DEPARTMENT of EDUCATION
louisiana Believes

Sample Year-Long Schedule for Math Instruction
SpringBoard Geometry

The following sample schedule integrates the Springboard curriculum, LEAP 360 Interim Assessments and flex days to allow teachers to move at a pace that best supports student learning. Flex days could be used for remediation, enrichment lessons, assessment, or other instructional activities. This sample should be used to guide instructional timing but should not dictate exactly what lesson a teacher should be on during a given day. The guidance has been broken into 9 weeks, as this is the calendar that most Louisiana schools systems follow.

- Coding: 1-1 represents Lesson 1-Activity 1
- Lessons marked as "optional for enrichment" in the Springboard Curriculum Map have not been included in this calendar. Teachers may determine to use these during "flex" days or after state testing.
- Even though only one day on this calendar has been marked for each of the LEAP Interim assessments, teachers may determine to split these over multiple days.

FLEX days have been built into the calendar to address the following:

- Unpacking the Assessments
- Embedded Assessments
- Remediation Mini-lessons
- Khan Academy Practices
- Activity Practices

- The SpringBoard Math LEAP 360 Diagnostic Mapping can be used to support teachers in identifying where students may have unfinished learning and need additional supports.

	Day 1	**Day 2**	**Day 3**	**Day 4**	**Day 5**
Week 1	FLEX	FLEX	LEAP 360 Diagnostic Assessment	1-1	1-2
Week 2	FLEX	3-1	3-2	3-3	FLEX
Week 3	FLEX	4-1	4-2	5-1	5-2
Week 4	FLEX	FLEX	6-1	6-2	7-1
Week 5	7-2	7-3	8-1	8-2	FLEX
Week 6	FLEX	Unit 1 Assessment	FLEX	9-1	9-2
Week 7	9-3	9-4	FLEX	10-1	10-2
Week 8	FLEX	11-1	11-2	11-3	11-4
Week 9	FLEX	12-1	12-2	FLEX	FLEX
Week 10	13-1	13-2	14-1	14-2	14-3
Week 11	FLEX	FLEX	15-1	15-2	15-3
Week 12	15-4	FLEX	16-1	16-2	16-3
Week 13	16-4	FLEX	FLEX	Unit 2 Assessment	FLEX

Week 14	FLEX	17-1	17-2	17-3	18-1
Week 15	18-2	18-3	FLEX	FLEX	19-1
Week 16	19-2	20-1	20-2	FLEX	21-1
Week 17	21-2	FLEX	FLEX	22-1	22-2
Week 18	22-3	22-4	LEAP 360 Interim Form 1	FLEX	Unit 3 Assessment
Week 19	FLEX	24-1	24-2	24-3	25-1
Week 20	25-2	25-3	25-4	FLEX	FLEX
Week 21	26-1	26-2	26-3	26-4	27-1
Week 22	27-2	FLEX	FLEX	29-1	29-2
Week 23	FLEX	FLEX	Unit 4 Assessment	FLEX	30-1
Week 24	30-2	30-3	31-1	31-2	31-3
Week 25	FLEX	32-1	32-2	32-3	FLEX
Week 26	FLEX	33-1	33-2	33-3	34-1
Week 27	34-2	35-1	35-2	35-3	FLEX
Week 28	FLEX	36-1	36-2	36-3	37-1
Week 29	37-2	37-3	FLEX	FLEX	Unit 5 Assessment
Week 30	FLEX	LEAP 360 Interim Form 2	38-1	38-2	39-1
Week 31	39-2	40-1	40-2	41-1	41-2
Week 32	41-3	FLEX	FLEX	Unit 6 Assessment	FLEX
Week 33	Reserved for state testing (dates will vary)				
Week 34					
Week 35					
Week 36					

Louisiana Geometry Curriculum Map

ACTIVITY 1 | **Unit 1: Proof, Parallel, and Perpendicular Lines** | **Pacing: 34 (50-minute) class periods**

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 1–Geometric Figures and Basic Reasoning (p. 37)	☐ GM: G-CO.A.1	• Geometric relationships • Conditional statements • Making conjectures
1	Remediation	Unit 1 Getting Ready (p. 2)	8.EE.C.7b A1: A-CED.A.2 8.EE.B.6 8.EE.B.6 8.EE.B.6 4.OA.C.5 4.G.A.2 4.MD.C.6	• Solve one- and two-step equations. • Represent a linear equation as a graph on the coordinate plane. • Determine the slope of a line given two points. • Write the equation of a line given slope and one point or two points. • Write the equation of a line given points on a graph. • Identify patterns in a sequence and find subsequent terms. • Construct right triangles using protractors and rulers. • Use a protractor to determine the measure of angles.
		Solving a Linear Equation (p. I 1)	8.EE.C.7b	• Solve one- and two-step equations.
		Graphing a Linear Equation (p. I 4)	A1: A-CED.A.2	• Represent a linear equation as a graph on the coordinate plane.
		Finding the Slope Between Two Points (p. I 8)	8.EE.B.6	• Determine the slope of a line given two points.
		Writing a Linear Equation (p. I 10)	8.EE.B.6	• Write the equation of a line given slope and one point or two points.
		Writing the Equation for the Graph of a Line (p. I 12)	8.EE.B.6	• Write the equation of a line given points on a graph.
		Describing the Pattern of a Sequence (p. I 16)	4.OA.C.5	• Identify patterns in a sequence and find subsequent terms.
		Draw a Right Triangle (p. I 18)	4.G.A.2	• Construct right triangles using protractors and rulers.
		Finding the Measure of an Angle (p. I 20)	4.MD.C.6	• Use a protractor to determine the measure of angles.
1	On Grade Level	Lesson 1-1 Basic Geometric Figures (p. 3)	☐ GM: G-CO.A.1	• Identify, describe, and name points, lines, line segments, rays, and planes using correct notation. • Identify and name angles.
1	On Grade Level	Lesson 1-2 More Geometric Figures (p. 13)	☐ GM: G-CO.A.1	• Describe angles and angle pairs. • Identify and name parts of circles.
1	On Grade Level	Activity 1 Practice (p. 11)	☐ GM: G-CO.A.1	• Identify, describe, and name points, lines, line segments, rays, and planes using correct notation. • Identify and name angles. • Describe angles and angle pairs. • Identify and name parts of circles.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Terms & labels in geometry • Lines, line segments, & rays • Circles glossary • Angles: introduction • Complementary & supplementary angles	

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	Enrichment	Lesson 2-1 Inductive Reasoning (p. 13)	MP.1 MP.2 MP.3 MP.8	• Make conjectures by applying inductive reasoning. • Recognize the limits of inductive reasoning.
1	Enrichment	Lesson 2-2 Deductive Reasoning (p. 18)	MP.1 MP.2 MP.3 MP.8	• Use deductive reasoning to prove that a conjecture is true. • Develop geometric and algebraic arguments based on deductive reasoning.
1	Enrichment	Activity 2 Practice (p. 23)	MP.1 MP.2 MP.3 MP.8	• Make conjectures by applying inductive reasoning. • Recognize the limits of inductive reasoning. • Use deductive reasoning to prove that a conjecture is true. • Develop geometric and algebraic arguments based on deductive reasoning.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Inductive & deductive reasoning • Using inductive reasoning (example 2) • Sequences word problem: growth pattern • Arithmetic sequence problem • Sums of consecutive integers • Sum of integers challenge	

ACTIVITY 3 | Unit 1: Proof, Parallel, and Perpendicular Lines | Pacing: 34 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 3-1 Geometric Definitions and Two-Column Proofs (p. 25)	GM: G-CO.A.1	• Distinguish between undefined and defined terms. • Use properties to complete algebraic two-column proofs.
1	On Grade Level	Lesson 3-2 Conditional Statements (p. 29)	GM: G-CO.A.1	• Identify the hypothesis and conclusion of a conditional statement. • Give counterexamples for false conditional statements.
1	On Grade Level	Lesson 3-3 Converse, Inverse, and Contrapositive (p. 32)	GM: G-CO.A.1	• Write and determine the truth value of the converse, inverse, and contrapositive of a conditional statement. • Write and interpret biconditional statements.
1	On Grade Level	Activity 3 Practice (p. 35)	GM: G-CO.A.1	• Distinguish between undefined and defined terms. • Use properties to complete algebraic two-column proofs. • Identify the hypothesis and conclusion of a conditional statement. • Give counterexamples for false conditional statements. • Write and determine the truth value of the converse, inverse, and contrapositive of a conditional statement. • Write and interpret biconditional statements.
1	On Grade Level	Embedded Assessment 1–Geometric Figures and Basic Reasoning (p. 37)	GM: G-CO.A.1	• Geometric relationships • Conditional statements • Making conjectures

ACTIVITY 4 | Unit 1: Proof, Parallel, and Perpendicular Lines | Pacing: 34 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 2–Distance, Midpoint, and Angle Measurement (p. 61)	☐ GM: G-CO.A.1	• Segments and angles • Distance and bisectors
1	On Grade Level	Lesson 4-1 Segments and Midpoints (p. 39)	☐ GM: G-CO.A.1	• Apply the Segment Addition Postulate to find lengths of segments. • Use the definition of midpoint to find lengths of segments.
1	On Grade Level	Lesson 4-2 Angles and Angle Bisectors (p. 45)	☐ GM: G-CO.A.1	• Apply the Angle Addition Postulate to find angle measures. • Use the definition of angle bisector to find angle measures.
1	On Grade Level	Activity 4 Practice (p. 49)	☐ GM: G-CO.A.1	• Apply the Segment Addition Postulate to find lengths of segments. • Use the definition of midpoint to find lengths of segments. • Apply the Angle Addition Postulate to find angle measures. • Use the definition of angle bisector to find angle measures.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Equation practice with midpoints • Vertical angles • Equation practice with vertical angles	

