



## GEOMETRY CURRICULUM MAP

### 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

CCSS.MATH.CONTENT.HSG.CO.C.9

#### 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.8.G.B.7

CCSS.MATH.CONTENT.HSG.CO.C.9

CCSS.MATH.CONTENT.HSG.GPE.B.7

## 1-8 Perimeter Circumference 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 Constructions

CCSS.MATH.CONTENT.HSG.CO.D.12



## UNIT 2 – Reasoning and Proof

### 2-1 Inductive and Deductive Reasoning

CCSS.MATH.PRACTICE.MP2 Reason abstractly and quantitatively.

CCSS.MATH.PRACTICE.MP3 Construct viable arguments and critique the reasoning of others.

CCSS.MATH.PRACTICE.MP8 Look for and express regularity in repeated reasoning.

### 2-2 Logic

CCSS.MATH.PRACTICE.MP2 Reason abstractly and quantitatively.

CCSS.MATH.PRACTICE.MP3 Construct viable arguments and critique the reasoning of others.

CCSS.MATH.PRACTICE.MP5 Use appropriate tools strategically.

### 2-3 Proving Theorems

CCSS.MATH.PRACTICE.MP1 Make sense of problems and persevere in solving them.

CCSS.MATH.PRACTICE.MP2 Reason abstractly and quantitatively.

CCSS.MATH.PRACTICE.MP4 Model with mathematics.

CCSS.MATH.PRACTICE.MP8 Look for and express regularity in repeated reasoning.

### 2-4 Algebraic Proofs

CCSS.MATH.PRACTICE.MP1 Make sense of problems and persevere in solving them.

CCSS.MATH.PRACTICE.MP2 Reason abstractly and quantitatively.

CCSS.MATH.PRACTICE.MP4 Model with mathematics.

CCSS.MATH.PRACTICE.MP8 Look for and express regularity in repeated reasoning.

### 2-5 Theorems about Angles and Perpendicular Lines

CCSS.MATH.CONTENT.HSG.CO.C.9

CCSS.MATH.CONTENT.HSG.GPE.B.5

CCSS.MATH.PRACTICE.MP4 Model with mathematics.



## 2-6 Planning a Proof

CCSS.MATH.CONTENT.8.G.B.6

CCSS.MATH.PRACTICE.MP1 Make sense of problems and persevere in solving them.

CCSS.MATH.PRACTICE.MP2 Reason abstractly and quantitatively.

CCSS.MATH.PRACTICE.MP4 Model with mathematics.



