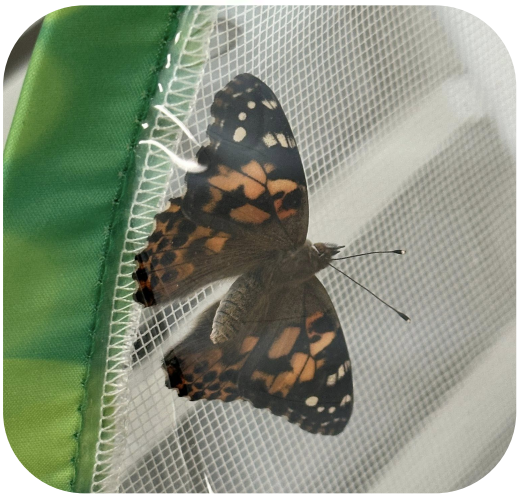


# Kindergarten Science/ Social Studies

## Exploring Our World — Big & Small



Your child will dive into how we use maps, talk about where we live, and how we relate to places both near and far. In social studies, young learners begin to understand their own community and the wider world. In science, they'll explore and observe the world around them — looking at what's living, what's non-living, and patterns in nature and weather.

## People, Stories & Traditions

In social studies, kindergarteners are encouraged to share their own stories (past, present) and to explore how families, cultures, and traditions shape communities. They'll learn to use pictures, stories, and symbols to reflect on their heritage and the world around them.



## Wondering, Questioning & Investigating

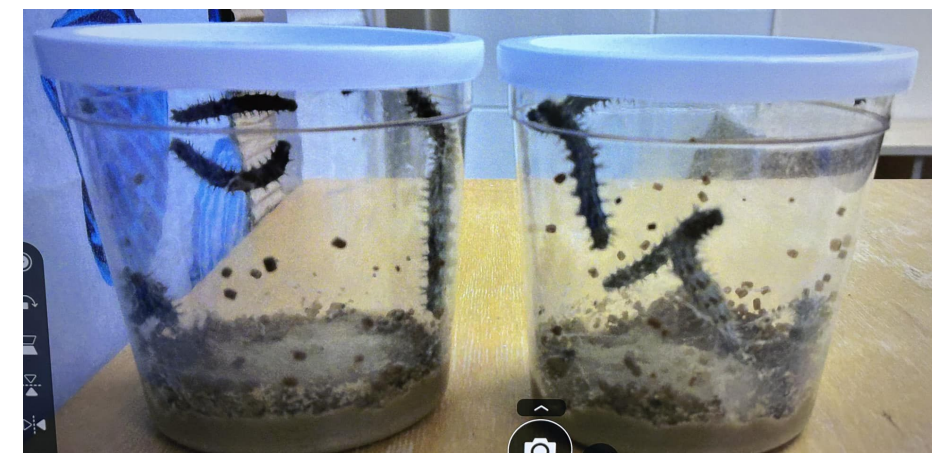
In science, kindergarteners begin to think like scientists: observing, asking questions, gathering information, and making sense of the natural world (for example: living vs non-living, weather changes, plants/animals). They'll practice using tools and describing what they notice.

## Understanding Change, Patterns & Responsibility

Children will explore how things change over time in social studies (how they, their family or community change) and in science (seasons, weather, growth of living things). They'll also begin to understand that their actions matter — how people in a community have roles and responsibilities.

## Bringing It Home — Family, Community & Nature

Kindergartners will connect what they're learning back to their own lives: their family, their home, their community, and the natural world they live in. For social studies, this means looking at what makes a community, how people work together, and symbols that represent us. In science, they'll explore how living things and the environment interact, how weather and seasons affect our lives, and how we depend on the natural world.



# First Grade Science/Social Studies

## Discovering How the Sun Powers Our World

Students explore how the Sun gives energy to everything on Earth. They notice how sunlight warms the land, air, and water — and how these changes create weather patterns. They observe, wonder, and record data just like scientists do.



## Exploring Motion and Materials

Students experiment, test, and observe how things move and change. They compare textures, colors, and flexibility, and explore how heating and cooling affect materials. Curiosity and hands-on discovery help them build early problem-solving and reasoning skills.

