**Geometry Curriculum Map – with CCSS**

|  |  |  |
| --- | --- | --- |
| **UNIT 1 – GEOMETRY BASICS** | | |
| **1-1** | **Nets and Drawings for Visualizing Geometry** | CCSS.MATH.CONTENT.6.G.A.4 |
| **1-2** | **Points, Lines, and Planes** | CCSS.MATH.CONTENT.4.G.A.1  CCSS.MATH.CONTENT.HSG.CO.A.1 |
| **1-3** | **Measuring Segments** | CCSS.MATH.CONTENT.HSG.GPE.B.6  CCSS.MATH.CONTENT.HSG.CO.A.1 |
| **1-4** | **Measuring Angles** | CCSS.MATH.CONTENT.4.MD.C.5  CCSS.MATH.CONTENT.4.MD.C.5.B  CCSS.MATH.CONTENT.4.MD.C.6  CCSS.MATH.CONTENT.HSG.CO.A.1 |
| **1-5** | **Exploring Angle Pairs** | CCSS.MATH.CONTENT.7.G.B.5 |
| **1-6** | **Classifying Polygons** | CCSS.MATH.CONTENT.5.G.B.3  CCSS.MATH.CONTENT.5.G.B.4 |
| **1-7** | **Midpoint and Distance in the Coordinate Plane** | CCSS.MATH.CONTENT.HSG.CO.C.9  CCSS.MATH.CONTENT.HSG.GPE.B.7 |
| **1-8** | **Perimeter Circumferences and Area** | CCSS.MATH.CONTENT.6.G.A.3  CCSS.MATH.CONTENT.7.G.B.4  CCSS.MATH.CONTENT.HSG.GPE.B.7 |
| **1-9** | **Construction** | CCSS.MATH.CONTENT.HSG.CO.D.12 |

|  |  |  |
| --- | --- | --- |
| **UNIT 2 – REASONING AND PROOF** | | |
| **2-1** | **Inductive and Deductive Reasoning** | CCSS.MATH.PRACTICE.MP3 |
| **2-2** | **Logic** | CCSS.MATH.PRACTICE.MP3 |
| **2-3** | **Proving Theorems** | CCSS.MATH.CONTENT.HSG.CO.C.9  CCSS.MATH.CONTENT.HSG.CO.C.10  CCSS.MATH.CONTENT.HSG.CO.C.11 |
| **2-4** | **Algebraic Proofs** | CCSS.MATH.CONTENT.HSG.CO.C.9  CCSS.MATH.CONTENT.HSG.CO.C.10  CCSS.MATH.CONTENT.HSG.CO.C.11 |
| **2-5** | **Theorems About Angles and Perpendicular Lines** | CCSS.MATH.CONTENT.HSG.CO.C.9 |
| **2-6** | **Planning a Proof** | CCSS.MATH.CONTENT.HSG.CO.C.9  CCSS.MATH.CONTENT.HSG.CO.C.10  CCSS.MATH.CONTENT.HSG.CO.C.11 |

|  |  |  |
| --- | --- | --- |
| **UNIT 3 – PARALLEL AND PERPENDICULAR LINES** | | |
| **3-1** | **Identify Pairs of Lines and Angles** | CCSS.MATH.CONTENT.7.G.B.5  CCSS.MATH.CONTENT.HSG.CO.C.5  CCSS.MATH.CONTENT.HSG.CO.C.9 |
| **3-2** | **Use Parallel Lines and Traversals** | CCSS.MATH.CONTENT.7.G.B.5  CCSS.MATH.CONTENT.HSG.CO.C.9 |
| **3-3** | **Prove Lines Parallel** | CCSS.MATH.CONTENT.7.G.B.5  CCSS.MATH.CONTENT.HSG.CO.C.9 |
| **3-4** | **Find and Use Slopes of Lines** | CCSS.MATH.CONTENT.8.EE.B.5  CCSS.MATHCONTENT.8.EE.B.6  CCSS.MATH.CONTENT.HSG.GPE.B.5 |
| **3-5** | **Write and Graph Equations of Lines** | CCSS.MATH.CONTENT.8.EE.B.5  CCSS.MATH.CONTENT.8.EE.B.6  CCSS.MATH.CONTENT.HSG.GPE.B.5 |
| **3-6** | **Bonus Lesson: Prove Theorems about Perpendicular Lines** | CCSS.MATH.CONTENT.HSG.CO.C.9 |

