

MATH: Geometry

Month	Key Idea	Chapter	Concepts	Skills	Assessments
Sept.	Mathematical Reasoning Number and Numeration Operations Modeling/Multiple Representation Measurement Patterns/Functions	1 & 2	Patterns Inductive Reasoning Points, Lines, and Planes Segments and Their Measures Angles and Their Measures Segment and Angle Bisectors Angle Pair Relationships Intro to Perimeter and Area Conditional/Biconditional State. Deductive Reasoning Reasoning w/ Prop. from Algebra	Find Patterns, counterexample Making conjectures Collinear and Coplanar Figures Distance Formula Midpoint Formula Segment Addition Postulate Types of Angles Constructions -Segment/Angle Bisector and Midpoint Vertical/Comp. & Supplementary Angles Perimeter, Circum., & Area Types of Conditional Statement Perpendicular Lines Algebraic Properties of Equality	Class work Homework Group work Quizzes Tests
Oct.	Number and Numeration Operations Modeling/Multiple Representation Measurement	3,4 & 5	Lines and Angles Parallel Lines and Transversals Using Prop. Of Parallel Lines Parallel/Perpendicular Lines in Coordinate Plane Triangles and Angles Congruence and Triangles SSS, SAS, ASA, AAS Postulates Isosceles, Equilateral, Rt. Triangles Inequalities in One Triangle	Graphing a line Writing the equation of a line - Point-slope - Slope-Intercept Graphing Inequalities Graphing Quadratics Parallel and Skew Lines Angles Formed by Transversal Properties of Parallel Properties of Perpendicular Lines Constructions - Perpendicular - Parallel Line - Copying an Angle, Triangle - Copying a Segment Types & Parts of Triangles Properties of Triangles Corresponding Parts of triangles	Class work Homework Group work Regents review Quizzes Tests

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Nov.	Number and Numeration Operations Modeling/Multiple Representation Measurement	6	Polygons Properties of Parallelograms Proving Quadrilaterals are Parallelograms Rhombuses, Rectangles, Squares Trapezoids and Kites Special Quadrilaterals Areas of Triangles and Quadrilaterals	Properties/Parts of Polygons Convex/Concave Polygons Types of Polygons Properties of Parallelograms Ways to Prove Parallelograms Parallelograms in Coordinate Plane Properties of Special Parallelograms Diagonal/Midsegment Properties of Trapezoids Classifying Special Quads. Area Formulas	Class work Homework Group work Regents review Quizzes Tests
Dec.	Number and Numeration Operations Modeling/Multiple Representation	7	Rigid Motion in a Plane Reflections Rotations Translations Glide Reflections and Compositions	Transformations (Reflections, Rotations, Translations, In a Coordinate Plane) Pre-image and Image Isometry Line of Symmetry Rotational Symmetry Construction - Rotating Figures Glide Reflections Composition of Transformation	Class work Homework Group work Regents review Quizzes Tests
Jan.	Number and Numeration Operations Modeling/Multiple Representation Measurement Patterns/Functions	8 Algebra Review	Ratio and Proportion Problem Solving with Proportions Similar Polygons Similar Triangles Proportions and Similar Triangles Dilations Solving Equations	Ratios and Proportions Prop of Proportions Cross Product Prop Reciprocal Property Writing Similarity Statements Comparing Similar Figures Scale Factors Angle-Angle Similarity Post. Parallel Lines & Proportionality Proportionality in Triangles Prop of Dilations Reductions/Enlargements Constructing Dilations Solving One-Step/Multi-Step Equations Writing Equations as Functions	Class work Homework Group work Regents review Quizzes Tests

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Feb.	Number and Numeration Operations Modeling/Multiple Representation Measurement	9 Algebra Review	The Pythagorean Theorem Converse of the Pythagorean Thm. Special Right Triangles Trigonometric Ratios Solving Right Triangles	Finding Missing Sides of Right Triangles Identifying Pythagorean Triples Finding Area of Right Triangles Verifying Right Triangles Identifying Types of Triangles Classifying Quadrilaterals 45-45-90 Right Triangles 30-60-90 Right Triangles Sine, Cosine, Tangent Angle of Elevation Problems Finding all Parts of Rt. Triangle	Class work Homework Group work Regents review Quizzes Tests
March	Number and Numeration Operations Modeling/Multiple Representation Measurement Patterns/Functions	11 Algebra Review	Areas of Polygons Area of Circles Locus Equations of Circles Angle Measures in Polygons	Graphs of circles Writing equations of circles Locus: - fixed distance from a point/line/two points -equidistant from two parallel/two intersecting lines -compound locus Sum of interior and exterior angles of a polygon Perimeters of polygons circumference of circles Area of polygons and circles	Class work Homework Group work Regents review Quizzes Tests
April	Number and Numeration Operations Measurements Uncertainty	12 Prob & Stats Algebra Review	Volumes of Solids Similar Solids Probability Statistics Statistical Graphs	Volume prisms, pyramid, cylinder, cone, sphere Ratio of surface area/volume Probability of single/compound events(and & or) Counting Principle Probability with or without replacement Dependent and Independent events Permutations Combinations Collection of Data Types of Graphs Frequency Tables Histograms Cumulative frequency histograms Percentiles/Quartiles Box and Whisker Plots Stem and Leaf Plots Scatterplots Mean, Median, Mode	Class work Homework Group work Regents Review Quizzes Tests

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May	Mathematical Reasoning Number and Numeration Operations Modeling/Multiple Representation Measurement Uncertainty Patterns/Functions	Binary Ops. Graphs of Quads. Regents Review	Binary Operations Graphing quadratic equations with and without a graphing calculator Practice Regents Tests	Performing Binary Operations Working with operation tables Identity/Inverse element Commutative/Associative/Closure Property Graphing Quadratic Equations Line of Symmetry Find the vertex of a parabola Creating a table of values Algebra Review	Class work Homework Group work Regents review Quizzes Tests Old Math A exams
June	Mathematical Reasoning Number and Numeration Operations Modeling/Multiple Representation Measurement Uncertainty Patterns/Functions	Regents Review	Algebra and Geometry Review	Practice Regents Testing	Homework Class work Practice Regents Quizzes