

# Guide to Student Learning in Fifth Grade



*The student learning guide provides valuable information on what students learn in fifth grade.  
Use this information to support and reinforce learning at home.*

At intermediate schools, all students will strengthen essential literacy and math skills through integrated learning experiences. The intermediate-school program provides a learning experience that encompasses all aspects of a comprehensive literacy community and prepares students for independent application of literacy skills and content understandings at the secondary level.

Classroom instruction is shaped by the guiding principle that all students are strategic readers, thinkers, and writers. Literacy skills are explicitly taught during English Language Arts instruction, and embedded within content instruction. This reinforcement model provides meaningful and consistent opportunities for the application of targeted literacy skills.

Information and Communication Technology (ICT) instruction is embedded into all content areas. The district provides each student with a device to introduce students to the use of technology tools for communication, collaboration, creativity, and critical thinking.

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## English Language Arts (ELA)

Fifth-grade students will continue to refine their reading and writing skills and will use these skills consistently in science, social studies, and health instruction. Students will have ample opportunity to read, write, listen, and speak in order to further understand grade-level content. Fifth-grade students will use a variety of genres to continue to build their skills and understanding of different text types.

**READING:** Fifth-grade students will continue to develop their proficiency in reading as they reinforce their skills of syllabication and word patterns and, at the same time, encounter more complex text. Fifth-graders will have the opportunity to read across genres while they experience thematic units of study. Students will continue to build their skills in text analysis and become proficient at citing evidence from text when responding. Students will interpret and determine themes in literature and how they are developed through the characters, settings, and events that are depicted.

**WRITING:** Fifth-grade students will continue to write in a variety of genres including narrative, information, and argument. Students will have opportunities to expand these genres of writing as they write a short story with a biome as the setting, rock/mineral research, short stories, integrated content responses, and opinion responses throughout context and texts.

**SPEAKING AND LISTENING:** Students will understand that being competent in speaking and listening will allow them to take advantage of new opportunities for communication. Students will listen and speak to understand, interact socially, extend discussion, and discuss content.

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# Mathematics

In fifth grade, instructional time is focused on three critical areas that will enable students to:

## **Develop fluency with addition and subtraction of fractions, and develop an understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions)**

- Students apply their understanding of fractions and fraction models to represent the addition and subtraction of fractions with unlike denominators as equivalent calculations with like denominators.
- Students develop fluency in calculating sums and differences of fractions, and make reasonable estimates of them.
- Students also use the meaning of fractions, of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for multiplying and dividing fractions make sense.

## **Extend division to 2-digit divisors**

- Students develop understanding of why division procedures work based on the meaning of base-ten numerals and properties of operations.
- Students are fluent in multi-digit addition, subtraction, multiplication, and division calculations.
- Students apply their understandings of models for decimals, decimal notation, and properties of operations to add and subtract decimals to hundredths.
- Students use the relationship between decimals and fractions, as well as the relationship between finite decimals and whole numbers to understand and explain why the procedures for multiplying and dividing finite decimals make sense. They compute products and quotients of decimals to hundredths efficiently and accurately.

## **Develop an understanding of volume**

- Students recognize volume as an attribute of three-dimensional space.
- Students learn that a 1-unit by 1-unit by 1-unit cube is the standard unit for measuring volume.
- Students develop an understanding that volume can be measured by finding the total number of same-size units of volume required to fill the space without gaps or overlaps.
- Students decompose three-dimensional shapes and find volumes of right rectangular prisms by viewing them as decomposed into layers of arrays of cubes. They measure necessary attributes of shapes in order to determine volumes to solve real world and mathematical problems.

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# Social Studies

Grade five Social Studies is based on world history and geography of the Western Hemisphere. Students will learn about the development of cultures, civilizations, and empires of the Western Hemisphere that includes North and South America. Students will investigate the interaction between societies, and the comparison of the government and economic systems of modern nations of the Western Hemisphere. The course covers a time span from prehistory to modern times. Students will make connections throughout the course to modern day, especially in the examination of citizenship related to modern political and economic issues.

