

GRADES: KINDERGARTEN-HIGH SCHOOL

Parents' Guide to Student Success

THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in English/Literacy and Math in Kindergarten through High School
- Ideas for activities to help your child learn at home
- Topics of discussion for talking to your child's teacher about his or her academic progress

Parents' Guide to Student Success

This guide provides an overview of what your child will learn by the end of 6th grade in mathematics and English language arts/literacy. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 7th grade.

6TH GRADE

Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step — a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

English Language Arts & Literacy

A Sample of What Your Child Will Be Working on in 6th Grade

- Gaining knowledge from materials that make extensive use of elaborate diagrams and data to convey information and illustrate concepts
- Evaluating the argument and specific claims in written materials or a speech, and distinguishing claims that are supported by reasons and evidence from claims that are not
- Presenting claims and findings to others orally, sequencing ideas logically, and accentuating main ideas or themes
- Writing brief reports that examine a topic, have a clear focus, and include relevant facts, details, and quotations
- Conducting short research projects to answer a question, drawing on several sources and sharpening the focus based on the research findings
- Reviewing and paraphrasing key ideas and multiple perspectives of a speaker
- Determining the correct meaning of a word based on the context in which it is used (e.g., the rest of the sentence or paragraph; a word's position or function in a sentence)



Talking to Your Child's Teacher

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 6th grade, these include:

- Reading closely and citing evidence from grade-level fiction and nonfiction to support an analysis of what the materials say
- Developing a rich vocabulary of complex and sophisticated words and using them to speak and write more precisely and coherently

Mathematics

A Sample of What Your Child Will Be Working on in 6th Grade

- Understanding ratios and rates, and solving problems involving proportional relationships (e.g., if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours?)
- Dividing fractions and solving related word problems (e.g., how wide is a rectangular strip of land with length $\frac{3}{4}$ mile and area $\frac{1}{2}$ square mile?)
- Using positive and negative numbers together to describe quantities; understanding the ordering and absolute values of positive and negative numbers
- Working with variables and expressions by generalizing the way numbers work (e.g., when adding numbers, the order doesn't matter, so $x + y = y + x$; likewise, properties of addition and multiplication can be used to rewrite $24x + 18y$ as $6(4x + 3y)$, or $y + y + y$ as $3y$)
- Writing equations to solve word problems and describe relationships between quantities (e.g., the distance D traveled by a train in time T might be expressed by an equation $D = 85T$, where D is in miles and T is in hours)
- Reasoning about relationships between shapes to determine area, surface area, and volume



Talking to Your Child's Teacher

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 6th grade, these include:

- Analyzing and solving problems using concepts of ratio and rate
- Working with variables and expressions
- Analyzing and solving word problems using equations

Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time *every day* when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

English Language Arts & Literacy

- Listen with your child to a television reporter, politician, or other speaker. Ask your child to tell you the speaker's main points. Was the speaker trying to convince the audience of something? How?
- Encourage your child to learn at the library or on the Internet what life in your community was like 100 years ago. Have your child write a story, poem, or play about that time

Mathematics

Look for "word problems" in real life. Some 6th grade examples might include:

- Determining the average speed of a family trip, based on the distance traveled and the time taken; or estimating the time that a trip will take, given the distance and an estimate of the average speed
- Finding the surface area of the walls and ceiling in a room to determine the cost of painting the room

For more information, the full standards are available at www.corestandards.org

Parents' Guide to Student Success

This guide provides an overview of what your child will learn by the end of 7th grade in mathematics and English language arts/literacy. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 8th grade.

7TH GRADE

Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce.

Standards provide an important first step — a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

English Language Arts & Literacy

A Sample of What Your Child Will Be Working on in 7th Grade

- Citing several sources of specific evidence from a piece when offering an oral or written analysis of a book, essay, article, or play
- Organizing and focusing his or her own writing, including supporting statements and conclusions with evidence and showing that the evidence is accurate and reliable
- Conducting research in response to a specific question by drawing on evidence from several credible literary or informational sources to support an analysis or reflection
- Avoiding plagiarism and following a standard format for citations (e.g., footnotes, bibliography)
- Evaluating a speaker's key points and reasoning, asking questions, and stating his or her own well-supported ideas in discussions
- Presenting claims and findings to others emphasizing main points, making eye contact, speaking loudly enough, pronouncing words clearly, and using formal English when the situation calls for it
- Using common, grade-appropriate Greek or Latin affixes and roots as clues to defining the meaning of a word (e.g., *semi-*, *semiannual*, *semicircle*)