## **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.9

CCSS.MATH.CONTENT.HSG.GPE.B.5

CCSS.MATH.CONTENT.HSG.CO.B.6

### **3-2 Use Parallel Lines and Transversals**

CCSS.MATH.CONTENT.4.G.A.1

CCSS.MATH.CONTENT.4.G.A.2

CCSS.MATH.CONTENT.HSG.CO.C.9

### **3-3 Prove Lines Parallel**

CCSS.MATH.CONTENT.HSG.CO.A.1

CCSS.MATH.CONTENT.HSG.CO.C.9

### **3-4 Find and Use Slopes of Lines**

CCSS.MATH.CONTENT.8.EE.B.5

CCSS.MATH.CONTENT.HSG.GPE.B.5

### **3-5 Right and Graph Equations of Lines**

CCSS.MATH.CONTENT.8.EE.B.5

CCSS.MATH.CONTENT.8.EE.B.6

### **3-6 Prove Theorems about Perpendicular Lines**

CCSS.MATH.CONTENT.HSG.CO.C.9



## UNIT 4 – Congruent Triangles

### 4-1 Congruent Figures

CCSS.MATH.CONTENT.8.G.A.2

CCSS.MATH.CONTENT.HSG.SRT.B.5

### 4-2 Triangle Congruence by SSS and SAS

CCSS.MATH.CONTENT.HSG.SRT.A.3

CCSS.MATH.CONTENT.HSG.SRT.B.5

CCSS.MATH.CONTENT.HSG.CO.B.8

### 4-3 Triangle Congruence by ASA and AAS

CCSS.MATH.CONTENT.HSG.SRT.A.3

CCSS.MATH.CONTENT.HSG.SRT.B.5

CCSS.MATH.CONTENT.HSG.CO.B.8

### 4-4 Using Corresponding Parts of Congruent Triangles

CCSS.MATH.CONTENT.HSG.SRT.A.3

CCSS.MATH.CONTENT.HSG.SRT.B.5

CCSS.MATH.CONTENT.HSG.CO.B.7

### 4-5 Isosceles and Equilateral Triangles

CCSS.MATH.CONTENT.HSG.CO.C.10

CCSS.MATH.CONTENT.HSG.CO.D.13

### 4-6 Congruence in Right Triangles

CCSS.MATH.CONTENT.8.G.B.7

CCSS.MATH.CONTENT.HSG.SRT.B.4

CCSS.MATH.CONTENT.HSG.SRT.B.5

CCSS.MATH.CONTENT.HSG.SRT.C.6



## 4-7 Congruence in Overlapping Triangles

CCSS.MATH.CONTENT.HSG.SRT.A.3

CCSS.MATH.CONTENT.HSG.SRT.B.5

CCSS.MATH.CONTENT.HSG.SRT.C.6



## UNIT 5 – Relationships within Triangles

### 5-1 Midsegments of Triangles

CCSS.MATH.CONTENT.8.G.A.5

CCSS.MATH.CONTENT.HSG.CO.C.9

CCSS.MATH.CONTENT.HSG.CO.C.10

CCSS.MATH.CONTENT.HSG.GPE.B.4

CCSS.MATH.PRACTICE.MP2 Reason abstractly and quantitatively.

### 5-2 Perpendicular and Angle Bisectors

CCSS.MATH.CONTENT.HSG.CO.C.9

CCSS.MATH.PRACTICE.MP2 Reason abstractly and quantitatively.

### 5-3 Bisectors in Triangles

CCSS.MATH.CONTENT.HSG.C.A.3

CCSS.MATH.CONTENT.HSG.CO.C.9

CCSS.MATH.CONTENT.HSG.CO.C.10

CCSS.MATH.PRACTICE.MP2 Reason abstractly and quantitatively.

### 5-4 Medians and Altitudes

CCSS.MATH.CONTENT.HSG.CO.C.10

### 5-5 Indirect Proof

CCSS.MATH.CONTENT.HSG.SRT.B.4

CCSS.MATH.PRACTICE.MP1 Make sense of problems and persevere in solving them.

CCSS.MATH.PRACTICE.MP3 Construct viable arguments and critique the reasoning of others.

CCSS.MATH.PRACTICE.MP4 Model with mathematics.



