-PS3-1** Use evidence to construct an explanation relating the speed of an object to the energy of that object.	Energizing Everything	**Mystery 1:** How is your body similar to a car? **Mystery 2:** What makes roller coasters go so fast?
		4-PS3-2 Make observations to show that energy can be transferred from place to place by sound, light, heat, and electric currents.	Energizing Everything	**Mystery 2:** What makes roller coasters go so fast? **Mystery 6:** What if there were no electricity? **Mystery 7:** How long did it take to travel across the country before cars and planes?
		4-PS3-3 Ask questions and predict outcomes about the changes in energy that occur when objects collide.	Energizing Everything	**Mystery 3:** Why is the first hill of a roller coaster always the highest?
		4-PS3-4 Apply scientific principles of energy and motion to test and refine a device that converts kinetic energy to electrical energy or uses stored energy to cause motion or produce light or sound.	Energizing Everything	**Mystery 1:** How is your body similar to a car? **Mystery 4:** Could you knock down a building using only dominoes? **Mystery 5:** Can you build a chain reaction machine? **Mystery 7:** How long did it take to travel across the country before cars and planes?
	Waves & Their Applications	**4-PS4-1** Develop a model of a simple mechanical wave (including sound) to communicate that waves (a) are regular patterns of motion along which energy travels and (b) can cause objects to move.	Waves of Sound	**Mystery 1:** How far can a whisper travel? **Mystery 3:** What would happen if you screamed in outer space? **Mystery 4:** Why are some sounds high and some sounds low?
		4-PS4-2 Develop a model to describe that light must reflect off an object and enter the eye for the object to be seen.	Human Machine	**Mystery 2:** What do blind people see? **Mystery 3:** How can some animals see in the dark?
		4-PS4-3 Develop and compare multiple ways to transfer information through encoding, sending, receiving, and decoding a pattern.	Waves of Sound	**Mystery 1:** How far can a whisper travel?



MYSTERY science

Grade 4, continued

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Technology/ Engineering	*Engineering Design*	**3.3-5-ETS1-3** Plan and carry out tests of one or more design features of a given model or prototype in which variables are controlled and failure points are considered to identify which features need to be improved. Apply the results of tests to redesign a model prototype.	Energizing Everything	**Mystery 4:** Could you knock down a building using only dominoes? **Mystery 5:** Can you build a chain reaction machine?
		3.3-5-ETS1-5(MA) Evaluate relevant design features that must be considered in building a model or prototype of a solution to a given design problem.		



MYSTERY science

Grade 5

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Strand	Topic	MA STE Framework Learning Standards	Mystery Science Unit	Mystery Science Lessons
Life Science	*From Molecules to Organisms*	**5-LS1-1** Ask testable questions about the process by which plants use air, water, and energy from sunlight to produce sugars and plant materials needed for growth and reproduction.	Web of Life	**Mystery 2:** What do plants eat?
	Ecosystems	**5-LS2-1** Develop a model to describe the movement of matter among producers, consumers, decomposers, and the air, water, and soil in the environment to (a) show that plants produce sugars and plant materials, (b) show that animals can eat plants and/or other animals for food, and (c) show that some organisms, including fungi and bacteria break down dead organisms and recycle some materials back to the air and soil.	Web of Life	**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?
		5-LS2-2(MA) Compare at least two designs for a composter to determine which is most likely to encourage the decomposition of materials.		*MA specific standard*



