5th Grade Family Guide

What is the purpose of this family guide?

This guide was made to help families understand the Iowa Academic Standards and to show what students will learn by the end of fifth grade. It provides information about the key ideas and skills teachers will introduce in mathematics, English Language Arts/Reading and science. It also includes possible examples of what students will be asked to do in class, how to help your student at home, questions you can ask your student and questions families can ask the teacher.

This guide was also designed to help families understand how they can work with teachers to support the learning of their fifth grader. When teachers and families work together to help students master Iowa's Academic Standards, students can develop the skills they will need for success in school and life. If you have questions about this information or if your student needs extra help, please contact the teacher.

Why are Iowa's Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live or what school they attend, are prepared for success in college and the workforce. The standards help set clear and consistent expectations for what students should know and be able to do from kindergarten through 12th grade.

Standards are a set of goals, not a curriculum, so decisions about teaching remain with local schools. They guide families and teachers to know when students need extra assistance or when they need more of a challenge in the classroom. They also help your student develop critical-thinking skills in preparation for college and career.

English/Language Arts

Your grade 5 student will read from a wide and deep range of high-quality, increasingly challenging fiction and nonfiction materials that derive from diverse cultures and time periods. A key to your student's continued success will be to build knowledge about subjects through research projects and respond analytically to literary and informational sources. Your student will write stories or essays that are several paragraphs long. Your student will gain control over many conventions of grammar, usage and punctuation.

What might students be learning in their classroom in connection to the standards?

- Students will accurately quote the text, including key ideas, when answering or asking questions, making inferences or summarizing a text.
- Students will use information from multiple texts to write or speak about a topic knowledgeably.
- Students will use multiple strategies to determine or clarify the meaning of unknown words. Consult reference materials when needed.
- Students will read text with accuracy, automaticity and expression at an appropriate rate.
- Students will write their opinions, narrative stories and papers to inform others on a topic.
- Students will conduct and write short research papers. Use print and digital methods to gather information and share with others.
- Students will write complete sentences and well-developed paragraphs about what they are learning, with correct spelling, grammar, capitalization and punctuation.
- Students will come to classroom discussions prepared and then participate fully and engage thoughtfully with others (e.g., contribute accurate, relevant information; elaborate on the remarks of others; synthesize ideas).

What might my student be learning in their classroom?

- Your student will read a text closely and draw evidence from the text, including the ability to quote accurately when answering questions.
- Your student will use several pieces of information from both print and digital forms to answer questions and write.
- Your student will learn how to expand, combine and improve sentences when speaking and writing.
- Your student will adjust speaking and writing to accomplish a particular purpose.
- Your student will understand how to produce writing and visual support for presentations on a computer.
- Your student will prepare for classroom discussions so they can contribute thoughtfully.
- Your student will understand and use new words, both everyday words and academic words, to enhance their reading, speaking and writing.

What can I do to support my student at home?

- Encourage your student to read every day. Read different types of books over time.
- Have “book talk” conversations. Ask your student to share the important ideas in their own words.
- Learn together. Read books, look online and do things together. Encourage your student to write about the experiences.
- Invite your student to read his or her writing out loud to other family members. Ask questions about your student’s word choices and ideas.
- Discuss your family stories and history. Encourage your student to ask relatives questions about their lives. Put this information together in an album or brainstorm different ways to tell family tales, such as poems or short stories.
- Go to a play or musical with your student. Discuss ways actors bring the words to life.

What questions can I ask my student about the learning happening at school?

- What books are you reading in school? What are you learning from them?
- Could that actually happen or is it figurative language? What does it mean?
- What is the main point of what you read? What from the text helped you determine that?
- Is that a credible source? How do you know?
- What is the point-of-view of that author/speaker? What helped you determine that?
- What type of text is that (poetry, story, informative, opinion)? What from the text helped you figure that out?
- What did you write today?

What questions can I ask my student’s teacher?

- What resources would you suggest I use to support my student?
- What should my student practice at home?
- How should I help my student select books to read?
- What topics is my student learning about? What can I do at home to support this learning?
- Is my student able to speak and listen in class in ways that they demonstrate they understand? How can I help my student at home?
- Does my student write clearly and legibly? What can I do to support them?

Mathematics

Fifth grade is a critical year when students transition to more advanced mathematical concepts, such as fractions, decimals and early algebraic thinking. They'll learn to solve real-world problems with confidence and precision. Your support and encouragement are essential to help your student succeed and develop a strong foundation for middle school mathematics.