## 5-6 Inequalities in One Triangle

CCSS.MATH.CONTENT.HSG.SRT.B.4

## 5-7 Inequalities in Two Triangles

CCSS.MATH.CONTENT.HSG.SRT.B.4



## UNIT 6 – The Polygon and 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.5.G.B.3

CCSS.MATH.CONTENT.5.G.B.4

CCSS.MATH.CONTENT.HSG.CO.C.11

### 6-3 Proving That a Quadrilateral is a Parallelogram

CCSS.MATH.CONTENT.5.G.B.3

CCSS.MATH.CONTENT.5.G.B.4

CCSS.MATH.CONTENT.HSG.CO.C.11

### 6-4 Properties of Rhombuses Rectangles and Squares

CCSS.MATH.CONTENT.5.G.B.3

CCSS.MATH.CONTENT.5.G.B.4

CCSS.MATH.CONTENT.HSG.CO.C.11

### 6-5 Conditions of Rhombuses Rectangles and Squares

CCSS.MATH.CONTENT.3.G.A.1

CCSS.MATH.CONTENT.4.G.A.2

CCSS.MATH.CONTENT.4.G.A.3

CCSS.MATH.CONTENT.5.G.B.3

CCSS.MATH.CONTENT.5.G.B.4

CCSS.MATH.CONTENT.HSG.CO.C.11



## 6-6 Trapezoids and Kites

CCSS.MATH.CONTENT.5.G.B.3

CCSS.MATH.CONTENT.5.G.B.4

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

## 6-8 Applying Coordinate Geometry

CCSS.MATH.CONTENT.6.G.A.3

CCSS.MATH.CONTENT.8.G.A.3

CCSS.MATH.CONTENT.8.G.B.8

CCSS.MATH.CONTENT.8.G.B.7

## 6-9 Proofs Using Coordinate Geometry

CCSS.MATH.CONTENT.HSG.GPE.B.7

CCSS.MATH.CONTENT.HSG.GPE.B.4

CCSS.MATH.CONTENT.8.G.B.7

CCSS.MATH.CONTENT.8.G.B.8



## UNIT 7 – Similarity

### 7-1 Ratios and Proportions

CCSS.MATH.CONTENT.6.RP.A.1

CCSS.MATH.CONTENT.6.RP.A.2

CCSS.MATH.CONTENT.6.RP.A.3

CCSS.MATH.CONTENT.7.RP.A.1

CCSS.MATH.CONTENT.7.RP.A.2

CCSS.MATH.CONTENT.7.RP.A.3

CCSS.MATH.CONTENT.8.EE.B.5

CCSS.MATH.CONTENT.HSG.GPE.B.6

CCSS.MATH.CONTENT.HSG.SRT.C.6

### 7-2 Similar Polygons

CCSS.MATH.CONTENT.HSG.SRT.A.2

CCSS.MATH.CONTENT.HSG.SRT.C.6

### 7-3 Proving Triangles Similar

CCSS.MATH.CONTENT.HSG.SRT.A.2

CCSS.MATH.CONTENT.HSG.SRT.A.3

CCSS.MATH.CONTENT.HSG.SRT.B.4

CCSS.MATH.CONTENT.HSG.SRT.B.5

CCSS.MATH.CONTENT.HSG.SRT.C.6

### 7-4 Similarity in Right Triangles

CCSS.MATH.CONTENT.HSG.SRT.A.2

CCSS.MATH.CONTENT.HSG.SRT.A.3

CCSS.MATH.CONTENT.HSG.SRT.B.4

CCSS.MATH.CONTENT.HSG.SRT.B.5



## 7-5 Proportions in Triangles

CCSS.MATH.CONTENT.HSG.SRT.A.2

