

CCSS TRADITIONAL PATHWAY GEOMETRY CONTENT MAP

Unit 1: Congruence, Proof, and Constructions			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Introducing Transformations		
	1.1.1	Defining Terms	G–CO.1
	1.1.2	Transformations As Functions	G–CO.2
	1.1.3	Applying Lines of Symmetry	G–CO.3
Lesson 2	Defining and Applying Rotations, Reflections, and Translations		
	1.2.1	Defining Rotations, Reflections, and Translations	G–CO.4
	1.2.2	Applying Rotations, Reflections, and Translations	G–CO.5
Lesson 3	Exploring Congruence		
	1.3.1	Describing Rigid Motions and Predicting the Effects	G–CO.6
	1.3.2	Defining Congruence in Terms of Rigid Motions	G–CO.6
Lesson 4	Congruent Triangles		
	1.4.1	Triangle Congruency	G–CO.7
	1.4.2	Explaining ASA, SAS, and SSS	G–CO.8
Lesson 5	Proving Theorems About Lines and Angles		
	1.5.1	Proving the Vertical Angles Theorem	G–CO.9
	1.5.2	Proving Theorems About Angles in Parallel Lines Cut by a Transversal	G–CO.9
Lesson 6	Proving Theorems About Triangles		
	1.6.1	Proving the Interior Angle Sum Theorem	G–CO.10
	1.6.2	Proving Theorems About Isosceles Triangles	G–CO.10
	1.6.3	Proving the Midsegment of a Triangle	G–CO.10
	1.6.4	Proving Centers of Triangles	G–CO.10
Lesson 7	Proving Theorems About Parallelograms		
	1.7.1	Proving Properties of Parallelograms	G–CO.11
	1.7.2	Proving Properties of Special Quadrilaterals	G–CO.11
Lesson 8	Constructing Lines, Segments, and Angles		
	1.8.1	Copying Segments and Angles	G–CO.12
	1.8.2	Bisecting Segments and Angles	G–CO.12
	1.8.3	Constructing Perpendicular and Parallel Lines	G–CO.12
Lesson 9	Constructing Polygons		
	1.9.1	Constructing Equilateral Triangles Inscribed in Circles	G–CO.13
	1.9.2	Constructing Squares Inscribed in Circles	G–CO.13
	1.9.3	Constructing Regular Hexagons Inscribed in Circles	G–CO.13

Unit 2: Similarity, Proof, and Trigonometry			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Investigating Properties of Dilations		
	2.1.1	Investigating Properties of Parallelism and the Center	G–SRT.1a
	2.1.2	Investigating Scale Factors	G–SRT.1b
Lesson 2	Defining and Applying Similarity		
	2.2.1	Defining Similarity	G–SRT.2
	2.2.2	Applying Similarity Using the Angle-Angle (AA) Criterion	G–SRT.3
Lesson 3	Proving Similarity		
	2.3.1	Proving Triangle Similarity Using Side-Angle-Side (SAS) and Side-Side-Side (SSS) Similarity	G–SRT.4
	2.3.2	Working with Ratio Segments	G–SRT.4
	2.3.3	Proving the Pythagorean Theorem Using Similarity	G–SRT.4
	2.3.4	Solving Problems Using Similarity and Congruence	G–SRT.5
Lesson 4	Exploring Trigonometric Ratios		
	2.4.1	Defining Trigonometric Ratios	G–SRT.6
	2.4.2	Exploring Sine and Cosine As Complements	G–SRT.7
Lesson 5	Applying Trigonometric Ratios		
	2.5.1	Calculating Sine, Cosine, and Tangent	G–SRT.8
	2.5.2	Calculating Cosecant, Secant, and Cotangent	G–SRT.8
	2.5.3	Problem Solving with the Pythagorean Theorem and Trigonometry	G–SRT.8
Lesson 6	Trigonometry of General Angles		
	2.6.1	Proving the Law of Sines	G–SRT.9 (+) G–SRT.10 (+)
	2.6.2	Proving the Law of Cosines	G–SRT.10 (+)
	2.6.3	Applying the Laws of Sines and Cosines	G–SRT.11 (+)
Lesson 7	Geometric Modeling		
	2.7.1	Modeling Objects with Geometric Shapes	G–MG.1★
	2.7.2	Density	G–MG.2★
	2.7.3	Design	G–MG.3★
Unit 3: Extending to Three Dimensions			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Explaining and Applying Area and Volume Formulas		
	3.1.1	Circumference and Area of a Circle	G–GMD.1
	3.1.2	Volumes of Cylinders, Pyramids, Cones, and Spheres	G–GMD.1 G–GMD.3★
Lesson 2	Relationships Between Two- and Three-Dimensional Objects		
	3.2.1	Cross Sections and Rotated Shapes	G–GMD.4 G–MG.1★