ACTIVITY 5 | Unit 1: Proof, Parallel, and Perpendicular Lines | Pacing: 34 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 5-1 Distance on the Coordinate Plane (p. 51)	■ GM: G-GPE.B.6	• Derive the Distance Formula. • Use the Distance Formula to find the distance between two points on the coordinate plane.
1	On Grade Level	Lesson 5-2 Midpoint on the Coordinate Plane (p. 56)	■ GM: G-GPE.B.6	• Use inductive reasoning to determine the Midpoint Formula. • Use the Midpoint Formula to find the coordinates of the midpoint of a segment on the coordinate plane.
1	On Grade Level	Activity 5 Practice (p. 59)	■ GM: G-GPE.B.6	• Derive the Distance Formula. • Use the Distance Formula to find the distance between two points on the coordinate plane. • Use inductive reasoning to determine the Midpoint Formula. • Use the Midpoint Formula to find the coordinates of the midpoint of a segment on the coordinate plane.
1	On Grade Level	Embedded Assessment 2–Distance, Midpoint, and Angle Measurement (p. 61)	□ GM: G-CO.A.1	• Segments and angles • Distance and bisectors
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Distance formula • Midpoint formula	

ACTIVITY 6 | Unit 1: Proof, Parallel, and Perpendicular Lines | Pacing: 34 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 3–Angles, Parallel Lines, and Perpendicular Lines (p. 99)	GM: G-CO.C.9 GM: G-GPE.B.5	• Segments and angles • Distance and bisectors
1	On Grade Level	Lesson 6-1 Justifying Statements (p. 63)	GM: G-CO.C.9	• Use definitions, properties, and theorems to justify a statement. • Write two-column proofs to prove theorems about lines and angles.
1	On Grade Level	Lesson 6-2 Two-Column Geometric Proofs (p. 66)	GM: G-CO.C.9	• Complete two-column proofs to prove theorems about segments. • Complete two-column proofs to prove theorems about angles.
1	On Grade Level	Activity 6 Practice (p. 71)	GM: G-CO.C.9	• Use definitions, properties, and theorems to justify a statement. • Write two-column proofs to prove theorems about lines and angles. • Complete two-column proofs to prove theorems about segments. • Complete two-column proofs to prove theorems about angles.

ACTIVITY 7 | Unit 1: Proof, Parallel, and Perpendicular Lines | Pacing: 34 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 7-1 Parallel Lines and Angle Relationships (p. 73)	GM: G-CO.C.9	• Make conjectures about the angles formed by a pair of parallel lines and a transversal. • Prove theorems about these angles.
1	On Grade Level	Lesson 7-2 Proving Lines are Parallel (p. 79)	GM: G-CO.C.9	• Develop theorems to show that lines are parallel. • Determine whether lines are parallel.
1	On Grade Level	Lesson 7-3 Perpendicular Lines (p. 84)	GM: G-CO.C.9	• Develop theorems to show that lines are perpendicular. • Determine whether lines are perpendicular.
1	On Grade Level	Activity 7 Practice (p. 87)	GM: G-CO.C.9	• Make conjectures about the angles formed by a pair of parallel lines and a transversal. • Prove theorems about these angles. • Develop theorems to show that lines are parallel. • Determine whether lines are parallel. • Develop theorems to show that lines are perpendicular. • Determine whether lines are perpendicular.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Parallel & perpendicular lines • Proof: The diagonals of a kite are perpendicular	

ACTIVITY 8 | **Unit 1: Proof, Parallel, and Perpendicular Lines** | **Pacing: 34 (50-minute) class periods**

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 8-1 Slopes of Parallel and Perpendicular Lines (p. 89)	GM: G-GPE.B.5	• Make conjectures about the slopes of parallel and perpendicular lines. • Use slope to determine whether lines are parallel or perpendicular.
1	On Grade Level	Lesson 8-2 Writing Equations (p. 92)	GM: G-GPE.B.5	• Write the equation of a line that is parallel to a given line. • Write the equation of a line that is perpendicular to a given line.
1	On Grade Level	Activity 8 Practice (p. 97)	GM: G-GPE.B.5	• Make conjectures about the slopes of parallel and perpendicular lines. • Use slope to determine whether lines are parallel or perpendicular. • Write the equation of a line that is parallel to a given line. • Write the equation of a line that is perpendicular to a given line.
1	On Grade Level	Embedded Assessment 3–Angles, Parallel Lines, and Perpendicular Lines (p. 99)	GM: G-CO.C.9 GM: G-GPE.B.5	• Segments and angles • Distance and bisectors
1	On Grade Level	End-of-Unit 1 Assessment (SBD)*	Assesses Geometry standards covered in the unit.	
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Parallel lines from equation (example 3) • Perpendicular lines from equation • Writing equations of perpendicular lines	

** contains some enrichment*

Louisiana Geometry Curriculum Map

ACTIVITY 9 | **Unit 2: Transformations, Triangles, and Quadrilaterals**

Pacing: 43 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 1–Transformations (p. 141)	GM: G-CO.A.2 GM: G-CO.A.3 GM: G-CO.A.5 GM: G-CO.B.6	• Rigid motions • Translations, reflections, and rotations
1	Remediation	Unit 2 Getting Ready (p. 102)	A1: N-RN.A.2 A1: A-REI.B.4 A1: F-IF.A.2 8.EE.B.6 8.EE.B.6 8.G.B.8 8.EE.C.8	• Simplify square roots using perfect square factors. • Solve quadratic equations using square roots, factors, and the Quadratic Formula. • Evaluate linear and quadratics functions. • Determine the slope of a line using the slope formula. • Write the equation of a line in slope-intercept, point-slope, and standard form. • Determine midpoint and length using the midpoint and distance formulas. • Solve linear systems using substitution and elimination.
		Simplifying a Square Root Expression (p. I 46)	A1: N-RN.A.2	• Simplify square roots using perfect square factors.
		Solving a Quadratic Equation (p. I 48)	A1: A-REI.B.4	• Solve quadratic equations using square roots, factors, and the Quadratic Formula.
		Finding a Value of a Function (p. I 51)	A1: F-IF.A.2	• Evaluate linear and quadratics functions.
		Writing an Equation for the Graph of a Line (p. I 54)	8.EE.B.6	• Write the equation of a line in slope-intercept, point-slope, and standard form.
		Finding the Slope Between Two Points (p. I 57)	8.EE.B.6	• Determine the slope of a line using the slope formula.
		Finding the Midpoint and Length of a Line Segment (p. I 60)	8.G.B.8	• Determine midpoint and length using the midpoint and distance formulas.
		Solving a Linear System (p. I 63)	8.EE.C.8	• Solve linear systems using substitution and elimination.
1	On Grade Level	Lesson 9-1 Transformations (p. 103)	GM: G-CO.A.2 GM: G-CO.A.5 GM: G-CO.B.6	• Perform transformations on and off the coordinate plane. • Identify characteristics of transformations that are rigid motions and characteristics of transformations that are non-rigid motions. • Represent a transformation as a function using coordinates, and show how a figure is transformed by a function.
1	On Grade Level	Lesson 9-2 Translations (p. 108)	GM: G-CO.A.2 GM: G-CO.A.4 GM: G-CO.A.5 GM: G-CO.B.6	• Perform translations on and off the coordinate plane. • Predict the effect of a translation on a figure.

ACTIVITY 9

Unit 2: Transformations, Triangles, and Quadrilaterals

Pacing: 43 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 9-3 Reflections (p. 112)	GM: G-CO.A.2 GM: G-CO.A.4 GM: G-CO.A.5	• Perform reflections on and off the coordinate plane. • Identify reflectional symmetry in plane figures.
1	On Grade Level	Lesson 9-4 Rotations (p. 120)	GM: G-CO.A.2 GM: G-CO.A.3 GM: G-CO.A.4 GM: G-CO.A.5	• Perform rotations on and off the coordinate plane. • Identify and distinguish between reflectional and rotational symmetry.
1	On Grade Level	Activity 9 Practice (p. 127)	GM: G-CO.A.2 GM: G-CO.A.3 GM: G-CO.A.4 GM: G-CO.A.5 GM: G-CO.B.6	• Perform transformations on and off the coordinate plane. • Identify characteristics of transformations that are rigid motions and characteristics of transformations that are non-rigid motions. • Represent a transformation as a function using coordinates, and show how a figure is transformed by a function. • Perform translations on and off the coordinate plane. • Predict the effect of a translation on a figure. • Perform reflections on and off the coordinate plane. • Identify reflectional symmetry in plane figures. • Perform rotations on and off the coordinate plane. • Identify and distinguish between reflectional and rotational symmetry.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Performing translations (old) • Determining translations (old) • Translation challenge problem • Performing reflections: line (old) • Performing reflections: rectangle (old) • Determining rotations (old) • Performing rotations (old)	

ACTIVITY 10

Unit 2: Transformations, Triangles, and Quadrilaterals

Pacing: 43 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 10-1 Compositions of Transformations (p. 129)	☐ GM: G-CO.A.5 ■ GM: G-CO.B.6	• Find the image of a figure under a composition of rigid motions. • Find the pre-image of a figure under a composition of rigid motions.
1	On Grade Level	Lesson 10-2 Congruence (p. 134)	☐ GM: G-CO.A.5 ■ GM: G-CO.B.6	• Determine whether given figures are congruent. • Specify a sequence of rigid motions that will carry a given figure to a congruent figure.
1	On Grade Level	Activity 10 Practice (p. 139)	☐ GM: G-CO.A.5 ■ GM: G-CO.B.6	• Find the image of a figure under a composition of rigid motions. • Find the pre-image of a figure under a composition of rigid motions. • Determine whether given figures are congruent. • Specify a sequence of rigid motions that will carry a given figure to a congruent figure.
1	On Grade Level	Embedded Assessment 1–Transformations (p. 141)	☐ GM: G-CO.A.2 ☐ GM: G-CO.A.3 ■ GM: G-CO.B.6	• Rigid motions • Translations, reflections, and rotations
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Performing sequences of transformations • Determining mappings (incl. dilations) • Congruent shapes & transformations • Non-congruent shapes & transformations	

