

What your child will learn in Grade 5 Science

Matter

Your son will learn how tiny particles make up everything around him. He will investigate how solids, liquids, and gases behave differently by thinking about the particles they are made of. For example, he might explore why ice melts into water or why water turns to steam when heated. By understanding particles, he can explain why a solid keeps its shape but a liquid takes the shape of its container. [See the curriculum.](#)

Energy

Your son will investigate how forces affect living things and objects in water and air. First, he will investigate how forces work differently in water and air. He might compare how it feels to push something through water versus pushing it through air, or watch how a parachute slows a falling object. Second, he will learn about different energy resources, such as wind, sun, and fossil fuels, and think about where our energy comes from and how we use it. [See the curriculum: 1, 2.](#)

Earth Systems

Your son will explore climate and weather, and how they connect to farming and food production. He will learn the difference between climate (the weather pattern over many years in a place) and weather (what happens on a particular day). He will also discover how farmers use their understanding of seasonal weather patterns to plan planting and harvesting. [See the curriculum.](#)

Living Systems

Your son will investigate how the body's internal systems keep us alive. He will learn how organs and systems work together to help us breathe, digest food, move, and stay healthy. Understanding these systems helps him see how his own body functions. [See the curriculum.](#)

Space

Your son will observe and study astronomical phenomena such as moon phases and seasons. He will investigate and interpret how the night sky changes throughout the year. He will also discover how these patterns in space affect life on Earth. [See the curriculum.](#)

Computer Science and Design

Your son will use design thinking to solve problems and create things. He will learn to plan a project, think through what materials he needs, build or code a solution, and test whether it works. This way of thinking helps him tackle challenges in science and beyond. [See the curriculum.](#)

Scientific Methods

Your son will learn how scientists gather evidence to answer questions about the world. He will practice fair testing, careful observation, and honest recording of results. He will also learn why it matters to be truthful in science and to follow rules that keep experiments safe and fair. [See the curriculum.](#)

How to help at home: Matter

- **Explore states of matter in the kitchen.** Freeze water into ice, let it melt, and boil it to steam. (Adult supervision required—steam and boiling water can cause burns.) Ask your son to describe

what he sees and predict what will happen next. This builds his understanding of how particles behave in solids, liquids, and gases. [See the curriculum](#).

- **Measure and compare.** Use a kitchen scale to weigh different objects and a measuring cup to find the volume of liquids. Talk about why some things are heavier or take up more space than others. [See the curriculum](#).
- **Observe dissolving.** Stir sugar or salt into water and watch it disappear. Ask your son where the particles go and whether the water weighs more now. [See the curriculum](#).

How to help at home: Energy

- **Feel forces in action.** Play with a ball in a bathtub or pool and notice how water pushes back. Compare that to throwing a ball through the air. Talk about why one feels harder to move through. [See the curriculum](#).
- Hunt for energy resources. Walk around your home and yard and investigate various energy resources. Discuss which sources are renewable and which run out. [See the curriculum](#).
- **Build a simple machine.** Make a lever from a ruler and a pencil, or a ramp from a board. Test how these tools make it easier to lift or move objects, and talk about how the force needed changes as you adjust the lever or ramp. [See the curriculum](#).

How to help at home: Earth Systems

- **Track the seasons.** Notice how daylight changes, when plants grow, and when animals behave differently. Talk about why farmers plant crops at certain times of year. [See the curriculum](#).
- **Plan a garden together.** Choose vegetables or flowers and look up the best time to plant them in your area. Discuss how climate and season guide these choices. [See the curriculum](#).

How to help at home: Living Systems

- **Trace your own systems.** Feel your pulse, take deep breaths, and notice your heartbeat after exercise. Talk about how your heart pumps blood and your lungs bring in oxygen. [See the curriculum](#).
- **Follow food through your body.** Chew food slowly and talk about where it goes after you swallow. Explain that your digestive system breaks it down so your body can use it for energy and growth. [See the curriculum](#).
- **Move and observe.** Bend your arm and feel your muscles and bones work together. Discuss how your skeleton supports you and your muscles help you move. [See the curriculum](#).

How to help at home: Space

- **Stargaze together.** On a clear night, look for constellations, planets, or the moon. Use a free app to identify what you see. Talk about how the sky changes with the seasons. [See the curriculum](#).
- **Watch the moon.** Draw or photograph the moon shape each night for a month. Your son will see the pattern of phases and understand why the moon looks different. [See the curriculum](#).
- **Make a moon phase model.** Use a ball and a lamp to show how the moon's appearance changes as it orbits Earth. This helps your son understand why the moon looks full, half, or crescent. [See the curriculum](#).
- **Read about space.** Choose a book about planets, stars, or astronauts. Let your son ask questions and explore his curiosity about space. [See the curriculum](#).

How to help at home: Computer Science and Design

- **Plan a project together.** Before building or making something, sketch it out and list what you need. Ask your son to predict what might go wrong and how to fix it. [See the curriculum.](#)
- **Test and improve.** Build something simple, like a paper airplane or a tower from blocks. Fly or test it, then change the design and try again. Talk about what worked better. [See the curriculum.](#)
- **Write step-by-step instructions.** Have your son explain how to make a sandwich or build something, one step at a time. This teaches him to think like a programmer. [See the curriculum.](#)

How to help at home: Scientific Methods

- **Do a fair test.** Ask a question like "Does plant growth depend on sunlight?" Grow two plants, one in light and one in darkness, and keep everything else the same. Record what you observe each week. [See the curriculum.](#)
- **Keep a science notebook.** Have your son draw and write down what he sees during experiments or nature walks. Explain that scientists record their observations honestly, even when results surprise them. [See the curriculum.](#)
- **Ask "why" and "how."** When something happens, encourage your son to ask questions and think about how to find the answer. This is how scientists discover new things. [See the curriculum.](#)