



COMPUTER SCIENCE

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FOR FAMILIES

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 computer science education at home. When schools and families work together as partners, your child experiences greater academic success!

FOURTH GRADE

What to expect:

Fourth grade is when children build on their technology skills and deepen their understanding. Children learn to select appropriate tools for different tasks, understand how information flows through networks, work with data, and create more complex programs. Families play a vital role in exploring technology and developing good digital citizenship at home. Computer science helps children think analytically and creatively. Ask questions like, “How do different devices communicate with each other?” to spark meaningful discussions.

Learning Goals:

- Talk about which devices work best for different tasks and how to solve simple technology problems.
- Discuss how information travels between devices and the importance of online safety.
- Organize digital information and use data to make predictions and answer questions.
- Write step-by-step instructions for computers, including choices and repetition, and break big problems into smaller parts.
- Explore how technology affects society and practice good digital citizenship.

What to do at home:

- Talk about which devices work best for different tasks and practice fixing simple tech issues together.
- Discuss how information moves between devices and review family rules for staying safe online.
- Help organize digital files and make simple charts to find patterns in everyday information.
- Write step-by-step instructions for daily tasks using “if-then” logic (such as choices) and break big jobs into smaller steps.
- Talk about how technology has changed and how tools like voice assistants can help people.



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Fostering Curiosity

Children are naturally curious and motivated to learn about things that interest them. Computer science builds on this curiosity by encouraging problem-solving and creativity. Let your child explore how technology works and ask questions about the devices they see in daily life.

Support your child's curiosity with questions like:

- How do you think information travels across the internet?
- What would happen if we changed this part of the program? How could we improve it?
- How might AI and emerging technologies help solve problems in our community?

Your child will have plenty of questions. It is okay if you do not 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:

- Can you explain how this information travels from one device to another in packets?
- What different options or conditions could we include in our program to help solve this problem?
- How could we modify this program to make it work better for people with different needs?

Fostering Comprehension

Making connections between computer science and the real world helps children see its importance. Encourage your child to relate their learning to everyday experiences.

- Connect computer science with math by creating visual charts of family data (like weekly screen time) and using it to make predictions or identify patterns.
- Connect computer science with digital citizenship by discussing the importance of being respectful online and giving credit to others when using or adapting their work, like images, music, or code.
- Explore emerging technologies together by discussing how AI and smart devices can be designed to be more accessible for people with different abilities.



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