ACTIVITY 11 | **Unit 2: Transformations, Triangles, and Quadrilaterals**

Pacing: 43 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 2–Congruence, Triangles, and Proof (p. 179)	GM: G-CO.B.7 GM: G-CO.B.8 GM: G-SRT.B.5	• Geometric Relationships • Conditional Statements • Making Conjectures
1	On Grade Level	Lesson 11-1 Congruent Triangles (p. 143)	GM: G-CO.B.7	• Use the fact that congruent triangles have congruent corresponding parts. • Determine unknown angle measures or side lengths in congruent triangles.
1	On Grade Level	Lesson 11-2 Congruence Criteria (p. 147)	GM: G-CO.B.7	• Develop criteria for proving triangle congruence. • Determine which congruence criteria can be used to show that two triangles are congruent.
1	On Grade Level	Lesson 11-3 Proving and Applying the Congruence Criteria (p. 154)	GM: G-CO.B.7 GM: G-CO.B.8	• Prove that congruence criteria follow from the definition of congruence. • Use the congruence criteria in simple proofs.
1	On Grade Level	Lesson 11-4 Extending the Congruence Criteria (p. 160)	GM: G-CO.B.7	• Apply congruence criteria to figures on the coordinate plane. • Prove the AAS criterion and develop the HL criterion.
1	On Grade Level	Activity 11 Practice (p. 165)	GM: G-CO.B.7 GM: G-CO.B.8	• Use the fact that congruent triangles have congruent corresponding parts. • Determine unknown angle measures or side lengths in congruent triangles. • Develop criteria for proving triangle congruence. • Determine which congruence criteria can be used to show that two triangles are congruent. • Prove that congruence criteria follow from the definition of congruence. • Use the congruence criteria in simple proofs. • Apply congruence criteria to figures on the coordinate plane. • Prove the AAS criterion and develop the HL criterion.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Congruent triangles & the SSS postulate/criterion • Triangle congruence postulates/criteria • Determining congruent triangles • Geometry proof problem: midpoint • Geometry proof problem: congruent segments	

ACTIVITY 12

Unit 2: Transformations, Triangles, and Quadrilaterals

Pacing: 43 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 12-1 Flowchart Proofs (p. 167)	GM: G-CO.C.10 GM: G-SRT.B.5	• Write a simple flowchart proof as a two-column proof. • Write a flowchart proof.
1	On Grade Level	Lesson 12-2 Three Types of Proofs (p. 175)	GM: G-CO.C.10 GM: G-SRT.B.5	• Write a proof in three different formats. • Write proofs using the fact that corresponding parts of congruent triangles are congruent.
1	On Grade Level	Activity 12 Practice (p. 177)	GM: G-CO.C.10 GM: G-SRT.B.5	• Write a simple flowchart proof as a two-column proof. • Write a flowchart proof. • Write a proof in three different formats. • Write proofs using the fact that corresponding parts of congruent triangles are congruent.
1	On Grade Level	Embedded Assessment 2–Congruence, Triangles, and Proof (p. 179)	GM: G-CO.B.7 GM: G-CO.B.8 GM: G-SRT.B.5	• Geometric Relationships • Conditional Statements • Making Conjectures

ACTIVITY 13

Unit 2: Transformations, Triangles, and Quadrilaterals

Pacing: 43 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 3–Properties of Triangles (p. 203)	■ GM: G-CO.C.10 □ GM: G-CO.D.12	• Properties of triangles • Angles in triangles • Segments in triangles • Points of concurrency
1	On Grade Level	Lesson 13-1 Angle Relationships in Triangles (p. 181)	■ GM: G-CO.C.10 □ GM: G-CO.D.12	• Prove theorems about angle measures in triangles. • Apply theorems about angle measures in triangles.
1	On Grade Level	Lesson 13-2 Isosceles Triangles (p. 186)	■ GM: G-CO.C.10	• Develop theorems about isosceles triangles. • Prove theorems about isosceles triangles.
1	On Grade Level	Activity 13 Practice (p. 189)	■ GM: G-CO.C.10 □ GM: G-CO.D.12	• Prove theorems about angle measures in triangles. • Apply theorems about angle measures in triangles. • Develop theorems about isosceles triangles. • Prove theorems about isosceles triangles.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Angles in a triangle sum to 180° proof • Triangle exterior angle example • Worked example: Triangle angles (intersecting lines) • Worked example: Triangle angles (diagram) • Proofs concerning isosceles triangles • Finding angles in isosceles triangles • Finding angles in isosceles triangles (example 2)	

ACTIVITY 14 | Unit 2: Transformations, Triangles, and Quadrilaterals

Pacing: 43 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 14-1 Altitudes of a Triangle (p. 191)	■ GM: G-CO.C.10	• Determine the point of concurrency of the altitudes of a triangle. • Use the point of concurrency of the altitudes of a triangle to solve problems.
1	On Grade Level	Lesson 14-2 Medians of a Triangle (p. 195)	■ GM: G-CO.C.10	• Determine the point of concurrency of the medians of a triangle. • Use the point of concurrency of the medians of a triangle to solve problems.
1	On Grade Level	Lesson 14-3 Perpendicular Bisectors and Angle Bisectors of a Triangle (p. 198)	■ GM: G-CO.C.10	• Determine the points of concurrency of the perpendicular bisectors and the angle bisectors of a triangle. • Use the points of concurrency of the perpendicular bisectors and the angle bisectors of a triangle to solve problems.
1	On Grade Level	Activity 14 Practice (p. 201)	■ GM: G-CO.C.10	• Determine the point of concurrency of the altitudes of a triangle. • Use the point of concurrency of the altitudes of a triangle to solve problems. • Determine the point of concurrency of the medians of a triangle. • Use the point of concurrency of the medians of a triangle to solve problems. • Determine the points of concurrency of the perpendicular bisectors and the angle bisectors of a triangle. • Use the points of concurrency of the perpendicular bisectors and the angle bisectors of a triangle to solve problems.
1	On Grade Level	Embedded Assessment 3–Properties of Triangles (p. 203)	■ GM: G-CO.C.10 □ GM: G-CO.D.12	• Properties of triangles • Angles in triangles • Segments in triangles • Points of concurrency
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Proof: Triangle altitudes are concurrent (orthocenter) • Common orthocenter and centroid • Triangle medians & centroids • Centroid & median proof • Circumcenter of a triangle • Circumcenter of a right triangle	

ACTIVITY 15 | **Unit 2: Transformations, Triangles, and Quadrilaterals**

Pacing: 43 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 4–Quadrilaterals (p. 237)	GM: G-CO.C.9 GM: G-CO.C.11	• Properties of quadrilaterals Identifying special quadrilaterals
1	On Grade Level	Lesson 15-1 Kites and Triangle Midsegments (p. 205)	GM: G-CO.C.10 GM: G-SRT.B.5	• Develop properties of kites. • Prove the Triangle Midsegment Theorem.
1	On Grade Level	Lesson 15-2 Trapezoids (p. 209)	GM: G-SRT.B.5	• Develop properties of trapezoids. • Prove properties of trapezoids.
1	On Grade Level	Lesson 15-3 Parallelograms (p. 213)	GM: G-CO.C.11 GM: G-SRT.B.5	• Develop properties of parallelograms. • Prove properties of parallelograms.
1	On Grade Level	Lesson 15-4 Rectangles, Rhombuses, and Squares (p. 216)	GM: G-CO.C.11 GM: G-SRT.B.5	• Develop properties of rectangles, rhombuses, and squares. • Prove properties of rectangles, rhombuses, and squares.
1	On Grade Level	Activity 15 Practice (p. 221)	GM: G-CO.C.10 GM: G-CO.C.11 GM: G-SRT.B.5	• Develop properties of kites. • Prove the Triangle Midsegment Theorem. • Develop properties of trapezoids. • Prove properties of trapezoids. • Develop properties of parallelograms. • Prove properties of parallelograms. • Develop properties of rectangles, rhombuses, and squares. • Prove properties of rectangles, rhombuses, and squares.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Terms & labels in geometry • Kites as a geometric shape • Proof: Opposite sides of a parallelogram • Proof: Diagonals of a parallelogram • Proof: Opposite angles of a parallelogram • Proof: Rhombus diagonals are perpendicular bisectors • Proof: Rhombus area	

ACTIVITY 16

Unit 2: Transformations, Triangles, and Quadrilaterals

Pacing: 43 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 16-1 Proving a Quadrilateral Is a Parallelogram (p. 223)	GM: G-CO.C.11 GM: G-SRT.B.5	• Develop criteria for showing that a quadrilateral is a parallelogram. • Prove that a quadrilateral is a parallelogram.
1	On Grade Level	Lesson 16-2 Proving a Quadrilateral Is a Rectangle (p. 227)	GM: G-CO.C.11 GM: G-SRT.B.5	• Develop criteria for showing that a quadrilateral is a rectangle. • Prove that a quadrilateral is a rectangle.
1	On Grade Level	Lesson 16-3 Proving a Quadrilateral Is a Rhombus (p. 230)	GM: G-CO.C.11 GM: G-SRT.B.5	• Develop criteria for showing that a quadrilateral is a rhombus. • Prove that a quadrilateral is a rhombus.
1	On Grade Level	Lesson 16-4 Proving a Quadrilateral Is a Square (p. 235)	GM: G-CO.C.11 GM: G-SRT.B.5	• Develop criteria for showing that a quadrilateral is a square. • Prove that a quadrilateral is a square.
1	On Grade Level	Activity 16 Practice (p. 235)	GM: G-CO.C.11 GM: G-SRT.B.5	• Develop criteria for showing that a quadrilateral is a parallelogram. • Prove that a quadrilateral is a parallelogram. • Develop criteria for showing that a quadrilateral is a rectangle. • Prove that a quadrilateral is a rectangle. • Develop criteria for showing that a quadrilateral is a rhombus. • Prove that a quadrilateral is a rhombus. • Develop criteria for showing that a quadrilateral is a square. • Prove that a quadrilateral is a square.
1	On Grade Level	Embedded Assessment 4–Quadrilaterals (p. 237)	GM: G-CO.C.9 GM: G-CO.C.11	• Properties of quadrilaterals • Identifying special quadrilaterals
1	On Grade Level	End-of-Unit 2 Assessment (SBD)	Assesses Geometry standards covered in the unit.	