## Understanding Living Things and Their Needs

Students learn what living things need to grow and survive. They explore how plants, animals, and people depend on their environment — and how everything in nature is connected.

## Exploring Families, Communities, and the World Around Us

Students connect the past and present as they learn about families and communities. They discover how people live, work, and celebrate — comparing life now and long ago, near and far. They begin using maps and thinking about how culture shapes who we are.



## Working Together as Responsible Citizens

Students learn what it means to be part of a caring community. They explore rules, responsibilities, and leadership — discovering how people work together to make schools and neighborhoods safe, fair, and kind.

## Meeting Needs and Wants

Students discover how people earn, spend, and share. They learn the difference between needs and wants, explore how goods and services are made, and see how people make choices about spending, trading, and helping one another.

# Second Grade Science

## The Big Idea: Thinking Like a Scientist

Students explore the **natural and designed world** around them by asking questions, investigating, and building simple explanations. It's about moving from simply observing to actually figuring out *how* and *why* things happen.

### Force Factor: Pushes and Pulls

Second graders become *motion explorers* as they investigate pushes, pulls, gravity, and friction! Through exciting hands-on experiments, they discover how forces make objects start, stop, speed up, or change direction—sparking curiosity about how the world moves!

### Fossil Secrets: Decoding Life's Ancient Mysteries

Second graders become *fossil detectives*, uncovering clues about plants, animals, and environments from long ago! They compare fossils to modern organisms, sparking curiosity and helping them see how life on Earth has changed over time.

### Nature's Builders: We Change Our Space!

Second graders become natural explorers, discovering how living things live, interact, and thrive in their habitats! They learn how animals and plants shape their world to meet their needs - unlocking excitement of life all around them!

### Weather's Energy: Air and Water Dance!

Second graders become weather detectives, exploring clouds, rain, wind, and temperature to see how weather shapes our world! They measure, record, and investigate daily changes - sparking curiosity and excitement about the natural forces all around them!



# Third Grade Science

## Thinking, Investigating, & Communicating Like Scientists

Third graders don't just learn science—they do science! They design investigations, make predictions, record data, build models, and share their findings with others. Curiosity, teamwork, and problem-solving



## Animal & Plant Life: Structures for Survival

Third graders explore how living things are built to survive! They study animal and plant traits, adaptations, and life cycles—and learn how living organisms depend on their environment to thrive.



## Matter & Its Many Forms

Students investigate solids, liquids, and gases, experimenting with how matter changes. From classroom labs to real-world observations, they discover that matter is all around us and always on the move!

## Exploring Earth's Amazing Systems

Students dive into Earth's soil, rocks, and landforms to discover how our planet changes over time. From weathering and erosion to hands-on investigations, they become Earth detectives uncovering the stories written in the land!

# 4th Grade Science



## Investigating Earth's Surface and Changes

Students explore how wind, water, and natural events shape our planet's surface. They discover how landforms form and change over time!

- **Watch the Earth transform!**

## Exploring Physical Science-Energy, Matter and Forces

Young scientists investigate how matter changes and how energy and forces make things move. Hands-on experiments bring science to life!

- **Power up with energy and motion!**

## Investigating Life Science - Organisms and Their Environments

Students learn how plants and animals survive and adapt to their habitats - and how changes in the environment affect all living things.

- **Discover the wonders of life around us!**

## Becoming Science Thinkers - Asking Questions and Designing Investigations

Fourth graders ask questions, plan investigations, and use evidence to explain what they discover - just like real scientists!

- **Ask. Investigate. Discover!**

## Connecting Science to Our World - Real-Life Purposes

Students connect science to everyday life, seeing how what they learn helps them care for their world and make smart choices.

- **Science helps us make sense of our world!**



# Fifth Grade Science

## **GO with the FLOW!**

Students understand the flow of energy through an ecosystem, using food webs. They make predictions about the effects that changes have on the food web of the ecosystem.