Talking to Your Child's Teacher

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 7th grade, these include:

- Reading closely and citing several sources of evidence from grade-level fiction and nonfiction works to support an analysis of what the material says
- Developing a rich vocabulary of complex and sophisticated words and using them to speak and write more precisely and coherently

Mathematics

A Sample of What Your Child Will Be Working on in 7th Grade

- Analyzing proportional relationships (e.g., by graphing in the coordinate plane), and distinguishing proportional relationships from other kinds of mathematical relationships (e.g., buying 10 times as many items will cost you 10 times as much, but taking 10 times as many aspirin will not lower your fever 10 times as much)
- Solving percent problems (e.g., tax, tips, and markups and markdowns)
- Solving word problems that have a combination of whole numbers, fractions, and decimals (e.g., a woman making \$25 per hour receives a 10% raise; she will make an additional $\frac{1}{10}$ of his or her salary an hour, or \$2.50, for a new salary of \$27.50)
- Solving equations such as $\frac{1}{2}(x - 3) = \frac{3}{4}$ quickly and accurately, and writing equations of this kind to solve word problems
- Solving problems involving scale drawings
- Using statistics to draw inferences and make comparisons (e.g., deciding which candidate is likely to win an election based on a survey)

Talking to Your Child's Teacher

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 7th grade, these include:

- Analyzing proportional relationships
- Arithmetic with positive and negative numbers
- Solving equations quickly and accurately, and writing equations to solve word problems

Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time *every day* when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

English Language Arts & Literacy

- Visit a local art museum together. Take time to closely observe the details of the paintings or other art objects and talk about what you see there
- Ask your child who his or her favorite authors are. Why does your child like their books? What ideas does the author write about? Who are his or her favorite characters? Why? To find recommendations of books for your child to read, visit www.corestandards.org/assets/Appendix_B.pdf

Mathematics

Look for “word problems” in real life. Some 7th grade examples might include:

- Figuring the amount of a 15% tip or determining what percentage of weekly income goes to pay taxes
- For a long-term project, help your child choose a stock and follow its value on the stock market using the newspaper or the Internet. Have your child calculate the stock’s percent increase or decrease each month

For more information, the full standards are available at www.corestandards.org

Parents' Guide to Student Success

This guide provides an overview of what your child will learn by the end of 8th grade in mathematics and English language arts/literacy. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for high school.

8TH GRADE

Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step — a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

English Language Arts & Literacy

A Sample of What Your Child Will Be Working on in 8th Grade

- Citing the evidence that most strongly supports an analysis of what is explicitly stated and/or implied from a book, article, poem, or play
- Analyzing where materials on the same topic disagree on matters of fact, interpretation, or point of view
- Building writing around strong central ideas or points of view; supporting the ideas with sound reasoning and evidence, precise word choices, smooth transitions, and different sentence structures
- Planning and conducting research projects that include several steps and use many credible and documented print and digital sources
- Analyzing the purpose of information presented in diverse media (e.g., print, TV, web) and evaluating its social, political, or commercial motives
- Presenting findings and claims to others, emphasizing key points with relevant evidence and sound reasoning, adapting speech to the audience and the formality of the setting, and responding to questions and comments with relevant observations and ideas
- Using strong, active verbs to create a clear picture for the reader (e.g., *walk*, *skip*, *meander*, *lurch*, *limp*)
- Interpreting figures of speech (e.g., irony, puns) and developing a large vocabulary of general academic words and phrases



Talking to Your Child's Teacher

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 8th grade, these include:

- Reading closely and drawing evidence from grade-level fiction and non-fiction works that most strongly supports an analysis of the material
- Developing a rich vocabulary of complex and sophisticated words and using them to speak and write more precisely and coherently