Unit 4: Connecting Algebra and Geometry Through Coordinates			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Slope and Distance		
	4.1.1	Using Coordinates to Prove Geometric Theorems with Slope and Distance	G–GPE.4 G–GPE.5
	4.1.2	Working with Parallel and Perpendicular Lines	G–GPE.5
Lesson 2	Lines and Line Segments		
	4.2.1	Calculating Perimeter and Area	G–GPE.7★
	4.2.2	Midpoints and Other Points on Line Segments	G–GPE.6
Lesson 3	Defining Parabolas Geometrically		
	4.3.1	Deriving the Equation of a Parabola	G–GPE.2
	4.3.2	Using Coordinates to Prove Geometric Theorems About Parabolas	G–GPE.4
Unit 5: Circles With and Without Coordinates			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Introducing Circles		
	5.1.1	Similar Circles and Central and Inscribed Angles	G–C.1 G–C.2
	5.1.2	Chord Central Angles Conjecture	G–C.2
	5.1.3	Properties of Tangents of a Circle	G–C.2
Lesson 2	Inscribed Polygons and Circumscribed Triangles		
	5.2.1	Constructing Inscribed Circles	G–C.3
	5.2.2	Constructing Circumscribed Circles	G–C.3
	5.2.3	Proving Properties of Inscribed Quadrilaterals	G–C.3
Lesson 3	Constructing Tangent Lines		
	5.3.1	Constructing Tangent Lines	G–C.4 (+)
Lesson 4	Finding Arc Lengths and Areas of Sectors		
	5.4.1	Defining Radians	G–C.5
	5.4.2	Deriving the Formula for the Area of a Sector	G–C.5
Lesson 5	The Equation of a Circle		
	5.5.1	Deriving the Equation of a Circle	G–GPE.1
	5.5.2	Using Coordinates to Prove Geometric Theorems About Circles	G–GPE.4
Lesson 6	Geometric Modeling with Circles		
	5.6.1	Modeling with Circles	G–MG.1

Unit 6: Applications of Probability			
Lesson	Sub-lesson number	Title	Standard(s)
Lesson 1	Events		
	6.1.1	Describing Events	S-CP.1★
	6.1.2	The Addition Rule	S-CP.7★
	6.1.3	Understanding Independent Events	S-CP.2★
Lesson 2	Conditional Probability		
	6.2.1	Introducing Conditional Probability	S-CP.3★
			S-CP.5★
			S-CP.6★
	6.2.2	Using Two-Way Frequency Tables	S-CP.4★
S-CP.5★ S-CP.6★			
6.2.3	The Multiplication Rule	S-CP.8★ (+)	
Lesson 3	Combinatorics		
	6.3.1	Combinations and Permutations	S-CP.9★ (+)
	6.3.2	Probability with Combinatorics	S-CP.9★ (+)
Lesson 4	Making and Analyzing Decisions		
	6.4.1	Making Decisions	S-MD.6★ (+)
	6.4.2	Analyzing Decisions	S-MD.7★ (+)