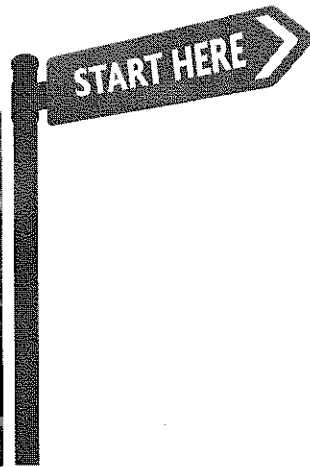
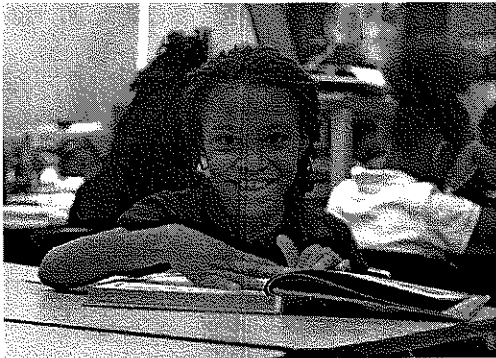




parent **ROADMAP**

SUPPORTING YOUR CHILD IN GRADE FIVE
MATHEMATICS





*America's schools
are working
to provide higher
quality instruction
than ever before.*

The way we taught students in the past simply does not prepare them for the higher demands of college and careers today and in the future. Your school and schools throughout the country are working to improve teaching and learning to ensure that all children will graduate high school with the skills they need to be successful.

In mathematics, this means three major changes. Teachers will concentrate on teaching a more focused set of major math concepts and skills. This will allow students time to master important ideas and skills in a more organized way throughout the year and from one grade to the next. It will also call for teachers to use rich and challenging math content and to engage students in solving real-world problems in order to inspire greater interest in mathematics.

*What your child
will be learning in
grade five
mathematics.*



In grade five, students will build their understanding of the place value system by working with decimals up to the hundredths place. Students will also add, subtract, and multiply fractions, including fractions with unlike denominators. They will continue to expand their geometry and measurement skills, learning the concept of volume and measuring the volume of a solid figure. Activities in these areas will include:

- Quickly and accurately multiplying multi-digit whole numbers
- Dividing numbers with up to four digits by two digit numbers
- Using exponents to express powers of 10 (in 10^2 , 2 is the exponent)
- Reading, writing, and comparing decimals to the thousandths place
- Adding, subtracting, multiplying, and dividing decimals to the hundredths place
- Writing and interpreting mathematical expressions using symbols such as parentheses. For example, “add 8 and 7, then multiply by 2” can be written as $2 \times (8+7)$.
- Adding and subtracting fractions with unlike denominators (bottom numbers) by converting them to fractions with matching denominators
- Multiplying fractions by whole numbers and other fractions
- Dividing fractions by whole numbers and whole numbers by fractions
- Analyzing and determining relationships between numerical patterns
- Measuring volume using multiplication and addition

*Partnering
with your
child’s teacher*

Don’t be afraid to reach out to your child’s teacher—you are an important part of your child’s education. Ask to see a sample of your child’s work or bring a sample with you. Ask the teacher questions like:

- Is my child at the level where he/she should be at this point of the school year?
- Where is my child excelling?
- What do you think is giving my child the most trouble? How can I help my child improve in this area?
- What can I do to help my child with upcoming work?

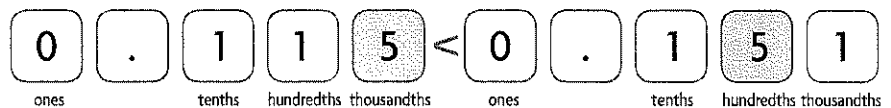
Here are just a few examples of how students will develop and use their understanding of place value in grade five.

Grade Four Mathematics	Grade Five Mathematics	Grade Six Mathematics
<ul style="list-style-type: none"> • Use place value understanding to round multi-digit whole numbers to any place • Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right • Compare two multi-digit numbers based on meanings of the digits in each place, using the symbols $>$ (more than), $=$ (equal to), and $<$ (less than) 	<ul style="list-style-type: none"> • Use place value understanding to round decimals to any place • Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left • Read, write, and compare decimals based on the meanings of the digits in the tenths, hundredths, and thousandths place 	<ul style="list-style-type: none"> • Understand that positive and negative numbers are used together to describe quantities having opposite directions or values • Understand a rational number (fraction, decimal, and percent) as a point on the number line • Understand ordering and absolute value of rational numbers



Students use place value understanding to figure out that, based on where the digits are located within the number, 0.115 is less than 0.151 .

