

Mystery Science Alignment with Georgia Standards of Excellence (GSE)

Mystery Science - Georgia Standards of Excellence Alignment
Mystery Science aligns to the new 2017 Georgia Standards of Excellence. The core Mystery (exploration & activity) is designed to take one hour per week. Optional Extras can extend 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.

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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Strand	Topic	Science Georgia Standards of Excellence (GSE)	Mystery Science Unit	Mystery Science Lessons
Life Science	Living vs. Non-living	**SKL1.** Obtain, evaluate, and communicate information about how organisms (alive and not alive) and non-living objects are grouped		*Georgia specific standard*
	Plant and Animal features	**SKL2.** Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.	Plant & Animal Superpowers	**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 wind? **Mystery 6, Read Along:** What do sunflowers do when you're not looking?
			Mini-Lessons	**Mini-Lesson:** Why are butterflies so colorful?**
Earth and Space Science	Sky patterns and objects	**SKE1.** Obtain, evaluate, and communicate observations about time patterns (day to night and night to day) and objects (sun, moon, stars) in the day and night sky.	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 4, Read Along:** Why do you have to go to bed early in the summer?
			Mini-Lessons	**Mini-Lesson:** How close could an astronaut get to the sun? **Mini-Lesson:** What would it be like to live on the moon? **Mini-Lesson:** What is the moon made of? **Mini-Lesson:** How dangerous is it to look at the sun?
	Attributes of rocks, soil, water, & air	**SKE2.** Obtain, evaluate, and communicate information to describe the physical attributes of earth materials (soil, rocks, water, and air).	Mini-Lessons	**Mini-Lesson:** Why does this rock look like a sponge? **Mini-Lesson:** Why is the ocean salty? **Mini-Lesson:** How deep does the ocean go?

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MYSTERY science

Kindergarten, continued

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Strand	Topic	Science Georgia Standards of Excellence (GSE)	Mystery Science Unit	Mystery Science Lessons
Physical Science	Materials and physical properties	**SKP1.** Obtain, evaluate, and communicate information to describe objects in terms of the materials they are made of and their physical attributes.	Weather Watching	**Mystery 5:** How could you warm up a frozen playground? **Mystery 6:** How could you walk barefoot across hot pavement without burning your feet?
	Motion	**SKP2.** Obtain, evaluate, and communicate information to compare and describe different types of motion.	Force Olympics	**Mystery 1:** What's the biggest excavator? **Mystery 2, Read Along:** Why do builders need so many 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?

Grade 1

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Life Science	Needs of plants and animals	**S1L1.** Obtain, evaluate, and communicate information about the basic needs of plants and animals.	Plant & Animal Secrets	**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?
Earth and Space Science	Weather data and patterns	**S1E1.** Obtain, evaluate, and communicate weather data to identify weather patterns.	Weather Watching	**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?
Physical Science	Light and Sound	**S1P1.** Obtain, evaluate, and communicate information to investigate light and sound.	Lights & Sounds	**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 seen 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?
	Magnets	**S1P2.** Obtain, evaluate, and communicate information to demonstrate the effects of magnets on other objects.	Invisible Forces*	**Mystery 4:** What can magnets do? **Mystery 5:** How can you unlock a door using a magnet?

* Invisible Forces was designed to align to Grade 3 NGSS. Expect this unit to be a challenge for students.



