Current TEKS	Proposed TEKS
(a) Basic understandings. (1) Foundation concepts for high school mathematics. As presented in Grades K-8, the basic understandings of number, operation, and quantitative reasoning; patterns, relationships, and algebraic thinking; geometry; measurement; and probability and statistics are essential foundations for all work in high school mathematics. Students continue to build on this foundation as they expand their understanding through other mathematical experiences.	(b) Introduction. (3) In Geometry, students will build on the foundations from Kindergarten-Grade 8 and Algebra I to strengthen their mathematical reasoning skills in geometric contexts. Within the course, students will begin to focus on more precise terminology, symbolic representations, and the development of proofs. Students will explore concepts covering coordinate and transformational geometry; logical argument and constructions; proof and congruence; similarity, proof, and trigonometry; two- and three- dimensional figures; circles; and probability. Students will connect previous knowledge from Algebra I to Geometry through the coordinate and transformational geometry strand. In the logical arguments and constructions strand, students are expected to create formal constructions using a straight edge and compass. Though this course is primarily Euclidean geometry, students should complete the course with an understanding that non-Euclidean geometries exist. In proof and congruence, students will use deductive reasoning to justify, prove and apply theorems about geometric figures. Throughout the standards, to "prove" means a formal proof to be shown in a paragraph, flow chart, or two-column formats. Proportionality is the unifying component of the similarity, proof and trigonometry strand and students will use their proportional reasoning skills to prove and apply theorems and solve problems in this strand. The two- and three-dimensional figure strand focuses on the application of formulas in multi-step situations because students have developed their background knowledge in two-and three-dimensional figures. Using patterns to identify geometric properties, students will apply theorems about circles to determine relationships between special segments and angles in circles. Due to the emphasis of probability and statistics in the College and Career Readiness Standards, standards dealing with probability have been added to the Geometry curriculum to ensure students have proper exposure to these topics before pursuing their post-secondary education.
(a) Basic understandings. (2) Geometric thinking and spatial reasoning. Spatial reasoning plays a critical role in geometry; geometric figures provide powerful ways to represent mathematical situations and to express generalizations about space and spatial relationships. Students use geometric thinking to understand mathematical concepts and the relationships among them.	

Current TEKS	Proposed TEKS
(a) Basic understandings. (3) Geometric figures and their properties. Geometry consists of the study of geometric figures of zero, one, two, and three dimensions and the relationships among them. Students study properties and relationships having to do with size, shape, location, direction, and orientation of these figures.	
(a) Basic understandings. (4) The relationship between geometry, other mathematics, and other disciplines. Geometry can be used to model and represent many mathematical and real-world situations. Students perceive the connection between geometry and the real and mathematical worlds and use geometric ideas, relationships, and properties to solve problems.	
(a) Basic understandings. (5) Tools for geometric thinking. Techniques for working with spatial figures and their properties are essential in understanding underlying relationships. Students use a variety of representations (concrete, pictorial, numerical, symbolic, graphical, and verbal), tools, and technology (including, but not limited to, calculators with graphing capabilities, data collection devices, and computers) to solve meaningful problems by representing and transforming figures and analyzing relationships.	

Current TEKS	Proposed TEKS
(a) Basic understandings. (6) Underlying mathematical processes. Many processes underlie all content areas in mathematics. As they do mathematics, students continually use problem-solving, language and communication, connections within and outside mathematics, and reasoning (justification and proof). Students also use multiple representations, technology, applications and modeling, and numerical fluency in problem solving contexts.	(b) Introduction. (2) The process standards describe ways in which students are expected to engage in the content. The placement of the process standards at the beginning of the knowledge and skills listed for each grade and course is intentional. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics effieciently and effectively in daily life. The process standards are integrated at every grade level and course. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, paper and pencil, and technology and techniques such as mental math, estimation, and number sense to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, and language. Students will use mathematical relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

Current TEKS:	Proposed TEKS: Mathematical Process Standards
	(1) Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. **(A) The student is expected to apply mathematics to problems arising in everyday life, society, and the workplace.**
	(1) Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. **(B) The student is expected to use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.**
	(1) Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. **(C) The student is expected to select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.**
	(1) Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. **(D) The student is expected to communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.**
	(1) Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. **(E) The student is expected to create and use representations to organize, record, and communicate mathematical ideas.**

