

Mathematics

Geometry: Year at a Glance

2019 – 2020

Q1	Q2	Q3	Q4
Aug. 12 – Oct. 11	Oct. 21 - Dec. 20	Jan. 6 – Mar. 13	Mar. 23 – May 22 TN Ready Testing Apr. 13 - May 1
Tools of Geometry, Reasoning and Proof, Lines and Angles, Triangle Congruence with Applications	Transformations and Congruence, Transformations and Symmetry, Similarity and Transformations, Using Similar Triangles, Properties of Quadrilaterals with Coordinate Proofs	Special Segments in Triangles, Trigonometry with Right Triangles, Trigonometry with All Triangles, and Surface Area and Volume of Solids	Properties of Angles and Segments in Circles, Arc Length, Sector Area, and Equations of Circles, Use Coordinates to Prove Simple Geometric Theorems Algebraically, Trigonometry with All Triangles
G.CO.A.1	G.CO.A.2	G-CO.C.10	G.C.A.1
G.CO.A.2	G.CO.A.3	G-GMD.A.1	G.C.A.2
G.CO.B.7	G.CO.A.4	G-GMD.A.2	G.C.A.3
G.CO.B.8	G.CO.A.5	G-MG.A.1	G.C.B.4
G.CO.C.9	G.CO.B.6	G-MG.A.2	G.CO.A.1
G.CO.C.10	G.CO.B.7	G-SRT.B.4	G.CO.D.12
G.CO.D.12	G.CO.C.11	G-SRT.B.5	G. GPE.A.1
G. GPE.B.2	G. GPE.B.2	G-SRT.C.6	G. GPE.B.2
G. GPE.B.3	G. GPE.B.5	G-SRT.C.7	G-SRT.C.8
G. GPE.B.5	G.MG.A.1	G-SRT.C.8	G. GMD.A.1
G. SRT.B.5	G.MG.A.2		
	G. SRT.A.1		
	G. SRT.A.2		
	G. SRT.A.3		
	G. SRT.B.4		
	G. SRT.B.5		
	G. SRT.C.6		

Major Content	Supporting Content
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Key:

Note: Please use this suggested pacing as a guide. It is understood that teachers may be up to 1 week ahead or 1 week behind depending on the needs of their students



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

Introduction

Destination 2025, Shelby County Schools’ 10-year strategic plan, is designed not only to improve the quality of public education, but also to create a more knowledgeable, productive workforce and ultimately benefit our entire community.

What will success look like?



In order to achieve these ambitious goals, we must collectively work to provide our students with high quality, college and career ready aligned instruction. The Tennessee State Standards provide a common set of expectations for what students will know and be able to do at the end of a grade. The State of Tennessee provides two sets of standards, which include the Standards for Mathematical Content and The Standards for Mathematical Practice. The Content Standards set high expectations for all students to ensure that Tennessee graduates are prepared to meet the rigorous demands of mathematical understanding for college and career. The eight Standards for Mathematical Practice describe the varieties of expertise, habits of mind, and productive dispositions that educators seek to develop in all students. The Tennessee State Standards also represent three fundamental shifts in mathematics instruction: **focus, coherence and rigor.**

Instructional Shifts for Mathematics



Throughout this curriculum map, you will see resources as well as links to tasks that will support you in ensuring that students are able to reach the demands of the standards in your classroom. In addition to the resources embedded in the map, there are some high-leverage resources around the content standards and mathematical practice standards that teachers should consistently access. For a full description of each, click on the links below.





Curriculum and Instruction – Mathematics

Quarter 4

Geometry

How to Use the Maps

Overview

An overview is provided for each quarter and includes the topics, focus standards, intended rigor of the standards and foundational skills needed for success of those standards.

Your curriculum map contains four columns that each highlight specific instructional components. Use the details below as a guide for information included in each column.

Tennessee State Standards

TN State Standards are located in the left column. Each content standard is identified as Major Content or Supporting Content. A key can be found at the bottom of the map.

Content

This section contains learning objectives based upon the TN State Standards. Best practices tell us that clearly communicating measurable objectives lead to greater student understanding. Additionally, essential questions are provided to guide student exploration and inquiry.