MYSTERY science

Grade 2

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Strand	Topic	Science Georgia Standards of Excellence (GSE)	Mystery Science Unit	Mystery Science Lessons
Life Science	Life Cycles	**S2L1.** Obtain, evaluate, and communicate information about the life cycles of different living organisms.	Plant Adventures Power of Flowers Mini-Lessons	**Mystery 1**: How did a tree travel halfway around the world? **Mystery 1:** Why do plants grow flowers? **Mystery 2:** Why do plants give us fruit? **Mini-Lesson:** Why do leaves change color in the fall?** **Mini-Lesson:** How do flowers bloom in the spring?**
Earth and Space Science	Stars size/ brightness	**S2E1.** Obtain, evaluate, and communicate about stars having different sizes and brightness.	Spinning Sky	**Mystery 5:** Why do the stars come out at night? **Mystery 6, Read Along:** How can stars help you if you get lost?
	Patterns of the sun & moon & sun's effect on Earth	**S2E2**. Obtain, evaluate, and communicate information to develop an understanding of the patterns of the sun and the moon and the sun's effect on Earth.	Mini-Lessons	**Mini-Lesson:** Why does the moon turn blood red during a lunar eclipse? **Mini-Lesson:** How often do eclipses happen?
	Changes to the environment	**S2E3.** Obtain, evaluate, and communicate information about how weather, plants, animals, and humans cause changes to the environment.	Work of Water Mini-Lessons	**Mystery 3:** What's strong enough to make a canyon? **Mystery 4:** How can you stop a landslide? **Mini-Lesson:** How do earthquakes happen?

** Indicates a Mini-Lesson with an included hands-on STEAM activity from Mystery Science.

Grade 2, continued

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Strand	Topic	Science Georgia Standards of Excellence (GSE)	Mystery Science Unit	Mystery Science Lessons
Physical Science	Properties of Matter	**S2P1.** Obtain, evaluate, and communicate information about the properties of matter and changes that occur in objects.	Material Magic Mini-Lessons	**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? **Mini-Lesson:** How is glass made? **Mini-Lesson:** How is plastic made? **Mini-Lesson:** Where does metal come from?
	Force & Motion	**S2P2.** Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object (changes in speed and direction).	Energizing 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 the highest? **Mystery 4:** Could you knock down a building using only dominoes? **Mystery 5:** Can you build a chain reaction machine?

* Energizing Everything was designed to align to Grade 4 NGSS. Expect this unit to be a challenge for students.

Grade 3

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Strand	Topic	Science Georgia Standards of Excellence (GSE)	Mystery Science Unit	Mystery Science Lessons
Life Science	Habitats and Heredity	**S3L1.** Obtain, evaluate, and communicate information about the similarities and differences between plants, animals, and habitats found within geographic regions (Blue Ridge Mountains, Piedmont, Coastal Plains, Valley and Ridge, and Appalachian Plateau) of Georgia.	Animal Adventures Plant Adventures Mini-Lessons	**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? **Mystery 2:** What do plants eat? **Mystery 3:** Why do trees grow so tall? **Mystery 4:** Should you water a cactus? **Mystery 5:** Where do plants grow best? **Mini-Lesson:** What's the biggest spider in the world?**
	Effects of pollution and humans on the environment	**S3L2.** Obtain, evaluate, and communicate information about the effects of pollution (air, land, and water) and humans on the environment.	Animals Through Time	**Mystery 7:** What's the best way to get rid of mosquitoes?
Earth and Space Science	Physical attributes of rocks and soil	**S3E1.** Obtain, evaluate, and communicate information about the physical attributes of rocks and soils.	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?
	Fossils	**S3E2.** Obtain, evaluate, and communicate information on how fossils provide evidence of past organisms.	Animals Through Time	**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?
Physical Science	Heat Energy	**S3P1.** Obtain, evaluate, and communicate information about the ways heat energy is transferred and measured.	Energizing Everything	**Mystery 7:** How long did it take to travel across the country before cars & planes?

