

2019-2020 EIGHTH GRADE CONRADY JUNIOR HIGH SCHOOL MATHEMATICS CURRICULUM

MAP

Unit # & Name	Common Core State Standards	Unit Description	Estimated Time
#1 Expressions & Equations	<p>8.EE.7a,b (Solve linear equations in one variable)</p> <p>8.EE.C.Int.1 (Solve word problems leading to linear equations in one variable whose solutions require expanding expressions using the distributive property and collecting like terms).</p> <p>8.C.2; 8.EE.C.Int.1; 8.D.1-4</p>	<p>Solve linear equations (multi-step, CLT, clearing fractions and decimals, no solution, infinite solutions, consecutive, literal)</p> <p>Enrichment: clearing fractions & decimals w/in the same problem</p>	<p>Q1 17 days 1 Quiz</p> <p>Test: September 19</p>
#2 Linear Relationships	<p>8.EE.5-1, 5-2 (Graph and compare proportional relationships)</p> <p>8.EE.6-1, 6-2 (Use similar triangles to explain slope; deriving equation in $y=mx +b$ form)</p> <p>8.SP.3 (Interpret slope in data representation)</p> <p>8.C.1.1; 8.C.5.1; 8.C.6; 8.D.1-4</p>	<p>Proportional Relationships, lines, and linear equations</p> <p>Writing linear equations</p>	<p>Q2 13 Days 1 Quiz Test: Oct 15</p>
#3 Congruence & Similarity	<p>8.G.1a, 1b, 1c (Verify properties of transformations)</p> <p>8.G.2 (Understand congruence using transformation)</p> <p>8.G.3 (Describe effects of transformations in plane)</p> <p>8.G.4 (Understand similarity using transformation)</p> <p>8.G.5 (Angles, parallel lines cut by transversal)</p> <p>8.EE.8c (Pairs of simultaneous linear equations)</p> <p>8.C.3.2; 8.C.3.3; 8.C.5.1; 8.C.5.2; 8.C.5.3; 8.D.1-4</p>	<p>Congruence - 4 Days</p> <p>Similarity - 4 Days</p> <p>Reasoning in Geometry - 6 Days</p>	<p>Q3 20 Days 1 Quiz Test: Nov 16</p>
#4 Real Number System	<p>8.NS.1 (Decimal expansions and irrational numbers)</p> <p>8.NS.2 (Compare values of irrational numbers)</p> <p>8.EE.2 (Square root and cube roots)</p> <p>8.G.9 (Volume of cones, cylinders, and spheres)</p> <p>8.C.5.3; 8.D.1-4</p>	<p>Number System Definitions</p> <p>Expanding Repeating Decimals</p> <p>Square & Cube Roots</p> <p>Ordering Real Numbers</p> <p>Enrichment: Geometry, solving multi-step equations with squares/cubes, factoring</p>	<p>Q1 7 Days No Quiz Test: Dec 6</p>
#5 Pythagorean Theorem	<p>8.G.6 (Proof of Pythagorean Theorem)</p> <p>8.G.7-1, 7-2 (Apply Pythagorean Theorem to determine unknown side length)</p> <p>8.G.8 (Apply Pythagorean Theorem to find distance between points)</p> <p>8.C.5.3; 8.C.6; 8.D.1-4</p>	<p>Using the Pythagorean Theorem</p> <ul style="list-style-type: none"> ★ Converse ★ Coordinate Plane ★ Simple Figures ★ 3D Figures 	<p>Q1/Q2 10 days No Quiz Test: Dec 19th</p>

<p>#6 Systems of Linear Equations</p>	<p>8.EE.8a, 8b-1, 8b-2, 8b-3, 8c (Pairs of simultaneous linear equations) 8.EE.C.Int.1 (Solve word problems leading to linear equations in one variable whose solutions require expanding expressions using the distributive property and collecting like terms). 8.C.1.2; 8.C.2; 8.C.4.1; 8.D.1-4</p>	<p>System of Two Linear Equations ★ Inspection ★ Substitution ★ Elimination of Addition/Subtraction ★ Elimination of Multiplication</p>	<p>Q3 20 days 1 Quiz Test: Feb 8</p>
<p>#7 Exponents & Scientific Notation</p>	<p>8.EE.1 (Integer exponents) 8.EE.2 (Square root and cube roots) 8.EE.3 (Very small and very large quantities) 8.EE.4-1, 4-2 (Scientific notation) 8.D.1-4</p>	<p>Exponent Rules Scientific Notation</p>	<p>Q2 14 Days 1 Quiz Test: March 1st</p>
<p>#8 Functions</p>	<p>8.F.1-1, 1-2 (Definition of Functions) 8.F.2 (Compare properties of functions - slope & rate of change) 8.F.3-1, 3-2 (State whether functions are linear or nonlinear) 8.F.4-1, 4-2 (Construct & interpret linear functions -from equation, table, ordered pairs, or a graph) 8.F.5-1, 5-2 (Describe functional relationships - sketch graphs; determine linear/nonlinear; where the function is increasing, decreasing or constant) 8.SP.3 (Interpret slope in data representation) 8.C.3.1; 8.C.6; 8.D.1-4</p>	<p>Defining and Comparing Functions - 7 days Linear Equations - 6 days</p>	<p>Q3 15 Days 1 Quiz Test: Mar 22</p>
<p>#9 Volume</p>	<p>8.G.9 (Volume of cones, cylinders, and spheres) 8.EE.2 (Square root and cube roots)</p>	<p>Surface Area and Volume</p>	<p>Q4 9 days No Quiz Test: early May</p>
<p>#10 Patterns & Bivariate Data</p>	<p>8.SP.1 (Scatter plots) 8.SP.2 (Line of best fit) 8.SP.3 (Interpret slope in data representation) 8.SP.4 (Two-way tables)</p>	<p>Scatter Plots 7 days Line of Best Fit Frequency Tables</p>	<p>Q4 7 days Test: End of May</p>