Mathematics

A Sample of What Your Child Will Be Working on in 8th Grade

- Understanding slope, and relating linear equations in two variables to lines in the coordinate plane
- Solving linear equations (e.g., $-x + 5(x + \frac{1}{3}) = 2x - 8$); solving pairs of linear equations (e.g., $x + 6y = -1$ and $2x - 2y = 12$); and writing equations to solve related word problems
- Understanding functions as rules that assign a unique output number to each input number; using linear functions to model relationships
- Analyzing statistical relationships by using a best-fit line (a straight line that models an association between two quantities)
- Working with positive and negative exponents, square root and cube root symbols, and scientific notation (e.g., evaluating $36 + 64$; estimating world population as 7×10^9)
- Understanding congruence and similarity using physical models, transparencies, or geometry software (e.g., given two congruent figures, show how to obtain one from the other by a sequence of rotations, translations, and/or reflections)



Talking to Your Child's Teacher

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 8th grade, these include:

- Linear equations with one and two variables
- Functions
- Congruence and similarity of geometric figures

Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time *every day* when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

English Language Arts & Literacy

- Make time in everyone's busy schedule for family discussions about things going on around the world. Weekends can be a chance for everyone to catch up
- Visit the campus of a local college with your teen. Begin talking about college early. What does he or she expect from college? What high school courses will your child need to pass to prepare for college?

Mathematics

Ask your child to share with you any work he or she is doing in math class that strikes him or her as interesting. Some possibilities might include:

- Solving interesting problems involving cylinders and spheres, such as figuring out how much water fits inside a garden hose, or how many earths would fit inside the sun
- Analyzing data with a scatterplot, for example to decide whether exercise and obesity are related

For more information, the full standards are available at www.corestandards.org

Parents' Guide to Student Success

This guide provides an overview of what your child will learn during high school in English language arts. This guide is based on the new Common Core State Standards, which have been adopted by more than 45 states. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for success after graduation.

HIGH SCHOOL ENGLISH

Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step — a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

English Language Arts & Literacy

To become ready for college and career, high school students learn to evaluate intricate arguments and surmount the challenges posed by complex written materials independently and confidently. Through wide and deep reading of literature and literary nonfiction of steadily increasing sophistication, students expand their literary and cultural knowledge and better understand references and images. They also develop the flexibility, concentration, and fluency to produce high-quality, first drafts of writing under

tight deadlines. And they are able to revisit and make improvements to a piece of writing over multiple drafts if needed. They master the essential “rules” of standard written and spoken English and resolve usage issues by consulting style and usage guides. By writing and participating in a variety of conversations, they assert and defend claims and show what they know about a subject using appropriate examples and evidence.

An Overview of the Work Your Child Will Be Doing in High School to Become Ready for College and Career

Reading

- Understanding more from and making fuller use of written materials, including using a wider range of evidence to support an analysis
- Making more connections about how complex ideas interact and develop within a book, essay, or article
- Evaluating arguments and specific claims, assessing whether the reasoning is valid and the evidence is sufficient, and as appropriate, detecting inconsistencies and ambiguities
- Analyzing the meaning of foundational U.S. documents (the Declaration of Independence, the Preamble to the Constitution, the Bill of Rights)

Writing

- Making an argument that is logical, well-reasoned, and supported by evidence
- Writing a literary analysis, report, or summary that develops a central idea and a coherent focus and is well supported with relevant examples, facts, and details
- Conducting several research projects that address different aspects of the same topic, using more complex books, articles, and other sources

Speaking and Listening

- Responding thoughtfully to diverse perspectives; synthesizing comments, claims, and evidence made on all sides of an issue; and resolving contradictions when possible
- Sharing research, findings, and evidence clearly and concisely
- Making strategic use of digital media (e.g., animations, video, websites, podcasts) to enhance understanding of findings and to add interest

Language

- Determining or clarifying the meaning of words and phrases, choosing flexibly from multiple strategies, such as using context, Greek and Latin roots (e.g., *bene* as in *benefactor* or *benevolent*), patterns of words (conceive, conception, conceivable), and consulting specialized reference materials.
- Interpreting figures of speech (e.g., hyperbole, paradox) in context and analyzing their role in the written materials



Talking to Your Child's Teacher

When you talk to the teacher, don't worry about covering everything. Instead, keep the conversation focused on the most important topics. In high school, these include:

