

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?

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