

# FOSS PATHWAYS: K-5 Program Overview







# FOSS Pathways: Designed with you in mind.

**Today as never before, the world needs scientific thinkers to view the world thoughtfully, approach challenges analytically, and embrace opportunities enthusiastically.**

FOSS®, a longtime leader in science education, has stepped forward to meet that challenge with the newly streamlined FOSS Pathways™. Pathways was designed to provide teachers with everything they need to meet standards in the time they have allotted to teach science. In these pages, you will see how Pathways:

- Aligns to the Mississippi College- and Career-Readiness Standards for Science using three-dimensional teaching, learning, and assessment
- Incorporates English Language Arts to support student literacy and the science of reading
- Utilizes a multimodal approach to resonate with every student
- Lends flexibility to teach in the class time allotted for science
- Immerses students in figuring out local and relevant phenomena and engineering problems
- Provides unmatched teacher support to teach phenomena-based science





# Built on a long-standing foundation of excellence.

**The FOSS Pathways program supports the science teaching and learning needed today, while building on the classroom-proven three-decade legacy of FOSS.**

## Accessible for all

The founding principle of the FOSS program was to enlist students not as passive recipients of information but as active investigators of phenomena. This approach engages and advances learners of all languages and cultures, taking advantage of prior experiences so all students can reason scientifically—a goal that has only gained relevance with time.

## Proven and tested

The FOSS program has been refined through three decades of collaboration with developers, educators, and students around the world. It has empowered teachers, excited students, and elevated test scores for students with diverse backgrounds and experiences living in urban, suburban, and rural areas.

## Standards-aligned

FOSS has evolved over time to meet the changing science education landscape and is aligned to the Mississippi College- and Career-Readiness Standards for Science.

**“The hands-on, inquiry-based structure of FOSS invites students to take ownership of their learning. They are no longer bystanders in the classroom—they are collaborators, thinkers, and problem-solvers. Every lesson immerses them in real-world phenomena, challenging them to use science practices in meaningful and authentic ways.”**

– CHASITY P., SCIENCE TEACHER, BILOXI PUBLIC SCHOOLS, MS



# Phenomena-based science with an eye to the future.

**FOSS Pathways incorporates local and relevant phenomena in a way that addresses standards and instills science literacy that will serve students and their communities well for a lifetime.**

FOSS Pathways is built around phenomena that students can observe firsthand and relate to the world they know. Phenomena are organized into coherent storylines for the teacher, empowering them to engage students as they explore.

## Benefits of Local and Relevant Phenomena

- Leverages students' prior knowledge
- Offers direct access and connection to their world
- Levels the playing field for all students
- Allows student-generated questioning and experimentation
- Ensures developmentally appropriate phenomena





# The curriculum that puts students first.

**The FOSS program was developed to engage students of all backgrounds and abilities. FOSS Pathways advances this student-first approach, providing opportunities to differentiate and support each student's experience.**

## Promotes scientific thinking

FOSS Pathways empowers students to act as scientists and engineers using hands-on experiences to figure out the world around them. FOSS phenomena encourages students to engage with real-world issues using three-dimensional learning practices.

## Provides a multimodal approach

FOSS Pathways combines hands-on science experiences with rich resources. This enables differentiated instruction that helps all students explore and understand scientific concepts in a way that resonates individually with each student.

## Offers multimedia experiences

FOSS Pathways provides digital resources, including custom-designed simulations and videos, for students and teachers through FOSSweb on ThinkLink™. These multimedia materials provide additional information to help students make sense of phenomena and ensure flexibility to keep active science teaching viable if classroom circumstances change.





# Promotes student development of increasingly complex explanations.

The FOSS instructional design empowers students to figure out phenomena and engineering problems through multimodal pedagogies in a sequence similar to the 5E model. Most FOSS investigations begin with a hands-on activity where students ask questions, investigate, and collect data. Students then gather and interpret new information using text and multimedia. They engage in collaborative sense-making discussions throughout the process before constructing an explanation of the phenomenon.



## Phenomenon: Art Falling from the Fridge

### PART 1:

What happens when magnets interact with other magnets and paper clips?

REFLECT ON PHENOMENON

### PART 2:

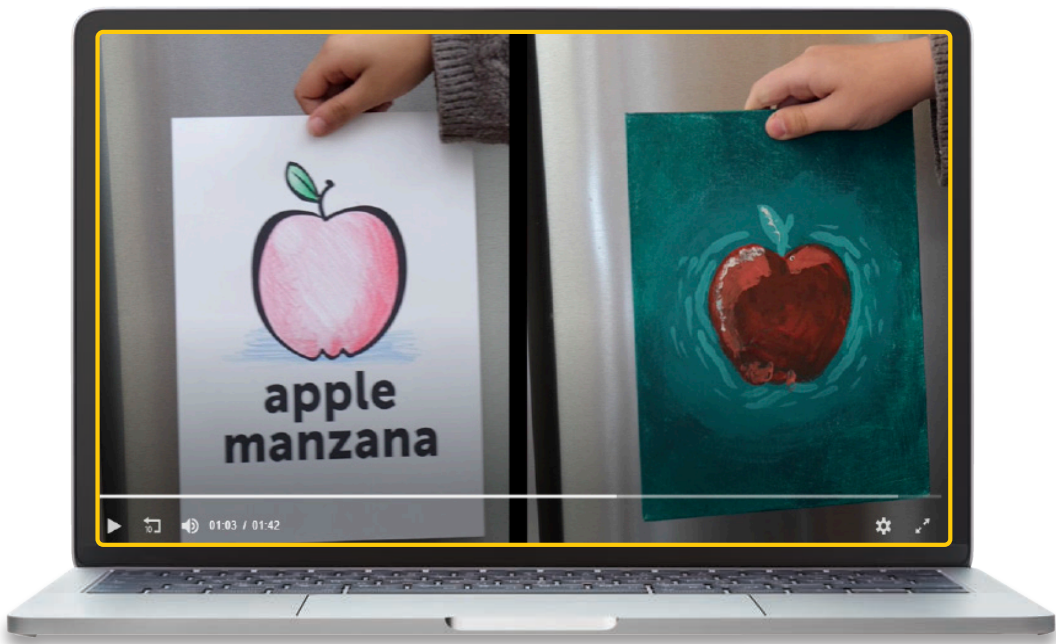
How does a magnetic field change when multiple magnets work together?

REFLECT ON PHENOMENON

### PART 3:

What causes a change of motion?

REFLECT ON PHENOMENON



Construct an explanation of the phenomenon using evidence from multiple sources.

Elicit evidence of students figuring out phenomena using the three dimensions.

Develop increasingly complex explanations

Content and Anchor Phenomenon video from FOSS Motion Module, Investigation 1, Forces.



# Standards-aligned assessment that encourages a growth mindset.

The FOSS Assessment system is based on research by the developers during the NSF-supported Assessing Science Knowledge (ASK) project. The system supports a growth mindset to help students meet the goals of the Mississippi College- and Career-Readiness Standards for Science.

## Embedded Assessment

Continuous monitoring of student thinking helps teachers know when more instruction is needed. Formative assessments are based on authentic student work, including science notebook entries and response sheets.

