Geometry/Geometry Honors

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| Quarter | Week | Major Concepts/Topics | Resources1 | Benchmark(s) |
| Qtr 1 | 8/10-9/1 | **Unit 1: Basics of Geometry and Constructions**   * Defined and Undefined Terms * Isometry * Dilations and Partitions * Transformations on the plane * Congruence and Similarity * **Symmetries** * Line Segments * Constructions | 1.1-1.2  1.3  1.4  1.5-1.6  1.7  **1.H1**  1.8  1.9-1.12 | MA.912.GR.2.2  MA.912.GR.2.3  MA.912.GR.2.6  MA.912.GR.2.8  MA.912.GR.5.1  MA.912.GR.5.2  **MA.912.GR.2.4** |
| 9/2-9/15 | **Unit 2: Proofs and Logic**   * Introduction to Euclidean Geometry * Geometric Reasoning * Logical Reasoning * Proofs | 2.1  2.2  2.3-2.6  2.7-2.8 | MA.912.GR.1.1  MA.912.LT.4.10  MA.912.LT.4.3 |
| 9/16-9/28 | **Unit 3: Lines and Angles**   * Proving Angle Relationships * Vertical and Corresponding Angles * Angles with Parallel Lines * Solving Problems Using Angle Relationships * Angle Proofs | 3.1  3.2  3.3-3.5  3.6-3.7  3.8-3.9 | MA.912.GR.1.1  MA.912.LT.4.10  MA.912.LT.4.3 |
| 9/29-10/7 | **Unit 4: Rigid Motion and Congruence**   * Algebraic Descriptions of Transformations * Sequences of Transformations * Isometry * Congruence | 4.1-4.2  4.3-4.5  4.6  4.7-4.8 | MA.912.GR.2.1  MA.912.GR.2.2  MA.912.GR.2.3  MA.912.GR.2.5  MA.912.GR.2.6 |
| Qtr 2 | 10/10-10/25 | **Unit 5: Triangle Congruence**   * Triangle Congruence (SSS, SAS, AAS, ASA, HL, CPCTC) * Drawing Conclusions and Proving Congruence * **Definition of Congruence with Rigid Motion** * Congruence in Two-Dimensional Figures | 5.1-5.4, 5.7  5.5-5.6, 5.8  **5.H1**  5.9-5.10 | MA.912.GR.1.2  MA.912.GR.1.6  MA.912.GR.2.1  MA.912.GR.2.3  MA.912.GR.2.6  MA.912.GR.5.1  **MA.912.GR.2.7**  MA.912.LT.4.10 |
| 10/26-11/16 | **Unit 6: Dilations and Similarity**   * Dilations * Sequences of Transformations with Dilation * Distance * Drawing and Similarity in Transformations * **Proving all Circles are Similar** * **Proofs by Contradiction** * Triangle Similarity * Similar Figures * Problems involving Similarity including Real World | 6.1  6.2, 6.4  6.3  6.5-6.6  **6.H1**  **6.H2**  6.7-6.9  6.10  6.11-6.13 | MA.912.GR.2.1  MA.912.GR.2.3  MA.912.GR.2.8  MA.912.GR.1.6  **MA.912.GR.2.9**  **MA.912.GR.6.5**  **MA.912.LT.4.8** |
|  | 11/17-12-16 | **Unit 7: Trigonometric Ratios**   * Pythagorean Theorem * Definitions of Trigonometric Ratios * Trigonometric Rations in the Coordinate Plane * Special Right Triangles * Unit Circle * Trigonometry in the Real World * **Law of Sines and Cosines** * **Area of a Triangle Using the Sine Ratio** | 7.1  7.2-7.3  7.4-7.5  7.6  7.7  7.8-7.9  **7.H1-7.H2**  **7.H3** | MA.912.T.1.1  MA.912.T.1.2  **MA.912.T.1.3**  **MA.912.T.1.4** |
| Qtr 3 | 1/4-1/18 | **Unit 8: Proving Relationships and Theorems(Quadrilaterals)**   * Parallelograms * Kites * Trapezoids * Real World Quadrilaterals | 8.1-8.3  8.4  8.5, 8.7  8.6 | MA.912.GR.1.4  MA.912.LT.4.10  MA.912.GR.1.5 |
| 1/19-2/1 | **Unit 9: 2D and 3D Shapes**   * Area of 2D Shapes * Density * Cross Sections * Solids of Rotations * Cavalieri’s Principle * Volume * Surface Area * How Does Dilation Affect Area and Volume | 9.1  9.2  9.3  9.4  9.5  9.6-9.7  9.8-9.9  9.10-9.11 | MA.912.GR.4.1  MA.912.GR.4.2  MA.912.GR.4.4  MA.912.GR.4.5  MA.912.GR.4.3  MA.912.GR.4.6 |
| 2/2-2/21 | **Unit 10: Arcs and Angle Relationships in Circles**   * Sectors * Arc Length * Radian Measure * Solving Problems involving Circle Parts * **Constructing Tangent Lines** | 10.1  10.2  10.3  10.4-10.9  **10.H1** | MA.912.GR.6.4  MA.912.GR.6.2  **MA.912.GR.5.5** |
| 2/22-3/10 | **Unit 11: Justifying Relationships in Polygons with Circles**   * Constructions with Triangles and Circles * **Inscribing Polygons in Circles** * Solving Problems with Inscribed Circles * Interior and Exterior Angles of Triangles * Triangle Inequality Theorem * Centroid of a Triangle * Triangle Midsegment Theorem * Solving Problems with Triangle Relationships | 11.1-11.2  **11.H1**  11.3-11.4  11.5  11.6  11.7  11.8  11.9 | MA.912.GR.5.3  MA/912.GR.6.3  MA.912.GR.1.3  MA.912.LT.4.10  **MA.912.GR.5.4** |
| Qtr 4 | 3/13-4/14 | **Unit 12: Segment Relationships in Circles**   * Solving Problems with Circle Parts and Lines * Pythagorean Theorem and Tangent Lines * Lengths of Secants, Tangents, Segments, and Chords in a Circle * Equation of a Circle * Graphing Circles | 12.1-12.4  12.5  12.6  12.7-12.8  12.9 | MA.912.GR.6.1  MA.912.GR.7.2  MA.912.GR.7.3 |
| 4/17-5/10 | **Unit 13: Shapes in the Coordinate Plane**   * Parallel and Perpendicular Lines * Circles in the Coordinate Plane * Points on a Circle * Partitioning Lines Segments * Weighted Averages * Classifying Triangles * Centroids of Triangles * Classifying Quadrilaterals * Figures, Congruence, and Similarity * Perimeter and Area on the Coordinate Plane * Real World Problems in the Coordinate Plane | 13.1  13.2  13.3  13.4  13.5  13.6  13.7  13.8-13.10  13.11-13.12  13.13  13.14 | MA.912.GR.3.1  MA.912.GR.3.2  MA.912.GR.3.3  MA.912.GR.3.4  MA.912.GR.7.2 |

Review will take place at the end of Unit 13 as of May 11 until EOC is complete

Projects will take place once EOC testing is complete

1 Resources listed are from *Math Nation Geometry* (2022). Other supplemental resources may be utilized as needed.

**Bold Sections indicate Honors Lessons and Benchmarks that are required for students taking Honors Geometry**