ACTIVITY 17 | **Unit 3: Similarity and Trigonometry** | **Pacing: 35 (50-minute) class periods**

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 1–Similarity in Polygons (p. 273)	■ GM: G-SRT.A.2 ■ GM: G-SRT.B.5	• Properties of similar figures • Similarity transformations
1	Remediation	Unit 3 Getting Ready (p. 240)	GM: G-CO.A.2 A1: N-RN.A.2 A1: A-REI.B.3 8.G.B.8 7.RP.A.3 A1: A-CED.A.4 A1: N-RN.A.2 8.G.B.7 GM: G-CO.C.9	• Use mapping to transform figures on the coordinate plane. • Simplify, add, subtract, and multiply square root expressions. • Solve linear and quadratic equations. • Determine distance using absolute value and the distance formula. • Find side lengths of similar triangles. • Solve equations with two or more variables. • Simplify square root expressions containing numbers and variables. • Use the Pythagorean Theorem to determine side lengths. • Determine supplementary, alternate, interior, exterior, corresponding, and congruent angles.
		Translating a Figure (p. I 99)	GM: G-CO.A.2	• Use mapping to transform figures on the coordinate plane.
		Simplifying a Square Root Expression (p. I 103)	A1: N-RN.A.2	• Simplify, add, subtract, and multiply square root expressions.
		Solving a One-Variable Equation (p. I 106)	A1: A-REI.B.3	• Solve linear and quadratic equations.
		Finding the Distance Between Two Points (p. I 110)	8.G.B.8	• Determine distance using absolute value and the distance formula.
		Solving a Multistep Problem Using Proportional Relationships (p. I 112)	7.RP.A.3	• Find side lengths of similar triangles.
		Solving a Literal Equation (p. I 115)	A1: A-CED.A.4	• Solve equations with two or more variables.
		Simplifying Expressions Involving Square Roots (p. I 118)	A1: N-RN.A.2	• Simplify square root expressions containing numbers and variables.
		Finding the Length of the Side of a Right Triangle (p. I 120)	8.G.B.7	• Use the Pythagorean Theorem to determine side lengths.
		Identifying Angle Relationships of Parallel Lines Cut by a Transversal (p. I 123)	GM: G-CO.C.9	• Determine supplementary, alternate, interior, exterior, corresponding, and congruent angles.
1	On Grade Level	Lesson 17-1 Dilations (p. 241)	□ GM: G-CO.A.2 ■ GM: G-SRT.A.1 ■ GM: G-MG.A.3	• Perform dilations on and off the coordinate plane. • Describe dilations.

Key: ■ Major Work, □ Supporting Work, ○ Additional Work

ACTIVITY 17 | Unit 3: Similarity and Trigonometry | Pacing: 35 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 17-2 Similarity Transformations (p. 248)	☐ GM: G-CO.A.2 ■ GM: G-SRT.A.1 ■ GM: G-SRT.A.2	• Understand the meaning of similarity transformations. • Use similarity transformations to determine whether figures are similar.
1	On Grade Level	Lesson 17-3 Properties of Similar Figures (p. 252)	■ GM: G-SRT.A.2 ■ GM: G-MG.A.3	• Identify properties of similar figures. • Apply properties of similar figures.
1	On Grade Level	Activity 17 Practice (p. 255)	☐ GM: G-CO.A.2 ■ GM: G-SRT.A.1 ■ GM: G-SRT.A.2 ■ GM: G-MG.A.3	• Perform dilations on and off the coordinate plane. • Describe dilations. • Understand the meaning of similarity transformations. • Use similarity transformations to determine whether figures are similar. • Identify properties of similar figures. • Apply properties of similar figures.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Dilating shapes: expanding • Dilating shapes: shrinking • Side lengths after dilation • Performing dilations • Similar shapes & transformations	

ACTIVITY 18 | **Unit 3: Similarity and Trigonometry** | **Pacing: 35 (50-minute) class periods**

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 18-1 Similarity Criteria (p. 257)	GM: G-SRT.A.3 GM: G-SRT.B.4	• Develop criteria for triangle similarity. • Prove the AA similarity criterion.
1	On Grade Level	Lesson 18-2 Using Similarity Criteria (p. 262)	GM: G-SRT.B.5	• Show triangles are similar. • Use similar triangles to solve problems.
1	On Grade Level	Lesson 18-3 Triangle Proportionality Theorem (p. 265)	GM: G-SRT.B.4 GM: G-SRT.B.5	• Prove the Triangle Proportionality Theorem and its converse. • Apply the Triangle Proportionality Theorem and its converse.
1	On Grade Level	Activity 18 Practice (p. 271)	GM: G-SRT.A.3 GM: G-SRT.B.4 GM: G-SRT.B.5	• Develop criteria for triangle similarity. • Prove the AA similarity criterion. • Show triangles are similar. • Use similar triangles to solve problems. • Prove the Triangle Proportionality Theorem and its converse. • Apply the Triangle Proportionality Theorem and its converse.
1	On Grade Level	Embedded Assessment 1–Similarity in Polygons (p. 273)	GM: G-SRT.A.2 GM: G-SRT.B.5	• Properties of similar figures • Similarity transformations
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Intro to triangle similarity • Triangle similarity postulates/criteria • Solving similar triangles	

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 2–Right Triangles (p. 301)	GM: G-SRT.B.4 GM: G-SRT.B.5 GM: G-SRT.C.8	• Altitudes of right triangles and geometric means • Proving and applying the Pythagorean Theorem • Relationships in special right triangles
1	On Grade Level	Lesson 19-1 The Right Triangle Altitude Theorem (p. 275)	GM: G-SRT.B.5	• Identify the relationships that exist when an altitude is drawn to the hypotenuse of a right triangle. • Prove the Right Triangle Altitude Theorem.
1	On Grade Level	Lesson 19-2 The Geometric Mean (p. 278)	GM: G-SRT.B.5	• Identify the relationships that exist when an altitude is drawn to the hypotenuse of a right triangle. • Apply the relationships that exist when an altitude is drawn to the hypotenuse of a right triangle.
1	On Grade Level	Activity 19 Practice (p. 281)	GM: G-SRT.B.5	• Identify the relationships that exist when an altitude is drawn to the hypotenuse of a right triangle. • Prove the Right Triangle Altitude Theorem. • Identify the relationships that exist when an altitude is drawn to the hypotenuse of a right triangle. • Apply the relationships that exist when an altitude is drawn to the hypotenuse of a right triangle.

ACTIVITY 20 | Unit 3: Similarity and Trigonometry | Pacing: 35 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 20-1 Pythagorean Theorem (p. 283)	GM: G-SRT.B.4 GM: G-SRT.C.8	• Use similar triangles to prove the Pythagorean Theorem. • Apply the Pythagorean Theorem to solve problems.
1	On Grade Level	Lesson 20-2 Converse of the Pythagorean Theorem (p. 286)	GM: G-SRT.C.8	• Use the converse of the Pythagorean Theorem to solve problems. • Develop and apply Pythagorean inequalities.
1	On Grade Level	Activity 20 Practice (p. 289)	GM: G-SRT.C.8	• Use similar triangles to prove the Pythagorean Theorem. • Apply the Pythagorean Theorem to solve problems. • Use the converse of the Pythagorean Theorem to solve problems. • Develop and apply Pythagorean inequalities.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Intro to the Pythagorean theorem 2 • Pythagorean theorem word problem: fishing boat • Pythagorean theorem proof using similarity • Another Pythagorean theorem proof	

ACTIVITY 21 | Unit 3: Similarity and Trigonometry | Pacing: 35 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 21-1 45°-45°-90° Triangles (p. 291)	GM: G-SRT.C.8	• Describe the relationships among the side lengths of 45°-45°-90° triangles. • Apply relationships in special right triangles to solve problems.
1	On Grade Level	Lesson 21-2 30°-60°-90° Triangles (p. 295)	GM: G-SRT.C.8	• Describe the relationships among the side lengths of 30°-60°-90° triangles. • Apply relationships in special right triangles to solve problems.
1	On Grade Level	Activity 21 Practice (p. 299)	GM: G-SRT.C.8	• Describe the relationships among the side lengths of 45°-45°-90° triangles. • Apply relationships in special right triangles to solve problems. • Describe the relationships among the side lengths of 30°-60°-90° triangles. • Apply relationships in special right triangles to solve problems.
1	On Grade Level	Embedded Assessment 2–Right Triangles (p. 301)	GM: G-SRT.B.4 GM: G-SRT.B.5 GM: G-SRT.C.8	• Altitudes of right triangles and geometric means • Proving and applying the Pythagorean Theorem • Relationships in special right triangles
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Special right triangles intro (part 1) • Special right triangles proof (part 2) • 30-60-90 triangle example problem • Special right triangles proof (part 1)	

ACTIVITY 22 | Unit 3: Similarity and Trigonometry | Pacing: 35 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 3–Trigonometry (p. 331)*	GM: G-SRT.C.6 GM: G-SRT.C.7 GM: G-SRT.C.8 GM: G-SRT.D.10(+) GM: G-SRT.D.11(+) GM: G-MG.A.1	• Trigonometric functions • Law of Sines • Law of Cosines • Solving triangles
1	On Grade Level	Lesson 22-1 Similar Right Triangles (p. 303)	GM: G-SRT.C.6 GM: G-MG.A.1	• Find ratios of side lengths in similar right triangles. • Given an acute angle of a right triangle, identify the opposite leg and adjacent leg.
1	On Grade Level	Lesson 22-2 Trigonometric Ratios (p. 308)	GM: G-SRT.C.6 GM: G-SRT.C.7 GM: G-SRT.C.8	• Understand the definitions of sine, cosine, and tangent ratios. • Calculate the trigonometric ratios in a right triangle. • Describe the relationship between the sine and cosine of complementary angles.
1	On Grade Level	Lesson 22-3 Using Trigonometric Ratios (p. 312)	GM: G-SRT.C.6 GM: G-SRT.C.7 GM: G-SRT.C.8	• Use trigonometric ratios to find unknown side lengths in right triangles. • Solve real-world problems using trigonometric ratios.
1	On Grade Level	Lesson 22-4 Solving Right Triangles (p. 315)	GM: G-SRT.C.6 GM: G-SRT.C.7 GM: G-SRT.C.8	• Calculate angle measures from trigonometric ratios. • Solve right triangles.

