

Sixth Grade Mathematics Curriculum
Edgartown School
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Curriculum Materials - Eureka Math by Great Minds

Our sixth grade mathematics program correlates with the Massachusetts Curriculum frameworks for Mathematics which merges the Common Core State Standards for Mathematics with additional Massachusetts standards.

<http://www.doe.mass.edu/candi/commoncore/>

This year students will learn the concept of rates and ratios and use these tools to solve word problems. Students will work on quickly and accurately dividing multi-digit numbers and adding, subtracting, multiplying, and dividing multi-digit decimals. Students will extend their previous work with fractions and decimals to understand the concept of rational numbers. Rational numbers are any numbers that can be made by dividing one integer by another. Students will also learn how to write and solve equations or mathematical statements using symbols and apply these skills in solving multi-step word problems. Activities this year will include:

- Understanding and applying the concepts of ratios and unit rates, and using the correct language to describe the ratios
- Building on knowledge of multiplication and division to divide fractions by fractions
- Understanding that positive and negative numbers are located on opposite sides of 0 on a number line
- Using pairs of numbers, including negative numbers, as coordinates for locating or placing a point on a graph
- Writing and determining the value of expressions with whole-number exponents
- Identifying and writing equivalent mathematical expressions by applying the properties of operations
- Understanding that when solving an equation with a variable x you need to be able to answer the question “What number does x have to be to make this statement true.” It means in an equation such as $2 + x = 12$, that $x = 10$.
- Representing and analyzing the relationships between independent and dependent variables
- Solving problems involving area and volume

The following are the modules or units this year:

Module 1: Ratios and Unit Rates

Module 2: Arithmetic Operations Including Dividing by a Fraction

Module 3: Rational Numbers

Module 4: Expressions and Equations

Module 5: Area, Surface Area, and Volume Problems

Module 6: Statistics

While covering the mathematical content we will also be focusing on The Standards for Mathematical Practice. These standards describe ways in which students should engage with the mathematical content and include the following:

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