

This course focuses on building a stronger foundation for the understanding of Algebra, while supporting them in their Geometry (or Algebra) course. Some class time will be spent each week working on material from their other math course. This will also mean that the timeline must be flexible.

Unit One: (Weeks 1 - 4)

Big Ideas: Simplifying Expressions & Solving Linear Equations

Topics	Assessments	Standards
<p>Evaluating Expressions with more than one variable and exponents</p> <p>Solving linear equations for the indicated variable – one-step to VOBS</p> <p>Solving formulas for a specific variable – emphasis on solving equations for slope-intercept form</p> <p>Solve linear inequalities and graph them on the number line</p>	<p>Quiz</p> <p>Activities</p> <p>Dry Erase Boards</p> <p>Khan Academy Practice</p> <p>Review Sheets</p>	<p>A-SSE</p> <p>1. Interpret expressions that represent a quantity in terms of its context.*</p> <p>a. Interpret parts of an expression, such as terms, factors, and coefficients.</p> <p>A-REI</p> <p>Understand solving equations as a process of reasoning and explain the reasoning</p> <p>1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.</p> <p>Solve equations and inequalities in one variable</p> <p>3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.</p>

Unit Two: (Weeks 4 - 7)

Big Ideas: Graphing Linear Equations & Inequalities

Topics	Assessments	Standards
<p>Find and understand the slope of a line</p> <p>Be able to find the slopes of parallel and perpendicular lines</p> <p>Write the equations of lines given specific information</p> <p>Graph lines from slope-intercept and standard form</p> <p>Graph linear inequalities on the coordinate plane</p>	<p>Quiz</p> <p>Activities</p> <p>Dry Erase Boards</p> <p>Khan Academy Practice</p> <p>Review Sheets</p>	<p>F-IF</p> <p>Analyze functions using different representations</p> <p>7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.*</p> <p>a. Graph linear and quadratic functions and show intercepts, maxima, and minima.</p> <p>A-REI</p> <p>Solve equations and inequalities in one variable</p> <p>3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.</p> <p>Represent and solve equations and inequalities graphically</p> <p>10. Understand that the graph of an equation in two variables is the set of all</p>

Curriculum Map

		<p>its solutions plotted in the coordinate plane, often forming a curve (which could be a line).</p> <p>12. Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.</p>
--	--	---

Unit Three: (Weeks 8 - 13)

Big Ideas: Solving & Graphing Quadratic Equations

Texts	Assessments	Standards
<p>Understand the characteristics of a graph of a parabola</p> <p>Graph parabolas by hand and using technology</p> <p>Solve quadratic equations using square roots, graphs, factoring, quadratic equations</p> <p>Simplify radicals</p>	<p>Quiz</p> <p>Activities</p> <p>Dry Erase Boards</p> <p>Khan Academy Practice</p> <p>Review Sheets</p>	<p>A-REI</p> <p>4. Solve quadratic equations in one variable.</p> <p>a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form.</p> <p>b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex</p> <p>F-IF</p> <p>Analyze functions using different representations</p> <p>7. Graph functions expressed symbolically and show key features of the</p>

Curriculum Map

		<p>graph, by hand in simple cases and using technology for more complicated cases.*</p> <p>a. Graph linear and quadratic functions and show intercepts, maxima, and minima.</p>
--	--	---

Unit Four: (Weeks 14 - 17)

Big Ideas: Solving Proportions and Similar Figures

Topics	Assessments	Standards
Solve proportions for the missing part Use proportions to find the missing portion of a pair of similar figures Solve word problems involving similar figures	Quiz Activities Dry Erase Boards Khan Academy Practice Review Sheets	G-SRT 2. Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.