** contains some enrichment*

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Activity 22 Practice (p. 317)	GM: G-SRT.C.6 GM: G-SRT.C.7 GM: G-SRT.C.8 GM: G-MG.A.1	• Find ratios of side lengths in similar right triangles. • Given an acute angle of a right triangle, identify the opposite leg and adjacent leg. • Understand the definitions of sine, cosine, and tangent ratios. • Calculate the trigonometric ratios in a right triangle. • Describe the relationship between the sine and cosine of complementary angles. • Use trigonometric ratios to find unknown side lengths in right triangles. • Solve real-world problems using trigonometric ratios. • Calculate angle measures from trigonometric ratios. • Solve right triangles.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Triangle similarity & the trigonometric ratios • Trig challenge problem: verify identities • Trig challenge problem: trig values & side ratios • Intro to the trigonometric ratios • Trigonometric ratios in right triangles • Using complementary angles • Sine & cosine of complementary angles • Solving for a side in right triangles with trigonometry	

ACTIVITY 23 | **Unit 3: Similarity and Trigonometry** | **Pacing: 35 (50-minute) class periods**

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	Enrichment	Lesson 23-1 The Law of Sines (p. 319)	GM: G-SRT.D.10(+) GM: G-SRT.D.11(+)	• Prove the Law of Sines. • Apply the Law of Sines.
1	Enrichment	Lesson 23-2 The Ambiguous Case (p. 322)	GM: G-SRT.D.10(+) GM: G-SRT.D.11(+)	• Understand when the ambiguous case of the Law of Sines occurs. • Solve problems using the Law of Sines.
1	Enrichment	Lesson 23-3 The Law of Cosines (p. 324)	GM: G-SRT.D.10(+) GM: G-SRT.D.11(+)	• Prove the Law of Cosines. • Solve problems using the Law of Cosines.
1	Enrichment	Lesson 23-4 Solving Triangles (p. 327)	GM: G-SRT.D.10(+) GM: G-SRT.D.11(+)	• Determine when to use the Law of Sines and when to use the Law of Cosines. • Solve problems using the Law of Cosines and/or the Law of Sines.
1	Enrichment	Activity 23 Practice (p. 329)	GM: G-SRT.D.10(+) GM: G-SRT.D.11(+)	• Prove the Law of Sines. • Apply the Law of Sines. • Understand when the ambiguous case of the Law of Sines occurs. • Solve problems using the Law of Sines. • Prove the Law of Cosines. • Solve problems using the Law of Cosines. • Determine when to use the Law of Sines and when to use the Law of Cosines. • Solve problems using the Law of Cosines and/or the Law of Sines.
1	On Grade Level	Embedded Assessment 3–Trigonometry (p. 331)*	■ GM: G-SRT.C.6 ■ GM: G-SRT.C.7 ■ GM: G-SRT.C.8 GM: G-SRT.D.10(+) GM: G-SRT.D.11(+) ■ GM: G-MG.A.1	• Trigonometric functions • Law of Sines • Law of Cosines • Solving triangles
1	On Grade Level	End-of-Unit 3 Assessment (SBD)*	Assesses Geometry standards covered in the unit.	
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Solving for a side with the law of sines • Solving for an angle with the law of sines • Proof of the law of sines • Solving for a side with the law of cosines • Solving for an angle with the law of cosines • Proof of the law of cosines	

** contains some enrichment*

ACTIVITY 24 | **Unit 4: Circles, Coordinates, and Constructions** | **Pacing: 30 (50-minute) class periods**

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 1–Circles (p. 371)	GM: G-CO.A.1 GM: G-C.A.2 GM: G-C.A.3	• Central angles, inscribed angles, and intercepted arcs • Angles formed by two chords, tangents, and secants • Lengths of chord, tangent, and secant segments
1	Remediation	Unit 4 Getting Ready (p. 334)	A1: N-RN.A.2 A1: A-REI.B.3 A1: A-APR.A.1 8.G.B.8 GM: G-CO.A.1 GM: G-CO.A.1 7.G.B.5 GM: G-CO.C.9 A1: A-REI.B.4 F.IF.B.4 F.IF.C.7 GM: G-CO.A.1	• Simplify square root expressions with fractional radicands. • Solve equations using the distributive and zero product properties. • Determine the product of monomials, binomials, and trinomials using the distributive property. • Find the distance between two points using the distance formula. • Find the measure of angles using a protractor. • Find the length of line segments. • Identify internal segments in circles. • Justify that segements are perpendicular bisectors. • Create perfect square trinomials to complete the square. • Determine key features of quadratic functions. • Use table of values and key features to graph quadratic functions. • Determine slopes of parallel and perpendicular lines.
		Simplifying Radicals (p. I 152)	A1: N-RN.A.2	• Simplify square root expressions with fractional radicands.
		Solving Linear and Quadratic Equations (p. I 154)	A1: A-REI.B.3	• Solve equations using the distributive and zero product properties.
		Multiplying Polynomials (p. I 156)	A1: A-APR.A.1	• Determine the product of monomials, binomials, and trinomials using the distributive property.
		Distance Formula (p. I 159)	8.G.B.8	• Find the distance between two points using the distance formula.
		Protractor Postulate (p. I 161)	GM: G-CO.A.1	• Find the measure of angles using a protractor.
		Ruler Postulate and Segment Addition Postulate (p. I 164)	GM: G-CO.A.1	• Find the length of line segments.
		Identifying Radius, Diameter, and Chord (p. I 167)	7.G.B.5	• Identify internal segments in circles.
		Identifying the Perpendicular Bisector of a Segment (p. I 169)	GM: G-CO.C.9	• Justify that segements are perpendicular bisectors.
		Completing the Square (p. I 172)	A1: A-REI.B.4	• Create perfect square trinomials to complete the square.
		Interpreting Features of Functions (p. I 174)	A1: F-IF.B.4	• Determine key features of quadratic functions.
		Graphing Quadratic Functions (p. I 176)	A1: F-IF.C.7	• Use table of values and key features to graph quadratic functions.
		Parallel and Perpendicular Lines (p. I 180)	GM: G-CO.A.1	• Determine slopes of parallel and perpendicular lines.

ACTIVITY 24 | **Unit 4: Circles, Coordinates, and Constructions** | **Pacing: 30 (50-minute) class periods**

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 24-1 Circle Basics (p. 335)	GM: G-CO.A.1 GM: G-C.A.2	• Describe relationships among tangents and radii of a circle. • Use arcs, chords, and diameters of a circle to solve problems.
1	On Grade Level	Lesson 24-2 Theorems About Chords (p. 339)	GM: G-C.A.2	• Describe relationships among diameters and chords of a circle. • Prove and apply theorems about chords of a circle.
1	On Grade Level	Lesson 24-3 Tangent Segments (p. 345)	GM: G-C.A.2	• Prove that tangent segments to a circle from a point outside the circle are congruent. • Use tangent segments to solve problems.
1	On Grade Level	Activity 24 Practice (p. 347)	GM: G-CO.A.1 GM: G-C.A.2	• Describe relationships among tangents and radii of a circle. • Use arcs, chords, and diameters of a circle to solve problems. • Describe relationships among diameters and chords of a circle. • Prove and apply theorems about chords of a circle. • Prove that tangent segments to a circle from a point outside the circle are congruent. • Use tangent segments to solve problems.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Circles glossary • Radius, diameter, circumference & π • Tangents of circles problem (example 3) • Proof: perpendicular radius bisects chord	

ACTIVITY 25 | **Unit 4: Circles, Coordinates, and Constructions** | **Pacing: 30 (50-minute) class periods**

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 25-1 Arcs and Central Angles (p. 349)	GM: G-C.A.2	• Understand how to measure an arc of a circle. • Use relationships among arcs and central angles to solve problems.
1	On Grade Level	Lesson 25-2 Inscribed Angles (p. 353)*	GM: G-C.A.2 GM: G-C.A.3	• Describe the relationship among inscribed angles, central angles, and arcs. • Use inscribed angles to solve problems.
1	On Grade Level	Lesson 25-3 Angles Formed by Chords (p. 358)	GM: G-C.A.2	• Describe a relationship among the angles formed by intersecting chords in a circle. • Use angles formed by chords to solve problems.
1	On Grade Level	Lesson 25-4 Angles Formed by Tangents and Secants (p. 363)	GM: G-C.A.2	• Describe relationships among the angles formed by tangents to a circle or secants to a circle. • Use angles formed by tangents or secants to solve problems.
1	On Grade Level	Activity 25 Practice (p. 369)	GM: G-C.A.2 GM: G-C.A.3	• Understand how to measure an arc of a circle. • Use relationships among arcs and central angles to solve problems. • Describe the relationship among inscribed angles, central angles, and arcs. • Use inscribed angles to solve problems. • Describe a relationship among the angles formed by intersecting chords in a circle. • Use angles formed by chords to solve problems. • Describe relationships among the angles formed by tangents to a circle or secants to a circle. • Use angles formed by tangents or secants to solve problems.
1	On Grade Level	Embedded Assessment 1–Circles (p. 371)	GM: G-CO.A.1 GM: G-C.A.2 GM: G-C.A.3	• Central angles, inscribed angles, and intercepted arcs • Angles formed by two chords, tangents, and secants • Lengths of chord, tangent, and secant segments
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Inscribed angle theorem proof • Tangents of circles problem (example 2)	

