Geometry	
Louisiana Student Standards	**Louisiana Connectors (LC)**
GM: G-CO.A.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.	No Louisiana Connectors written for this standard.
GM: G-CO.A.2 Represent transformations in the plane using, e.g., transparencies, tracing paper, or 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).	No Louisiana Connectors written for this standard.
GM: G-CO.A.3 Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.	No Louisiana Connectors written for this standard.
GM: G-CO.A.4 Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.	No Louisiana Connectors written for this standard.
GM: G-CO.A.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.	**LC.GM: G-CO.A.5** Construct, draw or recognize a figure after its rotation, reflection, or translation.
GM: G-CO.B.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.	No Louisiana Connectors written for this standard.

Geometry

Louisiana Student Standards	Louisiana Connectors (LC)
GM: G-CO.B.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.	No Louisiana Connectors written for this standard.
GM: G-CO.B.8 Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.	No Louisiana Connectors written for this standard.
GM: G-CO.C.9 Prove and apply theorems about lines and angles. *Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.*	No Louisiana Connectors written for this standard.
GM: G-CO.C.10 Prove and apply theorems about triangles. *Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.*	No Louisiana Connectors written for this standard.
GM: G-CO.C.11 Prove and apply theorems about parallelograms. *Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.*	No Louisiana Connectors written for this standard.

Geometry	
Louisiana Student Standards	**Louisiana Connectors (LC)**
GM: G-CO.D.12 Make formal geometric constructions with a variety of tools and methods, e.g., compass and straightedge, string, reflective devices, paper folding, or dynamic geometric software. *Examples: copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.*	**LC.GM: G-CO.D.12** Make formal geometric constructions with a variety of tools and methods.
GM: G-CO.D.13 Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.	No Louisiana Connectors written for this standard.

GM: G-SRT.A.1 Verify experimentally the properties of dilations given by a center and a scale factor:
    a. 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.
    b. The dilation of a line segment is longer or shorter in the ratio given by the scale factor.
	LC.GM: G-SRT.A.1 Determine the dimensions of a figure after dilation.

GM: G-SRT.A.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.	**LC.GM: G-SRT.A.2a** Determine if 2 figures are similar. **LC.GM: G-SRT.A.2b** Describe or select why two figures are or are not similar.
GM: G-SRT.A.3 Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.	No Louisiana Connectors written for this standard.

Geometry	
Louisiana Student Standards	**Louisiana Connectors (LC)**
GM: G-SRT.B.4 Prove and apply theorems about triangles. *Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity; SAS similarity criteria, SSS similarity criteria, ASA similarity.*	No Louisiana Connectors written for this standard.
GM: G-SRT.B.5 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	**LC.GM: G-SRT.B.5a** Use definitions to demonstrate congruency and similarity in figures. **LC.GM: G-SRT.B.5b** Use the reflections, rotations, or translations in the coordinate plane to solve problems with right angles.
GM: G-SRT.C.6 Understand that by similarity, side ratios in right triangles, including special right triangles (30-60-90 and 45-45-90), are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.	No Louisiana Connectors written for this standard.
GM: G-SRT.C.7 Explain and use the relationship between the sine and cosine of complementary angles.	No Louisiana Connectors written for this standard.
GM: G-SRT.C.8 Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.	No Louisiana Connectors written for this standard.
GM: G-C.A.1 Prove that all circles are similar.	No Louisiana Connectors written for this standard.

Geometry	
Louisiana Student Standards	**Louisiana Connectors (LC)**
GM: G-C.A.2 Identify and describe relationships among inscribed angles, radii, and chords, including the following: the relationship that exists between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; and a radius of a circle is perpendicular to the tangent where the radius intersects the circle.	No Louisiana Connectors written for this standard.
GM: G-C.A.3 Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.	No Louisiana Connectors written for this standard.
GM: G-C.B.5 Use similarity to determine 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.	**LC.GM: G-C.B.5** Apply the formula to the area of a sector (e.g., area of a slice of pie).
GM: G-GPE.A.1 Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.	No Louisiana Connectors written for this standard.
GM: G-GPE.B.4 Use coordinates to prove simple geometric theorems algebraically. *For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point (1, √3) lies on the circle centered at the origin and containing the point (0, 2).*	No Louisiana Connectors written for this standard.
GM: G-GPE.B.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).	No Louisiana Connectors written for this standard.

Geometry	
Louisiana Student Standards	**Louisiana Connectors (LC)**
GM: G-GPE.B.6 Find the point on a directed line segment between two given points that partitions the segment in a given ratio.	No Louisiana Connectors written for this standard.
GM: G-GPE.B.7 Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.	No Louisiana Connectors written for this standard.
GM: G-GMD.A.1 Give an informal argument, e.g., dissection arguments, Cavalieri's principle, or informal limit arguments, for the formulas for the circumference of a circle; area of a circle; volume of a cylinder, pyramid, and cone.	No Louisiana Connectors written for this standard.
GM: G-GMD.A.3 Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.	No Louisiana Connectors written for this standard.
GM: G-GMD.B.4 Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.	No Louisiana Connectors written for this standard.
GM: G-MG.A.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).	No Louisiana Connectors written for this standard.
GM: G-MG.A.2 Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).	No Louisiana Connectors written for this standard.

Geometry	
Louisiana Student Standards	**Louisiana Connectors (LC)**
GM: G-MG.A.3 Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).	**LC.GM: G-MG.A.3** Apply the formula of geometric figures to solve design problems (e.g., designing an object or structure to satisfy physical restraints or minimize cost).
GM: S-CP.A.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").	No Louisiana Connectors written for this standard.
GM: S-CP.A.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 independent.	No Louisiana Connectors written for this standard.
GM: S-CP.A.3 Understand the conditional probability of A given B as $P(A$ 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.	No Louisiana Connectors written for this standard.
GM: S-CP.A.4 Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. *For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.*	**LC.GM: S-CP.A.4** Select or make an appropriate statement based on a two-way frequency table.

Geometry	
Louisiana Student Standards	**Louisiana Connectors (LC)**
GM: S-CP.A.5 Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. *For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.*	**LC.GM: S-CP.A.5** Select or make an appropriate statement based on real world examples of conditional probability.
GM: S-CP.B.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.	No Louisiana Connectors written for this standard.
GM: S-CP.B.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.	No Louisiana Connectors written for this standard.