

8th Grade Common Core Curriculum Overview

The course emphasizes problem solving, cooperative learning, mathematical communication (verbal and written), mathematical reasoning, mathematical application to everyday situations, and appropriate calculator and computer use. The approach to learning math uses an inquiry-based model in which problem solving and inductive reasoning activities help students persevere to answer essential questions. The eighth grade math curriculum is aligned to the Common Core State Standards and integrates the 8 Mathematical Practices, as well as 21st Century Learning.

The course uses the 2019 Big Ideas Math series. Each child has an online student edition, with additional resources for parents and students to access anytime. These resources include video tutorials, test practice, a glossary with audio, progress checks, vocabulary help, manipulative visual aids, skill reviews, and a game closet to reinforce skills. The resources and online student edition can be accessed at www.bigideasmath.com.

Skills to be developed throughout the course:

Standards for Mathematical Practice

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Units of Study:

- Solving Equations
- Identifying and Performing Transformations
- Graphing and Writing Linear Equations
- Solving Systems of Linear Equations
- Angles Formed by Parallel Lines and Transversals
- Interior and Exterior Angles of Polygons and Similar Triangles
- Data Analysis and Displays
- Linear and Nonlinear Functions
- Exponents and Scientific Notation
- Pythagorean Theorem
- Volume of Cylinders, Cones, and Spheres
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The Learning Standards for this course are the Common Core Standards. Priority standards should be listed and linked below:

[Standards](#)