** contains some enrichment*

ACTIVITY 26 | Unit 4: Circles, Coordinates, and Constructions | Pacing: 30 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 2–Coordinates and Constructions (p. 429)	■ GM: G-CO.C.10 □ GM: G-CO.D.12	• Coordinate proofs • Writing equations of circles • Finding the center and radius of a circle from its equation • Writing equations of parabolas • Geometric constructions
1	On Grade Level	Lesson 26-1 Proving the Midpoint Formula (p. 373)	■ GM: G-GPE.B.4	• Write coordinate proofs. • Prove the midpoint formula.
1	On Grade Level	Lesson 26-2 Proofs About Slope (p. 377)	■ GM: G-GPE.B.5	• Write coordinate proofs. • Prove the slope criteria for parallel and perpendicular lines.
1	On Grade Level	Lesson 26-3 Proving Concurrency of Medians (p. 382)	■ GM: G-CO.C.10	• Write coordinate proofs. • Prove that the medians of a triangle are concurrent.
1	On Grade Level	Lesson 26-4 Points Along a Line Segment (p. 387)	■ GM: G-GPE.B.6	• Find the coordinates of the point that is a given fractional distance along a line segment. • Find the coordinates of the point that partitions a line segment in a given ratio.
1	On Grade Level	Activity 26 Practice (p. 390)	■ GM: G-GPE.B.4 ■ GM: G-GPE.B.5 ■ GM: G-CO.C.10 ■ GM: G-GPE.B.6	• Write coordinate proofs. • Prove the midpoint formula. • Write coordinate proofs. • Prove the slope criteria for parallel and perpendicular lines. • Write coordinate proofs. • Prove that the medians of a triangle are concurrent. • Find the coordinates of the point that is a given fractional distance along a line segment. • Find the coordinates of the point that partitions a line segment in a given ratio.

ACTIVITY 27 | Unit 4: Circles, Coordinates, and Constructions | Pacing: 30 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 27-1 Circles on the Coordinate Plane (p. 391)	GM: G-GPE.A.1	• Derive the general equation of a circle given the center and radius. • Write the equation of a circle given three points on the circle.
1	On Grade Level	Lesson 27-2 Completing the Square to Find the Center and Radius of a Circle (p. 396)	GM: G-GPE.A.1	• Find the center and radius of a circle given its equation. • Complete the square to write the equation of a circle in the form $(x - h)^2 + (y - k)^2 = r^2$.
1	On Grade Level	Activity 27 Practice (p. 399)	GM: G-GPE.A.1	• Derive the general equation of a circle given the center and radius. • Write the equation of a circle given three points on the circle. • Find the center and radius of a circle given its equation. • Complete the square to write the equation of a circle in the form $(x - h)^2 + (y - k)^2 = r^2$.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Standard equation of a circle • Features of a circle from its standard equation • Challenge problem: Points on two circles • Pythagorean theorem & radii of circles • Features of a circle from its expanded equation	

ACTIVITY 28 | Unit 4: Circles, Coordinates, and Constructions | Pacing: 30 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	Enrichment	Lesson 28-1 Parabolas on the Coordinate Plane (p. 401)	GM: G-GPE.A.2	• Derive the general equation of a parabola given the focus and directrix. • Write the equation of a parabola given a specific focus and directrix.
1	Enrichment	Lesson 28-2 Parabolas with Vertex (h, k) (p. 405)	GM: G-GPE.A.2	• Derive the general equation of a parabola given the vertex and directrix. • Write the equation of a parabola given a specific vertex and directrix.
1	Enrichment	Activity 28 Practice (p. 409)	GM: G-GPE.A.2	• Derive the general equation of a parabola given the focus and directrix. • Write the equation of a parabola given a specific focus and directrix. • Derive the general equation of a parabola given the vertex and directrix. • Write the equation of a parabola given a specific vertex and directrix.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Intro to focus & directrix • Equation of a parabola from focus & directrix • Focus & directrix of a parabola from equation	

ACTIVITY 29 | **Unit 4: Circles, Coordinates, and Constructions** | **Pacing: 30 (50-minute) class periods**

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 29-1 Constructions with Segments and Angles (p. 411)	☐ GM: G-CO.D.12	• Use constructions to copy a segment or an angle. • Use constructions to bisect a segment or an angle.
1	On Grade Level	Lesson 29-2 Constructions with Parallel and Perpendicular Lines (p. 418)	☐ GM: G-CO.D.12	• Construct parallel and perpendicular lines. • Use constructions to make conjectures about geometric relationships.
1	Enrichment	Lesson 29-3 Constructions with Circles (p. 422)	○ GM: G-C.A.3 GM: G-C.A.4(+)	• Construct inscribed and circumscribed circles. • Construct tangents to a circle.
1	On Grade Level	Activity 29 Practice (p. 427)*	☐ GM: G-CO.D.12 ☐ GM: G-CO.D.13 ○ GM: G-C.A.3 GM: G-C.A.4(+)	• Use constructions to copy a segment or an angle. • Use constructions to bisect a segment or an angle. • Construct parallel and perpendicular lines. • Use constructions to make conjectures about geometric relationships. • Construct inscribed and circumscribed circles. • Construct tangents to a circle.
1	On Grade Level	Embedded Assessment 2–Coordinates and Constructions (p. 429)	■ GM: G-CO.C.10 ☐ GM: G-CO.D.12	• Coordinate proofs • Writing equations of circles • Finding the center and radius of a circle from its equation • Writing equations of parabolas • Geometric constructions
1	On Grade Level	End-of-Unit 4 Assessment (SBD)*	Assesses Geometry standards covered in the unit.	
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Geometric constructions: angle bisector • Geometric constructions: perpendicular bisector • Geometric constructions: perpendicular line • Geometric constructions: circle-inscribed square • Geometric constructions: circle-inscribed equilateral triangle	

** contains some enrichment*

Louisiana Geometry Curriculum Map

ACTIVITY 30 | **Unit 5: Extending Two Dimensions to Three Dimensions**

Pacing: 38 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 1–Area and Perimeter (p. 477)	○ GM: G-C.B.5 ■ GM: G-GPE.B.7 ■ GM: G-MG.A.1	• Finding perimeters and areas of composite figures • Finding perimeters and areas of regular polygons • Convert between radian and degree measures • Show that all circles are similar
1	Remediation	Unit 5 Getting Ready (p. 432)	A1: A-CED.A.4 5.G.B.4 GM: G-SRT.B.5 7.G.B.4 6.G.A.1	• Solve equations with two or more variables using inverse operations. • Classify polygons as equilateral, equiangular, or regular. • Determine the relationships between angles and sides of similar triangles. • Determine the area of circles using real world applications. • Determine area of composite figures and shaded regions.
		Solving a Literal Equation for a Given Variable (p. I 211)	A1: A-CED.A.4	• Solve equations with two or more variables using inverse operations.
		Identifying Two- and Three-Dimensional Figures (p. I 214)	5.G.B.4	• Classify polygons as equilateral, equiangular, or regular.
		Analyzing Similar Triangles (p. I 217)	GM: G-SRT.B.5	• Determine the relationships between angles and sides of similar triangles.
		Solving an Area Problem Involving a Circle (p. I 220)	7.G.B.4	• Determine the area of circles using real world applications.
		Finding Area of a Composite Figure (p. I 223)	6.G.A.1	• Determine area of composite figures and shaded regions.
1	On Grade Level	Lesson 30-1 Areas of Rectangles and Parallelograms (p. 433)	■ GM: G-GPE.B.7 ■ GM: G-MG.A.1	• Solve problems using the areas of rectangles, parallelograms, and composite figures. • Use coordinates to compute perimeters and areas of figures.
1	On Grade Level	Lesson 30-2 Areas of Triangles (p. 437)*	GM: G-SRT.D.9(+) ■ GM: G-GPE.B.7 ■ GM: G-MG.A.1	• Solve problems using the areas of triangles and composite figures. • Use coordinates to compute perimeters and areas of figures.
1	On Grade Level	Lesson 30-3 Areas of Rhombuses and Trapezoids (p. 441)	■ GM: G-MG.A.1 ■ GM: G-MG.A.2	• Solve problems using the areas of triangles and composite figures. • Use coordinates to compute perimeters and areas of figures.

