

Curriculum – Grade 7 Mathematics

	Pre-Algebra A	Pre-Algebra	Algebra I
What your child will learn	<ul style="list-style-type: none"> • Variables and expressions • Properties and subsets of real numbers • Exponents • Operations with positive rational numbers (fractions and decimals) • Solving linear equations and inequalities • Coordinate graphing • Graphing linear equations • Data analysis • Ratios and percents • Proportions and scale drawings • Probability • Geometry – area, perimeter, volume, surface area, nets of 3-D figures, triangle inequality theorem • Integers 	<ul style="list-style-type: none"> • Variables and expressions • Properties and subsets of real numbers • Operations with integers, rational numbers (positive and negative) and real numbers • Solving linear equations and inequalities • Exponents • Coordinate graphing • Graphing linear equations • Ratios and percents • Proportions and scale drawings • Data analysis • Probability • Geometry – area, perimeter, volume, surface area, nets of 3-D figures, triangle inequality theorem • Pythagorean Theorem 	<ul style="list-style-type: none"> • Operations with real numbers • Properties and subsets of real numbers • Simplifying numeric, algebraic, exponential, and polynomial expressions • Solving linear equations, formulas, and inequalities • Graphing linear functions and inequalities • Solving and graphing systems of linear functions and inequalities • Operations with polynomials • Data analysis and probability • Polynomial factoring • Solving polynomial equations by factoring • Operations with radicals • Solving radical equations

<p>What your child will do</p>	<ul style="list-style-type: none"> • Use appropriate operations to solve problems and justify solutions • Solve linear equations using appropriate algebraic strategies • Communicate mathematically and use logical reasoning to make conjectures and verify solutions • Use operations to solve problems involving whole numbers, decimals, fractions, percents, rates, area, perimeter, and volume • Use operations to analyze data from graphs • Use/make tables or organized lists • Draw pictures and diagrams • Work individually and in groups to solve problems 	<ul style="list-style-type: none"> • Evaluate rational and irrational numerical expressions using correct order of operations • Evaluate algebraic expressions • Solve linear equations and inequalities • Graph linear functions using a variety of methods • Simplify exponential expressions • Add, subtract, multiply, and divide polynomials • Factor polynomials using a variety of strategies
<p>What you'll see (products)</p>	<ul style="list-style-type: none"> • Algebraic expressions • Equations • Tables and graphs • Concrete and pictorial models for use in determining perimeter, area, and volume • Various problem-solving models • Efficient use of calculators 	<ul style="list-style-type: none"> • Equations and inequalities solved using algebraic strategies • Graphs and number lines used to display solutions • Various models and strategies for problem-solving
<p>How you can help</p>	<ul style="list-style-type: none"> • Ask students what they are learning and why they are learning it • Ask students to explain their problems and solutions • Discuss vocabulary words and their meanings • Ask about methods, vocabulary, and reasonable solutions • Ask students to explain the procedure he/she used in each problem 	

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| | <ul style="list-style-type: none">• Recognize any and all effort• Monitor homework and your child's grades online• Use online textbook and resources |
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