|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Geometry** | | | | | |
| Time Frame | Topic/Unit | Skills/Concepts | Major Assessments | Core Standards | Resources |
| 2 – 3 Weeks | **U1:** Essentials of Geometry | * Points, Distances, and Segments * Midpoints and Bisectors * Line, Rays, and Angles * Definitions Involving Pairs of Angles * Triangles * Circles and Arcs * Constructing a Triangle Given its side lengths * More Properties of Lines | End of Unit Test | G-CO.1  G-CO.12 | * Emathinstruction * *Integrated Mathematics Couse II* * *Geometry for Enjoyment and Challenge* * *Geometry: Tools for a changing World (Prentice Hall)* * *Geometry: New York (Prentice Hall)* * *Geometry (AMSCO)* |
| 2 weeks | **U2:** Geometric Constructions | * Intro to Constructions * Constructing Angles and Parallel Lines * Constructing Midpoints and Perpendicular Lines * Constructing Altitudes and the Orthocenter of a Triangle * Constructing Medians and the Centroid of a Triangle * Constructing the Circumscribed Circle of a Triangle * Constructing the Inscribed circle of a Triangle * Constructing Inscribed Regular Polygons | End of Unit Test | G-CO.12  G-C.3  G-CO.13 | * Emathinstruction * *Integrated Mathematics Couse II* * *Geometry for Enjoyment and Challenge* * *Geometry: Tools for a changing World (Prentice Hall)* * *Geometry: New York (Prentice Hall)* * *Geometry (AMSCO)* |
| 3 weeks | **U3:** Transformations, Rigid Motions, and Congruence | * Intro to transformations * Line Reflections * Point Reflection * Translations * Composition of Reflections over Parallel Lines * Rotations * Composition of Reflections over Non-Parallel Lines * Basic Rigid Motions and Angle Congruence * Congruence and Rigid Motions * Isosceles Triangles and Basic Rigid Motions * Symmetries of a Figure | End of Unit Test | G-CO.2  G-CO.3  G-CO.4  G-CO.5  G-CO.6  G-CO.7  G-CO.9  G-CO.10 | * Emathinstruction * *Integrated Mathematics Couse II* * *Geometry for Enjoyment and Challenge* * *Geometry: Tools for a changing World (Prentice Hall)* * *Geometry: New York (Prentice Hall)* * *Geometry (AMSCO)* |
| 5 Weeks | **U4:** Euclidean Triangle Proofs | * Using Givens and Definitions in Proof * The First Postulates * The Substitution Postulate * The Addition Postulate * Side-Angle-Side Theorem of Congruence * Angle-Side-Angle Theorem of Congruence * Side-Side-Side Theorem of Congruence * More Practice Proving Triangles Congruent * Proving Overlapping Triangles Congruent * Corresponding Parts of Congruent Triangles are Congruent * Properties of Parallel Lines * Proving Lines Parallel * Interior and Exterior Angle Theorem * Angle-Angle-Side Theorem of Triangle Congruence * Properties of Isosceles Triangles * Proving Triangles are Isosceles * Hypotenuse-Leg Theorem of Congruent Right Triangles * Additional Triangle Proofs | * Triangle Proof Test * Parallel Lines Proof Quiz * End of Unit Test | G-CO.9  G-CO.10 | * Emathinstruction * *Integrated Mathematics Couse II* * *Geometry for Enjoyment and Challenge* * *Geometry: Tools for a changing World (Prentice Hall)* * *Geometry: New York (Prentice Hall)* * *Geometry (AMSCO)* |