** contains some enrichment*

ACTIVITY 30

Unit 5: Extending Two Dimensions to Three Dimensions

Pacing: 38 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Activity 30 Practice (p. 445)*	GM: G-SRT.D.9(+) ■ GM: G-GPE.B.7 ■ GM: G-MG.A.1 ■ GM: G-MG.A.2	• Solve problems using the areas of rectangles, parallelograms, and composite figures. • Use coordinates to compute perimeters and areas of figures. • Solve problems using the areas of triangles and composite figures. • Use coordinates to compute perimeters and areas of figures. • Solve problems using the areas of triangles and composite figures. • Use coordinates to compute perimeters and areas of figures.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Area of parallelogram proof • Perimeter of a parallelogram • Area of trapezoids • Area of triangle proof • Area of equilateral triangle • Perimeter & area of composite shapes	

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 31-1 Sum of the Measures of the Interior Angles of a Polygon (p. 447)	GM: G-GPE.B.7	• Develop a formula for the sum of the measures of the interior angles of a polygon. • Determine the sum of the measures of the interior angles of a polygon.
1	On Grade Level	Lesson 31-2 Regular Polygons and Exterior Angles (p. 453)	GM: G-GPE.B.7	• Develop a formula for the measure of each interior angle of a regular polygon. • Determine the measure of the exterior angles of a polygon.
1	On Grade Level	Lesson 31-3 Area and Perimeter of Regular Polygons (p. 457)	GM: G-GPE.B.7	• Develop a formula for the area of a regular polygon. • Solve problems using the perimeter and area of regular polygons.
1	On Grade Level	Activity 31 Practice (p. 461)	GM: G-GPE.B.7	• Develop a formula for the sum of the measures of the interior angles of a polygon. • Determine the sum of the measures of the interior angles of a polygon. • Develop a formula for the measure of each interior angle of a regular polygon. • Determine the measure of the exterior angles of a polygon. • Develop a formula for the area of a regular polygon. • Solve problems using the perimeter and area of regular polygons.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Sum of interior angles of a polygon • Sum of the exterior angles of a polygon • Area of a regular hexagon	

ACTIVITY 32 | **Unit 5: Extending Two Dimensions to Three Dimensions**

Pacing: 38 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 32-1 Circumference and Area of a Circle (p. 463)	○ GM: G-GMD.A.1	• Develop and apply a formula for the circumference of a circle. • Develop and apply a formula for the area of a circle.
1	On Grade Level	Lesson 32-2 Sectors and Arcs (p. 467)	○ GM: G-C.B.5	• Develop and apply a formula for the area of a sector. • Develop and apply a formula for arc length.
1	Enrichment	Lesson 32-3 Circles and Similarity (p. 470)	○ GM: G-C.A.1	• Prove that all circles are similar. • Describe and apply radian measure.
1	On Grade Level	Activity 32 Practice (p. 475)*	○ GM: G-GMD.A.1 ○ GM: G-C.B.5 ○ GM: G-C.A.1	• Develop and apply a formula for the circumference of a circle. • Develop and apply a formula for the area of a circle. • Develop and apply a formula for the area of a sector. • Develop and apply a formula for arc length. • Prove that all circles are similar. • Describe and apply radian measure.
1	On Grade Level	Embedded Assessment 1–Area and Perimeter (p. 477)	○ GM: G-C.B.5 ■ GM: G-GPE.B.7 ■ GM: G-MG.A.1	• Finding perimeters and areas of composite figures • Finding perimeters and areas of regular polygons • Convert between radian and degree measures • Show that all circles are similar
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Area of a circle • Area of a sector • Arc length from subtended angle	

** contains some enrichment*

ACTIVITY 33 | Unit 5: Extending Two Dimensions to Three Dimensions

Pacing: 38 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 2–Surface Area and Volume (p. 523)	GM: G-GMD.A.3 GM: G-GMD.B.4 GM: G-MG.A.1 GM: G-MG.A.2 GM: G-MG.A.3	• Surface areas of prisms, cylinders, and cones • Volumes of prisms, cylinders, and cones • Solve design problems using applications of geometric concepts, including density based on area and volume
1	On Grade Level	Lesson 33-1 Prisms and Pyramids (p. 479)	GM: G-GMD.B.4	• Describe properties and cross sections of prisms and pyramids. • Describe the relationship among the faces, edges, and vertices of a polyhedron.
1	On Grade Level	Lesson 33-2 Cylinders and Cones (p. 486)	GM: G-GMD.B.4	• Describe properties and cross sections of a cylinder. • Describe properties and cross sections of a cone.
1	On Grade Level	Lesson 33-3 Spheres and Solids of Rotation (p. 489)	GM: G-GMD.B.4	• Describe properties and cross sections of a sphere. • Identify three-dimensional objects generated by rotations of two-dimensional objects.
1	On Grade Level	Activity 33 Practice (p. 493)	GM: G-GMD.B.4	• Describe properties and cross sections of prisms and pyramids. • Describe the relationship among the faces, edges, and vertices of a polyhedron. • Describe properties and cross sections of a cylinder. • Describe properties and cross sections of a cone. • Describe properties and cross sections of a sphere. • Identify three-dimensional objects generated by rotations of two-dimensional objects.
KHANACADEMY			Continue the Khan Academy Geometry Mission and Practice. Slicing a rectangular pyramid • Rotating 2D shapes in 3D	

ACTIVITY 34

Unit 5: Extending Two Dimensions to Three Dimensions

Pacing: 38 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 34-1 Surface Area of Prisms and Cylinders (p. 495)	■ GM: G-MG.A.3	• Solve problems by finding the lateral area or total surface area of a prism. • Solve problems by finding the lateral area or total surface area of a cylinder.
1	On Grade Level	Lesson 34-2 Volume of Prisms and Cylinders (p. 500)	○ GM: G-GMD.A.1 GM: G-GMD.A.2(+) ○ GM: G-GMD.A.3 ■ GM: G-MG.A.3	• Solve problems by finding the volume of a prism. • Solve problems by finding the volume of a cylinder.
1	On Grade Level	Activity 34 Practice (p. 505)	○ GM: G-GMD.A.1 GM: G-GMD.A.2(+) ○ GM: G-GMD.A.3 ■ GM: G-MG.A.3	• Solve problems by finding the lateral area or total surface area of a prism. • Solve problems by finding the lateral area or total surface area of a cylinder. • Solve problems by finding the volume of a prism. • Solve problems by finding the volume of a cylinder.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Surface area using a net: rectangular prism • Cylinder volume & surface area • Cylinder volume & surface area • Volume of triangular prism & cube	

ACTIVITY 35

Unit 5: Extending Two Dimensions to Three Dimensions

Pacing: 38 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 35-1 Surface Area of Pyramids and Cones (p. 507)	■ GM: G-MG.A.1 ■ GM: G-MG.A.3	• Solve problems by finding the lateral area or total surface area of a pyramid. • Solve problems by finding the lateral area or total surface area of a cone.
1	On Grade Level	Lesson 35-2 Volume of Pyramids and Cones (p. 513)*	○ GM: G-GMD.A.1 GM: G-GMD.A.2(+) ○ GM: G-GMD.A.3 ■ GM: G-MG.A.1	• Solve problems by finding the volume of a pyramid. • Solve problems by finding the volume of a cone.
1	On Grade Level	Lesson 35-3 Density (p. 518)	■ GM: G-MG.A.1 ■ GM: G-MG.A.2	• Apply concepts of density in modeling situations. • Apply surface area and volume to solve design problems.
1	On Grade Level	Activity 35 Practice (p. 521)	○ GM: G-GMD.A.1 GM: G-GMD.A.2(+) ○ GM: G-GMD.A.3 ■ GM: G-MG.A.1 ■ GM: G-MG.A.2	• Solve problems by finding the lateral area or total surface area of a pyramid. • Solve problems by finding the lateral area or total surface area of a cone. • Solve problems by finding the volume of a pyramid. • Solve problems by finding the volume of a cone. • Apply concepts of density in modeling situations. • Apply surface area and volume to solve design problems.
1	On Grade Level	Embedded Assessment 2–Surface Area and Volume (p. 523)	○ GM: G-GMD.A.3 ○ GM: G-GMD.B.4 ■ GM: G-MG.A.1 ■ GM: G-MG.A.2 ■ GM: G-MG.A.3	• Surface areas of prisms, cylinders, and cones • Volumes of prisms, cylinders, and cones • Solve design problems using applications of geometric concepts, including density based on area and volume
KHANACADEMY			Continue the Khan Academy Geometry Mission and Practice. Volume of a cone	

** contains some enrichment*

ACTIVITY 36

Unit 5: Extending Two Dimensions to Three Dimensions

Pacing: 38 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 3–Changing Dimensions of Spheres (p. 549)	GM: G-GMD.A.3 GM: G-MG.A.1	• Surface areas of spheres • Volumes of spheres • Application of geometric concepts, including changing dimensions of three-dimensional figures, to solve problems
1	On Grade Level	Lesson 36-1 Surface Area of Spheres (p. 525)	GM: G-MG.A.1 GM: G-MG.A.3	• Solve problems using properties of spheres. • Solve problems by finding the surface area of a sphere.
1	On Grade Level	Lesson 36-2 Volume of Spheres (p. 529)	GM: G-GMD.A.3 GM: G-MG.A.1	• Develop the formula for the volume of a sphere. • Solve problems by finding the volume of a sphere.
1	On Grade Level	Lesson 36-3 Spherical Geometry (p. 532)	GM: G-MG.A.1	• Compare parallelism in Euclidean and spherical geometries. • Compare triangles in Euclidean and spherical geometries.
1	On Grade Level	Activity 36 Practice (p. 537)	GM: G-MG.A.1 GM: G-MG.A.3	• Solve problems using properties of spheres. • Solve problems by finding the surface area of a sphere. • Develop the formula for the volume of a sphere. • Solve problems by finding the volume of a sphere. • Compare parallelism in Euclidean and spherical geometries. • Compare triangles in Euclidean and spherical geometries.
KHANACADEMY			Continue the Khan Academy Geometry Mission and Practice. Volume of a sphere	

ACTIVITY 37

Unit 5: Extending Two Dimensions to Three Dimensions

Pacing: 38 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 37-1 Cubes and Spheres (p. 539)	GM: G-MG.A.1	• Describe how changes in the linear dimensions of a shape affect its perimeter, area, surface area, or volume. • Use geometric shapes and their measures to model real-world objects.
1	On Grade Level	Lesson 37-2 Pyramids and Cylinders (p. 542)	GM: G-MG.A.1	• Describe how changes in the linear dimensions of a shape affect its perimeter, area, surface area, or volume. • Use geometric shapes and their measures to model real-world objects.
1	On Grade Level	Activity 37 Practice (p. 547)	GM: G-MG.A.1	• Describe how changes in the linear dimensions of a shape affect its perimeter, area, surface area, or volume. • Use geometric shapes and their measures to model real-world objects. • Describe how changes in the linear dimensions of a shape affect its perimeter, area, surface area, or volume. • Use geometric shapes and their measures to model real-world objects.
1	On Grade Level	Embedded Assessment 3–Changing Dimensions of Spheres (p. 549)	GM: G-GMD.A.3 GM: G-MG.A.1	• Surface areas of spheres • Volumes of spheres • Application of geometric concepts, including changing dimensions of three-dimensional figures, to solve problems
1	On Grade Level	End-of-Unit 5 Assessment (SBD)*	Assesses Geometry standards covered in the unit.	