## Performance Assessment

Teachers track students' progress on science and engineering practices and crosscutting concepts by observing students' interactions as they investigate.

## Benchmark Assessment

Benchmark assessments for grades 1–5 are designed to look at student progress across the module. Summative assessments for grades 3–5 include a Pretest (Survey), *I-Checks* after every 1-2 investigations, and a *Posttest*.

## Interim Assessment

Interim assessment tasks for grades 3–5 are designed specifically around performance expectations to expose students to new ways of integrating and applying the three dimensions of learning to solve problems.

## FOSSmap online assessment data drives teaching and learning.

FOSSmap takes assessments for grades 3–8 online and generates a number of diagnostic and summary reports for quick and easy use in the classroom. The FOSSmap platform provides streamlined student management, an updated interface, and new reporting capabilities.





# Empowering educators like no other science curriculum.

FOSS Pathways™ provides the appropriate instructional support to implement phenomena-based instruction.



INVESTIGATION 1		Forces At a Glance		Performance Expectations	
Investigation Part Introduce anchor phenomenon 1—Artwork falling from the fridge		Sessions	Practices and Crosscutting Concepts	Disciplinary Core Ideas	Interpreting Information
<b>PART 1 Two Forces</b> <b>FOCUS QUESTION:</b> What happens when magnets interact with other magnets and with paper clips? Students carry out investigations involving the interactions among forces of magnetism and gravity, the same forces involved in the phenomenon scenario. They bring two magnets close to each other and find that sometimes the magnets pull each other together and sometimes they push each other apart. Students develop cause-and-effect statements to explain how both magnetism and gravity can pull, and magnetism can sometimes push as well. Both forces can cause motion even when there is no direct contact between objects.		<b>SESSION 1*</b> Steps 1–7 <b>SESSION 2</b> Steps 8–12 <b>SESSION 3</b> Steps 13–15 <small>*A lesson is 45 minutes.</small>	<b>Practices</b> <ul style="list-style-type: none"><li>Asking questions</li><li>Planning and carrying out investigations</li><li>Constructing explanations</li><li>Obtaining, evaluating, and communicating information</li></ul> <b>Crosscutting Concepts</b> <ul style="list-style-type: none"><li>Cause and effect</li></ul>	<b>PS2.A: Forces and motion</b> <b>PS2.B: Types of interactions</b> <ul style="list-style-type: none"><li>Magnetic interactions between a pair of objects does not require that the objects be in contact.</li><li>The strength of the magnetic force depends on properties of the objects and the distance between them.</li><li>How magnets interact depends on the distance between them and their orientation. Sometimes magnets attract, and sometimes they repel.</li><li>Gravity is the force that pulls masses toward the center of Earth.</li></ul>	Science Resource Book "Magnetic Interactions" <b>Other Media</b> Anchor Phenomenon Resource Video 1
<b>PART 2 Magnetic-Force Investigation</b> <b>FOCUS QUESTION:</b> How does a magnetic field change when multiple magnets work together? Students build on the observations they made in Part 1 and look for patterns in data to predict how far the magnetic field extends around two magnets. Students collect data for one and three magnets, measuring the distance at which paper clips are attracted. They interpret those data to predict how far the magnetic field extends around two magnets. Students discuss and apply science practices in the context of investigating magnetic fields. Understanding how a magnetic field changes when a second magnet is added will provide useful information for the driving question.		<b>SESSION 1</b> Steps 1–6 <b>SESSION 2</b> Steps 7–10 <b>SESSION 3</b> Steps 11–16 (Steps 13 and 15 optional)	<b>Practices</b> <ul style="list-style-type: none"><li>Asking questions</li><li>Developing and using models</li><li>Planning and carrying out investigations</li><li>Analyzing and interpreting data</li><li>Using mathematics and computational thinking</li><li>Constructing explanations</li><li>Obtaining, evaluating, and communicating information</li></ul> <b>Crosscutting Concepts</b> <ul style="list-style-type: none"><li>Patterns</li><li>Cause and effect</li></ul>	<b>PS2.A: Forces and motion</b> <b>PS2.B: Types of interactions</b> <ul style="list-style-type: none"><li>Magnetic interactions between a pair of objects does not require that the objects be in contact.</li><li>The strength of the magnetic force depends on the properties of the objects and the distance between them.</li><li>Electric interactions (static electricity) between a pair of objects does not require that the objects be in contact.</li></ul>	Science Resource Book "What Scientists Do" "Electric Interactions" (optional)
<b>PART 3 More about Forces</b> <b>FOCUS QUESTION:</b> What causes a change of motion? Building on their developing understanding of magnetic force, students investigate other pushes and pulls. They expand their understanding of force to include a force's strength and direction, and learn more about the effects of balanced and unbalanced forces. Unbalanced forces cause the scenario painting to fall to the ground.		<b>SESSION 1</b> Steps 1–10 <b>SESSION 2</b> Steps 11–17 <b>SESSION 3</b> Steps 18–20 (Step 20 optional) <b>SESSION 4</b> Steps 21–22 I-Check and Next Steps	<b>Practices</b> <ul style="list-style-type: none"><li>Constructing explanations</li><li>Using mathematics and computational thinking</li><li>Obtaining, evaluating, and communicating information</li></ul> <b>Crosscutting Concepts</b> <ul style="list-style-type: none"><li>Cause and effect</li></ul>	<b>PS2.A: Forces and motion</b> <b>PS2.B: Types of interactions</b> <ul style="list-style-type: none"><li>A force is a push or a pull.</li><li>Each force acting on an object has both strength.</li><li>When an object is at rest, the sum of the forces acting on the object is zero; the forces are balanced.</li><li>Unbalanced forces (pushes or pulls) cause a change of motion.</li><li>Gravity is the force that pulls masses toward the center of Earth.</li></ul>	Science Resource Book "Changing Motion" <b>Other Media</b> Video: Two Forces

From FOSS Motion Investigations Guide

## Helps teachers connect with students

FOSS Pathways modules present scientific concepts cohesively. Phenomenon storylines are provided for the teacher. The *Investigations Guide* gives direction to ask probing questions and deepens students' understanding as they progress through the module.

## Presents concepts in a coherent progression

In every module, core ideas build upon each other in a logical sequence. Teacher support in the *Investigations Guides* and videos explicitly connects the anchor phenomenon being investigated and the core ideas being discovered. This background information helps teachers understand how students develop ideas related to the phenomenon driving the investigation.

## Affords flexibility in science instruction

FOSS Pathways provides opportunities to customize instruction to meet local educational goals. Educators can customize the provided instructional resources to create learning experiences that make science relevant to their students' lives. Pathways provides Side Trip opportunities as optional activities that can be used with the whole class or as student choice activities.



# Unmatched support to take science instruction to the next level.

**FOSS ensures your success through direct, in-person professional learning that goes far beyond any other science curriculum. We'll help you design the optimum mix of support for your district.**

## Implementation Packages

Consecutive in-person sessions and virtual check-ins where teachers engage in model lessons and content, ask questions, and develop skills. Includes access to FOSS Communities of Practice.

## FOSS Communities of Practice

A series of four virtual sessions where teachers can connect and build skills.

## Webinars

Learn more about FOSSweb digital tools, creating assignments, FOSSmap online assessment, and using reports that support students' learning.