Instructional Support & Resources

District and web-based resources have been provided in the Instructional Support column. You will find a variety of instructional resources that align with the content standards. The additional resources provided should be used as needed for content support and scaffolding. The inclusion of vocabulary serves as a resource for teacher planning and for building a common language across K-12 mathematics. One of the goals for Tennessee State Standards is to create a common language, and the expectation is that teachers will embed this language throughout their daily lessons.

Instructional Calendar

As a support to teachers and leaders, an instructional calendar is provided **as a guide**. Teachers should use this calendar for effective planning and pacing, and leaders should use this calendar to provide *support* for teachers. Due to variances in class schedules and differentiated support that may be needed for students' adjustment to the calendar may be required.



Curriculum and Instruction – Mathematics

Quarter 4





Geometry

Topics Addressed in Quarter

- Properties of Angles and Segments in Circles
- Arc Length, Sector Area, and Equations of Circles
- Use Coordinates to Prove Simple Geometric Theorems Algebraically
- Trigonometry with All Triangles

Overview

During the fourth quarter students continue their study of circles. They explore and apply the properties of angles and segments in circles including the intersection of two secants, two tangents, two chords or a secant and a tangent. Then students find and apply arc length and area of sectors and write equations of circles and graph them in the coordinate plane. Students use coordinates to prove simple geometric theorems algebraically. Students learn how to construct regular hexagons, squares, and triangles in circles. At this point, students have covered most of the content & standards needed prior to the TNReady End of Course Exam. Since there are 3 to 4 weeks of class after the EOC exam, students will examine some additional content/standards. The year will conclude by studying law of sines and cosines to find missing sides in any triangle, not just right triangles.

Content Standard	Type of Rigor	Foundational Standards
G-C.A.1	Procedural Fluency, Conceptual Understanding	Introductory
 G-C.A.2	Conceptual Understanding	Introductory
G-C.A.3	Procedural Fluency, Conceptual Understanding & Application	Introductory
 G-C.B.4	Procedural Fluency, Application	Introductory
G-CO.A.1	Procedural Fluency	Introductory
G-CO.D.12	Procedural Fluency	7.G.A.2
 G-GPE.A.1	Procedural Fluency	8.G.B.8, A-REI.B.4
G-GPE.B.2	Procedural Fluency	8.G.B.8
G-GMD.A.1	Conceptual Understanding	8.G.C.9
G-SRT.C.8	Conceptual Understanding & Application	8.G.B.7
 Indicates 2017-2018 Power Standard		
Instructional Focus Documents-Geometry		



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT & RESOURCES	
Properties of Angles and Segments in Circles (Allow approximately 2 weeks for instruction, review, and assessment)			
<p>Domain: Circles (G.C)</p> <p>Cluster: Understand and apply theorems about circles</p> <p>➤ G-C.A.1 Recognize that all circles are similar.</p> <p>Domain: Congruence (G.CO)</p> <p>Cluster: Experiment with transformations in the plane</p> <p>➤ 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.</p> <p>Domain: Geometric Measurement and Dimension (G.GMD)</p> <p>Cluster: Explain volume formulas and use them to solve problems</p> <p>➤ G-GMD.A.1 Give an informal argument for the formulas for the circumference of a circle, and the volume and surface area of a cylinder, cone, prism, and pyramid.</p>	<p>Essential Question(s)</p> <p>What role do circles play in modeling the world around us?</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Give an argument to justify the formula for the circumference of a circle. Prove that all circles are similar. <p>Type(s) of Rigor:</p> <p>G.C.A.1 - Procedural Fluency, Conceptual Understanding</p> <p>G.CO.A.1 - Procedural Fluency</p> <p>G. GMD.A.1 - Conceptual Understanding</p>	<p>Textbook Lesson</p> <p>Lesson 10-1 – Circles and Circumference pp.683-691</p> <p><i>Optional: Use the following resources to ensure that the intended outcome and level of rigor of the standards are met.</i></p> <p>HS Flip Book with examples of each Standard</p> <p>Task(s)</p> <p>Illustrative Math: Similar Circles Task</p> <p>All Circles are Similar Task</p> <p><i>Instructional Videos (via eMATHInstruction)</i></p> <p>Unit 9 – Lesson 1 – Circle Terminology</p>	<p>Vocabulary</p> <p>Circle, center, radius, chord, diameter, congruent circles, concentric circles, circumference, pi, inscribed, circumscribed</p> <p>Writing in Math/Discussion</p> <p>p.690 #54</p> <p>Research and write about the history of pi and its importance to the study of geometry.</p>
<p>Domain: Circles (G.C)</p> <p>Cluster: Understand and apply theorems about circles</p>	<p>Essential Question(s)</p> <p>When lines intersect a circle, or within a circle, how do you find the measures of resulting</p>	<p>Textbook Lesson</p> <p>Lesson 10-2 Measuring Angles and Arcs pp.692-700</p>	<p>Vocabulary</p> <p>Central angle, arc, minor arc, major arc, semicircle, congruent arcs, adjacent arcs</p>