- Becoming skilled at gathering information, evaluating sources, and citing material accurately
- Asserting and defending claims, conveying what he or she understands about what he or she has read and researched
- Speaking clearly and appropriately, listening attentively when discussing findings and evidence, and building on others' good ideas while expressing his or her own ideas persuasively

Parent Tips: Planning for College and Career

At the beginning of high school, sit down with your child's teachers, counselor or other advisor to discuss what it will take for your child to graduate, your child's goals, and his/her plans after high school. Create a plan together to help your child reach these goals. This plan should include:

- An appropriate course sequence to meet your child's goals
- The most appropriate extracurricular activities for your child
- Your plan to help your child prepare for college or career. For example, if your child is interested in a particular field, look to see if internships exist to build his/her work experience in that subject area
- Finding ways to pay for college or advanced training

For more information, the full standards are available at www.corestandards.org

Parents' Guide to Student Success

This guide provides an overview of what your child will learn during high school in mathematics. This guide is based on the new Common Core State Standards, which have been adopted by more than 45 states. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for success after graduation.

HIGH SCHOOL MATH

Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step — a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

Mathematics

Numerical skill and quantitative reasoning remain crucial even as students move forward with algebra. Algebra, functions, and geometry are important not only as mathematical subjects in themselves but also because they are the language of technical subjects and the sciences. And in a data-rich world, statistics and probability offer powerful ways of drawing conclusions from

data and dealing with uncertainty. The high school standards also emphasize using mathematics creatively to analyze real-world situations — an activity sometimes called “mathematical modeling.”

The high school standards are organized into six major content areas: Number and Quantity; Algebra; Functions; Modeling; Geometry; and Statistics and Probability.

An Overview of the Work Your Child Will Be Doing in High School to Become Ready for College and Career

Number and Quantity

- Working with rational and irrational numbers, including working with rational exponents (e.g., rewriting $(5^3)^{1/2}$ as $5\sqrt{5}$)
- Solving problems with a wide range of units and solving problems by thinking about units (e.g., “The Trans Alaska Pipeline System is 800 miles long and cost \$8 billion to build. Divide one of these numbers by the other. What is the meaning of the answer?”; “Greenland has a population of 56,700 and a land area of 2,175,600 square kilometers. By what factor is the population density of the United States, 80 persons per square mile, larger than the population density of Greenland?”)

Algebra

- Solving real-world and mathematical problems by writing and solving nonlinear equations, such as quadratic equations ($ax^2 + bx + c = 0$)
- Interpreting algebraic expressions and transforming them purposefully to solve problems (e.g., in solving a problem about a loan with interest rate r and principal P , seeing the expression $P(1+r)^n$ as a product of P with a factor not depending on P)

Functions

- Analyzing functions algebraically and graphically, and working with functions presented in different forms (e.g., given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum)
- Working with function families and understanding their behavior (such as linear, quadratic, and exponential functions)

Modeling

- Analyzing real-world situations using mathematics to understand the situation better and optimize, troubleshoot, or make an informed decision (e.g., estimating water and food needs in a disaster area, or using volume formulas and graphs to find an optimal size for an industrial package)

Geometry

- Proving theorems about triangles and other figures (e.g., that the angles in a triangle add to 180°)
- Using coordinates and equations to describe geometric properties algebraically (e.g., writing the equation for a circle in the plane with specified center and radius)

Statistics and Probability

- Making inferences and justifying conclusions from sample surveys, experiments, and observational studies
- Working with probability and using ideas from probability in everyday situations (e.g., comparing the chance that a person who smokes will develop lung cancer to the chance that a person who develops lung cancer smokes)



Talking to Your Child's Teacher

When you talk to the teacher, don't worry about covering everything. Instead, keep the conversation focused on the most important things. Ask questions such as:

- Is my child comfortable using coordinates in algebra and geometry?
- Can my child break a complex problem down into parts and apply the math he or she knows to problems outside of mathematics?
- Does my child have the knowledge to learn advanced mathematics after high school if he/she so chooses?
- Ask to see samples of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? How can I help my child improve or excel in this area?

