



1st Quarter (44 Days)

Resources:

| Week | Unit/Lesson | Learning Objectives | Reporting Categories (TEKS SEs) |
|---|--|---|----------------------------------|
| 1 st : Aug 10-12 (3 days) | Mathematical process standards | <p>TSW apply mathematics to problems arising in everyday life, society, and the workplace</p> <p>TSW 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</p> <p>TSW 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</p> | G1, A, B, C |
| 2 nd : Aug 15-19 (5 days) | Coordinate and Transformational Geometry | TSW 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 | G.2 A |
| 3 rd : Aug 22-26 (3 days) | Coordinate and Transformational Geometry | <p>TSW 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 G.2(C)</p> <p>determine an equation of a line parallel or perpendicular to a given line that passes through a given point</p> | G.2B |



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| 4 th : Aug 29- Sep 2 (5 days) | Coordinate and Transformational Geometry | TSW describe and perform transformations of figures in a plane using coordinate notation TSW 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 | G.3 A G.3B |
| 5 th : Sept 6-9 Labor Day Holiday on Monday 9/5 (4 days) | Coordinate and Transformational Geometry | TSW identify the sequence of transformations that will carry a given pre-image onto an image on and off the coordinate plane TSW identify and distinguish between reflectional and rotational symmetry in a plane figure | G.3 C G.3D |
| 6 th : Sept 12-16 (5 days) | Coordinate and Transformational Geometry | TSW 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) , $(x - h)^2 + (y - k)^2 = r^2$ | G12.E |
| 7 th : Sept 19-22 PD Day Friday 9/23 (4 days) | Logical Argument and Constructions | TSW distinguish between undefined terms, definitions, postulates, conjectures, and theorems TSW identify and determine the validity of the converse, inverse, and contrapositive of a conditional statement and recognize the | G4 A, B |



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| | | connection between a biconditional statement and a true conditional statement with a true converse | |
| 8 th : Sept 26-30 (5 days) | Logical Argument and Constructions | TSW verify that a conjecture is false using a counterexample TSW compare geometric relationships between Euclidean and spherical geometries, including parallel lines and the sum of the angles in a triangle | G4: C, D |
| 9 th : Oct 3-7 (5 days) | Logical Argument and Constructions | TSW 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 TSW 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 | G5: A, B |
| 10 th : Oct 10-14 (5 days) | Logical Argument and Constructions | TSW use the constructions of congruent segments, congruent angles, angle bisectors, and perpendicular bisectors to make conjectures about geometric relationships | G5 C, D |



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| | | TSW verify the Triangle Inequality theorem using constructions and apply the theorem to solve problems | |

2nd Quarter (45 Days)

Resources:

| Week | Unit/Lesson | Learning Objectives | Reporting Categories (TEKS SEs) |
|---|------------------------------------|--|----------------------------------|
| 1 st : Oct 17-21 (5 days) | Logical Argument and Constructions | TSW verify theorems about angles formed by the intersection of lines and line segments, including vertical angles, and 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 | G6, A |
| 2 nd : Oct 24-28 (5 days) | Logical Argument and Constructions | TSW prove a quadrilateral is a parallelogram, rectangle, square, or rhombus using opposite sides, opposite angles, or diagonals and apply these relationships to solve problems G.12(A) apply theorems about circles, including relationships among angles, radii, | G6, E |



| 2nd Quarter (45 Days) | | | |
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| Resources: | | | |
| Week | Unit/Lesson | Learning Objectives | Reporting Categories (TEKS SEs) |
| | | chords, tangents, and secants, to solve non-contextual problems | |
| 3rd: Nov 1-4 PT Conf Mon 10/31 <i>(4 days)</i> | Triangles and Trigonometry | TSW 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 TSW 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 | G5 A G6 B |
| 4th: Nov 5-9 <i>(5 days)</i> | Triangles and Trigonometry | TSW apply the definition of congruence, in terms of rigid transformations, to identify congruent figures and their corresponding sides and angles TSW 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 | G6: C, D |
| 5th: Nov 7-11 <i>(5 days)</i> | Triangles and Trigonometry | TSW apply the definition of similarity in terms of a dilation to identify similar figures and their proportional sides and the congruent corresponding angles | G7: A, B |



