Standards Correlations

Each lesson in the *CCSS Geometry* program was written specifically to address the Common Core State Standards. Each lesson lists the standards covered in all the lessons, and each lesson lists the standards addressed in that particular section. In this section, you'll find a comprehensive list mapping the lessons to the CCSS.

Guide to Common Core State Standards Annotation

As you use this program, you will come across a symbol included with the Common Core standards for some of the lessons and activities. The description of the star symbol is found below, taken verbatim from the Common Core State Standards Initiative website, at www.corestandards.org.

Symbol: ⋆

Denotes: Modeling Standards

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. Specific modeling standards appear throughout the high school standards indicated by a star symbol (⋆).

From http://www.walch.com/CCSS/00006

Symbol: (+)

Denotes: College and Career Readiness Standards

Advanced mathematics standards that are required in higher-level courses such as advanced statistics may also be included in lower-level courses. These additional standards are denoted by (+). According to the Common Core State Standards Initiative, "the evidence concerning college and career readiness shows clearly that the knowledge, skills, and practices important for readiness include a great deal of mathematics prior to the boundary defined by (+) symbols in these standards. Indeed, some of the highest priority content for college and career readiness comes from Grades 6–8."

From http://www.walch.com/CCSS/00004

Connections to Future Courses

This section provides a map between topics introduced in each unit of this course and subsequent courses where each topic is revisited and built upon.

Topic	Lesson number	Title	Standard(s)
Unit 1: Congruence, Proof, and Constructions			
Topic A	**Introducing Transformations**		
	1.1	Defining Terms	G.CO.A.1
	1.2	Transformations As Functions	G.CO.A.2
	1.3	Applying Lines of Symmetry	G.CO.A.3
Topic B	**Rotations, Reflections, and Translations**		
	1.4	Defining Rotations, Reflections, and Translations	G.CO.A.4
	1.5	Applying Rotations, Reflections, and Translations	G.CO.A.5
Topic C	**Exploring Congruence**		
	1.6	Describing Rigid Motions and Predicting the Effects	G.CO.B.6
	1.7	Defining Congruence in Terms of Rigid Motions	G.CO.B.6
Topic D	**Congruent Triangles**		
	1.8	Triangle Congruency	G.CO.B.7
	1.9	Explaining ASA, SAS, SSS, AAS, and HL	G.CO.B.8
Topic E	**Proving Theorems About Lines and Angles**		
	1.10	Proving the Vertical Angles Theorem	G.CO.C.9
	1.11	Proving Theorems About Angles in Parallel Lines Cut by a Transversal	G.CO.C.9
Topic F	**Proving Theorems About Triangles**		
	1.12	Proving the Interior Angle Sum Theorem	G.CO.C.10
	1.13	Proving Theorems About Isosceles Triangles	G.CO.C.10
	1.14	Proving the Midsegment of a Triangle	G.CO.C.10
	1.15	Proving Centers of Triangles	G.CO.C.10
Topic G	**Proving Theorems About Parallelograms**		
	1.16	Proving Properties of Parallelograms	G.CO.C.11
	1.17	Proving Properties of Special Quadrilaterals	G.CO.C.11
Topic H	**Constructing Lines, Segments, and Angles**		
	1.18	Copying Segments and Angles	G.CO.D.12
	1.19	Bisecting Segments and Angles	G.CO.D.12
	1.20	Constructing Perpendicular and Parallel Lines	G.CO.D.12

Topic	Lesson number	Title	Standard(s)
Topic I	**Constructing Polygons**		
	1.21	Constructing Equilateral Triangles Inscribed in Circles	G.CO.D.13
	1.22	Constructing Squares Inscribed in Circles	G.CO.D.13
	1.23	Constructing Regular Hexagons Inscribed in Circles	G.CO.D.13
Unit 2: Similarity, Proof, and Trigonometry			
Topic A	**Investigating Properties of Dilations**		
	2.1	Investigating Properties of Parallelism and the Center	G.SRT.A.1a
	2.2	Investigating Scale Factors	G.SRT.A.1b
Topic B	**Defining and Applying Similarity**		
	2.3	Defining Similarity	G.SRT.A.2
	2.4	Applying Similarity Using the Angle-Angle (AA) Criterion	G.SRT.A.3
Topic C	**Proving Similarity**		
	2.5	Proving Triangle Similarity Using Side-Angle-Side (SAS) and Side-Side-Side (SSS) Similarity	G.SRT.B.4
	2.6	Working with Ratio Segments	G.SRT.B.4
	2.7	Proving the Pythagorean Theorem Using Similarity	G.SRT.B.4
	2.8	Solving Problems Using Similarity and Congruence	G.SRT.B.5
Topic D	**Exploring Trigonometric Ratios**		
	2.9	Defining Trigonometric Ratios	G.SRT.C.6
	2.10	Exploring Sine and Cosine As Complements	G.SRT.C.7
Topic E	**Applying Trigonometric Ratios**		
	2.11	Calculating Sine, Cosine, and Tangent	G.SRT.C.8★
	2.12	Calculating Cosecant, Secant, and Cotangent	G.SRT.C.8★
	2.13	Problem Solving with the Pythagorean Theorem and Trigonometry	G.SRT.C.8★
Topic F	**Trigonometry of General Angles**		
	2.14	Proving the Law of Sines	G.SRT.D.9 (+) G.SRT.D.10 (+)
	2.15	Proving the Law of Cosines	G.SRT.D.10 (+)
	2.16	Applying the Laws of Sines and Cosines	G.SRT.D.11 (+)
Topic G	**Trigonometric Modeling**		
	2.17	Density	G.MG.A.2★
	2.18	Design	G.MG.A.3★

