



SCIENCE5

FOR FAMILIES

FIFTH GRADE

What to expect:

In fifth grade, students are able to answer more advanced scientific questions. These include: “When matter changes, does its weight change?”, “How much water can be found in different places on Earth?”, “Can new substances be created by combining other substances?”, “How does matter work its way through ecosystems?”, “Where does the energy in food come from, and what is it used for?”, “How do shadows or the amount of daylight and darkness change from day to day?” and “How does the appearance of some stars change in different seasons?” This information is a snapshot of learning in science for Grade 5. For a complete set of science academic standards, [click here](https://sde.ok.gov/oklahoma-academic-standards) or visit sde.ok.gov/oklahoma-academic-standards.

By the end of the school year, your child will:

- Understand that the weight of matter remains the same when it changes form.
- Determine if mixing of two or more substances results in new substances.
- Understand how the geosphere (Earth’s surface), biosphere (living organisms), hydrosphere (water) and atmosphere interact with one another and be able to create a model showing these interactions.
- Create graphs to describe the amounts and locations of water on Earth.
- Understand that matter is made of particles too small to be seen and create a model showing this principle.
- Understand how plants get most of the materials they need to grow from air and water.
- Understand that animals’ food was once energy from the sun and create a model showing this principle.
- Recognize daily patterns of change in the length and direction of shadows, the amount of daylight and darkness, and the seasonal appearance of some stars in the night sky.

What to do at home:

- Ask your child to cook with you and discuss how, when you mix two or more substances or ingredients together, they sometimes form something new.
- Go outside on clear nights and look at the stars. Ask your child to describe patterns they see and explain how the sky looks different in summer and winter.
- Talk about how the construction of a new house or building might change the ecosystem.
- Research your town’s local recycling program or facility.

YOU ARE your child’s first teacher. Learn how to support the goals of Oklahoma’s academic standards and why they are important to your child. Please be in regular communication with your child’s teachers and ask how you can support science learning at home. When schools and families work together as partners, it helps your child achieve academic success!



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Fostering Curiosity

Children are naturally curious and are motivated to learn about things that interest them. Since curiosity contributes to success in the classroom, it is important to encourage it at home. Play is a wonderful way to spark curiosity, so be sure to allow plenty of playtime. Encourage your child to ask questions, be creative, discover answers and explore their world.

Support your child's curiosity with questions like these:

- Do you think animals communicate? If so, how?
- What are the best things about nature?
- Does the night sky look the same every night of the year? Why or why not?

Your child will have plenty of questions. It's okay if you don't always have the answer. The best response is always, "Let's find out together."

Fostering Communication

Build your child's vocabulary, thinking skills and curiosity by using new words and having conversations that include questions to make your child think. Communicating with others gives children a chance to see and understand that there can be more than one point of view about a given subject. Accepting different ideas helps children learn how to get along with others, encouraging positive relationships with other children and a strong self-image.

Support your child's communication skills with questions like these:

- What do you think we should have for breakfast tomorrow? Why?
- What goals can you set to make tomorrow better than today?
- What was your favorite part of the week and why?
- How did you help someone in need today?

Fostering Connections

Making connections between different school subjects helps build your child's overall knowledge and learning. It's also important for your child to make connections between what they are learning at school and in the real world. Point out these connections to your child and encourage them to make them, too.

- Connect science with writing and art by asking your child to draw pictures of the things they see in the world around them (for example, shadows change sizes throughout the day, the temperature usually gets cooler after a thunderstorm, etc.), then add short descriptive sentences to the picture that describe the object, situation or scenario they drew and how what they know about science might be connected to it.
- Connect science with engineering by asking your child what they notice and wonder about (for example, "Do you notice that drinks stay colder longer in certain kinds of cups?"), then discuss what causes the things they notice, how they work or how they could be modified to work better. (For example, after asking your child about materials that keep drinks warm or cold, your child could try to design or make a container that keeps drinks cold for a long time.)

Join the conversation!

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