Current TEKS:	Proposed TEKS: Mathematical Process Standards
	(1) Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. **(F) The student is expected to analyze mathematical relationships to connect and communicate mathematical ideas.**
	(1) Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. **(G) The student is expected to display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.**

Current TEKS: Geometric structure	Proposed TEKS
(1) Geometric structure. The student understands the structure of, and relationships within, an axiomatic system. The student is expected to: **(A) develop an awareness of the structure of a mathematical system, connecting definitions, postulates, logical reasoning, and theorems;**	(4) Logical Argument and Constructions. The student uses the process skills with deductive reasoning to understand geometric relationships. **(A) The student is expected to distinguish between undefined terms, definitions, postulates, conjectures, and theorems.**
(1) Geometric structure. The student understands the structure of, and relationships within, an axiomatic system. The student is expected to: **(B) recognize the historical development of geometric systems and know mathematics is developed for a variety of purposes; and**	
(1) Geometric structure. The student understands the structure of, and relationships within, an axiomatic system. The student is expected to: **(C) compare and contrast the structures and implications of Euclidean and non-Euclidean geometries.**	(4) Logical Argument and Constructions. The student uses the process skills with deductive reasoning to understand geometric relationships. **(D) The student is expected to compare geometric relationships between Euclidean and spherical geometries, including parallel lines and the sum of the angles in a triangle.**
(2) Geometric structure. The student analyzes geometric relationships in order to make and verify conjectures. The student is expected to: **(A) use constructions to explore attributes of geometric figures and to make conjectures about geometric relationships; and**	(5) Logical Argument and Constructions. The student uses constructions to validate conjectures about geometric figures. **(B) The student is expected to construct congruent segments, congruent angles, a segment bisector, an angle bisector, perpendicular lines, the perpendicular bisector of a line segment, and a line parallel to a given line through a point not on a line using a compass and a straightedge.**
	(5) Logical Argument and Constructions. The student uses constructions to validate conjectures about geometric figures. **(C) The student is expected to use the constructions of congruent segments, congruent angles, angle bisectors, and perpendicular bisectors to make conjectures about geometric relationships.**

Current TEKS: Geometric structure	Proposed TEKS
(2) Geometric structure. The student analyzes geometric relationships in order to make and verify conjectures. The student is expected to: **(B) make conjectures about angles, lines, polygons, circles, and three-dimensional figures and determine the validity of the conjectures, choosing from a variety of approaches such as coordinate, transformational, or axiomatic.**	(5) Logical Argument and Constructions. The student uses constructions to validate conjectures about geometric figures. **(A) The student is expected to investigate patterns to make conjectures about geometric relationships, including angles formed by parallel lines cut by a transversal, criteria required for triangle congruence, special segments of triangles, diagonals of quadrilaterals, interior and exterior angles of polygons, and special segments and angles of circles choosing from a variety of tools**
(3) Geometric structure. The student applies logical reasoning to justify and prove mathematical statements. The student is expected to: **(A) determine the validity of a conditional statement, its converse, inverse, and contrapositive;**	(4) Logical Argument and Constructions. The student uses the process skills with deductive reasoning to understand geometric relationships. **(B) The student is expected to identify and determine the validity of the converse, inverse, and contrapositive of a conditional statement and recognize the connection between a biconditional statement and a true conditional statement with a true converse.**
(3) Geometric structure. The student applies logical reasoning to justify and prove mathematical statements. The student is expected to: **(B) construct and justify statements about geometric figures and their properties;**	(5) Logical Argument and Constructions. The student uses constructions to validate conjectures about geometric figures. **(C) The student is expected to use the constructions of congruent segments, congruent angles, angle bisectors, and perpendicular bisectors to make conjectures about geometric relationships; and**
	(5) Logical Argument and Constructions. The student uses constructions to validate conjectures about geometric figures. **(D) The student is expected to verify the Triangle Inequality theorem using constructions and apply the theorem to solve problems.**
(3) Geometric structure. The student applies logical reasoning to justify and prove mathematical statements. The student is expected to: **(C) use logical reasoning to prove statements are true and find counter examples to disprove statements that are false;**	(4) Logical Argument and Constructions. The student uses the process skills with deductive reasoning to understand geometric relationships. **(C) The student is expected to verify that a conjecture is false using a counterexample.**

