

Southern Regional High School

Manahawkin, New Jersey

Course Syllabus

Department: Math

Course: Geometry Honors

Marking Period 1

Topics/Units to be covered:

- Classroom expectations/grading
- Chapter 0 - Designs & Symmetry
- Chapter 1 - Introducing Geometry – (terms, coordinate midpoint, angle relationship definitions, classification of triangles & quadrilaterals)
- Chapter 2 - Reasoning in Geometry – deductive & inductive reasoning, finding the n th term, modeling with $\frac{1}{2}n(n-1)$, angle relationships (vertical angles, linear pairs, parallel lines cut by a transversal)
- Algebraic Reviews as applicable throughout the marking period as they apply to topics
- Quarterly

Marking Period 2

Topics/Units to be covered:

- Chapter 3- Basic Constructions (Segment, Perpendicular Bisector, Perpendicular through a point and a line, angle, and angle bisector, & all applications), Points of Concurrency (Sketchpad)
- Chapter 4 - Triangle Properties (Angle Sum, Isosceles Triangle Properties, Triangle Inequalities, Triangle Congruency Conjectures, CPCTC, Proofs)
- Chapter 5 - Polygon Properties (Interior angle sum, exterior angle sum, equiangular angle measures, Midsegments, Kite and Trapezoid Properties, Parallelogram Properties)
- Algebraic Reviews as applicable throughout the marking period as they apply to topics
- Quarterly

Marking Period 3

Topics/Units to be covered:

- Chapter 6 - Circles (Terms, Chords & Central Angles, Tangent Lines, Inscribed Angles, Circumference & Real World Applications, Arc Length)
- Chapter 7 - Transformations and Tessellations (Isometries, Ordered Pair Rules, Composition of Transformations, Regular & Semiregular tessellations)
- Chapter 8 - Area (Parallelograms, Triangles, Trapezoids, Kites, Regular Polygons, Circles, Circle Sections)
- Algebraic Reviews as applicable throughout the marking period as they apply to topics
- Quarterly

Marking Period 4

Topics/Units to be covered:

- Chapter 9 - Pythagorean Theorem (Theorem & Converse [acute, right, obtuse], simplifying radicals, 30-60-90 and isosceles right, real world applications, distance formula and circle applications)
- Chapter 10 - Solids (Classification, Nets, Surface Area, Volume of Prisms, Pyramids, Cylinders, Cones, Spheres, Displacement)
- Chapter 11 - Similarity (Proportions, Finding the missing sides, indirect measurement, area and volume of similar figures)
- Chapter 12 - Trigonometry (Missing sides, missing angles)
- Final Exam