## Implementation Science

Customized, multi-year implementation plans based on data analysis.



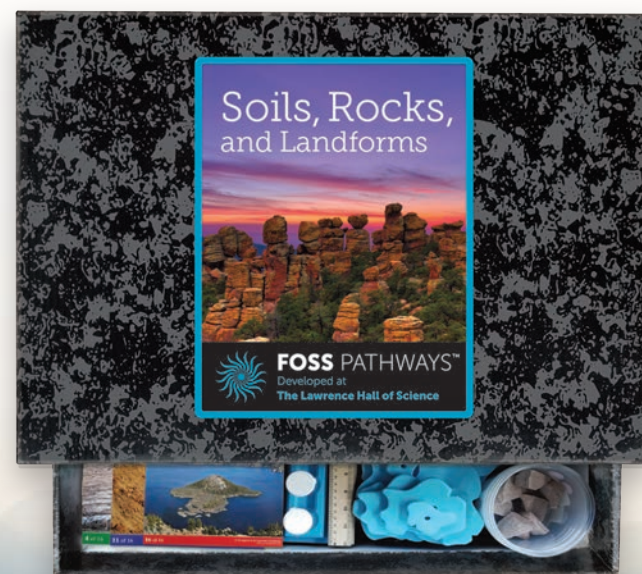


# Comprehensive packages for complete learning.

**FOSS® is more than just a science curriculum or science kit. Your investment in any FOSS module provides you with all the key student and teacher components to deliver world-class science education.**

## Each module includes:

- Equipment Kits
- *Investigations Guide* (Teacher's Guide)
- *FOSS Science Resources Books* (Student Books)
- Access to FOSSweb on ThinkLink™ (Digital Platform)
- Teacher Resources
- Spanish Resources
- And More



Soils, Rocks, and Landforms



## Grade-Level Kits

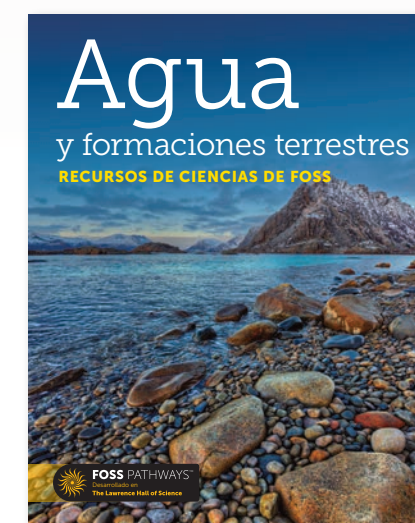
FOSS Pathways is available in convenient grade-level packages containing permanent equipment, teacher materials, and consumables.

## Science Notebook Booklets

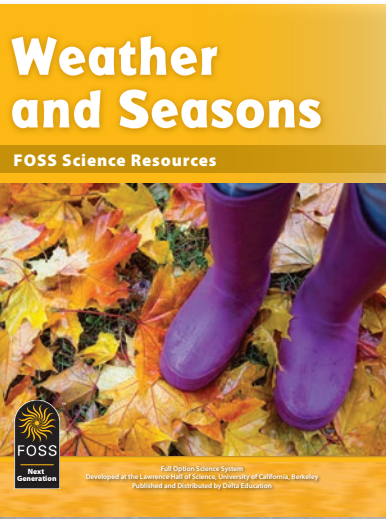
A consumable booklet containing the Science Notebook Masters as well as extra pages for additional writing and drawing opportunities.

## Spanish Resources

FOSS Pathways provides Spanish resources, such as print and interactive student eBooks, science notebook booklets, videos, multimedia, and teaching slides.





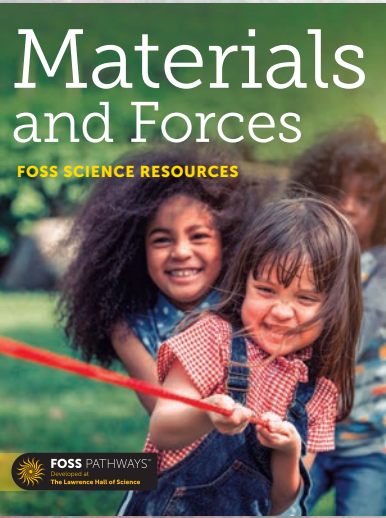


**Weather and Seasons  
(Next Generation Edition)**

EARTH SCIENCE

The Weather and Seasons Module provides students with experiences to develop an understanding of weather and changes to Earth’s surface. Students observe and record weather observations using weather tools and learn how weather changes through the seasons, and how those changes impact living things. Students also explore earth materials and how wind and water shape the land through erosion.

Mississippi College- and Career-Readiness Standards for Science: L.1.4.1 • E.1.9A.1 • E.1.9A.2 • E.1.9A.3 • E.1.9B.1 • E.1.9B.2 • E.1.9B.3

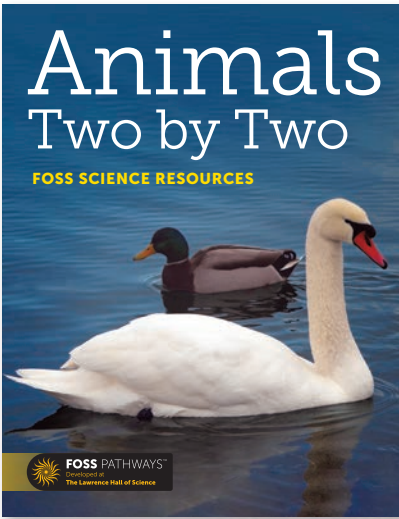


**Materials and Forces**

PHYSICAL SCIENCE

The Materials and Forces Module provides experiences that heighten students’ understanding of the physical world as they perform tests to observe properties of materials such as wood, paper, and fabric. They learn about different materials to engineer a shade structure. Students observe and compare pushes and pulls, the speed and motion of moving objects, and collisions.

Mississippi College- and Career-Readiness Standards for Science: P.K.5A.1 • P.K.5A.2 • P.K.5B.1 • P.K.5B.2 • P.K.5B.3 • E.K.8B.2 • E.K.8B.3 • E.K.10.1 • E.K.10.2 • E.K.10.3

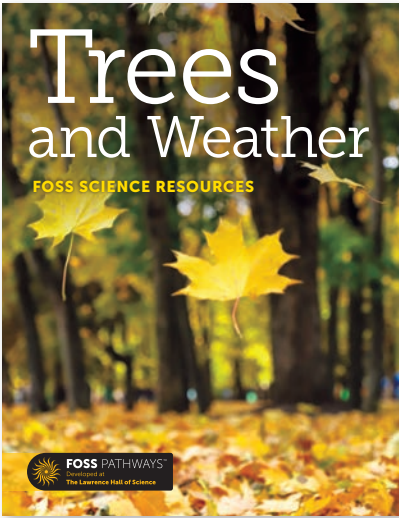


**Animals Two by Two**

LIFE SCIENCE

The Animals Two by Two Module provides young students with opportunities to observe differences in structure and behavior and to learn about basic needs of animals.

