



Mystery Science Alignment with Ohio's Learning Standards for Science (2018)

Mystery Science - Ohio Alignment

Mystery Science aligns to the new Ohio's Learning Standards for Science (2018). 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 [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 lesson and offer an opportunity for students to continue their science content learning. They include assessments and a curated collection of additional activity suggestions, online resources, project ideas, and readings to help extend the learning.

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Kindergarten

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| Strand | Topic | Ohio's Learning Standards | Mystery Science Unit | Mystery Science Lessons |
|-----------------------|---|---|--|--|
| Life Science | Physical & Behavioral Traits of Living Things | K.LS.1 Living things have specific characteristics and traits. | Plant & Animal Superpowers | Lesson 1: Why do birds have beaks? Lesson 2, Read Along: Why do baby ducks follow their mother? Lesson 3: Why are polar bears white? Lesson 4, Read Along: Why do family members look alike? Lesson 5: Why don't trees blow down in the wind? Lesson 6, Read Along: What do sunflowers do when you're not looking? |
| | | K.LS.2 Living things have physical traits and behaviors, which influence their survival. | | |
| Earth & Space Science | Daily & Seasonal Changes | K.ESS.1 Weather changes are long-term and short term. | 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? |
| | | K.ESS.2 The Moon, Sun, and stars can be observed at different times of the day or night. | Spinning Sky | 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 get lost? Lesson 4: 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? |
| Physical Science | Properties of Everyday Objects & Materials | K.PS.1 Objects and materials can be sorted and described by their properties. | Lights & Sounds | Lesson 1: How do they make silly sounds in cartoons? Lesson 2, Read Along: Where do sounds come from? Lesson 3: What if there were no windows? Lesson 4, Read Aloud: Can you see in the dark? Lesson 5: How could you send a secret message to someone far away? Lesson 6, Read Aloud: How do boats find their way in the fog? |
| | | K.PS.2 Some objects and materials can be made to vibrate to produce sound. | | |



Grade 1

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| Life Science | Basic Needs of Living Things | 1.LS.1 Living things have basic needs, which are met by obtaining materials from the physical environment. | Plant & Animal Secrets | 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? |
| | | 1.LS.2 Living things survive only in environments that meet their needs. | Plant Adventures | Lesson 1: How did a tree travel halfway around the world? Lesson 2: Could a plant survive without light? Lesson 3: Why do trees grow so tall? Lesson 4: Should you water a cactus? Lesson 5: Where do plants grow best? |
| Earth & Space Science | Sun, Energy, & Weather | 1.ESS.1 The Sun is the principal source of energy. | Weather Watching | Lesson 5: How could you warm up a frozen playground? Lesson 6, Read Along: How could you walk barefoot across hot pavement without burning your feet? Mini-Lesson: Why does it get cold in winter? |
| | | 1.ESS.2 Water on Earth is present in many forms. | | Ohio specific standard |
| Physical Science | Motion & Materials | 1.PS.1 Properties of objects and materials can change. | Force Olympics | Lesson 1: What's the biggest excavator? Lesson 2, Read Along: Why do builders need so many big machines? Lesson 3: How can you knock down a wall made of concrete? Lesson 4, Read Along: How can you knock down the most bowling pins? Lesson 5: How can we protect a mountain town from falling rocks? Lesson 6: How could you invent a trap? |
| | | 1.PS.2 Objects can be moved in a variety of ways, such as straight, zigzag, circular, and back and forth. | | |



Grade 2

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| Life Science | Interactions within Habitats | 2.LS.1 Living things cause changes on Earth. | | <i>Ohio specific standard</i> |
| | | 2.LS.2 All organisms alive today result from their ancestors, some of which may be extinct. Not all kinds of organisms that lived in the past are represented by living organisms | Animals Through Time | 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? |
| Earth & Space Science | The Atmosphere | 2.ESS.1 The atmosphere is primarily made up of air. | Stormy Skies | Lesson 1: Where do clouds come from? Lesson 2: How can we predict when it's going to storm? Lesson 3: Why are some places always hot? Lesson 4: How can you keep a house from blowing away in a windstorm? |
| | | 2.ESS.2 Water is present in the atmosphere. | | |
| | | 2.ESS.3 Long- and short-term weather changes occur due to changes in energy. | | |
| Physical Science | Changes in Motion | 2.PS.1 Forces change the motion of an object. | 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? Lesson 4: What can magnets do? Lesson 5: How can you unlock a door using a magnet? |