Students recognize that a 5 in the thousandths place is only one tenth the value of a 5 in the hundredths place.



Here are just a few examples of how students will learn about and work with fractions in grade five.

Grade Four Mathematics

- Break apart a fraction into smaller fractions with the same denominator, or bottom number, in more than one way. For example, $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{2}{8} + \frac{1}{8}$
- Explain why a fraction is equal to another fraction
- Add and subtract mixed numbers (whole numbers mixed with fractions, such as $1\frac{1}{5}$) with the same denominators
- Multiply a fraction by a whole number

Grade Five Mathematics

- Interpret a fraction as division of the numerator (the top number) by the denominator (the bottom number)
- Add and subtract fractions with different denominators
- Multiply a fraction by a whole number or another fraction
- Divide fractions by whole numbers and whole numbers by fractions

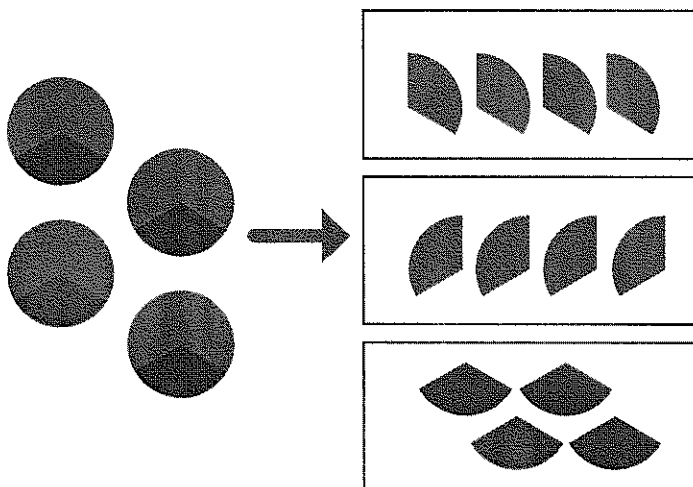
Grade Six Mathematics

- Divide fractions by fractions using visual models and equations to show the problem



Understanding how to divide objects into equal shares prepares students for the division of fractions.

Students will use pictures such as this to see that $4 \div 3$ is the same as dividing 4 objects equally among 3 shares, or having 4 thirds ($\frac{4}{3}$).

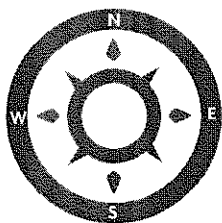


Helping your child learn outside of school



1. Use everyday objects to allow your child to explore the concept of fractions. For example, have your child divide a candy bar (or a healthy snack) between three people. Ask, “How much does each person receive?” (Each person would receive $\frac{1}{3}$). Suppose there are three candy bars that you plan to share with two friends. Have your child describe the amount that each person will receive.
2. Have your child explain how to write fractions in different ways. For example, what are some different ways to write $\frac{4}{3}$? He or she could answer $4 \div 3$, $1\frac{1}{3}$, $\frac{2}{3} + \frac{2}{3}$, $2 \times \frac{2}{3}$, $\frac{8}{6}$, $4 \times \frac{1}{3}$, etc.
3. Ask your child to give you a fraction equal to a decimal. For example, what are two fractions that can be used to represent 0.6? Answers could include $\frac{6}{10}$, $\frac{60}{100}$, $\frac{12}{20}$, or $\frac{3}{5}$.
4. Encourage your child to stick with it whenever a problem seems difficult. This will help your child see that **everyone** can learn math.
5. Praise your child when he or she makes an effort and share in the excitement when he or she solves a problem or understands something for the first time.

Additional Resources



For more information on the Common Core State Standards for mathematics, go to <http://www.corestandards.org/about-the-standards/key-points-in-mathematics> or <http://www.commoncoreworks.org>.

For more information on the standards in mathematics related to place value (Number and Operations in Base Ten) or fractions, go to <http://commoncoretools.me/category/progressions/>.

