

Cartersville Middle School 8th Grade Math Curriculum Map

	1 st Semester			2 nd Semester				
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
Overall Concepts	Transformations, Congruence, and Similarity	Exponents, Scientific Notation, Rational and Irrational Numbers	Pythagorean Theorem and Volume	Functions	Linear Equations	Systems of Equations	Linear Models and Tables	Show What We Know
Core Concepts	<ul style="list-style-type: none"> ◦Translations ◦Rotations ◦Reflections ◦Dilations ◦Similar figures ◦Angle sum and exterior angle relationships ◦Special angles created when parallel lines are cut by a transversal 	<ul style="list-style-type: none"> ◦Integer exponent properties ◦Scientific notation ◦Rational and irrational numbers ◦Approximating irrational numbers ◦Perfect squares and perfect cubes ◦Solving multi-step equations with rational numbers 	<ul style="list-style-type: none"> ◦Discover and apply Pythagorean Theorem to find lengths on right triangles ◦Find distance using Pythagorean Theorem ◦Investigate proofs of the Pythagorean Theorem and its converse ◦Solve real-world problems involving volume of cylinders, spheres, and cones 	<ul style="list-style-type: none"> ◦Define, evaluate, and compare functions in multiple representations (algebraic equations, graphs, numerical tables, and verbal descriptions) ◦Explore models and tables and describe rate of change 	<ul style="list-style-type: none"> ◦Develop understanding of and connections between proportional relationships, lines, and linear equations ◦Solve real life problems involving proportional relationships ◦Identify slope and y-intercept in different representations 	<ul style="list-style-type: none"> ◦Solve systems of linear equations graphically and algebraically using substitution and elimination 	<ul style="list-style-type: none"> ◦Explore relationships in bivariate data ◦Frequency tables ◦Drawing and interpreting lines of best fit 	<ul style="list-style-type: none"> ◦Culminating projects and tasks ◦High school preview
Standards for Mathematical Practice	<ol style="list-style-type: none"> 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. 							

NOTE: Mathematical standards are interwoven and should be addressed throughout the year in as many different units and tasks as possible in order to stress the natural connections that exist among math topics.