|  |  |  |
| --- | --- | --- |
| **UNIT 4 – CONGRUENT TRIANGLES** | | |
| **4-1** | **Congruent Figures** | CCSS.MATH.CONTENT.HSG.CO.A.2  CCSS.MATH.CONTENT.HSG.CO.A.5  CCSS.MATH.CONTENT.HSG.CO.B.6  CCSS.MATH.CONTENT.HSG.CO.B.7  CCSS.MATH.CONTENT.HSG.CO.B.8 |
| **4-2** | **Triangle Congruency by SSS and SAS** | CCSS.MATH.CONTENT.HSG.CO.A.2  CCSS.MATH.CONTENT.HSG.CO.A.5  CCSS.MATH.CONTENT.HSG.CO.B6  CCSS.MATH.CONTENT.HSG.CO.B.7  CCSS.MATH.CONTENT.HSG.CO.B.8  CCSS.MATH.CONTENT.HSG.CO.C.10  CCSS.MATH.CONTENT.HSG.CO.D.12  CCSS.MATH.CONTENT.HSG.CO.D.13 |
| **4-3** | **Triangle Congruency by ASA and AAS** | CCSS.MATH.CONTENT.HSG.CO.A.2  CCSS.MATH.CONTENT.HSG.CO.A.5  CCSS.MATH.CONTENT.HSG.CO.B.6  CCSS.MATH.CONTENT.HSG.CO.B.7  CCSS.MATH.CONTENT.HSG.CO.B.8  CCSS.MATH.CONTENT.HSG.CO.C.10  CCSS.MATH.CONTENT.HSG.CO.D.12  CCSS.MATH.CONTENT.HSG.CO.D.13 |
| **4-4** | **Using Corresponding Parts of Congruent Triangles** | CCSS.MATH.CONTENT.HSG.CO.A.2  CCSS.MATH.CONTENT.HSG.CO.A.5  CCSS.MATH.CONTENT.HSG.CO.B.6  CCSS.MATH.CONTENT.HSG.CO.B.7  CCSS.MATH.CONTENT.HSG.CO.B.8  CCSS.MATH.CONTENT.HSG.CO.C.10  CCSS.MATH.CONTENT.HSG.CO.D.12  CCSS.MATH.CONTENT.HSG.CO.D.13 |
| **4-5** | **Isosceles and Equilateral Triangles** | CCSS.MATH.CONTENT.HSG.CO.A.2  CCSS.MATH.CONTENT.HSG.CO.A.5  CCSS.MATH.CONTENT.HSG.CO.B.6  CCSS.MATH.CONTENT.HSG.CO.B.7  CCSS.MATH.CONTENT.HSG.CO.B.8  CCSS.MATH.CONTENT.HSG.CO.C.10  CCSS.MATH.CONTENT.HSG.CO.D.12  CCSS.MATH.CONTENT.HSG.CO.D.13 |
| **4-6** | **Congruence in Right Angles** | CCSS.MATH.CONTENT.HSG.CO.A.2  CCSS.MATH.CONTENT.HSG.CO.A.5  CCSS.MATH.CONTENT.HSG.CO.B.6  CCSS.MATH.CONTENT.HSG.CO.B.7  CCSS.MATH.CONTENT.HSG.CO.B.8  CCSS.MATH.CONTENT.HSG.CO.C.10  CCSS.MATH.CONTENT.HSG.CO.D.12  CCSS.MATH.CONTENT.HSG.CO.D.13 |
| **4-7** | **Bonus Lesson: Congruence in Overlapping Triangles** |  |

|  |  |  |
| --- | --- | --- |
| **UNIT 5 – RELATIONSHIPS WITH TRIANGLES** | | |
| **5-1** | **Midsegments of Triangles** | CCSS.MATH.CONTENT.HSG.CO.C.10  CCSS.MATH.CONTENT.HSG.CO.D.12 |
| **5-2** | **Perpendicular and Angle Bisectors** | CCSS.MATH.CONTENT.HSG.CO.C.9  CCSS.MATH.CONTENT.HSG.CO.D.12 |
| **5-3** | **Bisectors in Triangles** | CCSS.MATH.CONTENT.HSG.CO.C.9  CCSS.MATH.CONTENT.HSG.CO.D.12 |
| **5-4** | **Medians and Altitudes** | CCSS.MATH.CONTENT.HSG.CO.C.10 |
| **5-5** | **Indirect Proof** | CCSS.MATH.CONTENT.HSG.CO.C.10  CCSS.MATH.CONTENT.HSG.CO.D.12 |
| **5-6** | **Inequalities in One Triangle** | CCSS.MATH.CONTENT.HSG.CO.C.10 |
| **5-7** | **Inequalities in Two Triangles** | CCSS.MATH.CONTENT.HSG.CO.C.10 |