Current TEKS: Geometric structure	Proposed TEKS
(3) Geometric structure. The student applies logical reasoning to justify and prove mathematical statements. The student is expected to: **(D) use inductive reasoning to formulate a conjecture; and**	(5) Logical Argument and Constructions. The student uses constructions to validate conjectures about geometric figures. **(A) The student is expected to investigate patterns to make conjectures about geometric relationships, including angles formed by parallel lines cut by a transversal, criteria required for triangle congruence, special segments of triangles, diagonals of quadrilaterals, interior and exterior angles of polygons, and special segments and angles of circles choosing from a variety of tools.**
(3) Geometric structure. The student applies logical reasoning to justify and prove mathematical statements. The student is expected to: **(E) use deductive reasoning to prove a statement.**	(6) Proof and Congruence. The student uses the process skills with deductive reasoning to prove and apply theorems by utilizing a variety of methods such as coordinate, transformational, axiomatic and formats such as two-column, paragraph, flow chart. **(A) The student is expected to verify theorems about angles formed by the intersection of lines and line segments, including vertical angles, angles formed by parallel lines cut by a transversal, and prove equidistance between the endpoints of a segment and points on its perpendicular bisector, and apply these relationships to solve problems;**
	(6) Proof and Congruence. The student uses the process skills with deductive reasoning to prove and apply theorems by utilizing a variety of methods such as coordinate, transformational, axiomatic and formats such as two-column, paragraph, flow chart. **(B) The student is expected to prove two triangles are congruent by applying the Side-Angle-Side, Angle-Side-Angle, Side-Side-Side, Angle-Angle-Side, and Hypotenuse-Leg congruence conditions.**
(4) Geometric structure. The student uses a variety of representations to describe geometric relationships and solve problems. **The student is expected to select an appropriate representation (concrete, pictorial, graphical, verbal, or symbolic) in order to solve problems.**	(1) Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. **(D) The student is expected to communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.**

Current TEKS: Geometric patterns	Proposed TEKS
(5) Geometric patterns. The student uses a variety of representations to describe geometric relationships and solve problems. The student is expected to: **(A) use numeric and geometric patterns to develop algebraic expressions representing geometric properties;**	
(5) Geometric patterns. The student uses a variety of representations to describe geometric relationships and solve problems. The student is expected to: **(B) use numeric and geometric patterns to make generalizations about geometric properties, including properties of polygons, ratios in similar figures and solids, and angle relationships in polygons and circles;**	(5) Logical Argument and Constructions. The student uses constructions to validate conjectures about geometric figures. **(A) The student is expected to investigate patterns to make conjectures about geometric relationships, including angles formed by parallel lines cut by a transversal, criteria required for triangle congruence, special segments of triangles, diagonals of quadrilaterals, interior and exterior angles of polygons, and special segments and angles of circles choosing from a variety of tools.**
(5) Geometric patterns. The student uses a variety of representations to describe geometric relationships and solve problems. The student is expected to: **(C) use properties of transformations and their compositions to make connections between mathematics and the real world, such as tessellations; and**	(3) Coordinate and Transformational Geometry. The student uses the process skills to generate and describe rigid transformations (translation, reflection, and rotation) and non-rigid transformations (dilations that preserve similarity and reductions and enlargements that do not preserve similarity). **(C) The student is expected to identify the sequence of transformations that will carry a given pre-image onto an image on and off the coordinate plane.**
(5) Geometric patterns. The student uses a variety of representations to describe geometric relationships and solve problems. The student is expected to: **(D) identify and apply patterns from right triangles to solve meaningful problems, including special right triangles (45-45-90 and 30-60-90) and triangles whose sides are Pythagorean triples.**	(9) Similarity, Proof, and Trigonometry. The student uses the process skills to understand and apply relationships in right triangles. **(B) The student is expected to apply the relationships in special right triangles ($30° - 60° - 90°$ and $45° - 45° - 90°$) and the Pythagorean theorem, including Pythagorean triples, to solve problems.**