** contains some enrichment*

ACTIVITY 38 | Unit 6: Probability | Pacing: 23 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 1–Probability and the Addition Rule (p. 593)	GM: S-CP.A.1 GM: S-CP.B.7 GM: G-GMD.B.7	• Evaluate probabilities from a given table of counts • Evaluate probabilities involving and, or, and not • Explain whether or not events are mutually exclusive • Use the Addition Rule • Express probabilities using probability/set notation
1	Remediation	Unit 6 Getting Ready (p. 552)	4.NF.C.6 5.NBT.A.4 3.NE.A.3 5.NF.A.1	• Determine whether decimal values of percentages will be greater than 1 or less than 0.01. • Round decimal numbers to indicated place values. • Use prime factorization to simplify fractions. • Find the sum of fractions with like and unlike denominators.
		Express Percentages as Decimals (p. I 252)	4.NF.C.6	• Determine whether decimal values of percentages will be greater than 1 or less than 0.01.
		Express Decimals Rounded to a Given Number of Decimal Places (p. I 256)	5.NBT.A.4	• Round decimal numbers to indicated place values.
		Express a Fraction in Simplest Form (p. I 259)	3.NE.A.3	• Use prime factorization to simplify fractions.
		Adding Fractions (p. I 262)	5.NF.A.1	• Find the sum of fractions with like and unlike denominators.
1	On Grade Level	Lesson 38-1 Probability of a Single Event (p. 553)	GM: S-CP.A.1	• Understand probability in real-world situations. • Represent sample spaces as lists. • Calculate the probability of a single event.
1	On Grade Level	Lesson 38-2 Events Involving “And” and “Or” (p. 559)	GM: S-CP.A.1 GM: S-CP.A.4	• Understand probability in real-world situations. • Describe events as subsets of a sample space using the characteristics of the outcomes. • Represent sample spaces as tables of outcomes and as two-way frequency tables. • Calculate the probability of events involving “and” and “or.”

ACTIVITY 38 | Unit 6: Probability | Pacing: 23 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Activity 38 Practice (p. 565)	GM: S-CP.A.1 GM: S-CP.A.4	• Understand probability in real-world situations. • Represent sample spaces as lists. • Calculate the probability of a single event. • Understand probability in real-world situations. • Describe events as subsets of a sample space using the characteristics of the outcomes. • Represent sample spaces as tables of outcomes and as two-way frequency tables. • Calculate the probability of events involving “and” and “or.”
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Intro to theoretical probability • Die rolling probability • Simple probability: yellow marble • Simple probability: non-blue marble • Finding probablity example 3 • Filling out frequency table for independent events	

ACTIVITY 39 | Unit 6: Probability | Pacing: 23 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 39-1 Using a Venn Diagram to Represent a Sample Space (p. 567)	GM: S-CP.A.1	• Use Venn diagrams to represent events. • Translate Venn diagrams of counts into Venn diagrams of probabilities.
1	On Grade Level	Lesson 39-2 Using Venn Diagrams to Represent "And," "Or," and "Not" (p. 573)	GM: S-CP.A.1	• Use Venn diagrams to represent "and," "or," and "not." • Use set notation to describe events.
1	On Grade Level	Activity 39 Practice (p. 579)	GM: S-CP.A.1	• Use Venn diagrams to represent events. • Translate Venn diagrams of counts into Venn diagrams of probabilities. • Use Venn diagrams to represent "and," "or," and "not." • Use set notation to describe events.
KHANACADEMY			Continue the Khan Academy Geometry Mission and Practice. Probability with Venn diagrams	

ACTIVITY 40 | Unit 6: Probability | Pacing: 23 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Lesson 40-1 Applying the Addition Rule (p. 581)	GM: S-CP.B.7	• Learn the Addition Rule and understand why it applies. • Use the Addition Rule to calculate probabilities.
1	On Grade Level	Lesson 40-2 Adapting the Addition Rule for Mutually Exclusive Events (p. 587)	GM: S-CP.B.7	• Learn the meaning of mutually exclusive events. • Use Venn diagrams to represent mutually exclusive events. • Use the Addition Rule to calculate the probability of mutually exclusive events.
1	On Grade Level	Activity 40 Practice (p. 591)	GM: S-CP.B.7	• Learn the Addition Rule and understand why it applies. • Use the Addition Rule to calculate probabilities. • Learn the meaning of mutually exclusive events. • Use Venn diagrams to represent mutually exclusive events. • Use the Addition Rule to calculate the probability of mutually exclusive events.
1	On Grade Level	Embedded Assessment 1–Probability and the Addition Rule (p. 593)	GM: S-CP.A.1 GM: S-CP.B.7 GM: G-GMD.B.7	• Evaluate probabilities from a given table of counts • Evaluate probabilities involving and, or, and not • Explain whether or not events are mutually exclusive • Use the Addition Rule • Express probabilities using probability/set notation
KHANACADEMY			Continue the Khan Academy Geometry Mission and Practice. Addition rule for probability	

ACTIVITY 41 | Unit 6: Probability | Pacing: 23 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	Unpack Embedded Assessment 2–Conditional Probability and Independent Events (p. 633)*	GM: S-CP.A.2 GM: S-CP.A.3 GM: S-CP.A.4 GM: S-CP.A.5 GM: S-CP.B.6 GM: S-CP.B.7 GM: S-CP.B.8(+) GM: S-CP.B.9(+)	• Independent events • Conditional probability • Multiplication Rule • Geometric probability • Permutations and combinations
1	On Grade Level	Lesson 41-1 Understanding Conditional Probability (p. 595)	GM: S-CP.A.3 GM: S-CP.A.4 GM: S-CP.B.6	• Understand the conditional probability of A given B. • Determine conditional probabilities using two-way frequency tables and Venn diagrams. • Interpret the answer in terms of the model.
1	On Grade Level	Lesson 41-2 The Conditional Probability Formula (p. 601)	GM: S-CP.A.3 GM: S-CP.B.6	• Develop the conditional probability formula. • Use conditional probability for everyday situations.
1	On Grade Level	Lesson 41-3 Tree Diagrams (p. 604)	GM: S-CP.A.3 GM: S-CP.B.6	• Use tree diagrams to determine conditional probabilities. • Apply the general Multiplication Rule.
1	On Grade Level	Activity 41 Practice (p. 611)	GM: S-CP.A.3 GM: S-CP.A.4 GM: S-CP.B.6	• Understand the conditional probability of A given B. • Determine conditional probabilities using two-way frequency tables and Venn diagrams. • Interpret the answer in terms of the model. • Develop the conditional probability formula. • Use conditional probability for everyday situations. • Use tree diagrams to determine conditional probabilities. • Apply the general Multiplication Rule.
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Dependent probability introduction • Dependent probability: coins • Dependent probability example • Dependent probability • Calculating conditional probability • Conditional probability with Bayes' Theorem • Count outcomes using tree diagram • Analyzing event probability for independence	

** contains some enrichment*

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	Enrichment	Lesson 42-1 The Multiplication Rule (p. 613)	○ GM: S-CP.A.2 ○ GM: S-CP.A.3 ○ GM: S-CP.A.4 ○ GM: S-CP.A.5 ○ GM: S-CP.B.6 GM: S-CP.B.8(+)	• Understand when two events are independent. • Use the Multiplication Rule to determine if two events are independent. • Understand independent and dependent events in real-world situations.
1	Enrichment	Lesson 42-2 Geometric Probability (p. 621)	GM: S-MD.B.7(+)	• Discover ways probability is used in real-life situations. • Determine the probability of an event involving area. • Use a linear model to determine probability involving elapsed time.
1	Enrichment	Lesson 42-3 Permutations and Combinations (p. 625)	GM: S-CP.B.9(+)	• Use permutations and combinations to compute probabilities of compound events and solve problems.
1	Enrichment	Activity 42 Practice (p. 631)	○ GM: S-CP.A.2 ○ GM: S-CP.A.3 ○ GM: S-CP.A.4 ○ GM: S-CP.A.5 ○ GM: S-CP.B.6 GM: S-CP.B.8(+) GM: S-CP.B.9(+) GM: S-MD.B.7(+)	• Understand when two events are independent. • Use the Multiplication Rule to determine if two events are independent. • Understand independent and dependent events in real-world situations. • Discover ways probability is used in real-life situations. • Determine the probability of an event involving area. • Use a linear model to determine probability involving elapsed time. • Use permutations and combinations to compute probabilities of compound events and solve problems.
1	On Grade Level	Embedded Assessment 2–Conditional Probability and Independent Events (p. 633)*	○ GM: S-CP.A.2 ○ GM: S-CP.A.3 ○ GM: S-CP.A.4 ○ GM: S-CP.A.5 ○ GM: S-CP.B.6 ○ GM: S-CP.B.7 GM: S-CP.B.8(+) GM: S-CP.B.9(+)	• Independent events • Conditional probability • Multiplication Rule • Geometric probability • Permutations and combinations

ACTIVITY 42 | Unit 6: Probability | Pacing: 23 (50-minute) class periods

Number of Periods	Action	Instructional Focus	Louisiana Student Standard(s)	Learning Targets or Assessment Focus
1	On Grade Level	End-of-Unit 6 Assessment (SBD)*	Assesses Geometry standards covered in the unit.	
KHANACADEMY			**Continue the Khan Academy Geometry Mission and Practice.** Independent & dependent probability • Compound probability of independent events • Independent events example: test taking • Die rolling probability with independent events	