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT & RESOURCES	
<p>➤ G-C.A.2 Identify and describe relationships among inscribed angles, radii, and chords.</p>	<p>angles, arcs, and segments?</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Identify central angles, major arcs, minor arcs, and semicircles and find their measures. <p>Type(s) of Rigor: G.C.A.2 - Conceptual Understanding</p>	<p><i>Optional: Use the following resources to ensure that the intended outcome and level of rigor of the standards are met.</i></p> <p>HS Flip Book with examples of each Standard</p> <p>Task(s)</p> <p>Circles and their Relationships among Central Angles, Arcs and Chords (p. 15)</p> <p>Investigating Angle Relationships in Circles (pp. 46 & 52)</p> <p><i>Instructional Videos (via eMATHinstruction)</i></p> <p>Unit 9 – Lesson 1 – Circle Terminology</p>	<p>Writing in Math/Discussion</p> <p>p.699 #62</p> <p>Describe the three different types of arcs in a circle and the method for finding the measure each one.</p>
<p>Domain: Circles (G.C)</p> <p>Cluster: Understand and apply theorems about circles</p> <p>➤ G-C.A.2 Identify and describe relationships among inscribed angles, radii, and chords.</p>	<p>Essential Question(s)</p> <p>What are the relationships between arcs, chords, and diameters?</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Recognize and use relationships between arcs and chords. Recognize and use relationships between arcs, chords, and diameters. <p>Type(s) of Rigor: G.C.A.2 - Conceptual Understanding</p>	<p>Textbook Lesson</p> <p>Lesson 10-3 Arcs and Chords pp.701-708</p> <p><i>Optional: Use the following resources to ensure that the intended outcome and level of rigor of the standards are met.</i></p> <p>HS Flip Book with examples of each Standard</p> <p><i>Instructional Videos (via eMATHinstruction)</i></p> <p>Unit 9 – Lesson 4 – Intersecting Chords</p>	<p>Writing in Math/Discussion</p> <p>p.708</p> <p>Have students write a paragraph that explains how the lesson about angles and arcs helped them in the lesson about arcs and chords.</p> <p>Example Questions: 1</p>
<p>Domain: Circles (G.C)</p> <p>Cluster: Understand and apply theorems about circles</p>	<p>Essential Question(s)</p> <p>When lines intersect a circle, or within a circle, how do you find the measures of resulting</p>	<p>Textbook Lesson</p> <p>Lesson 10-4 Inscribed Angles pp.709-716</p>	<p>Vocabulary</p> <p>Inscribed angle, intercepted arc</p>



