



Southmoreland School District

MATH 6 Curriculum Overview

MATH 6 Overview:

In sixth grade math, instructional time will focus on five areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) understanding division of fractions and extending the notion of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; (4) developing understanding of statistical thinking; and (5) geometry.

Module Titles:

Module 1: The Number System

Module 2: Ratios and Proportional Relationships

Module 3: Expressions and Equations

Module 4: Geometry

Module 5: Statistics and Probability

Module Overviews:

Module 1 The Number System

In this module, students will apply and extend previous understandings of multiplication and division to divide fractions by fractions. They will also multiply and divide multi-digit numbers and find common factors and multiples. Students will apply and extend previous understandings of numbers to the system of rational numbers which includes comparing and ordering rational numbers. Next, students will use the distributive property to express a sum of two numbers. They will use positive and negative numbers to represent quantities in real world contexts, plot integers and other rational numbers on a number line and on a coordinate graph, interpret the opposite and absolute value of an integer as its distance from zero on a number line.

Module 2: Ratios and Proportional Relationships

In this module, students will gain an understanding of ratio concepts and use ratio reasoning to solve problems. They will represent ratio relationships in various forms, determine unit rates in context, convert measurement units using equivalent ratios and solve problems using ratio and rate reasoning.



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Module 3: Expressions and Equations

Students will apply and extend previous understandings of arithmetic to algebraic expressions. They will reason about and solve one-variable equations and inequalities. Students will also represent and analyze quantitative relationships between dependent and independent variables. They will also write, identify and evaluate numerical expressions involving exponents. Finally, students will write, read and evaluate algebraic expressions and apply the properties of operations to generate equivalent expressions.

Module 4: Geometry

Students will solve real-world and mathematical problems involving area, surface area, and volume. In this module, they will determine the area of triangles, quadrilaterals, irregular polygons and compound polygons. Students will also find volumes of right rectangular prisms with fractional edge lengths.

Module 5: Statistics and Probability

In this module, students will develop an understanding of statistical variability, summarize and describe distributions. Students will display data in dot plots, histograms and box-and-whisker plots. They will also determine quantitative measures of center and variability.