|  |  |  |
| --- | --- | --- |
| **UNIT 6 – THE POLYGON-ANGLE SUM THEOREMS** | | |
| **6-1** | **The Polygon-Angle Sum Theorems** | CCSS.MATH.CONTENT.HSG.CO.C.11 |
| **6-2** | **Properties of Parallelograms** | CCSS.MATH.CONTENT.HSG.CO.C.11 |
| **6-3** | **Proving that a Quadrilateral is a Parallelogram** | CCSS.MATH.CONTENT.HSG.CO.C.11 |
| **6-4** | **Properties of Rhombus Rectangles and Squares** | CCSS.MATH.CONTENT.HSG.CO.C.11 |
| **6-5** | **Conditions of Rhombuses, Rectangles and Squares** | CCSS.MATH.CONTENT.HSG.CO.C.11 |
| **6-6** | **Trapezoids and Kites** | CCSS.MATH.CONTENT.HSG.CO.C.11 |
| **6-7** | **Polygons in the Coordinate Plane** | CCSS.MATH.CONTENT.HSG.CO.C.11  CCSS.MATH.CONTENT.HSG.GPE.B.7  CCSS.MATH.CONTENT.HSG.MG.A.1  CCSS.MATH.CONTENT.HSG.CO.D.12 |
| **6-8** | **Applying Coordinate Geometry** | CCSS.MATH.CONTENT.HSG.CO.C.11  CCSS.MATH.CONTENT.HSG.MG.A.1  CCSS.MATH.CONTENT.HSG.GPE.B.4 |
| **6-9** | **Proofs Using Coordinate Geometry** | CCSS.MATH.CONTENT.HSG.CO.C.11  CCSS.MATH.CONTENT.HSG.MG.A.1  CCSS.MATH.CONTENT.HSG.GPE.B.4 |

|  |  |  |
| --- | --- | --- |
| **UNIT 7 – SIMILARITY** | | |
| **7-1** | **Ratios and Proportions** | CCSS.MATH.CONTENT.6.RP.A.1 |
| **7-2** | **Similar Polygons** | CCSS.MATH.CONTENT.HSG.SRT.A.2 |
| **7-3** | **Proving Triangles are Similar** | CCSS.MATH.CONTENT.HSG.SRT.A.2  CCSS.MATH.CONTENT.HSG.SRT.A.3 |
| **7-4** | **Similarity in Right Triangles** | CCSS.MATH.CONTENT.HSG.SRT.B.4  CCSS.MATH.CONTENT.HSG.SRT.B.5 |
| **7-5** | **Proportions in Triangles** | CCSS.MATH.CONTENT.HSG.SRT.B.4  CCSS.MATH.CONTENT.HSG.SRT.B.5 |

|  |  |  |
| --- | --- | --- |
| **UNIT 8 – RIGHT TRIANGLES AND TRIGONOMETRY** | | |
| **8-1** | **The Pythagorean Theorem and its Converse** | CCSS.MATH.CONTENT.8.G.B.6  CCSS.MATH.CONTENT.8.G.B.7 |
| **8-2** | **Special Right Angles** | CCSS.MATH.CONTENT.HSG.SRT.C.6  CCSS.MATH.CONTENT.8.G.B.7 |
| **8-3** | **Trigonometry** | CCSS.MATH.CONTENT.HSG.SRT.6  CCSS.MATH.CONTENT.HSG.SRT.C.7 |
| **8-4** | **Angles of Elevation and Depression** | CCSS.MATH.CONTENT.HSG.SRT.C.6  CCSS.MATH.CONTENT.HSG.SRT.C.7 |
| **8-5** | **Law of Cosines** | CCSS.MATH.CONTENT.HSG.SRT.D.10  CCSS.MATH.CONTENT.HSG.SRT.D.11 |
| **8-6** | **Law of Sines** | CCSS.MATH.CONTENT.HSG.SRT.D.10  CCSS.MATH.CONTENT.HSG.SRT.D.11 |

|  |  |  |
| --- | --- | --- |
| **UNIT 9 – TRANSFORMATIONS** | | |
| **9-1** | **Translations** | CCSS.MATH.CONTENT.HSG.SRT.A.3 |
| **9-2** | **Reflections** | CCSS.MATH.CONTENT.HSG.SRT.A.3 |
| **9-3** | **Rotations** | CCSS.MATH.CONTENT.HSG.SRT.A.3 |
| **9-4** | **Congruence Transformations** | CCSS.MATH.CONTENT.HSG.SRT.A.3 |
| **9-5** | **Dilations** | CCSS.MATH.CONTENT.HSG.SRT.A.3 |
| **9-6** | **Solving Rotational Equations** | CCSS.MATH.CONTENT.HSG.SRT.A.3 |
| **9-7** | **Similarity Transformations** | CCSS.MATH.CONTENT.HSG.SRT.A.3 |