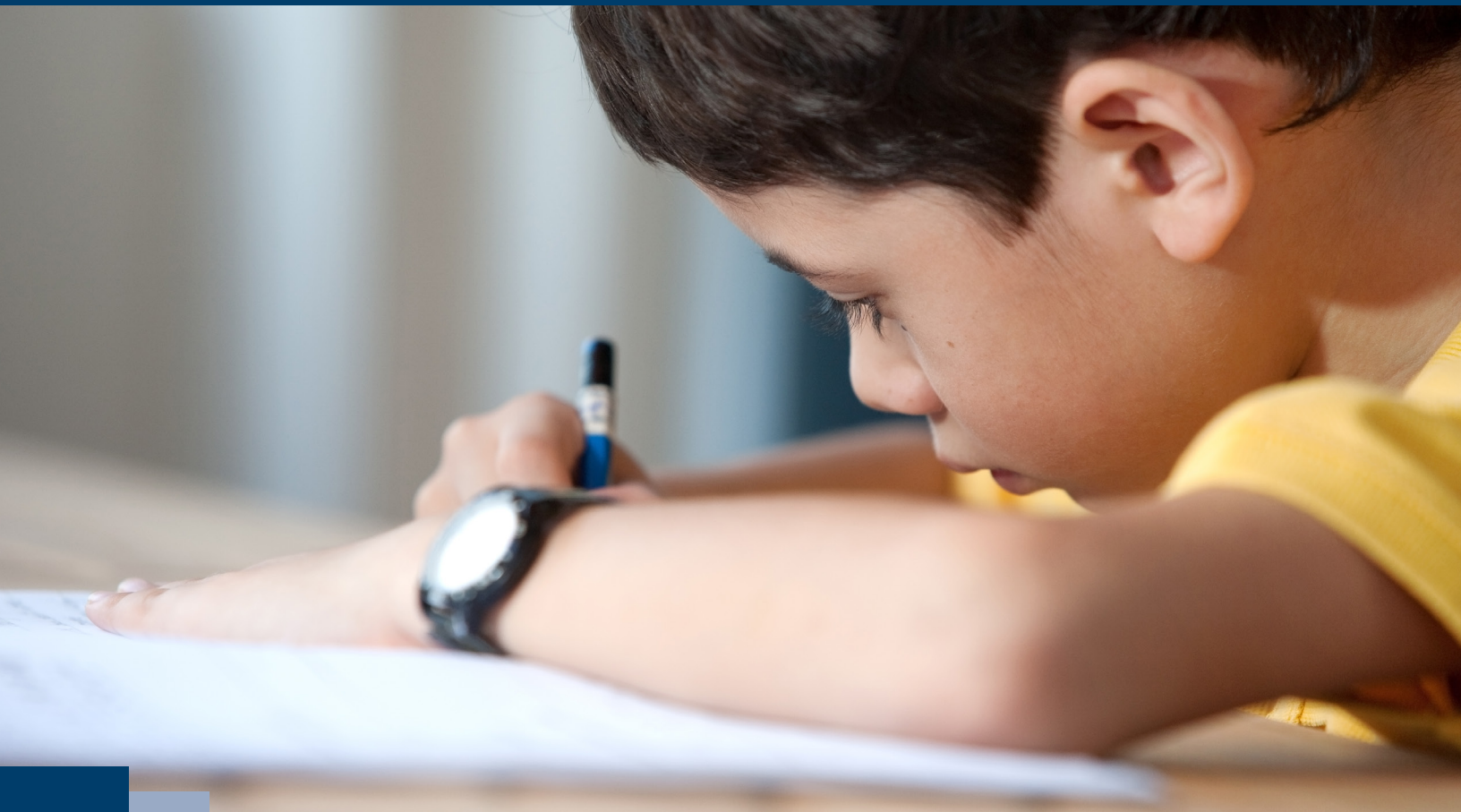
Parent Tips: Planning for College and Career

At the beginning of high school, sit down with your child's teachers, counselor or other advisor to discuss what it will take for your child to graduate, your child's goals, and his/her plans after high school. Create a plan together to help your child reach these goals. This plan should include:

- An appropriate course sequence to meet your child's goals
- The most appropriate extracurricular activities for your child

- Your plan to help your child prepare for college or career. For example, if your child is interested in a particular field, look to see if internships exist to build his/her work experience in that subject area

For more information, the full standards are available at www.corestandards.org



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