Mississippi College- and Career-Readiness Standards for Science: L.K.1A.1 • L.K.1A.2 • L.K.1B.1 • L.K.1B.2 • L.K.3A.2 • L.K.3B.1 • L.K.3B.2



**Trees and Weather**

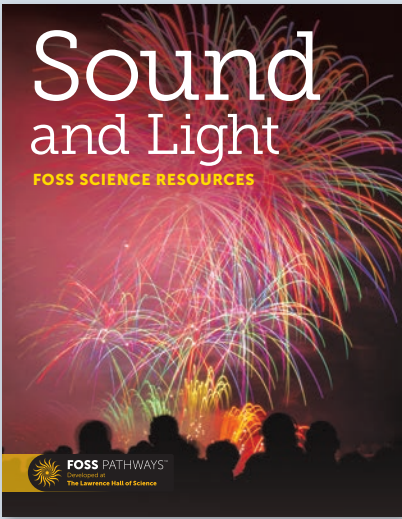
EARTH SCIENCE

The Trees and Weather Module provides students with experiences to develop an understanding of what plants need to survive in their environment. Systematic investigation of trees over the seasons will bring students to a better understanding of trees at school and in the community. Students will observe day-to-day changes and patterns in weather over the year as well as the impact weather has on living things.

Mississippi College- and Career-Readiness Standards for Science: L.K.1A.1 • E.K.8A.1 • E.K.8B.1 • L.K.2.1





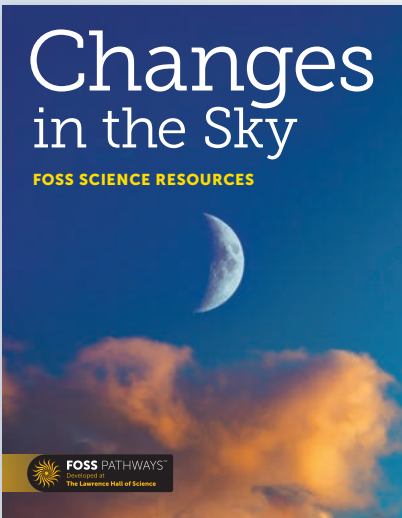


Sound and Light

PHYSICAL SCIENCE

The Sound and Light Module provides students with experiences to explore how to change sound volume and develop simple models for how a sound travels from a source to a receiver. With light, students find out what happens when materials with different properties are placed in a beam of light and explore how to create and change shadows and reflections. Students explore how to use sound and light devices to communicate information and compare the ways in which animals use their senses to gather information about their environment.

Mississippi College- and Career-Readiness Standards for Science: P.1.6A.1 • P.1.6A.2 • P.1.6B.1 • P.1.6B.2

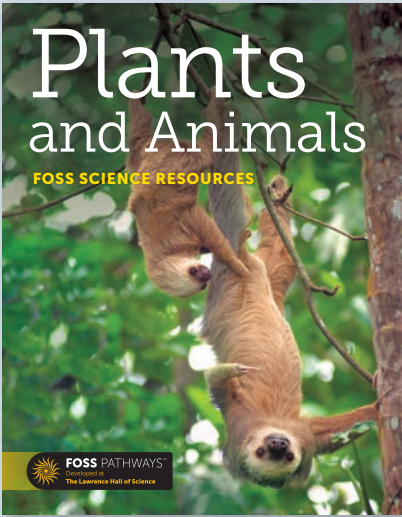


Changes in the Sky

EARTH SCIENCE

In the Changes in the Sky Module, students turn their focus upward to explore that some objects in the sky change position in predictable ways. They make observations and record data about sunrise and sunset at different times of year to relate the amount of daylight to the seasons. They use observations of the Sun, Moon, and stars to describe patterns that can be predicted and discover that the Moon can be seen in the day and night skies.

Mississippi College- and Career-Readiness Standards for Science: E.2.8.1 • E.2.8.2 • E.2.8.3 • E.2.8.4 • E.2.8.5 • E.2.8.6

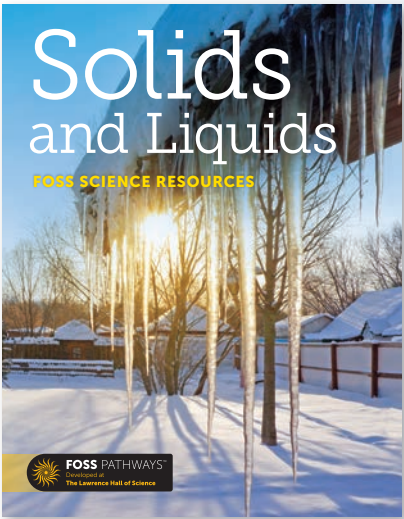


Plants and Animals

LIFE SCIENCE

The Plants and Animals Module provides experiences with young plants and animals and the structures and behaviors that help them grow and survive in their habitat. Students explore structure and function relationships in nature and use that knowledge to develop models. They learn about the behaviors of animal parents to support their offspring.

Mississippi College- and Career-Readiness Standards for Science: L.2.3B.1 • L.2.3B.2 • L.2.4.1 • L.2.4.2

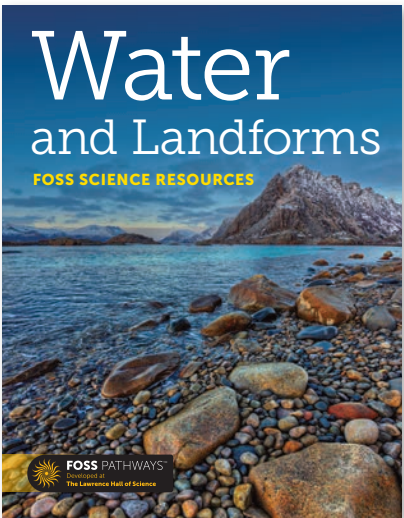


Solids and Liquids

PHYSICAL SCIENCE

In the Solids and Liquids Module, students observe, describe, and compare properties of common solids and liquids through firsthand experience. They plan and carry out investigations to find out what happens when solids and water are mixed and when liquids and water are mixed. They gain firsthand experience with reversible and irreversible changes caused by heating or cooling, and then expand their data collection through a simulation. They use evidence to engage in argumentation and support claims about reversible and irreversible changes to materials due to temperature changes.

Mississippi College- and Career-Readiness Standards for Science: P.2.5.1 • P.2.5.2 • P.2.5.3 • P.2.5.4

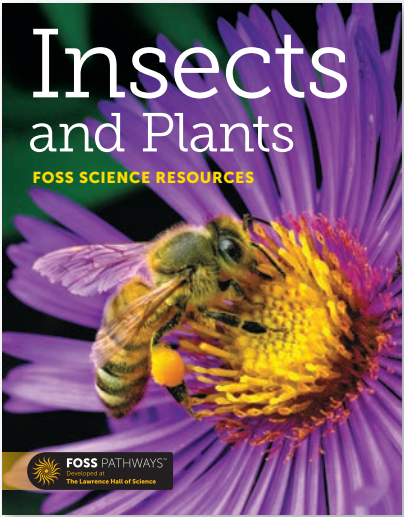


Water and Landforms

EARTH SCIENCE

The Water and Landforms Module provides experiences with Earth’s natural resources—rocks, soil, and water—and provides opportunities for students to engage in science and engineering practices. Students explore the natural world by using simple tools to observe and describe the properties of earth materials.