Current TEKS: Dimensionality and the geometry of location	Proposed TEKS
(6) Dimensionality and the geometry of location. The student analyzes the relationship between three-dimensional geometric figures and related two-dimensional representations and uses these representations to solve problems. The student is expected to: **(A) describe and draw the intersection of a given plane with various three-dimensional geometric figures;**	(10) Two-dimensional and three-dimensional figures. The student uses the process skills to recognize characteristics and dimensional changes of two- and three-dimensional figures. **(A) The student is expected to identify the shapes of two-dimensional cross-sections of prisms, pyramids, cylinders, cones, and spheres and identify three-dimensional objects generated by rotations of two-dimensional shapes.**
(6) Dimensionality and the geometry of location. The student analyzes the relationship between three-dimensional geometric figures and related two-dimensional representations and uses these representations to solve problems. The student is expected to: (**B) use nets to represent and construct three-dimensional geometric figures; and**	
(6) Dimensionality and the geometry of location. The student analyzes the relationship between three-dimensional geometric figures and related two-dimensional representations and uses these representations to solve problems. The student is expected to: **(C) use orthographic and isometric views of three-dimensional geometric figures to represent and construct three-dimensional geometric figures and solve problems.**	
(7) Dimensionality and the geometry of location. The student understands that coordinate systems provide convenient and efficient ways of representing geometric figures and uses them accordingly. The student is expected to: **(A) use one- and two-dimensional coordinate systems to represent points, lines, rays, line segments, and figures;**	(2) Coordinate and Transformational Geometry. The student uses the process skills to understand the connections between algebra and geometry and uses the one- and two-dimensional coordinate systems to verify geometric conjectures. **(A) The student is expected to determine the coordinates of a point that is a given fractional distance less than one from one end of a line segment to the other in one- and two-dimensional coordinate systems, including finding the midpoint.**

Current TEKS: Dimensionality and the geometry of location	Proposed TEKS
(7) Dimensionality and the geometry of location. The student understands that coordinate systems provide convenient and efficient ways of representing geometric figures and uses them accordingly. The student is expected to: **(B) use slopes and equations of lines to investigate geometric relationships, including parallel lines, perpendicular lines, and special segments of triangles and other polygons; and**	(2) Coordinate and Transformational Geometry. The student uses the process skills to understand the connections between algebra and geometry and uses the one- and two-dimensional coordinate systems to verify geometric conjectures. **(B) The student is expected to derive and use the distance, slope, and midpoint formulas to verify geometric relationships, including congruence of segments and parallelism or perpendicularity of pairs of lines; and**
	(2) Coordinate and Transformational Geometry. The student uses the process skills to understand the connections between algebra and geometry and uses the one- and two-dimensional coordinate systems to verify geometric conjectures. **(C) determine an equation of a line parallel or perpendicular to a given line that passes through a given point.**
(7) Dimensionality and the geometry of location. The student understands that coordinate systems provide convenient and efficient ways of representing geometric figures and uses them accordingly. The student is expected to: **(C) derive and use formulas involving length, slope, and midpoint.**	(2) Coordinate and Transformational Geometry. The student uses the process skills to understand the connections between algebra and geometry and uses the one- and two-dimensional coordinate systems to verify geometric conjectures. **(B) The student is expected to derive and use the distance, slope, and midpoint formulas to verify geometric relationships, including congruence of segments and parallelism or perpendicularity of pairs of lines.**