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MYSTERY science

Grade 4

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Strand	Topic	Science Georgia Standards of Excellence (GSE)	Mystery Science Unit	Mystery Science Lessons
Life Science	Ecosystems	**S4L1.** Obtain, evaluate, and communicate information about the roles of organisms and the flow of energy within an ecosystem.	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? **Mystery 6:** Why did the dinosaurs go extinct?
Earth and Space Science	Attributes of stars & planets	**S4E1.** Obtain, evaluate, and communicate information to compare and contrast the physical attributes of stars and planets.	Spaceship Earth	**Mystery 1:** How fast does the Earth spin? **Mystery 2:** Who set the first clock? **Mystery 3:** Why do the stars change with the seasons? **Mystery 4:** How can the sun tell you the season? **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?
	Earth, Moon, & Sun	**S4E2.** Obtain, evaluate, and communicate information to model the effects of the position and motion of the Earth and the moon in relation to the sun as observed from the Earth.		
	Water cycle	**S4E3.** Obtain, evaluate and communicate information to demonstrate the water cycle.	Watery Planet	**Mystery 1:** How much water is in the world? **Mystery 2:** When you turn on your 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?
	Weather, data, patterns, & events	**S4E4.** Obtain, evaluate, and communicate information to predict weather events and infer weather patterns using weather charts/maps and collected weather data.	Stormy Skies	**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?



MYSTERY science

Grade 4, continued

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Strand	Topic	Science Georgia Standards of Excellence (GSE)	Mystery Science Unit	Mystery Science Lessons
Physical Science	Nature of light	**S4P1.** Obtain, evaluate, and communicate information about the nature of light and how light interacts with objects.	Human Machine Mini-Lesson	**Mystery 2:** What do people who are blind see? **Mystery 3:** How can some animals see in the dark? **Mini-Lesson:** Why is snow white?** **Mini-Lesson:** How is a rainbow made?**
	Sound & communi-cation	**S4P2.** Obtain, evaluate, and communicate information about how sound is produced and changed and how sound and/or light can be used to communicate.	Waves of Sound	**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?
	Balanced/ unbalanced forces	**S4P3.** Obtain, evaluate, and communicate information about the relationship between balanced and unbalanced forces.	Invisible Forces Mini-Lesson	**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? **Mini-Lesson:** Why can't airplanes fly to space?**

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Grade 5

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Strand	Topic	Science Georgia Standards of Excellence (GSE)	Mystery Science Unit	Mystery Science Lessons
Life Science	Classification	**S5L1.** Obtain, evaluate, and communicate information to group organisms using scientific classification.		*Georgia specific standard*
	Inherited vs. Acquired Traits	**S5L2.** Obtain, evaluate, and communicate information showing that some characteristics of organisms are inherited and other characteristics are acquired.	Animals Through Time Power of Flowers Human Machine Mini-Lessons	**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 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? **Mystery 1:** Why do your biceps bulge? **Mystery 4:** How does your brain control your body? **Mini-Lesson:** Why are pumpkins orange? **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?
	Plants vs. Animal cells	**S5L3.** Obtain, evaluate, and communicate information to compare and contrast the parts of plant and animal cells.		*Georgia specific standard*
	Micro-organisms	**S5L4.** Obtain, evaluate, and communicate information about how microorganisms benefit or harm larger organisms.	Mini-Lessons	**Mini-Lesson:** How does hand sanitizer kill germs? **Mini-Lesson:** What is the most dangerous animal in the world?

* Animals Through Time and Power of Flowers were designed to align to grade 3 NGSS, but can be taught in grade 5 with modifications.



MYSTERY science

Grade 5, continued

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Strand	Topic	Science Georgia Standards of Excellence (GSE)	Mystery Science Unit	Mystery Science Lessons
Earth and Space Science	Earth's processes	**S5E1.** Obtain, evaluate, and communicate information to identify surface features on the Earth caused by constructive and/or destructive processes.	Birth of Rocks	**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?
Physical Science	Physical & Chemical Changes	**S5P1.** Obtain, evaluate, and communicate information to explain the differences between a physical change and a chemical change.	Chemical Magic	**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?
	Electricity	**S5P2.** Obtain, evaluate, and communicate information to investigate electricity	Energizing Everything Mini-Lessons	**Mystery 6:** What if there were no electricity? **Mystery 8:** Where does energy come from? **Mini-Lesson:** How do batteries work?
	Electro-magnets	**S5P3.** Obtain, evaluate, and communicate information about magnetism and its relationship to electricity.		*Georgia specific standard*