CCSS.MATH.CONTENT.HSG.SRT.A.3



## 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

CCSS.MATH.CONTENT.8.G.B.8

CCSS.MATH.CONTENT.HSG.SRT.C.8

### 8-2 Special Right Triangles

CCSS.MATH.CONTENT.8.G.B.7

CCSS.MATH.CONTENT.HSG.SRT.B.4

CCSS.MATH.CONTENT.HSG.SRT.B.5

CCSS.MATH.CONTENT.HSG.SRT.C.8

### 8-3 Trigonometry

CCSS.MATH.CONTENT.HSG.SRT.C.6

CCSS.MATH.CONTENT.HSG.SRT.C.7

CCSS.MATH.CONTENT.HSG.SRT.C.8

CCSS.MATH.CONTENT.HSG.SRT.D.9

CCSS.MATH.CONTENT.HSG.SRT.D.10

### 8-4 Angles of Elevation and Depression

CCSS.MATH.CONTENT.8.G.B.7

CCSS.MATH.CONTENT.HSG.SRT.C.8

CCSS.MATH.CONTENT.HSG.SRT.B.4

### 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.8.G.A.2

CCSS.MATH.CONTENT.8.G.A.3

CCSS.MATH.CONTENT.8.G.A.4

CCSS.MATH.CONTENT.HSG.CO.A.3

CCSS.MATH.CONTENT.HSG.CO.A.4

CCSS.MATH.CONTENT.HSG.CO.A.5

### 9-2 Reflections

CCSS.MATH.CONTENT.8.G.A.2

CCSS.MATH.CONTENT.8.G.A.3

CCSS.MATH.CONTENT.8.G.A.4

CCSS.MATH.CONTENT.HSG.CO.A.3

CCSS.MATH.CONTENT.HSG.CO.A.4

CCSS.MATH.CONTENT.HSG.CO.A.5

### 9-3 Rotations

CCSS.MATH.CONTENT.8.G.A.2

CCSS.MATH.CONTENT.8.G.A.3

CCSS.MATH.CONTENT.8.G.A.4

CCSS.MATH.CONTENT.HSG.CO.A.3

CCSS.MATH.CONTENT.HSG.CO.A.4

CCSS.MATH.CONTENT.HSG.CO.A.5



## 9-4 Congruence Transformations

CCSS.MATH.CONTENT.8.G.A.2

CCSS.MATH.CONTENT.HSG.CO.A.3

CCSS.MATH.CONTENT.HSG.CO.A.4

CCSS.MATH.CONTENT.HSG.CO.A.5

## 9-5 Dilations

CCSS.MATH.CONTENT.8.G.A.2

CCSS.MATH.CONTENT.8.G.A.3

CCSS.MATH.CONTENT.8.G.A.4

CCSS.MATH.CONTENT.HSG.CO.A.3

CCSS.MATH.CONTENT.HSG.CO.A.4

CCSS.MATH.CONTENT.HSG.CO.A.5

CCSS.MATH.CONTENT.HSG.SRT.A.1

CCSS.MATH.CONTENT.HSG.SRT.A.1.A

CCSS.MATH.CONTENT.HSG.SRT.A.1.B

## 9-6 Solving Rational Equations

CCSS.MATH.CONTENT.HSA.REI.A.2

## 9-7 Similarity Transformations

CCSS.MATH.CONTENT.HSG.SRT.C.6

CCSS.MATH.CONTENT.HSG.SRT.A.1.B

CCSS.MATH.CONTENT.HSG.SRT.A.2

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.SRT.D.9

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 Perimeters and Areas of Similar Figures