Current TEKS: Congruence and the geometry of size	Proposed TEKS
(8) Congruence and the geometry of size. The student uses tools to determine measurements of geometric figures and extends measurement concepts to find perimeter, area, and volume in problem situations. The student is expected to: **(A) find areas of regular polygons, circles, and composite figures;**	(11) Two-dimensional and three-dimensional figures. The student uses the process skills in the application of formulas to determine measures of two- and three-dimensional figures. **(A) The student is expected to apply the formula for the area of regular polygons to solve problems using appropriate units of measure;**
	(11) Two-dimensional and three-dimensional figures. The student uses the process skills in the application of formulas to determine measures of two- and three-dimensional figures. **(B) The student is expected to determine the area of composite two-dimensional figures comprised of a combination of triangles, parallelograms, trapezoids, kites, regular polygons, or sectors of circles to solve problems using appropriate units of measure.**
(8) Congruence and the geometry of size. The student uses tools to determine measurements of geometric figures and extends measurement concepts to find perimeter, area, and volume in problem situations. The student is expected to: **(B) find areas of sectors and arc lengths of circles using proportional reasoning;**	(12) Circles. The student uses the process skills to understand geometric relationships and apply theorems and equations about circles. **(B) The students is expected to apply the proportional relationship between the measure of an arc length of a circle and the circumference of the circle to solve problems.**
	(12) Circles. The student uses the process skills to understand geometric relationships and apply theorems and equations about circles. **(C) The student is expected to apply the proportional relationship between the measure of the area of a sector of a circle and the area of the circle to solve problems.**
(8) Congruence and the geometry of size. The student uses tools to determine measurements of geometric figures and extends measurement concepts to find perimeter, area, and volume in problem situations. The student is expected to: **(C) derive, extend, and use the Pythagorean Theorem;**	(12) Circles. The student uses the process skills to understand geometric relationships and apply theorems and equations about circles. **(E) The student is expected to show that the equation of a circle with center at the origin and radius r is $x^2 + y^2 = r^2$ and determine the equation for the graph of a circle with radius r and center (h, k), $(x - h)^2 + (y - k)^2 = r^2$.**

Current TEKS: Congruence and the geometry of size	Proposed TEKS
(8) Congruence and the geometry of size. The student uses tools to determine measurements of geometric figures and extends measurement concepts to find perimeter, area, and volume in problem situations. The student is expected to: **(D) find surface areas and volumes of prisms, pyramids, spheres, cones, cylinders, and composites of these figures in problem situations;**	(11) Two-dimensional and three-dimensional figures. The student uses the process skills in the application of formulas to determine measures of two- and three-dimensional figures. **(C) The student is expected to apply the formulas for the total and lateral surface area of three-dimensional figures, including prisms, pyramids, cones, cylinders, spheres, and composite figures, to solve problems using appropriate units of measure; and**
	(11) Two-dimensional and three-dimensional figures. The student uses the process skills in the application of formulas to determine measures of two- and three-dimensional figures. **(D) The student is expected to apply the formulas for the volume of three-dimensional figures, including prisms, pyramids, cones, cylinders, spheres, and composite figures, to solve problems using appropriate units of measure.**
(8) Congruence and the geometry of size. The student uses tools to determine measurements of geometric figures and extends measurement concepts to find perimeter, area, and volume in problem situations. The student is expected to: **(E) use area models to connect geometry to probability and statistics; and**	(13) Probability. The student uses the process skills to understand probability in real-world situations and how to apply independence and dependence of events. **(B) The student is expected to determine probabilities based on area to solve contextual problems.**
(8) Congruence and the geometry of size. The student uses tools to determine measurements of geometric figures and extends measurement concepts to find perimeter, area, and volume in problem situations. The student is expected to: **(F) use conversions between measurement systems to solve problems in real-world situations.**	