What might students be learning in their classroom in connection to the standards?

- **Numbers and Operations:** Mastering operations with multi-digit whole numbers and decimals, including addition, subtraction, multiplication and division.
- **Fractions:** Adding, subtracting, multiplying and dividing fractions and mixed numbers; understanding fractions in real-world contexts.
- **Decimals**: Comparing, ordering and performing operations with decimals to the thousandths place.
- **Measurement and Data:** Solving problems involving volume, converting measurement units and interpreting data from graphs.
- **Geometry:** Classifying two-dimensional figures based on their properties; understanding the coordinate plane.
- **Operations and Algebraic Thinking:** Analyzing patterns and relationships and solving word problems involving numerical expressions.

What might my student be learning in their classroom?

- Strengthening their ability to solve multi-step word problems with fractions and decimals.
- Exploring advanced fraction operations through visual models and real-world applications.
- Understanding and using the coordinate plane to graph points and solve problems.
- Developing an understanding of volume and its relationship to multiplication and addition.
- Practicing early algebraic thinking by analyzing patterns and writing equations.

What can I do to support my student at home?

- Practice operations with decimals and fractions during everyday tasks, such as cooking or budgeting.
- Use graphing activities to explore the coordinate plane in a fun way.
- Encourage your student to solve multi-step word problems and explain their thinking.
- Play games and puzzles that involve logical reasoning and math skills.
- Explore the concept of volume through building activities, such as stacking blocks or measuring containers.

What questions can I ask my student about the learning happening at school?

- What kinds of problems did you solve with fractions or decimals today?
- Can you explain how you solved a multi-step math problem?
- What have you learned about volume or the coordinate plane?
- What patterns or relationships are you exploring in math?
- Can you show me an example of how you use math in everyday life?

What questions can I ask my students' teacher?

- How is my student progressing with fractions and decimals?
- What strategies can I use at home to support their understanding of multi-step word problems?
- Are there any tools or activities you recommend for practicing volume or geometry?
- What should I focus on to help my student transition to middle school math?

Science

The Iowa Academic Standards for Science empower teachers to provide all students in fifth grade with engaging science instruction that emphasizes data analysis and interpretation, critical thinking, problem solving and interdisciplinary connections—all while maintaining high expectations for academic achievement.

The science standards work in harmony with English/Language Arts and mathematics standards, allowing classroom instruction to better reflect real-world problem-solving, which often draws on multiple disciplines. Additionally, these standards aim to ensure all students have access to an equitable, high-quality science education.

What might students be learning in their classroom in connection to the standards?

The Iowa Academic Standards for Science incorporate the most current research and developments in modern science. To prepare students to think critically, analyze information and solve complex problems, the standards are structured to allow students—starting in elementary school and continuing through high school—to build on prior knowledge and skills. Key concepts are revisited and deepened over time, helping students strengthen their understanding of connections across scientific disciplines. Parents should be aware that while some content may seem familiar, the way it is taught may differ from their own school experience.

What might my student be learning in their classroom?

Each year, students are expected to show increased ability to connect knowledge across the physical sciences, life sciences, Earth and space sciences and engineering design. In fifth grade your student will continue developing these connections by exploring concepts and skills such as understanding relationships between objects, planning and conducting investigations and constructing explanations.

In 5th grade physical science, students learn that matter is made of tiny particles and that its total mass stays the same, even when it changes form. In life science, they explore how matter and energy move through ecosystems, including how plants get nutrients from air and water. Using models, they track energy and nutrient flow in nature.

Earth science focuses on Earth's systems—land, water, air and life—and how they interact. Students also study patterns like shadows, day and night and seasonal star changes. Throughout the year, they build skills in modeling, investigation, data analysis and scientific communication.

What can I do to support my student at home?

- Encourage your student to begin to make sense of the world around them by asking questions and making observations. Ask them what they notice and what they wonder about the world around them.
- Extend classroom experiences at home by encouraging your student to explore, using their own language to describe lived experiences.
- Use the information on these pages to ask your student's teacher meaningful, informed questions.

What questions can I ask my student about the learning happening at school?

- When matter changes, how does its weight change?
- How does matter cycle through ecosystems?
- How do lengths and directions of shadows or relative lengths of day and night change from day to day?
- How does the appearance of stars change in different seasons?

What questions can I ask my student's teacher?

- What kinds of phenomena is my student going to be making sense of this year?
- How is my student going to be engaging with the practices of science?