



Mathematics Grade 6 Year at a Glance

Scope and Sequence 2022 - 2023

Please Note: All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended timeline and sequence to be used voluntarily by teachers for planning purposes. Specific question regarding when content will be addressed in a specific course are best answered by the individual teacher.

Course Resources

Publisher Resource:

[Math Nation](#) (Clever – use your active directory; does not support Internet Explorer)

Supplemental Resources:

[Khan Academy](#) (6th Grade; does not support Internet Explorer)

[Illustrative Mathematics](#) (6th Grade; does not support Internet Explorer)

In Grade 6, instructional time will emphasize five areas:

- (1) Performing all four operations with integers, positive decimals and positive fractions with procedural fluency;
- (2) Exploring and applying concepts of ratios, rates and percent to solve problems;
- (3) Creating, interpreting, and using expressions and equations
- (4) Extending geometric reasoning to plotting points on the coordinate plane, area, and volume of geometric figures and
- (5) Extending understanding of statistical thinking.



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Quarter 1 (August 10 – October 14)

Unit 1: Number Sense and Operations with Positive Numbers

Students will explore greatest common factor, least common multiple, multiplication and division of multi-digit numbers with decimals to the thousandths, and multiplication and division to compute products and quotients of positive fractions.

Unit 2: Fractions, Percentages, and Decimals

Students will create equivalent forms of fractions, decimals, and percentages to solve multi-step real-world problems involving any of the four operations with positive multi-digit decimals or positive fractions including mixed numbers.

Unit 3: Understanding Rational Numbers

Students will focus on the placement of rational numbers on the number line and employ the equivalent forms of numbers written as fractions, decimals, and percentages.

Unit 4: The Coordinate Plane

Students will plot rational number coordinate pairs on the coordinate plane in all four quadrants.

Quarter 2 (October 18 – December 21)

Unit 4: The Coordinate Plane

Students will find distances along horizontal or vertical lines without the formal understanding of subtraction of integers, but with the formal understanding of absolute value.

Unit 5: Ratios and Rates

Students will explore and apply concepts of ratios, rates and percent to solve problems.

Unit 6: Operations with Integers

Students will focus on exponents, prime factorization, and learn operations of integers with the support of manipulatives.

Unit 7: Area

Students will apply operations of positive decimals and fractions to solve problems involving area.



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Quarter 3 (January 5 – March 9)

Unit 8: Surface Area and Volume

Students will focus on volume and surface area of rectangular prisms and pyramids.

Unit 9: Data Sets

Students will calculate measures of center and variation. Students will also represent and interpret one-variable data distributions in histograms, line plots, and box plots.

Unit 10: Representing Data and Distributions

Students will be able to match data displays, identify outliers, and justify measures of center and variations.

Quarter 4 (March 20 – May 25)

Unit 13: Algebraic Expressions

Students will apply operations with integers in evaluating algebraic expressions and adding and subtracting expressions.

Unit 14: Equations and Inequalities

Students will solve one-step equations and one-step inequalities.