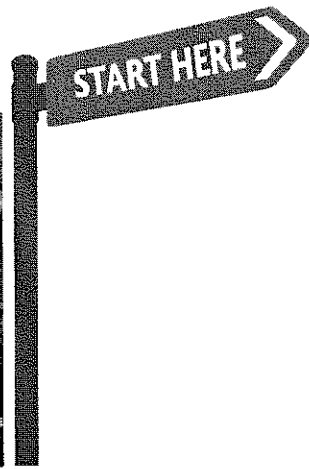
For more information on helping your child learn mathematics (with activities from pre-school to grade five), go to <http://www2.ed.gov/parents/academic/help/math/index.html>.



parent **ROADMAP**

SUPPORTING YOUR CHILD IN GRADE FIVE
ENGLISH LANGUAGE ARTS



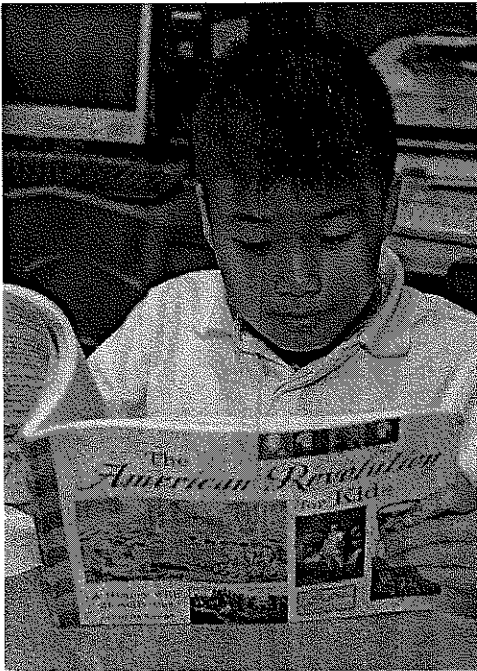


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The way we taught students in the past simply does not prepare them for the higher demands of college and careers today and in the future. Your school and schools throughout the country are working to improve teaching and learning to ensure that all children will graduate high school with the skills they need to be successful.

In English language arts and literacy, this means three major changes. Students will continue reading and writing. But in addition to stories and literature, they will read more texts that provide facts and background knowledge in areas including science and social studies. They will read more challenging texts and be asked more questions that will require them to refer back to what they have read. There will also be an increased emphasis on building a strong vocabulary so that students can read and understand challenging material.

What your child will be learning in grade five English language arts and literacy



In grade five, students will continue to build important reading, writing, speaking, and listening skills. They will read more challenging literature, articles, and other sources of information and continue to grow their vocabulary. Students will also be expected to understand and clearly summarize what they have learned from readings and classroom discussions, referring to specific evidence and details from the text. Students will write regularly and continue to develop their ability to gather, organize, interpret, and present information. Activities in these areas will include:

- Determining the theme of a story, play, or poem, including how characters respond to challenges
- Comparing and contrasting stories that deal with similar themes or topics
- Explaining how authors use reasons and evidence to support their points or ideas
- Drawing on information from multiple books, articles, or online sources to locate an answer or to solve a problem quickly
- Learning the rules of spoken and written English
- Learning and using new words, including words related to specific subjects (such as science words)
- Understanding figurative language
- Participating in class discussions by listening, asking questions, sharing ideas, and building on the ideas of others
- Giving a class presentation on a topic or telling a story, introducing relevant facts and details in a clear, logical order
- Writing research or opinion papers over extended periods of time



For example, "She was as quiet as a mouse."

Partnering with your child's teacher

Don't be afraid to reach out to your child's teacher—you are an important part of your child's education. Ask to see a sample of your child's work or bring a sample with you. Ask the teacher questions like:

- Is my child at the level where he/she should be at this point of the school year?
- What do you think is giving my child the most trouble? How can I help my child improve in this area?
- Where is my child excelling? How can I support this success?

In grade five, students will read a wide range of literature, including stories, plays, and poems. Additionally, they will read to learn information about history, the world, science, and other areas. Here are just a few examples of how your child will develop important reading skills across grade levels.

READING LITERATURE

Grade Four Reading

- Students determine the theme of a story, play, or poem from details in the text and summarize the text.
- Students compare and contrast the point of view from which different stories are told, including the difference between first- and third-person accounts.

Grade Five Reading

- Students determine the theme of a story, play, or poem from details in the text, including how characters respond to challenges or how the speaker in a poem reflects upon a topic, and students summarize the text.
- Students describe how a narrator's or speaker's point of view influences how events are described.

