

Algebra 1 2020-2021 Syllabus

Unit 1

- Real Number System
- Rational vs. Irrational
- Simplify radicals
- Adding and Subtracting Polynomials
- Rules of exponents
- Multiplying polynomials
- Dividing polynomial by binomial

Unit 2 - Factoring

- Greatest Common Factor
- Difference of two squares
- Trinomials
- Trinomials $a > 1$
- Factor Completely

Unit 3 - Functions

- Function Definition
- Domain and Range
- Interval notation
- Evaluating Functions
- Function notation

Unit 4 - Linear Functions

- Solving multi-step equations
- Literal equations
- Translating word problems
- Interval notation
- Solving multi-step linear inequalities
- Graphing solutions on a number line
- Finding slope and intercepts
- Graphing linear equations
- Forms of linear equations
- Linear word problems
- Distance time graphs
- Is it linear?

Unit 5 – Inequalities

- Graphing linear inequalities
- Inequality word problems

Unit 6 – Systems

- Solving systems graphically
- Substitution method
- Addition method
- Systems of linear inequalities graphically
- Modeling with systems of inequalities

Unit 7 - Quadratics

- Graphing Quadratics
- Part of Parabolas
- Applications with parabolas
- Zero product property
- Solving Quadratics
 - Factoring
 - Quadratic Formula – discriminant
- Quadratic mixed word problems

Chapter 10: Other Types of Functions

- Graphing exponential, square root, cube root, absolute value functions
- Comparing graphs/tables of values
- Piecewise Functions
- Solving mixed (non linear) systems graphically