Topic	Lesson number	Title	Standard(s)
Unit 3: Extending to Three Dimensions			
Topic A	**Explaining and Applying Area and Volume Formulas**		
	3.1	Circumference and Area of a Circle	G.GMD.A.1
	3.2	Volumes of Cylinders, Pyramids, Cones, and Spheres	G.GMD.A.1 G.GMD.A.3★
Topic B	**Two-Dimensional Cross Sections of Three-Dimensional Objects**		
	3.3	Two-Dimensional Cross Sections of Three-Dimensional Objects	G.GMD.B.4 G.MG.A.1★
Unit 4: Connecting Algebra and Geometry Through Coordinates			
Topic A	**Slope and Distance**		
	4.1	Using Coordinates to Prove Geometric Theorems with Slope and Distance	G.GPE.B.4 G.GPE.B.5
	4.2	Working with Parallel and Perpendicular Lines	G.GPE.B.5
Topic B	**Points on Line Segments**		
	4.3	Midpoints and Other Points on Line Segments	G.GPE.B.6
Topic C	**Calculating Perimeter and Area**		
	4.4	Calculating Perimeter and Area	G.GPE.B.7★
Topic D	**Defining Parabolas Geometrically**		
	4.5	Deriving the Equation of a Parabola	G.GPE.A.2
	4.6	Using Coordinates to Prove Geometric Theorems About Parabolas	G.GPE.B.4
Unit 5: Circles With and Without Coordinates			
Topic A	**Introducing Circles**		
	5.1	Similar Circles and Central and Inscribed Angles	G.C.A.1 G.C.A.2
	5.2	Chord Central Angles Conjecture	G.C.A.2
	5.3	Properties of Tangents of a Circle	G.C.A.2
Topic B	**Inscribed Polygons and Circumscribed Triangles**		
	5.4	Constructing Inscribed Circles	G.C.A.3
	5.5	Constructing Circumscribed Circles	G.C.A.3
	5.6	Proving Properties of Inscribed Quadrilaterals	G.C.A.3
Topic C	**Constructing Tangent Lines**		
	5.7	Constructing Tangent Lines	G.C.A.4 (+)

Topic	Lesson number	Title	Standard(s)
Topic D	**Finding Arc Lengths and Areas of Sectors**		
	5.8	Defining Radians	G.C.B.5
	5.9	Deriving the Formula for the Area of a Sector	G.C.B.5
Topic E	**The Equation of a Circle**		
	5.10	Deriving the Equation of a Circle	G.GPE.A.1
	5.11	Using Coordinates to Prove Geometric Theorems About Circles	G.GPE.B.4
Topic F	**Geometric Modeling with Circles**		
	5.12	Modeling with Circles	G.MG.A.1
Unit 6: Applications of Probability			
Topic A	**Events**		
	6.1	Describing Events	S.CP.A.1★
	6.2	The Addition Rule	S.CP.C.7★
	6.3	Understanding Independent Events	S.CP.A.2★
Topic B	**Conditional Probability**		
	6.4	Introducing Conditional Probability	S.CP.A.3★ S.CP.B.5★ S.CP.B.6★
	6.5	Using Two-Way Frequency Tables	S.CP.A.4★ S.CP.B.5★ S.CP.B.6★
	6.6	The Multiplication Rule	S.CP.C.8★ (+)
Topic C	**Combinatorics**		
	6.7	Combinations and Permutations	S.CP.C.9★ (+)
	6.8	Probability with Combinatorics	S.CP.C.9★ (+)
Topic D	**Making and Analyzing Decisions**		
	6.9	Making Decisions	S.MD.B.6★ (+)
	6.10	Analyzing Decisions	S.MD.B.7★ (+)