CCSS.MATH.CONTENT.7.G.B.6

CCSS.MATH.CONTENT.HSG.SRT.B.5

### 10-5 Trigonometry and Area

CCSS.MATH.CONTENT.7.G.B.6

CCSS.MATH.CONTENT.HSG.SRT.D.9

CCSS.MATH.CONTENT.HSG.SRT.B.5

### 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 Space Figures and Cross Sections

CCSS.MATH.CONTENT.7.G.A.3

CCSS.MATH.CONTENT.HSG.MG.A.1

CCSS.MATH.CONTENT.HSG.MG.A.2

CCSS.MATH.CONTENT.HSG.MG.A.3

CCSS.MATH.CONTENT.HSG.GMD.B.4

### 11-2 Surface Areas of Prisms and Cylinders

CCSS.MATH.CONTENT.6.G.A.4

CCSS.MATH.CONTENT.7.G.B.6

CCSS.MATH.CONTENT.7.G.A.3

CCSS.MATH.CONTENT.HSG.MG.A.1

CCSS.MATH.CONTENT.HSG.MG.A.2

CCSS.MATH.CONTENT.HSG.MG.A.3

### 11-3 Surface Areas of Pyramids and Cones

CCSS.MATH.CONTENT.6.G.A.4

CCSS.MATH.CONTENT.7.G.B.6

CCSS.MATH.CONTENT.7.G.A.3

CCSS.MATH.CONTENT.HSG.MG.A.1

CCSS.MATH.CONTENT.HSG.MG.A.2

CCSS.MATH.CONTENT.HSG.MG.A.3



## 11-4 Volumes of Prisms and Cylinders

CCSS.MATH.CONTENT.7.G.B.6

CCSS.MATH.CONTENT.HSG.GMD.A.1

CCSS.MATH.CONTENT.HSG.GMD.A.2

CCSS.MATH.CONTENT.HSG.GMD.A.3

CCSS.MATH.CONTENT.HSG.MG.A.1

CCSS.MATH.CONTENT.HSG.MG.A.2

CCSS.MATH.CONTENT.HSG.MG.A.3

## 11-5 Volumes of Pyramids and Cones

CCSS.MATH.CONTENT.7.G.B.6

CCSS.MATH.CONTENT.7.G.A.3

CCSS.MATH.CONTENT.8.G.C.9

CCSS.MATH.CONTENT.HSG.GMD.A.1

CCSS.MATH.CONTENT.HSG.GMD.A.2

CCSS.MATH.CONTENT.HSG.GMD.A.3

CCSS.MATH.CONTENT.HSG.MG.A.1

CCSS.MATH.CONTENT.HSG.MG.A.2

CCSS.MATH.CONTENT.HSG.MG.A.3

## 11-6 Surface Area and Volumes of Spheres

CCSS.MATH.CONTENT.6.G.A.4

CCSS.MATH.CONTENT.8.G.C.9

CCSS.MATH.CONTENT.HSG.GMD.A.1

CCSS.MATH.CONTENT.HSG.GMD.A.3

CCSS.MATH.CONTENT.HSG.MG.A.1

CCSS.MATH.CONTENT.HSG.MG.A.2

CCSS.MATH.CONTENT.HSG.MG.A.3

## 11-7 Areas and Volumes of Similar Solids

CCSS.MATH.CONTENT.6.G.A.4

CCSS.MATH.CONTENT.6.G.A.2

CCSS.MATH.CONTENT.8.G.C.9



## UNIT 12 – Circles

### 12-1 Tangent Lines

CCSS.MATH.CONTENT.HSG.C.A.4

CCSS.MATH.CONTENT.HSG.C.A.2

### 12-2 Chords and Arcs

CCSS.MATH.CONTENT.HSG.C.A.2

CCSS.MATH.CONTENT.HSG.C.B.5

### 12-3 Inscribed Angles

CCSS.MATH.CONTENT.HSG.C.A.2

### 12-4 Angle Measures and Segment Lengths

CCSS.MATH.CONTENT.4.MD.C.5

CCSS.MATH.CONTENT.4.MD.C.5.A

CCSS.MATH.CONTENT.4.MD.C.5.B

CCSS.MATH.CONTENT.4.MD.C.6

CCSS.MATH.CONTENT.4.MD.C.7

CCSS.MATH.CONTENT.HSG.GPE.B.6

CCSS.MATH.CONTENT.HSG.CO.A.1

### 12-5 Circles in the Coordinate Plane

CCSS.MATH.CONTENT.5.G.A.2

CCSS.MATH.CONTENT.HSG.GPE.A.1

CCSS.MATH.CONTENT.HSA.REI.D.10

CCSS.MATH.CONTENT.HSG.GPE.B.4



## 12-6 Locus A Set of Points

CCSS.MATH.CONTENT.HSG.CO.A.2

CCSS.MATH.PRACTICE.MP1 Make sense of problems and persevere in solving them.

CCSS.MATH.PRACTICE.MP3 Construct viable arguments and critique the reasoning of others.

CCSS.MATH.PRACTICE.MP4 Model with mathematics.

CCSS.MATH.PRACTICE.MP6 Attend to precision.



## **UNIT 13 - Probability**

### **13-1 Experimental and Theoretical Probability**

CCSS.MATH.CONTENT.7.SP.A.2

CCSS.MATH.CONTENT.7.SP.C.5

CCSS.MATH.CONTENT.7.SP.C.6

CCSS.MATH.CONTENT.7.SP.C.8.A

### **13-2 Probability Distributions and Frequency Tables**

CCSS.MATH.CONTENT.6.SP.B.5.C

CCSS.MATH.CONTENT.7.SP.C.8.B

CCSS.MATH.CONTENT.HSS.MD.A.1

CCSS.MATH.CONTENT.HSS.MD.A.2

### **13-3 Permutations and Combinations**

CCSS.MATH.CONTENT.HSS.CP.B.9

### **13-4 Compound Probability**

CCSS.MATH.CONTENT.7.SP.C.8

CCSS.MATH.CONTENT.7.SP.C.8.A

CCSS.MATH.CONTENT.7.SP.C.8.B

CCSS.MATH.CONTENT.7.SP.C.8.C

### **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.A.3

CCSS.MATH.CONTENT.HSS.CP.B.6

CCSS.MATH.CONTENT.HSS.CP.B.7

CCSS.MATH.CONTENT.HSS.CP.B.8

## 13-7 Modeling Randomness

CCSS.MATH.CONTENT.HSS.MD.B.6

CCSS.MATH.CONTENT.HSS.MD.B.7

CCSS.MATH.PRACTICE.MP1 Make sense of problems and persevere in solving them.

CCSS.MATH.PRACTICE.MP3 Construct viable arguments and critique the reasoning of others.

CCSS.MATH.PRACTICE.MP4 Model with mathematics.