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT & RESOURCES	
<p>➤ G-C.A.2 Identify and describe relationships among inscribed angles, radii, and chords.</p>	<p>angles, arcs, and segments?</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Students will identify and describe relationships involving inscribed angles. Students will prove properties of angles for a quadrilateral inscribed in a circle. <p>Type(s) of Rigor: G.C.A.2 - Conceptual Understanding</p>	<p><i>Optional: Use the following resources to ensure that the intended outcome and level of rigor of the standards are met.</i></p> <p>HS Flip Book with examples of each Standard</p> <p>Task(s)</p> <p>Illustrative Math: Opposite angles in a cyclic quadrilateral</p> <p><i>Instructional Videos (via eMATHinstruction)</i></p> <p>Unit 9 – Lesson 2 – Inscribed Angles</p> <p>Unit 9 – Lesson 3 – More Work with Inscribed Angles</p> <p>Writing in Math/Discussion p.715 #50 Compare and contrast inscribed angles and central angles of a circle. If they intercept the same arc, how are they related?</p> <p>Example Questions: 2, 3</p>	
<p>Domain: Circles (G.C)</p> <p>Cluster: Understand and apply theorems about circles</p> <p>➤ G-C.A.2 Identify and describe relationships among inscribed angles, radii, and chords.</p> <p>➤ G-C.A.3 Construct the incenter and circumcenter of a triangle and use their properties to solve problems in context.</p> <p>Domain: Congruence (G.CO)</p> <p>Cluster: Make geometric constructions</p> <p>➤ G-CO.D.12 Make formal geometric constructions with a variety of tools and methods (compass and straightedge,</p>	<p>Essential Question(s)</p> <p>How can the properties of circles, polygons, lines and angles be useful when solving geometric problems?</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Students will identify and describe relationships among tangents and radii; Students will identify and describe relationships among circumscribed angles and central angles; Students will construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle. Students will construct the inscribed and circumscribed circles of a triangle. 	<p>Textbook Lessons</p> <p>Lesson 10-5 Tangents pp.718-725</p> <p>Extend Lesson 10-5 Geometry Lab: Inscribed and Circumscribed Circles, p. 726</p> <p><i>Optional: Use the following resources to ensure that the intended outcome and level of rigor of the standards are met.</i></p> <p>Eureka Math</p> <p>Eureka Math Geometry Module 5, Topic C, Lesson 11: Properties of Tangents</p> <p>Task(s)</p> <p>Tangent Lines and the Radius of a Circle Task</p> <p>GSE Analytic Geometry Unit 3: Circles and</p> <p>Vocabulary</p> <p>Tangent, point of tangency, common tangent</p> <p>Writing in Math/Discussion</p> <p>How many tangents can be drawn from a point outside a circle, from a point on a circle, and from a point inside a circle? Explain your reasoning.</p> <p>Example Questions: 4</p>	



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT & RESOURCES	
string, reflective devices, paper folding, dynamic geometric software, etc.).	<ul style="list-style-type: none"> Students will construct a tangent line from a point. <p>Type(s) of Rigor: G.C.A.2 - Conceptual Understanding G.C.A.3 - Conceptual Understanding, Procedural Fluency, Application G-CO.D.12 - Procedural Fluency</p>	<p>Volume (select from the tasks)</p> <p><i>Instructional Videos (via eMATHinstruction)</i></p> <p>Unit 9 – Lesson 5 – Tangents to a Circle</p>	
<p>Domain: Circles (G.C)</p> <p>Cluster: Understand and apply theorems about circles</p> <p>➤ G-C.A.2 Identify and describe relationships among inscribed angles, radii, and chords.</p>	<p>Essential Question(s)</p> <p>How can the properties of circles, polygons, lines and angles be useful when solving geometric problems?</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Students will find measures of angles formed by lines intersecting outside the circle and describe the relationships. Students will find measures of angles formed by lines intersecting on or inside a circle and describe the relationships; <p>Type(s) of Rigor: G.C.A.2 - Conceptual Understanding</p>	<p>Textbook Lesson</p> <p>Lesson 10-6 Secants, Tangents, and Angle Measures, pp. 727-735</p> <p><i>Optional: Use the following resources to ensure that the intended outcome and level of rigor of the standards are met.</i></p> <p>Eureka Math</p> <p>Eureka Math Geometry Module 5, Topic C Lesson 16: Similar Triangles in Circle-Secant (or Circle-Secant-Tangent) Diagrams</p> <p>Task(s)</p> <p>Chords, Secants, and Tangents Tasks, pp. 56 & 69</p> <p>GSE Analytic Geometry Unit 3: Circles and Volume (select from the tasks)</p> <p><i>Instructional Videos (via eMATHinstruction)</i></p> <p>Unit 9 – Lesson 6 – Tangent, Secants, and Their Angle Measures</p>	<p>Vocabulary</p> <p>Secant</p> <p>Ticket Out the Door</p> <p>Select examples and ask students to name the segments in the figure as they leave.</p>