|  |  |  |
| --- | --- | --- |
| **UNIT 10 – AREA** | | |
| **10-1** | **Areas of Parallelograms and Triangles** | CCSS.MATH.CONTENT.6.G.A.1  CCSS.MATH.CONTENT.7.G.B.6  CCSS.MATH.CONTENT.HSG.GPE.B.7 |
| **10-2** | **Areas of Trapezoids, Rhombuses and Kites** | CCSS.MATH.CONTENT.7.G.B.6  CCSS.MATH.CONTENT.HSG.GPE.B.7 |
| **10-3** | **Areas of Regular Polygons** | CCSS.MATH.CONTENT.6.G.A.1  CCSS.MATH.CONTENT.7.G.B.6 |
| **10-4** | **Perimeter and Area of Similar Figures** | CCSS.MATH.CONTENT.HSG.SRT.B.5  CCSS.MATH.CONTENT.7.G.B.6 |
| **10-5** | **Trigonometry and Area** | CCSS.MATH.CONTENT.HSG.SRT.B.5  CCSS.MATH.CONTENT.7.G.B.6 |
| **10-6** | **Circles and Arcs** | CCSS.MATH.CONTENT.HSG.C.B.5 |
| **10-7** | **Areas of Circles and Sectors** | CCSS.MATH.CONTENT.HSG.C.B.5 |
| **10-8** | **Geometric Probability** | CCSS.MATH.CONTENT.7.SP.C.5 |

|  |  |  |
| --- | --- | --- |
| **UNIT 11 – SURFACE AREA AND VOLUME** | | |
| **11-1** | **Spacing Figures and Cross Sections** | CCSS.MATH.CONTENT.HSG.GMD.B.4  CCSS.MATH.CONTENT.1.G.A.2 |
| **11-2** | **Surface Areas of Cylinders and Prisms** | CCSS.MATH.CONTENT.7.G.B.6  CCSS.MATH.CONTENT.6.G.A.4 |
| **11-3** | **Surface Areas of Pyramids and Cones** | CCSS.MATH.CONTENT.7.G.B.6  CCSS.MATH.CONTENT.6.G.A.4 |
| **11-4** | **Volumes of Prisms and Cylinders** | CCSS.MATH.CONTENT.7.G.B.6  CCSS.MATH.CONTENT.6.G.A.4 |
| **11-5** | **Volume of Pyramids and Cones** | CCSS.MATH.CONTENT.7.G.B.6  CCSS.MATH.CONTENT.6.G.A.4 |
| **11-6** | **Surface Areas and Volumes of Spheres** | CCSS.MATH.CONTENT.7.G.B.6  CCSS.MATH.CONTENT.8.G.C.9 |
| **11-7** | **Areas and Volumes of Similar Solids** | CCSS.MATH.CONTENT.7.G.B.6  CCSS.MATH.CONTENT.8.G.C.9 |

|  |  |  |
| --- | --- | --- |
| **UNIT 12 – CIRCLES** | | |
| **12-1** | **Tangent Lines** | CCSS.MATH.CONTENT.HSG.C.A.4 |
| **12-2** | **Chords and Arcs** | CCSS.MATH.CONTENT.HSG.C.A.2 |
| **12-3** | **Inscribed Angles** | CCSS.MATH.CONTENT.HSG.C.A.2 |
| **12-4** | **Angle Measures and Segment Lengths** | CCSS.MATH.CONTENT.HSG.C.A.2 |
| **12-5** | **Circles in the Coordinate Plane** | CCSS.MATH.CONTENT.HSG.C.A.2 |
| **12-6** | **Locus A Set of Points** | CCSS.MATH.CONTENT.HSG.C.A.2 |

|  |  |  |
| --- | --- | --- |
| **UNIT 13 – PROBABILITY** | | |
| **13-1** | **Experimental and Theoretical Probability** | CCSS.MATH.CONTENT.7.SP.C.5 |
| **13-2** | **Probability Distributions and Frequency Tables** | CCSS.MATH.CONTENT.7.SP.C.6 |
| **13-3** | **Permutations and Combinations** | CCSS.MATH.CONTENT.HSS.CP.A.1 |
| **13-4** | **Compound Probability** | CCSS.MATH.CONTENT.HSS.CP.A.1  CCSS.MATH.CONTENT.HSS.CP.B.7 |
| **13-5** | **Probability Models** | CCSS.MATH.CONTENT.7.SP.C.7  CCSS.MATH.CONTENT.7.SP.C.7.A  CCSS.MATH.CONTENT.7.SP.C.7.B |
| **13-6** | **Conditional Probability Formulas** | CCSS.MATH.CONTENT.HSS.CP.B.6  CCSS.MATH.CONTENT.HSS.CP.B.7  CCSS.MATH.CONTENT.HSS.CP.B.8  CCSS.MATH.CONTENT.HSS.CP.B.9 |
| **13-7** | **Modeling Randomness** | CCSS.MATH.CONTENT.HSS.MD.A.1  CCSS.MATH.CONTENT.HSS.MD.A.2  CCSS.MATH.CONTENT.HSS.MD.A.3  CCSS.MATH.CONTENT.HSS.MD.A.4 |