MYSTERY science

Grade 5, continued

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Strand	Topic	MA STE Framework Learning Standards	Mystery Science Unit	Mystery Science Lessons
Earth & Space Science	*Earth's Place in the Universe*	**5-ESS1-1** Use observations, first-hand and from various media, to argue that the Sun is a star that appears brighter than other stars because it is closer to Earth.	Spaceship Earth	**Mystery 8:** Could there be life on other planets?
		5-ESS1-2 Use a model to communicate Earth's relationship to the Sun, Moon, and other stars that explain (a) why people on Earth experience day and night, (b) patterns in daily changes in length and direction of shadows over a day, and (c) changes in the apparent position of the Sun, Moon, and stars at different times during a day, over a month, and over a year.	Spaceship Earth	**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 the stars change with the seasons? **Mystery 5:** How does the Moon change shape? **Mystery 6:** What are the wandering stars?
	Earth's Systems	**5-ESS2-1** Use a model to describe the cycling of water through a watershed through evaporation, precipitation, absorption, surface runoff, and condensation.	Watery Planet	**Mystery 3:** Can we make it rain? **Mystery 4:** How can you save a town from a hurricane?
		5-ESS2-2 Describe and graph the relative amounts of salt water in the ocean; fresh water in lakes, rivers, and groundwater; and fresh water frozen in glaciers and polar ice caps to provide evidence about the availability of fresh water in Earth's biosphere.	Watery Planet	**Mystery 1:** How much water is in the world? **Mystery 2:** When you turn on the faucet, where does the water come from?
	Earth & Human Activity	**5-ESS3-1** Obtain and combine information about ways communities reduce human impact on the Earth's resources and environment by changing the agricultural, industrial, or community practice or process.	Watery Planet	**Mystery 4:** How can you save a town from a hurricane?
		5-ESS3-2(MA) Test a simple system designed to filter particulates out of water and propose one change to the design to improve it.		*MA specific standard*



MYSTERY science

Grade 5, continued

Mystery Science aligns to the Massachusetts Science and Technology/ Engineering Framework (2016). The core Mystery (exploration & activity) is designed to take one hour per week. Extensions can expand upon each lesson. To view each Mystery's alignment to 3 dimensional learning (disciplinary core ideas, science and engineering practices, and crosscutting concepts) view our NGSS Alignment 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.

Strand	Topic	MA STE Framework Learning Standards	Mystery Science Unit	Mystery Science Lessons
Physical Science	*Matter & Its Interactions*	**5-PS1-1** Use a particle model of matter to explain common phenomena involving gases, and phase changes between gas and liquid and between liquid and solid.	Chemical Magic	**Mystery 1:** Are magic potions real? **Mystery 2:** Could you transform something worthless into gold? **Mystery 5:** Why do some things explode?
		5-PS1-2 Measure and graph the weights (masses) of substances before and after a reaction or phase change to provide evidence that regardless of the type of change that occurs when heating, cooling, or combining substances, the total weight (mass) of matter is conserved.	Chemical Magic	**Mystery 1:** Are magic potions real? **Mystery 2:** Could you transform something worthless into gold?
		5-PS1-3 Make observations and measurements of substances to describe characteristic properties of each, including color, hardness, reflectivity, electrical conductivity, thermal conductivity, response to magnetic forces, and solubility.	Chemical Magic	**Mystery 3:** What would happen if you drank a glass of acid?
		5-PS1-4 Conduct an experiment to determine whether the mixing of two or more substances results in new substances with new properties (a chemical reaction) or not (a mixture).	Chemical Magic	**Mystery 4:** What do fireworks, rubber, and Silly Putty have in common?
	Motion & Stability	**5-PS2-1** Support an argument with evidence that the gravitational force exerted by Earth on objects is directed toward Earth's center.	Spaceship Earth	**Mystery 7:** Why is gravity different on other planets?
	Energy	**5-PS3-1** Use a model to describe that the food animals digest (a) contains energy that was once energy from the Sun, and (b) provides energy and nutrients for life processes, including body repair, growth, motion, body warmth, and reproduction.	Web of Life	**Mystery 6:** Why did the dinosaurs go extinct?



MYSTERY science

Grade 5, continued

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Strand	Topic	MA STE Framework Learning Standards	Mystery Science Unit	Mystery Science Lessons
Technology/ Engineering	*Engineering Design*	**3.3-5-ETS3-1(MA)** Use informational text to provide examples of improvements to existing technologies (innovations) and the development of new technologies (inventions). Recognize that technology is any modification of the natural or designed world done to fulfill human needs or wants.	Watery Planet	**Mystery 4:** How can you save a town from a hurricane?
		3.3-5-ETS3-2(MA) Use sketches or drawings to show how each part of a product or device relates to other parts in the product or device,		