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT & RESOURCES	
<p>Domain: Circles (G.C)</p> <p>Cluster: Understand and apply theorems about circles</p> <p>➤ G-C.A.2 Identify and describe relationships among inscribed angles, radii, and chords.</p>	<p>Essential Question(s)</p> <p>How can the properties of circles, polygons, lines and angles be useful when solving geometric problems?</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Students will find measures of segments that intersect in the interior of a circle and describe the relationships; Students will find measures of segments that intersect in the exterior of a circle and describe the relationships. <p>Type(s) of Rigor:</p> <p>G.C.A.2 - Conceptual Understanding</p>	<p>Textbook Lesson</p> <p>Lesson 10-7 Special Segments in Circles, pp. 736-742</p> <p>Instructional Videos (via eMATHinstruction)</p> <p>Unit 9 – Lesson 8 – Secant and Tangent Lengths</p>	<p>Vocabulary</p> <p>Chord segment, secant, external secant segment, tangent segment</p> <p>Writing in Math/Discussion</p> <p>Describe the relationship among segments in a circle when two secants intersect inside a circle.</p> <p>Ask students to describe how the lesson on secants, tangents, and angles (10-6) helped them better understand the lesson on special segments in a circle.</p>
<p>Arc Length, Sector Area, and Equations of Circles</p> <p>Use coordinates to prove simple geometric theorems algebraically</p> <p>(Allow approximately 1 week for instruction, review, and assessment)</p>			
<p>Domain: Expressing Geometric Properties with Equations (G.GPE)</p> <p>Cluster: Translate between the geometric description and the equation for a conic section</p> <p>➤ G-GPE.A.1 Know and write the equation of a circle of given center and radius using the Pythagorean Theorem.</p> <p>Domain: Expressing Geometric Properties with Equations (G.GPE)</p> <p>Cluster: Use coordinates to prove simple</p>	<p>Essential Question(s)</p> <p>How can the properties of circles, polygons, lines and angles be useful when solving geometric problems?</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Students will derive the equation of a circle given the center and the radius. Students will complete the square to find the center and radius of a circle by an equation. 	<p>Textbook Lesson</p> <p>Lesson 10-8 – Equations of Circles and Graphing Technology Lab 10.8 (using TI-Nspire), pp.743 - 749</p> <p>Optional: Use the following resources to ensure that the intended outcome and level of rigor of the standards are met.</p> <p>HS Flip Book with examples of each Standard</p> <p>Task(s)</p>	<p>Vocabulary</p> <p>Compound locus</p> <p>Writing in Math/Discussion</p> <p>Describe how the equation for a circle change if the circle is translated a units to the right and b units down.</p> <p>Example Questions: 5, 6, 7, 8, 9, 10, 18, 19</p>



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT & RESOURCES	
geometric theorems algebraically ■ G-GPE.B.2 Use coordinates to prove simple geometric theorems algebraically. Domain: Circles (G.C) Cluster: Find arc lengths and areas of sectors of circles ➤ G-C.B.4 Know the formula and find the area of a sector of a circle in a real-world context.	Type(s) of Rigor: G. GPE.A.1 - Procedural Fluency G. GPE.B.2 - Procedural Fluency G.C.B.4 - Procedural Fluency, Application	Equations of Circles Lesson GSE Analytic Geometry Unit 3: Circles and Volume (select from the tasks) <i>Instructional Videos (via eMATHinstruction)</i> Unit 9 – Lesson 9 – Equations of Circles	
Domain: Circles (G.C) Cluster: Understand and apply theorems about circles ➤ G-C.A.2 Identify and describe relationships among inscribed angles, radii, and chords.	Essential Question(s) When lines intersect a circle, or within a circle, how do you find the measures of resulting angles, arcs, and segments? Objective(s): <ul style="list-style-type: none"> Identify central angles, major arcs, minor arcs, and semicircles and find their measures. Type(s) of Rigor: G.C.A.2 - Conceptual Understanding	Textbook Lesson Lesson 10-2 Arc Length pp.692-700 <i>Optional: Use the following resources to ensure that the intended outcome and level of rigor of the standards are met.</i> HS Flip Book with examples of each Standard GSE Analytic Geometry Unit 3: Circles and Volume pp.:82, 91 <i>Instructional Videos (via eMATHinstruction)</i> Unit 10 – Lesson 2 – The Circumference of a Circle	Vocabulary Circumference and arc length
Domain: Expressing Geometric Properties with Equations (G.GPE) Cluster: Translate between the geometric description and the equation for a conic section ➤ G-GPE.A.1 Know and write the	Essential Question(s) How can the properties of circles, polygons, lines and angles be useful when solving geometric problems? Objective(s):	Textbook Lesson Lesson 11-3 – Areas of Circles, pp.782 – 788 <i>Optional: Use the following resources to ensure that the intended outcome and level of rigor of the standards are met.</i>	Vocabulary Sector of a circle, segment of a circle Writing in Math/Discussion