Unit topics for 5<sup>th</sup> grade social studies include:

- Early migration routes to the Americas
- Early American civilizations of the Aztec, Inca, and Mayans
- European exploration and its effects on the Americas
- Modern issues facing the Western Hemisphere

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## Science

In fifth grade, the science program provides students with opportunities to continue to develop their interdisciplinary problem-solving skills as they begin to understand the relationships and common themes that connect science, mathematics, technology, and literacy. Students will participate in a variety of hands-on activities to deepen their understanding of the following scientific **core ideas**:

### **Matter and Energy in Organisms and Ecosystems**

- Modeling the transfer and cycling of matter and energy within and throughout an ecosystem
- Investigating what plants need to grow
- Exploring relationships between plants and animals in ecosystems

### **Structure and Properties of Matter**

- Modeling the various types and phases of matter
- Conducting experiments to validate the law of Conservation of Matter
- Identifying and quantifying the various properties of matter
- Exploring the difference between chemical and physical changes

### **Space Systems: Stars and the Solar Systems**

- Describing how the force of gravity impacts the current model of our solar system
- Predicting patterns associated with the movement of the Earth, sun, moon, and stars
- Exploring stellar brightness and distances in space

### **Earth Systems**

- Modeling the Earth from its core to outer space
- Exploring the distribution of water on Earth
- Designing ways communities could use scientific ideas to protect the Earth's resources and its environment

**The crosscutting concepts** of patterns, cause and effect, scale/proportion/quantity, energy and matter, stability and change, interdependence, and systems/system models are identified as organizing concepts for the core ideas listed above. The fifth-grade performance expectations rely heavily on students' abilities to utilize grade-appropriate **science and engineering practices**, such as developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematical and computational thinking, engaging in arguments from evidence, and obtaining, evaluating, and communicating information. Students are expected to use these practices to demonstrate their understanding of the core ideas listed above.

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## Health

In fifth grade, the health curriculum will reinforce with students the importance of healthy behaviors.

There are four units of study.

- Respecting Myself & Others (Violence Prevention Strand, and core elements of Mental Health)
- My Immune System (HIV/AIDS)
- My Family, My Self (Family Life & Sexual Health)
- Tobacco, Alcohol & Other Drugs

Students also will continue to be encouraged to demonstrate effective communication and identify the people or systems they should turn to for support during emotional or physically harmful situations.

Helping students learn to respect themselves and to respect others is an important component of health education at all grade levels.

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## Physical Education

During physical education class in fifth grade, students will participate in physical activities to improve cardio-respiratory endurance, flexibility, muscular strength, endurance, and body composition. Students will engage in:

- Fitness
- Football
- Movement Games
- Soccer
- Orienteering
- Floor Hockey
- Recreational Games
- Bowling
- Lacrosse
- Educational Gymnastics
- Track & Field
- Whiffle Ball/Softball
- Basketball
- Team Handball
- Wrestling/Self Defense

It is important for children to develop regular exercise habits and activities at an early age that will be continued throughout their lives. In order for your child to become truly fit, these activities need to continue beyond the school day.

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## Music

Students in fifth grade are able to read a variety of rhythms, pitches, and expressive markings in standard notation. They are able to generate musical ideas, both as individuals and as collaborative members on a team. Students are able to create longer, more complex performances, critically evaluating their performance and using the feedback of others to refine their performance. They are able to analyze, evaluate, develop an opinion and give useful feedback. Students listen to the music of two contrasting time periods and genres, analyzing how composers create a particular style or genre and why it is considered representative of a particular time or place. Students in this grade attend a Rochester Philharmonic Orchestra concert. Students will learn how music is a reflection of culture and our world by gaining an understanding of music as its own language. The conductor will interact with the audience throughout the concert asking students to make decisions based on what they hear.

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## Art

Students in fifth grade art begin to recognize the works of artists based on style. They view and analyze the works of famous artists, identify and describe the ways the elements of art, techniques, and media are indicative of a particular style. Students in this grade may approach the creation of artwork in both an analytical and emotional way. They learn to create art works in which there is an identifiable light source, depicting light and shadow. They create art that uses three-dimensional forms, complementary color schemes, real and implied textures, and pictorial depth. Students begin to push their own boundaries of art making, innovating techniques and uses for traditional media and tools. They begin to reflect on their artwork and identify their preferences as an artist in an artist statement. They begin to apply relevant criteria to evaluate a work of art, both in professional works and in self-reflection.

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## Performing Arts

Fifth-grade students may elect to participate in chorus, band, or orchestra. Chorus students may also participate in either band or orchestra. Students in band and orchestra will attend one lesson each week, in addition to their regularly scheduled ensemble rehearsals. Students in performing ensembles will learn how to apply the music elements to increasingly difficult levels of music and will be required to participate in at least two concerts each year.