| 2nd Quarter (45 Days) | | | |
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| Week | Unit/Lesson | Learning Objectives | Reporting Categories (TEKS SEs) |
| | | TSW apply the Angle-Angle criterion to verify similar triangles and apply the proportionality of the corresponding sides to solve problems | |
| 6 th : Nov 14-18 (2 days) | Triangles and Trigonometry | TSW prove theorems about similar triangles, including the Triangle Proportionality theorem, and apply these theorems to solve problems | G 8: A |
| 7 th : Nov 21-25 Thanksgiving (0 days) | Thanksgiving Holiday | | |
| 8 th : Nov 28-Dec 2 (5 days) | | TSW 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 | G 8 A, B |
| 9 th : Dec 5-9 (5 days) | Triangles and Trigonometry | TSW 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 | G 9 A |
| 10 th : Dec 12-16 (5 days) | Triangles and Trigonometry | TSW apply the relationships in special right triangles 30° - 60° - 90° and 45° - 45° - 90° and the Pythagorean theorem, including Pythagorean triples, to solve problems | G9 B |



3rd Quarter (42 Days)

Resources:

| Week | Unit/Lesson | Learning Objectives | Reporting Categories (TEKS SEs) |
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| 1 st : Jan 4- 6 Tues 1/3 PD Day (3 days) | Measurement of 2D and 3D Figures | TSW 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 | G 10 A |
| 2 nd : Jan 9- 13 (5 days) | Measurement of 2D and 3D Figures | TSW 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 | G 10 B |
| 3 rd : Jan 16- 20 Mon 1/16 MLK Holiday (4 days) | Measurement of 2D and 3D Figures | G.11(A) apply the formula for the area of regular polygons to solve problems using appropriate units of measure | |
| 4 th : Jan 23- 27 (5 days) | 100 Days of School | G.11(B) 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 | |
| 5 th : Jan 30 - Feb 3 (5 days) | Measurement of 2D and 3D Figures | G.11(C) 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 G.11(D) apply the formulas for the volume of three-dimensional figures, including prisms, pyramids, cones, cylinders, spheres, and composite figures, to | |



3rd Quarter (42 Days)

| Resources: | | | |
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| Week | Unit/Lesson | Learning Objectives | Reporting Categories (TEKS SEs) |
| | | solve problems using appropriate units of measure | |
| 6th: Feb 6- 10 <i>(5 days)</i> | Measurement of 2D and 3D Figures | | |
| 7th: Feb 13- 17 <i>(4 days)</i> | Measurement of 2D and 3D Figures | TSW apply the proportional relationship between the measure of an arc length of a circle and the circumference of the circle to solve problems | G 12 B |
| 8th : Feb 20- 24 Mon 2/20 District PD <i>(4 days)</i> | Measurement of 2D and 3D Figures | TSW 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 | G 12 C |
| 9th: Feb 27 – Mar3 <i>(5 days)</i> | Measurement of 2D and 3D Figures | TSW 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 | G 12 D |
| 10th: 1st: Mar 6- 10 <i>(5 days)</i> | Probability | TSW develop strategies to use permutations and combinations to solve contextual problems | G 13 A |

4th Quarter (49 Days)

| Resources: | | | |
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| Week | Unit/Lesson | Learning Objectives | Reporting Categories (TEKS SEs) |
| | Spring Break | | |
| 1st: Mar 20- 24 3/23 Ramadan Begins | Probability | TSW determine probabilities based on area to solve contextual problems | G 13 B |



| 4th Quarter (49 Days) | | | |
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| Resources: | | | |
| Week | Unit/Lesson | Learning Objectives | Reporting Categories (TEKS SEs) |
| (5 days) | | | |
| 2nd: Mar 27 - 31 (5 days) | Probability | TSW identify whether two events are independent and compute the probability of the two events occurring together with or without replacement | G 13 C |
| 3rd: Apr 3- 7 (5 days) | Probability | TSW apply conditional probability in contextual problems TSW apply independence in contextual problems | G 13 D G 13 E |
| 4th: Apr 10- 14 Fri 4/14 Ramadan break starts (4 days) | Review and assessment | Review | |
| 5th: April 17- 21 Ramadan / Eid Break (0 days) | Review and assessment | Review | |
| 6th: Apr 24- 28 (5 days) | Review and assessment | Review | |
| 7th: May 1- 5 (5 days) | STAAR | | |
| 8th: May 8- 12 (5 days) | STAAR | | |
| 9th: May 15- 19 (5 days) | Final Benchmark | | |
| 10th: May 22- 26 5/26 Last Day of School (5 days) | Graduation Week | | |