Mathematics Grade 7 Year at a Glance

Scope and Sequence 2025 - 2026

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 (7th Grade; does not support Internet Explorer)

Illustrative Mathematics (7th Grade; does not support Internet Explorer)

In Grade 7, instructional time will emphasize five areas:

(1) Recognizing that fractions, decimals and percentages are different representations of rational numbers and performing all four operations with rational numbers with procedural fluency;

(2) Creating equivalent expressions and solving equations and inequalities;

(3) Developing understanding of and applying proportional relationships in two variables;

(4) Extending analysis of two-and three-dimensional figures to include circles and cylinders and

(5) Representing and comparing categorical and numerical data and developing understanding of probability

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Quarter 1 (August 11 – October 10)

Unit 2: Probability
Students will grow on the understanding of equivalent forms of rational numbers and apply these equivalent forms to probability of an event.

Unit 3: Operations with Rational Numbers
Students will focus on operations with rational numbers. Students revisit operations with integers and extend the rules to all rational numbers.

Unit 4: Area
Students will continue to practice with operations with rational numbers by finding the area of various figures, including circles. Students are introduced to the irrational number, pi, and various rational numbers that can be used to estimate it.

Quarter 2 (October 14 – December 19)

Unit 5: Scaling with Proportional Relationships
Students will understand proportional relationships and use proportional relationships to make predictions about a population given categorical data and to determine dimensions and areas of geometric figures where scale factor is the constant of proportionality.

Unit 6: Solving Multi-Step Problems with Proportional Relationships
Students will convert between two measurement systems and solve multi-step proportion problems.

Unit 7: Solving Percentage Problems with Proportional Relationships
Students will apply their understanding of proportional relationships to build circle graphs and to solve multi-step real-world percent problems.

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Quarter 3 (January 5 – March 12)
Unit 8: Evaluating Numeric Expressions Students will use the laws of exponents to solve problems. Students will then find the value of an expression that includes exponents, grouping symbols, and operations. **Unit 9: Algebraic Expressions** Students will utilize their understanding of exponents, grouping symbols, and operations, as well as their improving fluency of rational numbers to add and subtract linear expressions with rational coefficients. Students will also apply their understanding of equivalence to determine if two expressions are equivalent. **Unit 10: Equations and Inequalities** Students will be able to solve two-step equations and inequalities.

Quarter 4 (March 23 – May 29)
Unit 11: Representing Proportional Relationships Students will determine and use the algebraic representation of proportional reasoning. They will connect the value of the proportional relationships between the circumferences and diameter of a circle and apply the relationship to explore the formula for the area of a circle that uses circumference. **Unit 12: Surface Area and Volume** Students will find the surface area of cylinders and the volume of right circular cylinders. **Unit 13: Numerical and Categorical Data** Students will explore graphical representations of data, determine an appropriate measure of center or measure of variation to summarize a distribution, and compare more than one distribution.

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