

	<u>CURRICULUM</u> <i>End Product of Learning, “What” You Teach</i>			<u>INSTRUCTION</u> <i>Means to the End Product, “How” You Teach</i>	<u>ASSESSMENT</u> <i>Validation to Revise Curriculum & Instruction</i>
TIME FRAME [By Date/Week/Month]	STANDARD OR BENCHMARK	CONTENT: What we want students to “KNOW”.	SKILL: What we want students to “DO”.	Varied Teaching/Learning Strategies Resources/Comments	Varied Classroom Assessment Strategies
September	Chapter 1 Tools of Geometry (pp. 3-87) CCSS G-CO-1 Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. G-CO-12 Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). G-GMD-2 Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems. G-GPE-6 Find the point on a directed line segment between two given points that partitions the segment in a given ratio. G-GPE-7 Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.	Students will: - Develop an awareness of the structure of a mathematical system, connecting definitions, postulates, logical reasoning, and theorems. - Use construction to explore attributes of geometric figures and to make conjectures about geometric relationships. - Use one- and two-dimensional coordinate systems to represent points, lines, rays, line segments, and figures. - Find areas of regular polygons, circles, and composite figures.	Students will be able to: - Identify and model points, lines, and planes. - Identify intersecting lines and planes. - Measure segments - Calculate with measures. - Find the distance between two points. - Find the midpoint of a segment. - Measure and classify angles. - Identify and use congruent angles and the bisector of an angle. - Identify and use special pairs of angles. - Identify perpendicular lines. - Identify and name polygons. - Find the perimeter, circumference, and area of two-dimensional figures. - Identify and name three-dimensional figures. - Find surface area and volume	(pp. 3 - 87) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations Discussion

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September/ October	Chapter 2 Reasoning and Proof (pp. 89-169) C.C.S.S. G-CO-9 Prove theorems about lines and angles. G-CO-12 Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). G-MG-3 Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).	Students will: - Use inductive reasoning to formulate a conjecture. - Use logical reasoning to prove statements are true and find counterexamples to disprove statements that are false. - Determine the validity of a conditional statement, its converse, inverse, and contrapositive. - Use deductive reasoning to prove a statement.	Students will be able to: - Make conjectures based on inductive reasoning - Find counterexamples. - Determine truth values of negations, conjunctions, and disjunctions and represent them using Venn diagrams. - Find counterexamples. - Analyze statements in if-then form. - Write converses, inverses, and contrapositives. - Use the Law of Detachment. - Use the Law of Syllogism. - Identify and use basic postulates about points, lines, and planes. - Write paragraph proofs. - Use algebra to write two-column proofs. - Use properties of equality to write geometric proofs. - Write proofs involving segment addition. - Write proofs involving congruence. - Write proofs involving supplementary and complementary angles. - Write proofs involving congruent and right angles.	(pp. 89-169)	Test Quizzes Homework Projects Participation Informal Observations Discussion

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October	Chapter 3 Parallel and Perpendicular Lines (pp. 171-233) C.C.S.S. G-CO-1 Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. G-CO-9 Prove theorems about lines and angles. G-CO-12 Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). G-GPE-5 Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point). G-MG-3 Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).	Students will: - Make conjectures about lines and determine the validity of the conjectures. - Make conjectures about angles and determine the validity of the conjectures. - Use slopes of equations of lines to investigate geometric relationships, including parallel lines and perpendicular lines. - Use one- and two-dimensional coordinate systems to represent lines.	Students will be able to: - Identify the relationship between two lines or two planes. - Name angle pairs formed by parallel lines and transversals. - Use theorems to determine the relationships between specific pairs of angles. - Use algebra to find angle measurements. - Find slopes of lines. - Use slope to identify parallel and perpendicular lines. - Write an equation of a line given information about the graph. - Solve problems by writing equations. - Recognize angle pairs that occur with parallel lines. - Prove that two lines are parallel. - Find the distance between a point and a line. - Find the distance between two parallel lines.	(pp. 171-233) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations Discussion

