

Mathematics 7 delivers instruction, practice, and review designed to develop computational fluency, deepen conceptual understanding, and apply mathematical practices. Throughout the course, students gain a deep understanding of proportions and their use in solving problems. They extend their fluency with operations on rational numbers and translate among different forms of rational numbers. Algebra topics include simplifying and rewriting algebraic expressions and solving more complex equations and inequalities. Students also sketch geometric figures and explore scale drawings, investigate circle properties and angle relationships, and deepen their understanding of area, volume, and surface area. They see how statistics uses sample data to make predictions about populations and compare data from different data sets. Students gain a fundamental understanding of probability and explore different ways to find or estimate probabilities.

The two-semester course is arranged in themed units, each with three to five lessons. Each lesson includes a variety of activities such as direct instruction, application of skills, performance tasks, and formative and summative assessments. Students engage with the subject matter in an interactive, feedback-rich environment as they progress through standards-aligned content and demonstrate their learning through computer- and teacher-scored assignments. By constantly honing the ability to apply their knowledge in abstract and real-world scenarios, students build the depth of knowledge and higher-order skills required to demonstrate their mastery when put to the test.

This course is built to state standards.

**Semester B will release in December.*

Length: Two Semesters

Unit 1: Number Sense

- Fractions, Decimals, and Percents
- Using Proportions to Solve Problems
- Square Roots and Exponents
- Scientific Notation
- Wrap-Up: Number Sense

Unit 2: Operations with Rational Numbers

- Adding Rational Numbers
- Subtracting Rational Numbers
- Multiplying Rational Numbers
- Dividing Rational Numbers
- Solving Multistep Problems with Rational Numbers
- Wrap-Up: Operations with Rational Numbers

Unit 3: Numerical and Algebraic Expressions

- Expressions with Integers
- Evaluating Expressions
- Equivalent Expressions
- Algebraic Expressions
- Wrap-Up: Numerical and Algebraic Expressions

Unit 4: Equations and Inequalities

- Solving Two-Step Equations
- Using Equations to Solve Problems
- Solving Linear Inequalities
- Wrap-Up: Equations and Inequalities

Unit 5: Semester Wrap-Up

- Semester Wrap-Up