

Algebra Foundations – Course Syllabus

Instructor: Mrs. Cafferty fcafferty@jacksonsd.org Room C204
Office Hours: Monday – Wednesday – Friday Common Lunch B 10:24–10:52am

Student Responsibilities:

- Ask questions to deepen understanding
- Engage in your learning
 - Take notes
 - Complete all assignments
 - Interact with your teacher and your classmates
 - Attend Office Hours during common lunch, especially if you are absent and need to make up any work.
- Open your mind to new ways of thinking
- Use what you have learned in prior math classes to acquire new knowledge

Grading:

- 20% Classwork
- 20% Homework
- 60% Assessments

Materials and Access:

- Google Classroom
- Virtual Calculator
- Savvas Envision digital Student Materials
- Quizizz Assignments
- Student.Desmos.com
- IXL.com
- Printed Notes & Homework

Algebra Foundations Recommended Supplies:

- a 2-inch 3-Ring binder
- a folder
- Pencils
- a calculator*
- *students will have access to virtual calculators if they do not have a physical calculator at home.

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.

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Course Outline

- **Unit 1: Real Numbers**
 - The Real Number System
 - Integers, Integer Operations, and Absolute Value
 - Fractions, Decimals, and Percents
 - Exponents, Zero Exponent, Negative Exponents
 - Perfect Squares, Square Roots, Perfect Cubes, and Cube Roots
 - Scientific Notation, Comparing & Ordering Number Forms
 - Order of Operations
 - Evaluating Expressions
- **Unit 2: Algebraic Expressions**
 - Properties of Real Numbers
 - 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 Multi-Step Equations
 - Solve and Graph Linear Inequalities
- **Unit 4: Ratios, Proportions, and Percentages**
 - Ratios, Rates, and Unit Rates
 - Proportional Relationships
 - Solving Proportions
 - Percent of Change
 - Simple Interest
- **Unit 5: Functions and Linear Relationships**
 - Coordinate Plane
 - Graphing Linear Equations
 - The Forms of Linear Equations
 - Vertical and Horizontal Lines
 - Linear vs. Nonlinear Equations