October/ November	Chapter 4 Congruent Triangles (pp. 235-319) CCSS G-CO-2 Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch). G-CO-6 Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent. G-CO-7 Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent. G-CO-8 Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions. G-CO-10 Prove theorems about triangles. G-CO-12 Make formal geometric	Students will: - Make conjectures about polygons. - Use numeric and geometric patterns to make generalizations about geometric properties. - Use logical reasoning to prove statements are true.	Students will be able to: - Identify and classify triangle by angle measures and side measures. - Apply the Triangle Angle-Sum Theorem. - Apply the Exterior Angle Theorem. - Name and use corresponding parts of congruent polygons. - Prove triangles congruent using the definition of congruence. - Use the SSS and SAS Postulates to test for triangle congruence. - Use ASA and AAS Postulates to test for triangle congruence. - Use properties of isosceles and equilateral triangles. - Identify reflections, translations, and rotations. - Verify congruence after a congruence transformation. - Position and label triangles for use in coordinate proofs. - Write coordinate proofs.	(pp. 235-319) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations Discussion
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	constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). G-GPE-4 Use coordinates to prove simple geometric theorems algebraically. G-SRT-5 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.				
November/ December	Chapter 5 Relationships in Triangles (pp. 321-389) CCSS G-CO-9 Prove theorems about lines and angles. G-CO-10 Prove theorems about triangles. G-MG-3 Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).	Students will: - Use slope and equations of lines to investigate geometric relationships, including special segments of triangles. - Recognize and know historical development of geometric systems and know that mathematics was developed for a variety of purposes. - Analyze geometric relationships in order to verify conjectures.	Students will be able to: - Identify and use perpendicular bisectors in triangles. - Identify and use angle bisectors in triangles. - Identify and use medians in triangles. - Identify and use altitudes in triangles. - Recognize and apply properties of inequalities to the measure of the angles of a triangle. - Recognize and apply properties of inequalities to the relationships between the angles and the sides of a triangle. - Write indirect algebraic proofs. - Write indirect geometric proofs. - Use the Triangle Inequality Theorem to identify possible triangles.	(pp. 321-389) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations Discussion

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			- Prove triangle relationships using the Triangle Inequality Theorem.		
December/ January	Chapter 6 Quadrilaterals (pp. 391-457) CCSS G-CO-11 Prove theorems about parallelograms. G-CO-12 Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). G-GPE-4 Use coordinates to prove simple geometric theorems algebraically. G-MG-1 Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder). G-MG-3 Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).	Students will: - Use numeric and geometric patterns to make generalizations about geometric properties, including properties of polygons. - Formulate and test conjectures about the properties and attributes of polygons. - Derive and use formulas involving length, slope, and midpoint. - Formulate and test conjectures about the properties and attributes of polygons.	Students will be able to: - Find and use the sum of the measures of the interior angles of a polygon. - Find and use the sum of the measures of the exterior angles of a polygon. - Recognize and apply the properties of the sides and angles of parallelograms. - Recognize and apply the properties of the diagonals of parallelograms. - Recognize the conditions that ensure a quadrilateral is a parallelogram. - Prove that a set of points form a parallelogram in the coordinate plane. - Recognize and apply properties of rectangles. - Determine whether parallelograms are rectangles. - Recognize and apply properties of rhombi and squares. - Determine whether quadrilaterals are rectangles, rhombi, or squares. - Recognize and	(pp. 391-457) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations Discussion

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			apply the properties of trapezoids, including the medians of trapezoids. - Recognize and apply the properties of kites.		
January	Chapter 7 Proportions and Similarity (pp. 459-533) C.C.S.S. G-CO-2 Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch). G-CO-10 Prove theorems about triangles. G-CO-12 Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). G-GPE-6 Find the point on a directed line segment between two given points that partitions the segment in a given ratio. G-MG-3 Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical	Students will: - Use ratios to solve problems involving similar figures. - Formulate and test conjectures about the properties and attributes of polygons and their component parts based on explorations and concrete models.	Students will be able to: - Write ratios. - Writes and solve proportions. - Use proportions to identify similar polygons. - Solve problems using the properties of similar polygons. - Identify similar triangles using the AA Similarity Postulate and the SSS and SAS Similarity Theorems. - Use similar triangles to solve problems. - Use proportional parts within triangles. - Use proportional parts with parallel lines. - Recognize and use proportional relationships of corresponding segments of similar triangles. - Use the Triangle Angle Bisector Theorem. - Identify similarity transformations. - Verify similarity after a similarity transformation. - Interpret scale models. - Use scale factors to solve problems.	(pp. 459-533) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations Discussion

