

# Algebra Foundations – Course Syllabus

## Course Materials

- Unit Packet Handouts
- Google Classroom
- Scientific Calculators

## Course Outline

- **Unit 1: Real Numbers**
  - Integers, Integer Operations, and Absolute Value
  - Fractions, Decimals, and Percents
  - Operations with Fractions
  - Exponents, Zero Exponent, Negative Exponents
  - Perfect Squares, Square Roots, Non-Perfect Squares, Perfect Cubes, and Cube Roots
  - Scientific Notation, Comparing & Ordering Number Forms
  - Order of Operations
  - Evaluating Expressions
  - The Real Number System
  - Properties of Real Numbers
- **Unit 2: Algebraic Expressions**
  - Translating Expressions
  - Combine Like Terms
  - Distributive Property
  - Factoring Linear Expressions
  - Operations with Monomials
  - Exponent Rules
  - Adding and Subtracting Polynomials
- **Unit 3: Equations and Inequalities**
  - Solving One-Step Equations
  - Solving Rational Equations
  - Solving Two-Step Equations
  - Solving Equations by Square Roots
  - Solving Multi-Step Equations
  - Solve and Graph Linear Inequalities
- **Unit 4: Ratios, Proportions, and Percentages**
  - Ratios, Rates, and Unit Rates
  - Proportional Relationships
  - Solving Proportions
  - Percent Proportion
  - Percent Equation
  - Percent of Change

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- Simple Interest
- **Unit 5: Functions and Linear Relationships**
  - Coordinate Plane
  - Graphing Linear Equations
  - Rate of Change/Slope
  - Slope Formula
  - Standard Form
  - Vertical and Horizontal Lines
  - Linear vs. Nonlinear Equations
  - Slope-Intercept Form
  - Proportional Relationships

### Grading Policy

Points	Description
60%	Assessments: Quizzes, Tests, Exams
20%	Homework Problem Sets
20%	Classwork: Handouts, Desmos, Quizizz, Blooket, Note-Taking, Problem Sets

### Late Work Policy

If you are absent, the district policy is a 1 for 1 make-up where you get 1 day for each day of absence to make-up and submit missing work. Students are strongly encouraged to attend office hours during common lunch following an absence to make-up or for extra help with missed lessons.