Mississippi College- and Career-Readiness Standards for Science: E.2.10.1 • E.2.10.2 • E.2.10.3 • E.2.10.4 • E.2.10.5



Insects and Plants

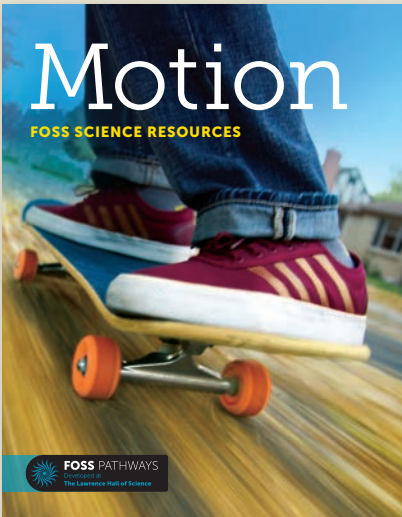
LIFE SCIENCE

The Insects and Plants Module builds understanding of growth and development of plants by observing new organisms over time. Students see the life cycles of insects unfold in real time and compare the structures and functions exhibited by each species to reveal patterns. At the same time, they grow a flowering plant in the classroom and gain experience with pollination, seed dispersal, and the ways in which plants and insects interact in feeding relationships.

Mississippi College- and Career-Readiness Standards for Science: L.1.1.1 • L.1.1.3 • L.1.1.4 • L.1.1.5 • L.1.2.1 • L.1.2.2 • L.1.3A.1 • L.1.3B.1 • L.1.4.2 • L.1.4.3





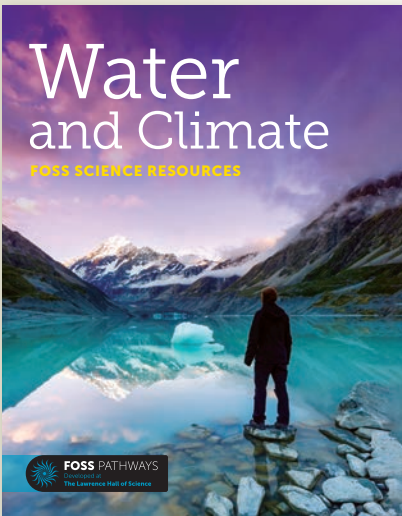


Motion

PHYSICAL SCIENCE

In the Motion Module, students engage in science and engineering practices as they investigate phenomena and collect data to answer questions about the effects of magnetic force and the force of gravity on objects. Students define problems in order to develop solutions. Students reflect on their own use of science and engineering practices and find out how others use these practices in their careers.

Mississippi College- and Career-Readiness Standards for Science: P.5.6.1 • P.5.6.2 • P.5.6.3 • P.5.6.4 • P.5.6.6

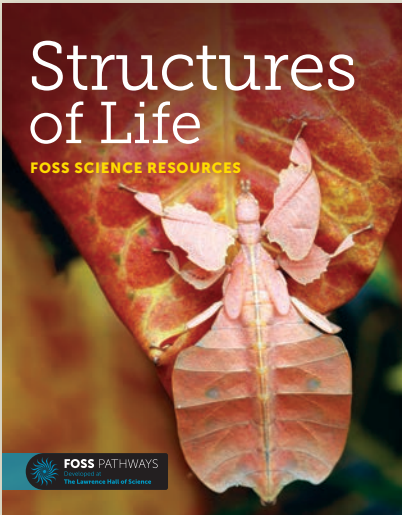


Water and Climate

EARTH SCIENCE

In the Water and Climate Module, students engage in science and engineering practices as they investigate the role of water in weather and how weather conditions change around the world and throughout the year. They are introduced to the nature of science, how science affects everyday life, and the influence of engineering, technology, and science on society and the natural world.

Mississippi College- and Career-Readiness Standards for Science: E.4.9A.1 • E.4.9B.1 • E.4.9B.2 • E.4.9B.3 • E.4.9C.1 • E.4.9C.2 • E.4.9C.3 • E.4.9C.5 • E.4.10.1 • E.4.10.2

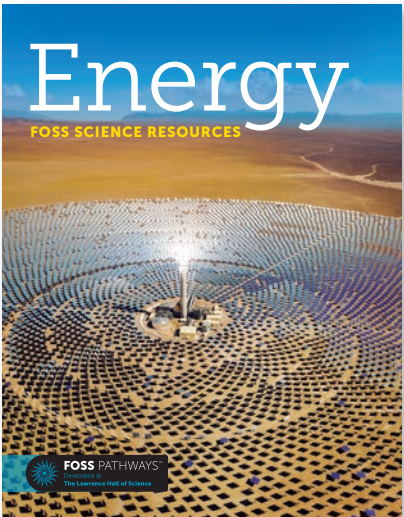


Structures of Life

LIFE SCIENCE

In the Structures of Life module, students observe, compare, categorize, and care for organisms. Students engage in science and engineering practices to investigate the structures and behaviors of organisms and learn how the structures function in growth, survival, and reproduction. Students look at the interactions between organisms of the same kind, among organisms of different kinds, and between the environment and populations of organisms over time. Students develop understandings about organisms and populations' survival.

Mississippi College- and Career-Readiness Standards for Science: L.3.1.1 • L.3.1.2 • L.3.1.3 • L.3.2.1 • L.3.2.3 • L.3.2.4 • L.3.2.5 • L.3.4.1 • L.3.4.2 • L.3.4.3 • L.3.4.4 • L.3.4.5



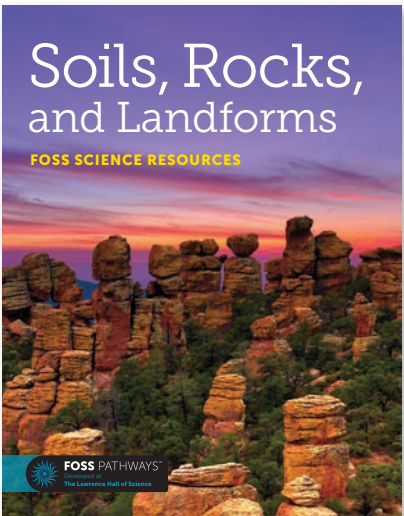
Energy

PHYSICAL SCIENCE

In the Energy Module, students investigate electricity and magnetism as related effects and engage in engineering design to convert energy from one form to another. They gather information about how energy is derived from natural resources and how that affects the environment and explore alternative energy sources such as solar energy.

Students interpret data to build explanations from evidence and make predictions of future events. They develop models to represent how energy moves from place to place in waves and in electrical circuits.