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT & RESOURCES	
<p>equation of a circle of given center and radius using the Pythagorean Theorem.</p> <p>Domain: Expressing Geometric Properties with Equations (G.GPE)</p> <p>Cluster: Use coordinates to prove simple geometric theorems algebraically</p> <p>■ G-GPE.B.2. Use coordinates to prove simple geometric theorems algebraically.</p> <p>Domain: Circles (G.C)</p> <p>Cluster: Find arc lengths and areas of sectors of circles</p> <p>➤ G.C.B.4 Know the formula and find the area of a sector of a circle in a real-world context.</p>	<ul style="list-style-type: none"> Students will derive a formula for the area of a sector of a circle; Students will find the area of circles and sectors of circles. <p>Type(s) of Rigor:</p> <p>G. GPE.A.1 - Procedural Fluency</p> <p>G. GPE.B.2 - Procedural Fluency</p> <p>G.C.B.4 - Procedural Fluency, Application</p>	<p>Eureka Math</p> <p>Eureka Math Geometry Module 3, Topic A, Lesson 4: Proving the Area of A Disk</p> <p>Task(s)</p> <p>Arc Length and Area of Sector Tasks, p. 82 & p.91</p> <p>GSE Analytic Geometry Unit 3: Circles and Volume (select from the tasks)</p> <p>ACT Practice</p> <p>Glencoe, pp.774-775</p> <p>Instructional Videos (via eMATHinstruction)</p> <p>Unit 10 – Lesson 4 – The Area of a Circle</p> <p>Unit 10 – Lesson 5 – Sectors of a Circle</p>	<p>If the radius of a circle doubles, will the measure of a sector of that circle double? Will double if the arc measure of that sector doubles?</p> <p>Ticket Out the Door</p> <p>Have students describe how to find the area of a circle, given its circumference.</p> <p>Example Questions: 11, 12, 13, 14, 15, 16, 17</p>
<p>Trigonometry with All Triangles</p> <p>(Allow approximately 1.5 weeks for instruction, review, and assessment)</p>			
<p>Domain: Similarity, Right Triangles and Trigonometry (G.SRT)</p> <p>Cluster: Define trigonometric ratios and solve problems involving right triangles</p> <p>■ G-SRT.C.8. Solve triangles.</p> <p>a. Know and use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.</p> <p>b. Know and use the Law of Sines and Law of Cosines to solve problems in real life situations. Recognize when</p>	<p>Essential Question(s)</p> <p>How do you find a side length or angle measure in any triangle?</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Students will use the Law of Sines to find missing sides and angles given two angles and any side or given two sides and an angle across from one of the sides of a triangle. Students will use the Law of Cosines to find missing sides and angles given two sides and an included angle or three sides of a 	<p>Textbook Lesson</p> <p>Lesson 8-6 – Law of Sines and Cosines pp.582-591</p> <p>Optional: Use the following resources to ensure that the intended outcome and level of rigor of the standards are met.</p> <p>Eureka Math</p> <p>Eureka Math Geometry Module 2, Topic E, Lesson 33: Applying the Laws of Sines and Cosines</p> <p>HS Flip Book with examples of each</p>	<p>Vocabulary</p> <p>Law of Sines, Law of Cosines</p> <p>Writing in Math/Discussion</p> <p>Draw and label a triangle that can be solved: a. using only the Law of Sines; b. using only the Law of Cosines. Explain why each triangle cannot be solved using the other Law.</p>