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	constraints or minimize cost; working with typographic grid systems based on ratios). G-SRT-2 Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides. G-SRT-3 Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar. G-SRT-4 Prove theorems about triangles. G-SRT-5 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.				
February	Chapter 8 Right Triangles and Trigonometry (pp. 535-619) C.C.S.S. G-GPE-6 Find the point on a directed line segment between two given points that partitions the segment in a given ratio. G-MG-3 Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost;	Students will: - Use and extend similarity properties to explore and justify conjectures about geometric figures. - Derive, extend, and use the Pythagorean Theorem. - Identify and apply patterns from right triangles to solve meaningful problems, including special right triangles (45°-45°-90° and 30°-60°-90°) and triangles with sides that are Pythagorean triples. - Develop, apply, and justify triangle similarity relationships, such as trigonometric ratios using a	Students will be able to: - Find the geometric mean between two numbers. - Solve problems involving relationships between parts of a right triangle and the altitude to its hypotenuse. - Use the Pythagorean Theorem. - Use the Converse of the Pythagorean Theorem. - Use the properties of 45-45-90 degree triangles.	(pp. 535-619) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations Discussion

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	working with typographic grid systems based on ratios). G-SRT-4 Prove theorems about triangles. G-SRT-5 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. G-SRT-6 Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles. G-SRT-7 Explain and use the relationship between the sine and cosine of complementary angles. G-SRT-8 Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems. G-SRT-9 (+) Derive the formula $A = \frac{1}{2} ab \sin(C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side. G-SRT-10 (+) Prove the Laws of Sines and Cosines and use them to solve problems. G-SRT-11 (+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).	variety of methods.	- Use the properties of 30-60-90 degree triangles. - Find trigonometric ratios using right triangles. - Use trigonometric ratios to find angle measure in right triangles. - Solve problems involving angles of elevation and depression. - Use angles of elevation and depression to find the distance between two objects. - Use the Law of Sines to solve triangles. - Use the Law of Cosines to solve triangles. - Find the magnitudes and directions of vectors. - Add and subtract vectors.		

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February/ March	Chapter 9 Transformations and Symmetry (pp. 621-693) C.C.S.S. G-CO-2 Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch). G-CO-3 Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself. G-CO-4 Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments. G-CO-5 Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another. G-CO-6 Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion	Students will: - Use congruence transformations to make conjectures and justify properties of geometric figures.	Students will be able to: - Draw reflections. - Draw reflections in the coordinate plane. - Draw translations. - Draw translations in the coordinate plane. - Draw rotations. - Draw rotations in the coordinate plane. - Draw glide reflections and other compositions of isometries in the coordinate plane. - Draw compositions of reflections in parallel and intersecting lines. - Identify line and rotational symmetries in two-dimensional figures. - Identify plane and axis symmetries in three-dimensional figures. - Draw Dilations. - Draw dilations in the coordinate plane.	(pp. 621-693) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations Discussion

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	on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent. G-CO-7 Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent. G-CO-12 Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). G-GPE-6 Find the point on a directed line segment between two given points that partitions the segment in a given ratio. G-SRT-1a A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged. G-SRT-1b The dilation of a line segment is longer or shorter in the ratio given by the scale factor.				
March	Chapter 10 Circles (pp. 695-775) C.C.S.S. G-C-1 Prove that all circles are similar. G-C-2	Students will: - Find areas of sectors and arc lengths of circles using proportional reasoning. - Use numeric and geometric patterns to make generalizations about geometric properties including properties of angle	Students will be able to: - Identify and use parts of circles. - Solve problems involving the circumference of a circle. - Identify central angles, major arcs, minor arcs, and semicircles, and find their	(pp. 695-775) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations

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	Identify and describe relationships among inscribed angles, radii, and chords. G-C-3 Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle. G-C-4 (+) Construct a tangent line from a point outside a given circle to the circle. G-C-5 Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector. G-CO-1 Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. G-CO-12 Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). G-GMD-1 Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. G-GPE-1 Derive the equation of a circle of given center and radius	relationships in circles.	measures. - Recognize and use relationships between arcs and cords - Find arc lengths - Recognize and use relationships between arcs, chords, and diameters. - Find measures of inscribed angles. - Find measures of angles of inscribed polygons. - Use properties of tangents. - Solve problems involving circumscribed polygons. - Find measures of angles formed by lines intersecting on or inside a circle. - Find measure of angles formed by lines intersecting outside the circle. - Find the measures of segments that intersect in the interior of a circle. - Find measures of segments that intersect in the exterior of a circle. - Write the equation of a circle. - Graph a circle on the coordinate plane.		Discussion