| 4 weeks | **U5:** Coordinate Geometry | * Slope of a Line * Slopes of Parallel and Perpendicular Lines * Y-intercept form of a line * Point Slope Forma of a Line * Intersection of Lines * Simplifying Square Root Radicals * Pythagorean Theorem * Distance Formula * Midpoint Formula * Areas and Perimeter of Polygons in the Coordinate Plane * More Coordinate Proofs * Rotations in the Coordinate Plane * Point Reflections and Rotations of * Reflections in the Coordinate Plane * Translations in the Coordinate Plane * Combination of Transformations in the Coordinate Plane | Line Quiz  Coordinate Quiz  End of Unit Test | G-GPE.4  G-GPE.5  G-SRT.8  G-CO.5 | * Emathinstruction * *Integrated Mathematics Couse II* * *Geometry for Enjoyment and Challenge* * *Geometry: Tools for a changing World (Prentice Hall)* * *Geometry: New York (Prentice Hall)* * *Geometry (AMSCO)* |
| 2 Weeks | **U6:** Quadrilaterals | * Trapezoids * Properties of Parallelograms Part 1 * Properties of Parallelograms Part 2 * Proving Parallelograms * Rectangles * Rhombus * Squares * Additional Practice With Quadrilaterals | End of Unit Test | G.CO.11 | * Emathinstruction * *Integrated Mathematics Couse II* * *Geometry for Enjoyment and Challenge* * *Geometry: Tools for a changing World (Prentice Hall)* * *Geometry: New York (Prentice Hall)* * *Geometry (AMSCO)* |
| 3 weeks | **U7:** Dilations and Similarity | * Intro to Dilations * Properties of Dilations * Dilations in the coordinate plane * Dilations and Angles * Intro to Similarity * Similarity Criteria * Reasoning with Similarity * Means and Extremes Theorem * Midsegment Theorem * Side Splitter Theorem * Partitioning of a Line Segment * Partition Formula * Medians of a Triangle * Right Triangles and Similarity | End of Unit Test | G.SRT. 1  G.SRT. 1a  G.SRT. 1b  G.SRT. 2  G.SRT. 3  G.SRT. 4  G.SRT. 5  G.SRT. 5a  G.SRT. 5b | * Emathinstruction * *Integrated Mathematics Couse II* * *Geometry for Enjoyment and Challenge* * *Geometry: Tools for a changing World (Prentice Hall)* * *Geometry: New York (Prentice Hall)* * *Geometry (AMSCO)* |
| 2 weeks | **U8:** Right Triangle Trigonometry | * Similar Right Triangles * Applications of Similar Triangles * Trigonometric Ratios * Solving for the Missing Sides of a Right Triangle * Inverse Trig Functions * Trig Applications * More Trig Applications * Understanding the Trig Ratios * Area of a Triangle Using Trig | End of Unit Test | G-SRT.6  G-SRT.7  G-SRT.8 | * Emathinstruction * *Integrated Mathematics Couse II* * *Geometry for Enjoyment and Challenge* * *Geometry: Tools for a changing World (Prentice Hall)* * *Geometry: New York (Prentice Hall)* * *Geometry (AMSCO)* |
| 3 weeks | **U9:** Circle Geometry | * Circle Terminology * Equations of a Circle * Placing Circles in Standard Form * Inscribed Angles * More Work with Inscribed Angles * Intersecting Chords * Tangents to Circle * Tangent and Chord Angles * Tangent and Secant Angles * Constructing angetns * Equations of Tangent Line | End of Unit Test | G.C.1  G.C.2a  G.C.2b  G.C.5 | * Emathinstruction * *Integrated Mathematics Couse II* * *Geometry for Enjoyment and Challenge* * *Geometry: Tools for a changing World (Prentice Hall)* * *Geometry: New York (Prentice Hall)* * *Geometry (AMSCO)* |
| 3 weeks | **U10:** Measurement and Modeling | * Perimeter * Circumference of a Circle * Area of Polygons * Area of Circles * Sectors of a Circle * Radian Measure of Angles * Solids and their Cross Sections * Volume of Prisms and Cylinders * Volume of Pyramids and Cones * Spheres * Volume of Truncated Cone | End of Unit Test | G-GPE.7  G-MG.1  G-MG.2  G-MG.3  G-GMD.1  G-GMD.3  G-GMD.4  G-C.1  G-C.5 | * Emathinstruction * *Integrated Mathematics Couse II* * *Geometry for Enjoyment and Challenge* * *Geometry: Tools for a changing World (Prentice Hall)* * *Geometry: New York (Prentice Hall)* * *Geometry (AMSCO)* |