Grade Six Reading

- Students determine the theme or central idea of a text and how it is conveyed through particular details and provide a summary of the text without personal opinions or judgments.
- Students explain how an author develops the point of view of the narrator or speaker in a text.

READING FOR INFORMATION

Grade Four Reading

- Students refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- Students interpret information presented in charts, graphs, or other visual sources of information and explain how the information contributes to an understanding of the text.

Grade Five Reading

- Students quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- Students draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

Grade Six Reading

- Students cite evidence from the text to support analysis of what the text says explicitly as well as inferences drawn from the text.
- Students integrate information presented in different media or formats (such as visually or through numbers) as well as in words to develop a coherent understanding of a topic or issue.



As they progress through grade levels, students will be asked more questions that require them to cite details or information from increasingly challenging texts. This will encourage them to become observant and analytical readers.

Writing tasks in grade five may include stories, essays, reports, and persuasive papers. Here are just a few examples of how your child will develop important writing skills across grade levels.

Grade Four Writing

- Students introduce a topic clearly and develop the topic with facts, definitions, concrete details, quotations, or other information.
- Students provide a concluding statement or section related to the information or explanation presented.
- Students group related information in paragraphs and sections and use formatting (such as headings), illustrations, and multimedia when useful.
- Students link ideas within categories of information using words and phrases (such as *another*, *for example*, *also*, and *because*).
- Students use precise language and subject-specific vocabulary.

Grade Five Writing

- Students introduce a topic clearly, providing a general observation and focus, and develop the topic with facts, definitions, concrete details, quotations, or other information.
- Students provide a concluding statement or section related to the information or explanation presented.
- Students group related information logically and use formatting (such as headings), illustrations, and multimedia when useful.
- Students link ideas within and across categories of information using words, phrases, and clauses (such as *in contrast* or *especially*).
- Students use precise language and subject-specific vocabulary.

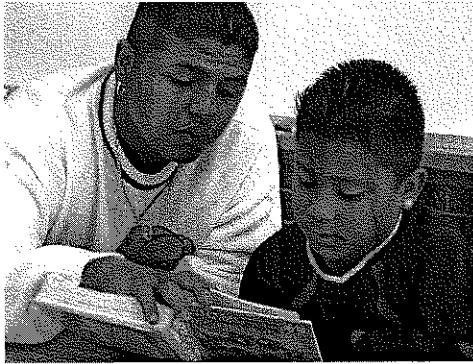
Grade Six Writing

- Students introduce a topic and develop the topic with relevant facts, definitions, concrete details, quotations, or other information.
- Students provide a concluding statement or section that follows from the information or explanation presented.
- Students organize ideas, concepts, and information using strategies such as definition, classification, comparison/contrast, and cause/effect.
- Students include formatting (such as headings), graphics (such as charts or tables), and multimedia when useful.
- Students use appropriate transitions to clarify the relationships among ideas and concepts.
- Students use precise language and subject-specific vocabulary.
- Students establish and maintain a formal writing style.



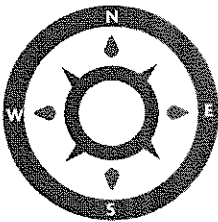
Some writing guidelines may seem similar from year to year. However, with practice at each grade level, students continue to learn and apply the rules of standard written English and to strengthen and expand their vocabulary, use of language, and organization of ideas.

Helping your child learn outside of school



1. Provide time and space for your child to read independently. This time should be free from distractions such as television.
2. Ask your child what he or she learned from reading. Have him or her read the most interesting or useful sections aloud, and discuss how that knowledge can be used in real life.
3. Assist your child in using references such as the Internet or a dictionary to look up unfamiliar words.
4. Keep track of the time that your child spends reading every day. Note what kind of reading materials he or she likes (books, magazines, newspaper articles, the Internet, etc.). Then look for additional materials that would encourage your child to read more.
5. Be sure your child has a library card. Children should select books they are interested in to develop a passion for reading. Many libraries have book clubs and family activities that make reading fun for the entire family.
6. Use technology to help build your child's interest in reading. There are several websites where students can read books or articles online. The computer will help with words the student cannot read independently. Libraries also have computers students can use to access those sites. Feel free to ask a librarian or teacher for suggestions.

Additional Resources



For more information on the Common Core State Standards for English language arts and literacy, go to <http://www.corestandards.org/about-the-standards/key-points-in-english-language-arts> or <http://www.commoncoreworks.org>.