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	using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation. G-GPE-4 Use coordinates to prove simple geometric theorems algebraically. G-GPE-6 Find the point on a directed line segment between two given points that partitions the segment in a given ratio. G-MG-3 Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).				
April	Chapter 11 Areas of Polygons and Circles (pp. 777-833) C.C.S.S. G-C-5 Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector. G-GMD-1 Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. G-GPE-7 Use coordinates to compute	Students will: - Find areas of regular polygons, circles, and composite figures. - Find areas of sectors and arc lengths of circles using proportional reasoning.	Students will be able to: - Find perimeters and areas of parallelograms. - Find perimeters and areas of triangles. - Find areas of trapezoids. - Find areas of rhombi and kites. - Find areas of circles. - Find areas of sectors of circles. - Find areas of regular polygons. - Find areas of composite figures. - Find areas of similar figures by using scale factors. - Find scale factors or missing measures given the areas of similar figures.	(pp. 777-833) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations Discussion

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	perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula. G-MG-1 Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder). G-MG-3 Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).				
April/May	Chapter 12 Extending Surface Area and Volume (pp. 835-911) C.C.S.S. G-GMD-1 Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. G-GMD-2 Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems. G-GMD-3 Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects. G-MG-1 Use geometric shapes, their measures, and their properties	Students will: - Find surface areas and volumes of prisms, pyramids, spheres, cones, cylinders, and composites of these figures. - Describe the effect on area and volume when one or more dimensions of a figure are changed.	Students will be able to: - Draw isometric views of three-dimensional figures. - Investigate cross sections of three-dimensional figures. - Find lateral areas and surface areas of prisms. - Find lateral areas and surface areas of cylinders. - Find lateral areas and surface areas of pyramids. - Find lateral areas and surface areas of cones. - Find volumes of prisms, cylinders, pyramids, cones and spheres. - Find surface areas of spheres. - Describe sets of points on a sphere. - Compare and contrast Euclidean and spherical geometries.	(pp. 835-911) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations Discussion

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	to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder). G-MG-2 Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot). G-MG-3 Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).		- Identify congruent or similar solids. - Use properties of similar solids.		
May/June	Chapter 13 Probability and Measurement (pp. 913-973) C.C.S.S. G-MG-3 Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios). S-CP-1 Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not"). S-CP-2 Understand that two events A and B are independent if the probability of A and B occurring together is the product of their probabilities, and use this characterization to determine if they are	Students will: - Understand sample spaces and design simulations - Compute probabilities for independent, dependent, mutually exclusive, not mutually exclusive, and conditional events. - Calculate geometric probabilities.	Students will be able to: - Represent sample spaces. - Use the Fundamental Counting Principle to count outcomes. - Use permutations with probability. - Use combinations with probability. - Find the probabilities by using length. - Find probabilities by using area. - Design simulations to estimate probabilities. - Summarize data from simulations. - Find probabilities of independent and dependent events. - Find probabilities of events given the occurrence of other events. - Find probabilities of events that are mutually exclusive and events that are	(pp. 913-973) Online Book Interactive Classroom Challenge Activities Independent Work Cooperative Group Work	Test Quizzes Homework Projects Participation Informal Observations Discussion

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	independent. S-CP-3 Understand the conditional probability of A given B as $P(A \text{ and } B)P(B)$, and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B. S-CP-5 Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. S-CP-6 Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A, and interpret the answer in terms of the model. S-CP-7 Apply the Addition Rule, $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$, and interpret the answer in terms of the model. S-CP-8 (+) Apply the general Multiplication Rule in a uniform probability model, $P(A \text{ and } B) = P(A)P(B A) = P(B)P(A B)$, and interpret the answer in terms of the model. S-CP-9 (+) Use permutations and combinations to compute probabilities of compound events and solve problems. S-MD-6 (+) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).		not mutually exclusive. - Find probabilities of complements.		

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	S-MD-7 (+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).				

Notes: All CCSS addressed.