

Algebra 1 is a two-semester course that is 100% aligned to the South Carolina College- and Career-Ready Mathematics Standards. The course is designed to help students develop computational fluency, deepen their conceptual understanding, and apply mathematical processes. Students will explore linear, quadratic, and exponential relationships. They will also compare and transform functions; solve systems of linear equations; add, multiply, and factor polynomials; and model statistical data. The course supports student learning through guided instruction, interactive tools, and modeling and journal activities that provide opportunities for students to analyze real-world scenarios, construct arguments, critique reasoning, and communicate precisely.

There are no required materials for this course.

Length: Two Semesters

Unit 1: Number Sense

- Decimal Operations
- Greatest Common Factor and Least Common Multiple
- Fraction Multiplication and Division
- Solving Problems with Fractions
- Rewriting and Comparing Fractions, Decimals, and Percents
- Wrap-Up: Number Sense

Unit 2: Integers

- Integers
- Inequalities and Comparison
- Absolute Value
- Wrap-Up: Integers

Unit 3: Operations with Integers

- Adding Integers
- Subtracting Integers
- Multiplying and Dividing Integers
- Wrap-Up: Operations with Integers

Unit 4: The Coordinate Plane

- Plotting Points on the Coordinate Plane
- Quadrants and Axes
- Using Graphs to Solve Problems
- Wrap-Up: The Coordinate Plane

Unit 5: Ratios and Unit Rates

- Ratios
- Rates and Unit Rates

- Solving Percent Problems
- Unit Conversions
- Wrap-Up: Ratios and Unit Rates

Unit 6: Semester Wrap-Up

- Semester Wrap-Up

Unit 7: Numerical and Algebraic Expressions

- Exponents
- Expressions and Equations
- Evaluating Expressions
- Equivalent Expressions
- Wrap-Up: Numerical and Algebraic Expressions

Unit 8: Equations and Inequalities

- Solutions of Equations and Inequalities
- Solving Equations Using Addition and Subtraction
- Solving Equations Using Multiplication and Division
- Wrap-Up: Equations and Inequalities

Unit 9: Relationships between Variables

- Solving Inequalities
- Independent and Dependent Variables
- Multiple Representations: Tables, Graphs, and Equations
- Wrap-Up: Relationships between Variables

Unit 10: Geometry

- Geometric Drawings
- Angle Relationships
- Area
- Coordinate Geometry
- Volume
- Surface Area
- Wrap-Up: Geometry

Unit 11: Introduction to Data Analysis and Probability

- Collecting Data
- Measures of Center and Variability
- Box Plots
- Probability
- Wrap-Up: Introduction to Data Analysis and Probability

Unit 12: Semester 2 Exam

- Semester Wrap Up