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

TN STATE STANDARDS	CONTENT	INSTRUCTIONAL SUPPORT & RESOURCES	
it is appropriate to use each.	triangle.	Standard	

DRAFT

RESOURCE TOOLKIT

■ Major Content

➤ Supporting Content

(star) Modeling Standard/Domain



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

<p>Textbook Resources</p> <p>ConnectED Site - Textbook and Resources Glencoe Video Lessons</p>	<p>Standards</p> <p>Common Core Standards - Mathematics Common Core Standards - Mathematics Appendix A HS Flip Book with examples of each Standard http://www.ccsstoolbox.org/ http://insidemathematics.org/index.php/high-school-geometry http://www.livebinders.com/play/play/454480 https://www.livebinders.com/play/play?id=464831 http://www.livebinders.com/play/play?id=571735 Tennessee Academic Standards for Mathematics Tennessee Assessment LiveBinder Achieve the Core Coherence Map Instructional Focus Documents-Geometry</p>	<p>Videos</p> <p>Math TV Videos The Teaching Channel Khan Academy Videos (Geometry) eMATHinstruction</p>
<p>Comprehensive Geometry Help:</p> <p>Online Math Learning (Geometry) NCTM Illuminations</p>	<p>ACT/SAT Testing</p> <p>ACT & SAT TN ACT Information & Resources ACT College & Career Readiness Mathematics Standards SAT Connections SAT Practice from Khan Academy</p>	<p>SEL Resources</p> <p>SEL Connections with Math Practices SEL Core Competencies The Collaborative for Academic, Social, and Emotional Learning (CASEL)</p>
<p>Tasks</p> <p>Edutoolbox (formerly TNCore) Tasks Inside Math Tasks Dan Meyer's Three-Act Math Tasks Illustrative Math Tasks UT Dana Center GSE Analytic Geometry Unit 3: Circles and Volume</p>		



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

April 2020

Suggested Lessons for the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Notes:
	2	3	4	5	6	Please use this suggested pacing as a guide. It is understood that teachers may be up to 1 week ahead or 1 week behind depending on their individual class needs.
	9	10	11	12	13 End of 3 rd Quarter	
	16	17	18	19	20	
Spring Break						
Lesson 10.1 Circles and Circumference	23	24	25	26	27	
Lesson 10.2 Measuring Angles and Arcs Lesson 10.3 Arcs and Chords	4 th Quarter Begins					
Lesson 10.4 Inscribed Angles Lesson 10.5 Tangents	30	31	1	2	3	



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

May 2020

Suggested Lessons for the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Notes:
Lesson 10-6 Secants, Tangents, and Angle Measures Lesson 10-7 Special Segments in Circles			1	2	3	<i>Please use this suggested pacing as a guide. It is understood that teachers may be up to 1 week ahead or 1 week behind depending on their individual class needs.</i>
Lesson 10-8 Equations of Circles and Graphing Technology Lab 10.8 Lesson 10.2 Arc Length	6	7	8	9	10 Spring Holiday/Good Friday (Out)	
Lesson 11-3 Areas of Circles EOC Review	13	14	15	16	17	
EOC Review	20	21	22	23	24	
EOC Review	27	28	29	30	1	



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

Suggested Lessons for the Week	Monday	Tuesday	Wednesday	Thursday	Friday	Notes:
					1	<i>Please use this suggested pacing as a guide. It is understood that teachers may be up to 1 week ahead or 1 week behind depending on their individual class needs.</i>
All Triangle Trigonometry Lesson 8.6 - The Law of Sines and Cosines Review of Major Content	4	5	6	7	8	
Review of Major Content Exam Review	11	12	13	14	15	
Exam Review Final Exams	18	19	20	21	22	
			Semester Exams	Semester Exams	Semester Exams 1/2 day students 4th Quarter ends	



Curriculum and Instruction – Mathematics

Quarter 4

Geometry

	25 <i>Memorial Day</i>	26	27	28	29	
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