Current TEKS: Congruence and the geometry of size	Proposed TEKS
(9) Congruence and the geometry of size. The student analyzes properties and describes relationships in geometric figures. The student is expected to: **(A) formulate and test conjectures about the properties of parallel and perpendicular lines based on explorations and concrete models;**	(6) Proof and Congruence. The student uses the process skills with deductive reasoning to prove and apply theorems by utilizing a variety of methods such as coordinate, transformational, axiomatic and formats such as two-column, paragraph, flow chart. **(A) The student is expected to verify theorems about angles formed by the intersection of lines and line segments, including vertical angles, angles formed by parallel lines cut by a transversal, and prove equidistance between the endpoints of a segment and points on its perpendicular bisector, and apply these relationships to solve problems;**
(9) Congruence and the geometry of size. The student analyzes properties and describes relationships in geometric figures. The student is expected to: **(B) formulate and test conjectures about the properties and attributes of polygons and their component parts based on explorations and concrete models;**	(6) Proof and Congruence. The student uses the process skills with deductive reasoning to prove and apply theorems by utilizing a variety of methods such as coordinate, transformational, axiomatic and formats such as two-column, paragraph, flow chart. **(D) The student is expected to verify theorems about the relationships in triangles, including proof of the Pythagorean Theorem, the sum of interior angles, base angles of isosceles triangles, midsegments, and medians and apply these relationships to solve problems; and**
	(6) Proof and Congruence. The student uses the process skills with deductive reasoning to prove and apply theorems by utilizing a variety of methods such as coordinate, transformational, axiomatic and formats such as two-column, paragraph, flow chart. **(E) The students is expected to prove a quadrilateral is a parallelogram, rectangle, square or rhombus using opposite sides, opposite angles, or diagonals and apply these relationships to solve problems.**
(9) Congruence and the geometry of size. The student analyzes properties and describes relationships in geometric figures. The student is expected to: **(C) formulate and test conjectures about the properties and attributes of circles and the lines that intersect them based on explorations and concrete models; and**	(12) Circles. The student uses the process skills to understand geometric relationships and apply theorems and equations about circles. **(A) The student is expected to apply theorems about circles, including relationships among angles, radii, chords, tangents, and secants, to solve non-contextual problems.**

Current TEKS: Congruence and the geometry of size	Proposed TEKS
(9) Congruence and the geometry of size. The student analyzes properties and describes relationships in geometric figures. The student is expected to: **(D) analyze the characteristics of polyhedra and other three-dimensional figures and their component parts based on explorations and concrete models.**	
(10) Congruence and the geometry of size. The student applies the concept of congruence to justify properties of figures and solve problems. The student is expected to: **(A) use congruence transformations to make conjectures and justify properties of geometric figures including figures represented on a coordinate plane; and**	(3) Coordinate and Transformational Geometry. The student uses the process skills to generate and describe rigid transformations (translation, reflection, and rotation) and non-rigid transformations (dilations that preserve similarity and reductions and enlargements that do not preserve similarity). **(A) The student is expected to describe and perform transformations of figures in a plane using coordinate notation,**
	(3) Coordinate and Transformational Geometry. The student uses the process skills to generate and describe rigid transformations (translation, reflection, and rotation) and non-rigid transformations (dilations that preserve similarity and reductions and enlargements that do not preserve similarity). **(B) The students is expected to determine the image or pre-image of a given two-dimensional figure under a composition of rigid transformations, a composition of non-rigid transformations, and a composition of both, including dilations where the center can be any point in the plane;**
	(3) Coordinate and Transformational Geometry. The student uses the process skills to generate and describe rigid transformations (translation, reflection, and rotation) and non-rigid transformations (dilations that preserve similarity and reductions and enlargements that do not preserve similarity). **(C) The student is expected to identify the sequence of transformations that will carry a given pre-image onto an image on and off the coordinate plane; and**

Current TEKS: Congruence and the geometry of size	Proposed TEKS
	(3) Coordinate and Transformational Geometry. The student uses the process skills to generate and describe rigid transformations (translation, reflection, and rotation) and non-rigid transformations (dilations that preserve similarity and reductions and enlargements that do not preserve similarity). **(D) The student is expected to identify and distinguish between reflectional and rotational symmetry in a plane figure.**
(10) Congruence and the geometry of size. The student applies the concept of congruence to justify properties of figures and solve problems. The student is expected to: **(B) justify and apply triangle congruence relationships.**	(6) Proof and Congruence. The student uses the process skills with deductive reasoning to prove and apply theorems by utilizing a variety of methods such as coordinate, transformational, axiomatic and formats such as two-column, paragraph, flow chart. **(B) The student is expected to prove two triangles are congruent by applying the Side-Angle-Side, Angle-Side-Angle, Side-Side-Side, Angle-Angle-Side, and Hypotenuse-Leg congruence conditions;**
	(6) Proof and Congruence. The student uses the process skills with deductive reasoning to prove and apply theorems by utilizing a variety of methods such as coordinate, transformational, axiomatic and formats such as two-column, paragraph, flow chart. **(C) The students is expected to apply the definition of congruence, in terms of rigid transformations, to identify congruent figures and their corresponding sides and angles.**

