

Grade 8 Math Curriculum

- Algebra
 - variables and expressions
 - adding, subtracting, multiplying and dividing real numbers
 - order of operations
 - working with like terms
 - powers and exponents
 - square roots
 - classifying within the number systems
 - introduction to functions
- Equations
 - solving using addition, subtraction, multiplication and division
 - solving using two-steps and multiple steps
 - solving with variables on both sides
 - solving for a variable
 - rates, ratios and proportions
 - percents and their applications
 - percent increase and decrease
- Inequalities
 - writing and graphing
 - solving using addition, subtraction, multiplication and division
 - solving using two-steps and multiple steps
 - solving compound inequalities
- Functions
 - graphing relationships
 - relations and functions
 - writing and graphing functions
 - scatter plots and trend lines
 - arithmetic sequences
- Linear Functions
 - identifying linear functions
 - slope and the slope formula
 - slope-intercept form
 - point-slope form
 - slopes of parallel and perpendicular lines
 - transforming linear functions
- Systems of Equations and Inequalities
 - solving by graphing, substitution and elimination
 - solving special systems
 - solving linear inequalities

- solving special systems of inequalities
- Exponents and Polynomials
 - integer exponents
 - powers of 10 and scientific notation
 - multiplication and division properties of exponents
 - polynomials
 - adding, subtracting, multiplying polynomials
 - special binomial products
- Factoring Polynomials
 - greatest common factors
 - factoring by gcf
 - $x^2 + bx + c$ format
 - $ax^2 + bx + c$ format
 - special products
- Quadratics Functions and Equations
 - identifying
 - characteristics
 - graphing
 - transforming
 - solving by graphing, factoring, and using square roots
 - completing the square
 - Quadratic Formula and discriminant