



PREPARING STUDENTS FOR SUCCESS IN GRADE 9

Your Child's Progress

A parent resource for understanding what your child should learn and be able to do this year, and helpful suggestions for supporting your child's learning at home.

We owe it to our kids to make sure that they receive an education that prepares them to thrive in a global economy and civic life. That is why Connecticut raised the bar and issued an instructional roadmap that will prepare our kids for college and careers.

Our roadmap, the Connecticut Core Standards, sets learning expectations for what students should learn and be able to do at each grade level so that by the time they graduate from high school, they are ready to succeed in college and the workplace. These standards help set clear and consistent expectations for everyone involved in your child's learning.

A ruler for measuring student success

The Smarter Balanced assessments measure student progress based on the standards, or learning expectations, for Grades 3-8 in English language arts and mathematics. The scores can be used as a ruler to measure the skills your child acquired throughout the school year. The tests provide information about achievement in the current grade and growth from one grade to the next.

Building a bridge between school and home

At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify tutoring opportunities, to get involved in clubs after school, or to find other resources. Talk to your child's teacher regularly about how your child is doing beyond the parent-teacher conferences. By building a connection between home and school, you can greatly improve the impact of your child's learning.



What Your Child Learned in Grade 8

Mathematics

- Developing the understanding that every rational number (such as $\frac{1}{2}$, 0.3, 2, or -2) can be written as a decimal, but that the decimal form of an irrational number (such as $\sqrt{2}$ or π) is both non-repeating and infinite (goes on forever).
- Using linear equations ($y = mx + b$), systems of linear equations (two or more equations), and their understanding of slope (rate of change) to model situations and solve problems.
- Comparing the properties of two functions (a special rule) represented in different ways (table, graph, equation, or description).
- Using transformations translations (slides), rotations (turns), reflections (mirror image), and dilations (enlarging or shrinking) to understand congruence (the exact same) and similarity (proportional size).
- Using the Pythagorean Theorem (an equation that relates the lengths of the sides of a right triangle: $a^2 + b^2 = c^2$) to solve problems.
- Solving problems involving the volume (amount that can be held) of cylinders, cones, and spheres.
- Constructing scatterplots (many points on a graph) to examine the relationship between two quantities, for example, arm span and height.

English Language Arts

- Citing evidence that most strongly supports an analysis of a book, article, poem, or play.
- Analyzing where texts on the same topic disagree on matters of fact or interpretation.
- Writing and developing a topic with well-chosen facts, definitions, details, quotations, or other information.
- Writing arguments that state a claim, identifying the claim from opposing views, and supporting the claim with reasons and evidence from accurate and credible sources.
- Conducting research projects that use many credible print and digital sources.
- Using technology to produce and publish writing and to work with others on writing.
- Participating in class discussions on various topics, texts, and issues by expressing ideas and building on others' ideas.
- Listening to another speaker's argument and evaluating whether the claims are based on sound reasoning and evidence and identifying evidence that is irrelevant.

Please note: Text is printed materials (books, newspapers, magazines) as well as graphics, drawings, and multimedia such as audio or visual recordings.

What Your Child Will Learn in Grade 9

Mathematics

- Deepening and applying their understanding of previous mathematical concepts from K–8.
- Creating and solving mathematical expressions (relationships using numbers and letters with no equal sign) and equations (relationships using numbers and letters with an equal sign) that describe real-world situations.
- Creating and interpreting graphs and their applications.
- Using algebraic and geometric reasoning to model real-life situations.
- Understanding the rules of probability and using them to interpret data and evaluate the outcomes of decisions.
- Distinguishing between correlation (relationship) and causation (having an effect on something).
- Interpreting graphs as the relationship between, or statistical significance relating, two variables.

English Language Arts

- Reading complex works of literature and informational texts closely and critically.
- Interpreting what they read and presenting an analysis based on examples and evidence from the text.
- Analyzing how an author's choices create effects such as mystery, tension, or surprise.
- Reading texts that represent various times, cultures, and worldviews.
- Analyzing the impact of word choices on meaning and tone.
- Identifying whether the argument in a text has valid reasoning and sufficient evidence.
- Writing literary analyses, reports, and summaries with logical ideas that are well-supported with relevant facts, examples, and details.
- Evaluating the credibility and accuracy of sources.
- Conducting short and long-term research projects to answer a question or solve a problem.
- Using technology in presentations to enhance understanding of findings, evidence, and to add interest.

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How You Can Help Your Child

Mathematics

- Encourage your child to be persistent by reminding them that mathematics requires patience, practice, and time to think and reflect.
- Show enthusiasm for your child's study of mathematics.
- Urge your child to ask their teacher questions either during or after class.
- Encourage your child to review class notes every night and look at the answers to difficult problems to work backwards and determine how the solution was found.
- Notice ways that people in the real-world use and apply mathematics every day and point those examples out to your child.

English Language Arts

- Read and discuss informational texts with your child such as newspapers, magazines, technical manuals, or health, science, and social studies articles.
- Compare and contrast movies and videos with previously read books. Discuss with your child which version is better. Your child should use evidence to support his or her claims.
- Watch the news with your child and then discuss the current topics or events. Urge your child to write letters requesting information or to commend the actions of a person that is in the news.
- Encourage your child to share opinions on issues, books, and movies. Your child should back up claims with evidence.
- Take advantage of technology and have your child use the Internet to research topics of interest.
- Explore your town or city or a place of interest by reading and researching, visiting, or interviewing local historians. Urge your high schooler to make a video that could serve as an advertisement for the locale.
- Ask your child about future goals and career interests. Help your child research and gather various sources of information on college and career opportunities and then make informed decisions.

Resources

Mathematics

Khan Academy

The [Khan Academy website](#) provides an extensive library of user-friendly content for K–12 mathematics. Students can practice at their own pace and use interactive challenges and videos from any computer with Internet access.

Be A Learning Hero

The [Be A Learning Hero website](#) supports families in guiding their children’s learning by providing resources, tools, and tips aligned to grade-level expectations. It helps parents understand their child’s progress in math and offers activities to build skills at home.

IXL

The [IXL website](#) offers comprehensive, standards-aligned practice in mathematics. Students receive personalized recommendations, immediate feedback, and interactive questions that adapt to their skill level.

English Language Arts

NEWSELA

The [NEWSELA website](#) provides students with high-interest nonfiction articles that are updated daily. Each article offers a choice of five different reading levels by Lexile, making it just right for each child.

AdLit:

The [AdLit website](#) supports adolescent literacy with resources for both parents and educators.

jColorín Colorado!

The [jColorín Colorado! website](#) is a national multimedia project that offers a wealth of bilingual, research-based information, activities, and advice for educators and families of English learners/multilingual learners.

National PTA Parent Toolkit

The PTA's mission is to make every child’s potential a reality by engaging and empowering families and communities to advocate for all children, they offer the [National PTA Parent Toolkit website](#).