

**MATH CURRICULUM SUMMARY – GRADES 7-12**

The purpose of the Math Curriculum summary is to present an overview of the Algebra I curriculum. Parents are the intended audience of the Math Curriculum summary.

**Introduction to Algebra &  
Review of Real Number System**

- Define the vocabulary of Algebra
- Simplify numerical expressions
- Identify and use properties of the Real Number System
- Calculate applying the order of operations
- Identify patterns and sequences

**Solve and Interpret Equations and  
Inequalities in One Variable**

- Identify and use the inverse relationships to solve for unknown quantities in equations and inequalities
- Develop a plan and execute to solve application problems
- Check a solution for reasonableness and correctness
- Graph one-variable inequalities
- Interpret solutions to one-variable inequalities
- Solve word problems using ratio and proportion

**Polynomials and Rational Expressions**

- Develop the laws of exponents - positive, negative, and zero
- Simplify sums and products of monomials and polynomials
- Simplify quotients of monomials
- Factor polynomials
- Reduce a rational expression to lowest terms
- Determine the restrictions on the denominator of a rational expression

**Linear Equations and Inequalities**

- Identify functions and relations
- Determine domain and range
- Graph a linear function and inequality
- Determine the slope of a line
- Determine the equation of a line
- Interpret the solution of a linear inequality

**Systems of Equations and Inequalities**

- Determine the intersection of two lines analytically and graphically
- Solve application problems involving two variables
- Solve systems of linear inequalities
- Interpret the solution to linear inequalities

**Probability and Statistics**

- Calculate appropriate measures of central tendency
- Determine the probability of an event – theoretical versus experimental.
- Determine the probability of independent events
- Create displays of data
- Determine the equation of the line of best fit for a scatter plot