Mississippi College- and Career-Readiness Standards for Science: P.4.6A.1 • P.4.6A.2 • P.4.6A.3 • P.4.6A.4 • P.4.6A.5 • P.4.6A.6 • P.4.6B.2 • P.4.6B.3 • P.4.6B.4 • P.4.6C.3 • E.4.10.1 • E.4.10.2

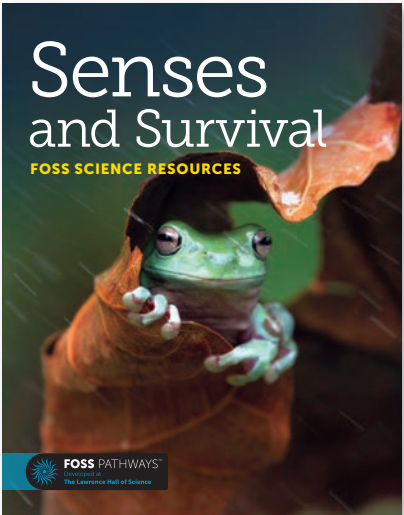


Soils, Rocks, and Landforms

EARTH SCIENCE

In the Soils, Rocks, and Landforms module, students plan and carry out investigations by incrementally changing specific environmental conditions to determine the impact of changing the variables of slope and amount of water in stream tables. Students analyze and interpret data from diagrams and visual representations to build explanations from evidence and make predictions of future events. They develop model mountains and represent the landforms from different perspectives to look for change.

Mississippi College- and Career-Readiness Standards for Science: E.3.7A.1 • E.3.7A.2 • E.3.7A.3 • E.3.7B.2 • E.3.7B.3 • E.3.7B.4 • E.3.9.2 • E.3.10.1 • E.3.10.4



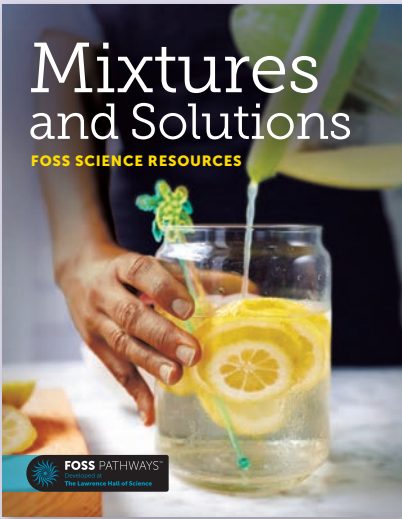
Senses and Survival

LIFE SCIENCE

In the Senses and Survival Module, students plan and carry out investigations with stimulus and response to gather data to develop models and construct explanations. Students design physical models to understand how structures in an organism's system function together to provide information and resources to the organism to support survival.

Mississippi College- and Career-Readiness Standards for Science: L.4.1.1 • L.4.1.2 • L.4.1.3 • L.4.2.2 • L.4.1.5



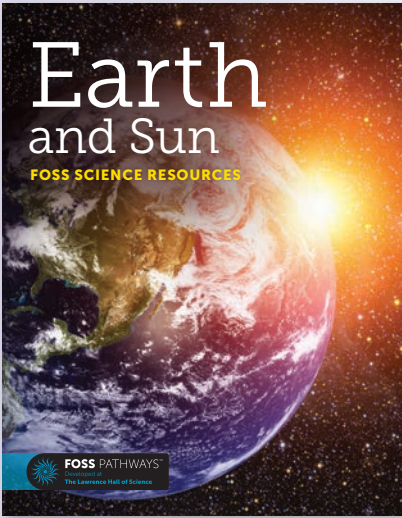


Mixtures and Solutions

PHYSICAL SCIENCE

In the Mixtures and Solutions module, students construct models about matter made of particles too small to be seen and develop the understanding that matter is conserved when it changes state, when it dissolves in another substance, and when it is part of a chemical reaction. Students have experiences with mixtures, solutions of different concentrations, and reactions forming new substances. They also engage in engineering experiences using the properties of materials to design useful products. This gives them the opportunity to use and develop models that explain phenomena too small to see without magnification.

Mississippi College- and Career-Readiness Standards for Science: P.5.5A.2 • P.5.5A.3 • P.5.5A.4 • P.5.5B.1 • P.5.5B.2 • P.5.5B.3 • P.5.5B.4 • P.5.5C.1 • P.5.5C.2 • P.5.5C.3

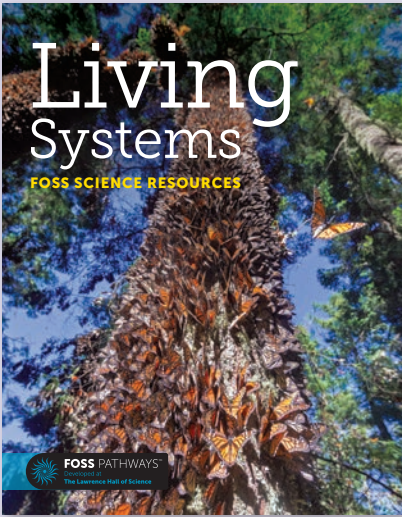


Earth and Sun

EARTH SCIENCE

In the Earth and Sun Module, students explore the properties of the atmosphere, the energy transfer from the Sun to Earth, and the dynamics of weather and water cycling in Earth’s atmosphere. The constant renewal of water on Earth’s land surfaces by the activities in the atmosphere is one of the defining characteristics of Earth. Other experiences help students to develop and use models to understand Earth’s place in the solar system, and the interactions of Earth, the Sun, and the Moon to reveal predictable patterns—daily length and direction of shadows, day and night, and the seasonal appearance of stars in the night sky.

Mississippi College- and Career-Readiness Standards for Science: E.5.8A.1 • E.5.8A.2 • E.5.8A.3 • E.5.8A.4 • E.5.8B.1 • E.5.8B.2 • E.5.8B.3 • E.5.8B.4 • E.5.10.1

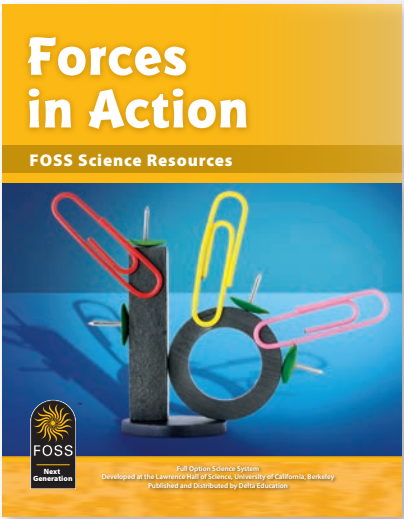


Living Systems

LIFE SCIENCE

In the Living Systems Module, students think about systems on different scales—systems within an organism that move matter and provide energy to the individual organism, and the system of feeding relationships in ecosystems that move matter among plants, animals, decomposers, and the environment. Students come to understand through a variety of experiences that plants get the materials they need for growth primarily from water and air, and that energy in animals’ food was once energy from the Sun. There are opportunities for students to explore how human activities in agriculture, industry, and everyday life can have major effects on these systems.

Mississippi College- and Career-Readiness Standards for Science: L.5.3A.1 • L.5.3A.2 • L.5.3B.1 • L.5.3B.2 • L.5.3B.3 • L.5.3B.4 • E.5.10.1

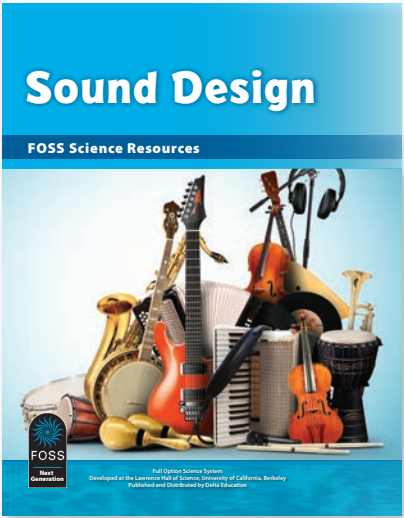


Forces in Action (Next Generation Edition)

PHYSICAL SCIENCE

In the Forces in Action Module, students engage with phenomena related to forces, gravity, and magnetism. They investigate moving objects, and then apply their understanding to design ways to control or change the motion of those objects. They use the science and engineering practices to collect and interpret data to answer science questions, make predictions, and construct explanations for observed phenomena.

