



PARENTS' GUIDE TO Student Success

8TH GRADE

This guide provides an overview of what your child will learn by the end of 8th grade in mathematics and English language arts/literacy. It focuses on the key skills your child

will learn in these subjects, which will build a strong foundation for success in the other subjects he or she studies throughout the school year. This guide is based on 8th Grade. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for high school.

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. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But 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. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

HOW CAN I HELP MY CHILD?

You should use this guide to help build a relationship with your child's teacher. You can do this by talking to his or her teacher regularly about how your child is doing — beyond parent-teacher conferences.

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 opportunities for tutoring, to get involved in clubs after school, or to find other resources.

THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in English/literacy and math in 8th grade
- 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

English Language Arts & Literacy

To prepare for bigger challenges in high school, 8th grade students must grapple with major works of fiction and nonfiction that extend across cultures and centuries. As they work diligently to understand precisely what an author or speaker is saying, students also must learn to question an author's or speaker's assumptions and assess the accuracy of his or her claims. They also must be able to report findings from their own research and analysis of sources in a clear manner.

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
- Learning how authors support their ideas through word choice, sentence and paragraph structure, and other methods
- 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

Keeping the conversation focused.

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 nonfiction 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

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

In 8th grade, your child will learn a number of skills and ideas that he or she must know and understand to be ready for college and career. Your child will continue to learn how to write and reason with algebraic expressions. Your child also will make a thorough study of linear equations with one and two variables. Building on previous work with relationships between quantities, your child will be introduced to the idea of a mathematical function. And your child will prepare for high school geometry by understanding congruence (same shape and size) and similarity of geometric figures.

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 $\sqrt{36 + 64}$; 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)
- Understanding and applying the Pythagorean Theorem ($a^2 + b^2 = c^2$) to solve problems

Keeping the conversation focused.

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

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

**Talking to
Your Child's
Teacher**

Help Your Child Learn at Home

Learning does not end in the classroom. Children need help and support at home to succeed in their studies. Try to create a quiet place for your child to study, and carve out time *every day* when your child can concentrate on reading, writing, and math uninterrupted by friends, brothers or sisters, or other distractions.

You should also try and 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. By taking these small steps, you will be helping your child become successful both in and outside the classroom.

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?
- Make sure to keep books and magazines around the house that your child will enjoy reading and learning from. For a list of book recommendations, visit www.corestandards.org/assets/Appendix_B.pdf.

Mathematics

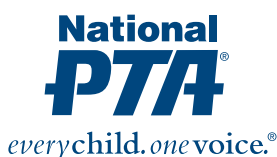
Ask your child to share with you any work he or she is doing in math class that strikes him or her as interesting. Some possibilities might include:

- 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.
- Solving "just for fun" algebra puzzles, such as: "I'm thinking of two numbers. The difference between the numbers is 40. Twice the smaller number is 20 more than the larger number. What are my numbers?"

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



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