Current TEKS: Similarity and the geometry of shape	Proposed TEKS
(11) Similarity and the geometry of shape. The student applies the concepts of similarity to justify properties of figures and solve problems. The student is expected to: **(A) use and extend similarity properties and transformations to explore and justify conjectures about geometric figures;**	(8) Similarity, Proof, and Trigonometry. The student uses the process skills with deductive reasoning to prove and apply theorems by utilizing a variety of methods such as coordinate, transformational, axiomatic and formats such as two-column, paragraph, flow chart. **(A) The student is expected to prove theorems about similar triangles, including the Triangle Proportionality theorem, and apply these theorems to solve problems; and**
	(8) Similarity, Proof, and Trigonometry. The student uses the process skills with deductive reasoning to prove and apply theorems by utilizing a variety of methods such as coordinate, transformational, axiomatic and formats such as two-column, paragraph, flow chart. **(B) The student is expected to identify and apply the relationships that exist when an altitude is drawn to the hypotenuse of a right triangle, including the geometric mean, to solve problems.**
(11) Similarity and the geometry of shape. The student applies the concepts of similarity to justify properties of figures and solve problems. The student is expected to: **(B) use ratios to solve problems involving similar figures;**	(7) Similarity, Proof, and Trigonometry. The student uses the process skills in applying similarity to solve problems. **(A) The student is expected to apply the definition of similarity in terms of a dilation to identify similar figures and their proportional sides and the congruent corresponding angles; and**
	(B) The student is expected to apply the Angle-Angle criterion to verify similar triangles and apply the proportionality of the corresponding sides to solve problems.

Current TEKS: Similarity and the geometry of shape	Proposed TEKS
(11) Similarity and the geometry of shape. The student applies the concepts of similarity to justify properties of figures and solve problems. The student is expected to: **(C) develop, apply, and justify triangle similarity relationships, such as right triangle ratios, trigonometric ratios, and Pythagorean triples using a variety of methods; and**	(9) Similarity, Proof, and Trigonometry. The student uses the process skills to understand and apply relationships in right triangles. **(A) The student is expected to determine the lengths of sides and measures of angles in a right triangle by applying the trigonometric ratios sine, cosine, and tangent to solve problems;**
	(9) Similarity, Proof, and Trigonometry. The student uses the process skills to understand and apply relationships in right triangles. **(B) The student is expected to apply the relationships in special right triangles ($30° - 60° - 90°$ and $45° - 45° - 90°$) and the Pythagorean theorem, including Pythagorean triples, to solve problems.**
(11) Similarity and the geometry of shape. The student applies the concepts of similarity to justify properties of figures and solve problems. The student is expected to: **(D) describe the effect on perimeter, area, and volume when one or more dimensions of a figure are changed and apply this idea in solving problems.**	(10) Two-dimensional and three-dimensional figures. The student uses the process skills to recognize characteristics and dimensional changes of two- and three-dimensional figures. **(B) The student is expected to determine and describe how changes in the linear dimensions of a shape affect its perimeter, area, surface area, or volume, including proportional and non-proportional dimensional change.**

Current TEKS	Proposed TEKS:
	(12) Circles. The student uses the process skills to understand geometric relationships and apply theorems and equations about circles. **(D) The student is expected to describe radian measure of an angle as the ratio of the length of an arc intercepted by a central angle and the radius of the circle.**
	(13) Probability. The student uses the process skills to understand probability in real-world situations and how to apply independence and dependence of events. **(A) The student is expected to develop strategies to use permutations and combinations to solve contextual problems.**
	(13) Probability. The student uses the process skills to understand probability in real-world situations and how to apply independence and dependence of events. **(C) The student is expected to identify whether two events are independent and compute the probability of the two events occurring together with or without replacement.**
	(13) Probability. The student uses the process skills to understand probability in real-world situations and how to apply independence and dependence of events. **(D) The student is expected to apply conditional probability in contextual problems.**
	(13) Probability. The student uses the process skills to understand probability in real-world situations and how to apply independence and dependence of events. **(E) The student is expected to apply independence in contextual problems.**