Mississippi College- and Career-Readiness Standards for Science: P.3.6.1 • P.3.6.2 • P.3.6.3 • P.3.6.4



Sound Design (Next Generation Edition)

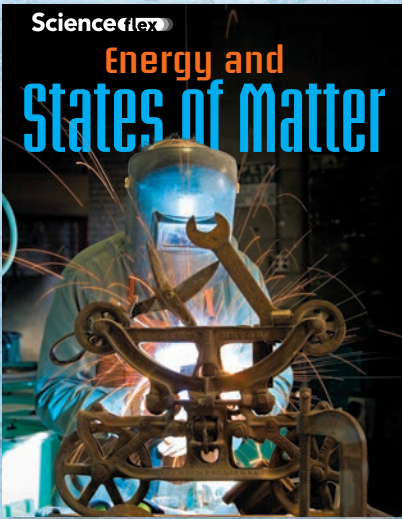
PHYSICAL SCIENCE

In the Sound Design Module, students engage with the phenomena of sound and the ways that humans and other animals use it in their lives. Students investigate sound sources to learn how energy is transferred to them, to cause vibrations, how the vibrations produce sound, and how those vibrations are detected by sound receivers.

Mississippi College- and Career-Readiness Standards for Science: P.4.6C.1 • P.4.6C.2







## Energy and States of Matter (ScienceFLEX+)

PHYSICAL SCIENCE

In the Energy and States of Matter Module, students investigate the phenomenon of matter and how energy changes solids, liquids, and gases. Students apply all their new knowledge of matter and energy to the phenomena of icy, wet, humid weather on Earth.

Mississippi College- and Career-Readiness Standards for Science: P.3.5.1 • P.3.5.2 • P.3.5.3

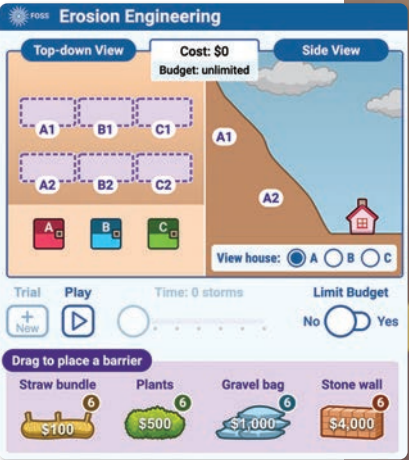
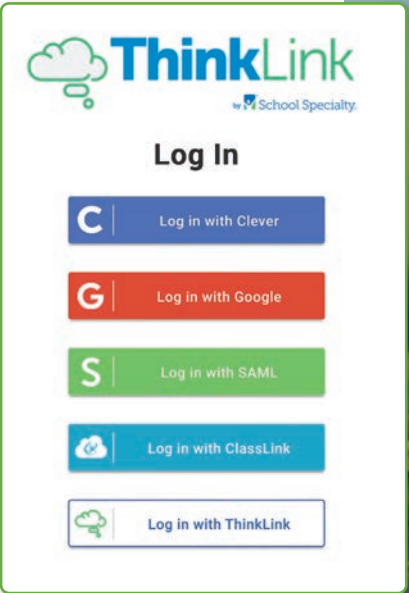
+ScienceFLEX by Delta Education/School Specialty is a topic-based, modular, supplementary science solution that blends flexible classroom-vetted activities with informational text readings.



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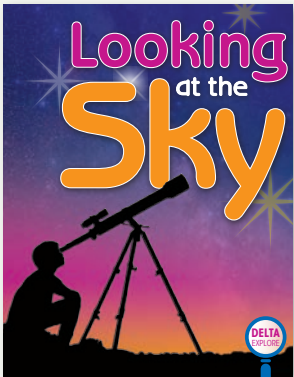
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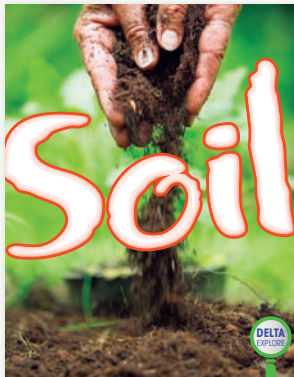
Delta readers are nonfiction student books with informative, engaging text and full-color photos and illustrations. Each reader presents key vocabulary and science content to meet your standards and supports key reading skills and strategies for reading informational text.



E.1.9A.4 • L.1.4.1



E.K.8A.1 • E.K.8B.1 • E.2.8.1 • E.2.8.2 • E.2.8.3



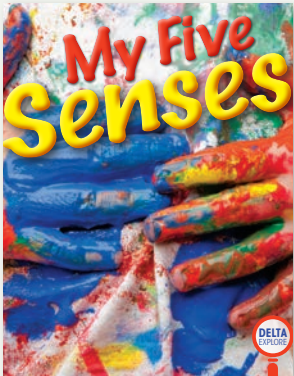
E.1.9B.3 • E.2.10.3 • E.2.10.4 • E.2.10.5



L.K.1A.2 • L.K.2.2 • L.K.2.4 • L.1.2.2 • L.1.3B.1 • L.2.2.2

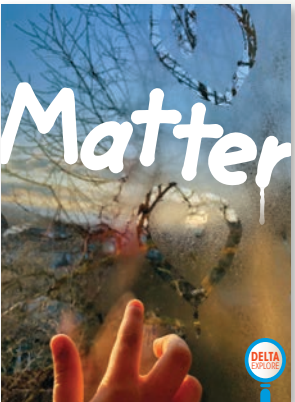


L.K.1A.2 • L.K.2.1 • L.K.2.3 • L.K.3A.1 • L.1.1.1 • L.1.1.2 • L.1.1.5 • L.1.3B.1 • L.2.2.1

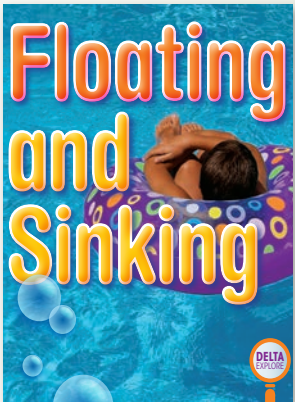


L.K.1B.2

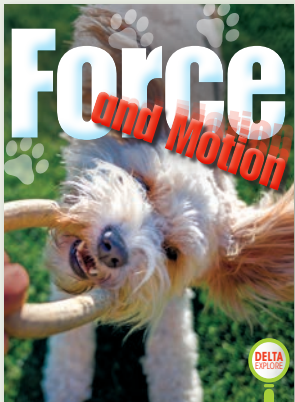
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P.K.5A.1



P.K.5A.2



P.2.6.1 • P.2.6.2

Mississippi Science Readers for Grades 3–5 are available as eBooks.