## **Lights, Sound, Action!**

Students predict the behavior of light and sound as they interact with different media. Does the material being used change the way something looks or sounds?



## **Out of this WORLD!**

Students study the patterns of our solar system, learning the differences between major celestial bodies. They also predict the path of the Sun, Moon and stars at different times of the day/year, due to Earth's rotation and revolution.

## **FULL speed AHEAD!**

Students predict how an object moves when forces act upon it. They run controlled experiments to understand how scientists investigate.



# Sixth Grade Science

## **Student Scientists put products to the test!**

Students prepare to be real-life scientists. Sixth graders choose a product to scientifically test to determine if the product is the best. In their student designed investigation, they set up reproducible experiments, collect qualitative and quantitative data, and analyze their data to determine if the product is the best. A Consumer Challenge fair event is the culminating experience for the sixth graders to present their findings to their families.

## **From ATOMS to AWESOME. Students begin their Chemistry adventure!**

Students dive into the world of chemistry. Sixth graders investigate matter. Modeling how matter changes and identifying the particles of matter that make up the air we breathe is our focus. Students learn to determine how an odor gets from a source to our nose.



## **From potential to practical....investigating ENERGY by creating Rube Goldberg machines.**

“Why do some things stop moving while others keep going?” Students design and create a Rube Goldberg machine as they investigate forces and motion. During this unit, students get to implement the Design Process as they create, test, and redesign a Rube Goldberg Machine.

## **Beyond the naked eye....students explore the microscopic world.**

Earning a Microscope License introduces the students to the microscopic world. Investigating single celled and multicellular organisms and determining how each type of organism completes all the processes needed to be alive guides the student experiences.

## **Nature’s Lab, students experience real-world science at the Environmental Study Area.**

The students use the Environmental Study Area behind ME/MI as an outdoor learning lab. Studying how the land changes through the seasons, and how the parts of the ecosystem work together throughout the year.



# 7th & 8th Grade Science

## Middle School Science Overview

During middle school, students practice to become more scientifically literate citizens who can apply scientific thinking to real-world situations. Students learn to use scientific inquiry by asking testable questions, designing safe investigations, analyzing data, and communicating their findings. Science is presented as a way of knowing that relies on evidence, observation, and logical reasoning to explain natural phenomena. Learners understand that science is an ongoing process that evolves as new evidence emerges, and that scientific knowledge is always open to revision. Students also explore how science is a human endeavor, shaped by the creativity, persistence, and diverse contributions of people from all backgrounds.



## 7th Grade Course Content Overview

The 7th grade science curriculum explores the interconnected systems and cycles that shape our planet and beyond. Students investigate **cycles and patterns of Earth and the Moon**, including the hydrologic cycle, atmospheric and oceanic currents, and the effects of thermal energy and celestial movement. They study the **conservation of mass and energy**, examining atomic structure, the Periodic Table, and how energy is transformed and transferred. Finally, students explore the **cycles of matter and flow of energy** within ecosystems to understand how living organisms depend on the transfer of energy and matter for survival.

## 8th Grade Course Content Overview

The 8th grade science curriculum examines the dynamic forces that shape both Earth and life on it. Students explore **physical Earth**, studying the planet's structure, the rock record, plate tectonics, and the processes that create landforms. In **forces and motion**, they investigate how motion and energy act within and beyond Earth, helping explain natural phenomena throughout the universe. The **species and reproduction** unit focuses on how organisms reproduce and adapt to ensure the continuation of life.

## 8th Grade Physical Science Overview

The 8th grade Physical Science curriculum introduces students to the fundamental principles of motion, forces, and matter. Students explore **motion**, including distance, displacement, speed, velocity, and acceleration, and represent these concepts with graphs and data. In **forces and dynamics**, they examine how forces like gravity, friction, and tension affect motion, emphasizing the relationship between net force, mass, and acceleration. The **matter and periodic trends** units focus on atomic structure, element organization on the Periodic Table, and how these properties influence element behavior. Together, these topics provide a foundation for understanding the physical principles that govern the natural world. Additionally, some physical Earth and species and reproduction content will be covered from the 8th grade Ohio State Standards.