Grade 3

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| Life Science | Behavior, Growth, & Changes | 3.LS.2 Individuals of the same kind of organism differ in their inherited traits. These differences give some individuals an advantage in surviving and/or reproducing. | Animal Adventures Animals Through Time Power of Flowers * | 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 a bird feeder? |
| | | 3.LS.1 Offspring resemble their parents and each other. | | Lesson 4: What kind of animals might there be in the future? Lesson 5: Can selection happen without people? Lesson 6: Why do dogs wag their tails? |
| | | 3.LS.3 Plants and animals have life cycles that are part of their adaptations for survival in their natural environments. | | Lesson 1: Why do plants grow flowers? Lesson 2: Why do plants give us fruit? Lesson 3: Why are some apples red and some green? Lesson 4: How could you make the biggest fruit in the world? |
| Earth & Space Science | Earth's Resources | 3.ESS.1 Earth's nonliving resources have specific properties | Work of Water | Lesson 1: If you floated down a river, where would you end up? Lesson 2: Why is there sand at the beach? Lesson 3: What's strong enough to make a canyon? Lesson 4: How can you stop a landslide? |
| | | 3.ESS.2 Earth's resources can be used for energy. | | Ohio specific standards |
| | | 3.ESS.3 Some of Earth's resources are limited. | | |
| Physical Science | Matter & Forms of Energy | 3.PS.1 All objects and substances in the natural world are composed of matter. | Material Magic | Lesson 1: Why do we wear clothes? Lesson 2: Can you really fry an egg on a hot sidewalk? Lesson 3: Why are so many toys made out of plastic? Lesson 4: What materials might be invented in the future? Lesson 5: Could you build a house out of paper? |
| | | 3.PS.2 Matter exists in different states, each of which has different properties. | | Ohio specific standard |
| | | 3.PS.3 Heat, electrical energy, light, sound, and magnetic energy are forms of energy. | | |

* Tip: Power of Flowers picks up where Plant Adventures (Ohio grade 1) leaves off. If your students haven't learned about what plants need for survival, or need a refresher, we suggest you teach [Plant Adventures](#) first.

<https://mysteryscience.com/docs/ohio>



Grade 4

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| Life Science | Earth's Living History | 4.LS.2 Fossils can be compared to one another and to present-day organisms according to their similarities and differences. | | <i>Ohio specific standard</i> |
| | | 4.LS.1 Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful. | Animals Through Time | Lesson 7: What's the best way to get rid of mosquitoes? Lesson 8: How long can people (and animals) survive in outer space? |
| Earth & Space Science | Earth's Surface | 4.ESS.1 Earth's surface has specific characteristics and landforms that can be identified. | 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? Lesson 3: Can we make it rain? Lesson 4: How can you save a town from a hurricane? |
| | | 4.ESS.2 The surface of Earth changes due to weathering. | | |
| | | 4.ESS.3 The surface of Earth changes due to erosion and deposition. | The Birth of Rocks | Lesson 1: Could a volcano pop up where you live? Lesson 2: Why do some volcanoes explode? Lesson 3: Will a mountain last forever? Lesson 4: How could you survive a landslide? |



Grade 4, continued

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| Physical Science | Electricity, Heat, & Matter | 4.PS.1 When objects break into smaller pieces, dissolve, or change state, the total amount of matter is conserved. | Chemical Magic | Lesson 1: Are magic potions real? Lesson 2: Could you transform something worthless into gold? 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? |
| | | 4.PS.2 Energy can be transferred from one location to another or can be transformed from one form to another. | Energizing Everything | Lesson 6: What if there were no electricity? Lesson 7: How long did it take to travel across the country before cars and planes? Lesson 8: Where does energy come from? |

Grade 5

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| Life Science | Inter-connections within Ecosystems | 5.LS.1 Organisms perform a variety of roles in an ecosystem. | Web of Life | Lesson 1: Why would a hawk move to New York City? Lesson 2: What do plants eat? 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? Lesson 6: Why did the dinosaurs go extinct? |
| | | 5.LS.2 All of the processes that take place within organisms require energy. | Human Machine | Lesson 1: Why do your biceps bulge? Lesson 4: How does your brain control your body? |
| Earth & Space Science | Cycles & Patterns in the Solar System | 5.ESS.1 The solar system includes the Sun and all celestial bodies that orbit the Sun. Each planet in the solar system has unique characteristics. | Spaceship Earth | Lesson 1: How fast does the Earth spin? 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? Lesson 6: What are the wandering stars? Lesson 7: Why is gravity different on other planets? Lesson 8: Could there be life on other planets? |
| | | 5.ESS.2 The Sun is one of many stars that exist in the universe. | | |
| | | 5.ESS.3 Most of the cycles and patterns of motion between the Earth and Sun are predictable. | | |

Grade 5, continued

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| Physical Science | Light, Sound, & Motion | 5.PS.1 The amount of change in movement of an object is based on the mass of the object and the amount of force exerted. | Energizing Everything | Lesson 1: How is your body similar to a car? Lesson 2: What makes roller coasters go so fast? Lesson 3: Why is the first hill of a roller coaster always the highest? Lesson 4: Could you knock down a building using only dominoes? Lesson 5: Can you build a chain reaction machine? |
| | | 5.PS.2 Light and sound are forms of energy that behave in predictable ways. | Human Machine Waves of Sound | Lesson 2: What do blind people see? Lesson 3: How can some animals see in the dark? Lesson 1: How far can a whisper travel? Lesson 2: What would happen if you screamed in outer space? Lesson 3: Why are some sounds high and some sounds low? |