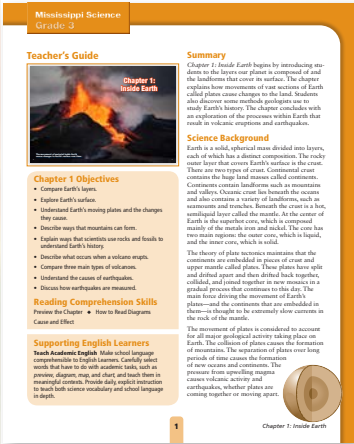
E.3.7B.1 • L.3.1.1 • L.3.1.3 • L.3.2.1 • L.3.2.2 • L.3.2.3



E.4.9C.3 • E.4.9B.3 • P.4.6B.1 • P.4.6B.2 • P.4.6B.3 • P.4.6B.4 • L.4.2.1 • L.4.2.2



E.5.8B.2 • E.5.8B.3 • E.5.8A.1 • E.5.8B.4 • P.5.5A.1



All K–5 readers include a digital Teacher's Guide.





# MISSISSIPPI: K–5 SCOPE AND SEQUENCE



GRADE	EARTH SCIENCE	PHYSICAL SCIENCE	LIFE SCIENCE	DELTA READERS
<b>K</b>	<b>Trees and Weather</b> L.K.1A.1 • E.K.8A.1 • E.K.8B.1 • L.K.2.1	<b>Materials and Forces</b> P.K.5A.1 • P.K.5A.2 • P.K.5B.1 • P.K.5B.2 • P.K.5B.3 • E.K.8B.2 • E.K.8B.3 • E.K.10.1 • E.K.10.2 • E.K.10.3	<b>Animals Two by Two</b> L.K.1A.1 • L.K.1A.2 • L.K.1B.1 • L.K.1B.2 • L.K.3A.2 • L.K.3B.1 • L.K.3B.2	<b>Insects</b> L.K.1A.2 • L.K.2.2 • L.K.2.4 <b>Plants</b> L.K.1A.2 • L.K.2.1 • L.K.2.3 • L.K.3A.1 <b>My Five Senses</b> L.K1B.2 <b>Matter</b> P.K.5A.1 <b>Looking at the Sky</b> E.K.8A.1 • E.K.8B.1 <b>Floating and Sinking</b> P.K.5A.2
<b>1</b>	<b>Weather and Seasons*</b> L.1.4.1 • E.1.9A.1 • E.1.9A.2 • E.1.9A.3 • E.1.9B.1 • E.1.9B.2 • E.1.9B.3	<b>Sound and Light</b> P.1.6A.1 • P.1.6A.2 • P.1.6B.1 • P.1.6B.2	<b>Insects and Plants</b> L.1.1.1 • L.1.1.3 • L.1.1.4 • L.1.1.5 • L.1.2.1 • L.1.2.2 • L.1.3A.1 • L.1.3B.1 • L.1.4.2 • L.1.4.3	<b>Plants</b> L.1.1.1 • L.1.1.2 • L.1.1.5 • L.1.3B.1 <b>Insects</b> L.1.2.2 • L.1.3B.1 <b>Weather and Seasons</b> E.1.9A.4 • L.1.4.1 <b>Soil</b> E.1.9B.3
<b>2</b>	<b>Changes in the Sky</b> E.2.8.1 • E.2.8.2 • E.2.8.3 • E.2.8.4 • E.2.8.5 • E.2.8.6 <b>Water and Landforms</b> E.2.10.1 • E.2.10.2 • E.2.10.3 • E.2.10.4 • E.2.10.5	<b>Solids and Liquids</b> P.2.5.1 • P.2.5.2 • P.2.5.3 • P.2.5.4	<b>Plants and Animals</b> L.2.3B.1 • L.2.3B.2 • L.2.4.1 • L.2.4.2	<b>Plants</b> L.2.2.1 <b>Insects</b> L.2.2.2 <b>Force and Motion</b> P.2.6.1 • P.2.6.2 <b>Looking at the Sky</b> E.2.8.1 • E.2.8.2 • E.2.8.3 <b>Soil</b> E.2.10.3 • E.2.10.4 • E.2.10.5
<b>3</b>	<b>Soils, Rocks, and Landforms</b> E.3.7A.1 • E.3.7A.2 • E.3.7A.3 • E.3.7B.2 • E.3.7B.3 • E.3.7B.4 • E.3.9.2 • E.3.10.1 • E.3.10.4	<b>Forces in Action*</b> P.3.6.1 • P.3.6.2 • P.3.6.3 • P.3.6.4 <b>+ScienceFLEX Energy and States of Matter</b> P.3.5.1 • P.3.5.2 • P.3.5.3	<b>Structures of Life</b> L.3.1.1 • L.3.1.2 • L.3.1.3 • L.3.2.1 • L.3.2.3 • L.3.2.4 • L.3.2.5 • L.3.4.1 • L.3.4.2 • L.3.4.3 • L.3.4.4 • L.3.4.5	<b>Mississippi Science Grade 3</b> E.3.7B.1 • L.3.1.1 • L.3.1.3 • L.3.2.1 • L.3.2.2 • L.3.2.3
<b>4</b>	<b>Water and Climate</b> E.4.9A.1 • E.4.9B.1 • E.4.9B.2 • E.4.9B.3 • E.4.9C.1 • E.4.9C.2 • E.4.9C.3 • E.4.9C.5 • E.4.10.1 • E.4.10.2	<b>Energy</b> P.4.6A.1 • P.4.6A.2 • P.4.6A.3 • P.4.6A.4 • P.4.6A.5 • P.4.6A.6 • P.4.6B.2 • P.4.6B.3 • P.4.6B.4 • P.4.6C.3 • E.4.10.1 • E.4.10.2 <b>Sound Design*</b> P.4.6C.1 • P.4.6C.2	<b>Senses and Survival</b> L.4.1.1 • L.4.1.2 • L.4.1.3 • L.4.2.2 • L.4.1.5	<b>Mississippi Science Grade 4</b> E.4.9B.3 • E.4.9C.3 • P.4.6B.1 • P.4.6B.2 • P.4.6B.3 • P.4.6B.4 • L.4.2.1 • L.4.2.2
<b>5</b>	<b>Earth and Sun</b> E.5.8A.1 • E.5.8A.2 • E.5.8A.3 • E.5.8A.4 • E.5.8B.1 • E.5.8B.2 • E.5.8B.3 • E.5.8B.4 • E.5.10.1	<b>Mixtures and Solutions</b> P.5.5A.2 • P.5.5A.3 • P.5.5A.4 • P.5.5B.1 • P.5.5B.2 • P.5.5B.3 • P.5.5B.4 • P.5.5C.1 • P.5.5C.2 • P.5.5C.3 <b>Motion</b> P.5.6.1 • P.5.6.2 • P.5.6.3 • P.5.6.4 • P.5.6.6	<b>Living Systems</b> L.5.3A.1 • L.5.3A.2 • L.5.3B.1 • L.5.3B.2 • L.5.3B.3 • L.5.3B.4 • E.5.10.1	<b>Mississippi Science Grade 5</b> E.5.8B.2 • E.5.8B.3 • E.5.8B.4 • E.5.8A.1 • P.5.5A.1

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