Park Hill School District

Building Successful Futures • Each Student • Every Day

High School Accelerated Geometry Curriculum

Course Description: A rigorous study of plane and coordinate geometry recommended for the college bound student. This course will cover areas and volumes of plane and solid figures, coordinate geometry, and basic transformations in addition to the topics discussed in the regular Geometry class. Taught primarily through lecture, topics will be reinforced with daily assignments, projects, and real-life applications. An emphasis will be placed on expanding student mathematical vocabulary. During this intense study, students will develop visual skills and increase their ability to reason logically while preparing for success in higher-level math courses. In order to prepare for the higher-level math courses, we will be reviewing Algebra l topics. These topics will be expanded upon during Accelerated Algebra ll.

Scope and Sequence:

Time Frame (blocks)	Unit
10	Basics of Geometry & Parallel and Perpendicular Lines
6	Transformations
9	Congruent Triangles
6	Quadrilaterals and Other Polygons
5	Similarity
11	Right Triangles and Trigonometry
11	Circumference, Area, Surface Area, and Volume
8	Probability
Remainder	Circles

Curriculum Revision Tracking

Spring, 2022

- Adopted DESE Priority Standards
- Included Learning Targets and Success Criteria
- Updated units from:
  - Unit 1: Basic Geometry
  - Unit 2: Properties of 2-Dimensional Figures
  - Unit 3: Properties of Circles
  - Unit 4: Similarity
  - Unit 5: Properties of 3-Dimensional Figures
  - Unit 6: Transformations of Symmetry
  - Unit 7: Trigonometric Ratios and Pythagorean Theorem
  - Unit 8: Probability

  to

  - Unit 1: Basics of Geometry & Parallel and Perpendicular Lines
  - Unit 2: Transformations
  - Unit 3: Congruent Triangles
  - Unit 4: Quadrilaterals and other Polygons
  - Unit 5: Similarity
  - Unit 6: Right Triangles and Trigonometry
  - Unit 7: Circumference, Area, Surface Area, and Volume
  - Unit 8: Probability
  - Unity 9: Circles
  - Unit 10: Relationships within Triangles and Construction Project
- Updated scope, sequence and pacing to match newly updated units

Unit 1: Basics of Geometry & Parallel and Perpendicular Lines

Subject: HS Accelerated Geometry

Grade: 9, 10, 11, 12

Name of Unit: Essentials of Geometry

Length of Unit: 10 blocks

Overview of Unit: Students will learn precise definitions of line segment and angle, which are based on the undefined notions of point and line. They will make formal geometric constructions and find perimeters and areas of polygons in the coordinate plane. Students will also use geometric shapes, their measures, and their properties to describe objects. Students will then use precise definitions and prove geometric theorems.

Priority Standards for unit:

- G.CO.D.11 Construct geometric figures using various tools and methods.

Supporting Standards for unit:

- G.CO.A.1 Define angle, circle, perpendicular line, parallel line, line segment and ray based on the undefined notions of point, line, distance along a line and distance around a circular arc.
- G.CO.C.8 Prove theorems about lines and angles.
- G.GPE.B.4 Prove the slope criteria for parallel and perpendicular lines and use them to solve problems.
- G.GPE.B.5 Find the point on a directed line segment between two given points that partitions the segment in a given ratio.

Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
geometric figures using various tools and methods	Construct	Create	4

Essential Questions:

1. How can you represent a three-dimensional figure with a two-dimensional drawing?
2. What are the building blocks of geometry?
3. How can you describe the attributes of a segment or angle?
4. How do you prove that two lines are parallel or perpendicular?
5. What is the sum of the measures of the angles of a triangle?
6. How do you write the equation of a line in the coordinate plane?

Enduring Understanding/Big Ideas:

1. Three-dimensional objects can be represented with a two-dimensional figure using special drawing techniques.
2. Geometry is a mathematical system built on accepted facts, basic terms, and definitions.
3. Number operations can be used to find and compare the lengths of segments and the measures of angles.
4. Special angle pairs can be used to identify geometric relationships and to find angle measures.
5. Formulas can be used to find the midpoint and length of any segment in the coordinate plane.
6. Perimeter and area are two different ways of measuring the size of geometric figures.
7. Definitions establish meanings and remove possible misunderstanding.
8. Some attributes of geometric figures, such as length, area, volume, and angle measure, are measurable. Units are used to describe these attributes.
9. A coordinate system on a line is a number line on which points are labeled Corresponding to the real numbers.
10. A coordinate system in a plane is formed by two perpendicular number lines called the x- and y-axes, and the quadrants they form.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Plane Distance Formula Line Point Angle Hypothesis Conclusion Proof Conjecture	line segment acute angle right angle obtuse angle complementary angles supplementary angles conditional statement equivalent statements biconditional statement theorem parallel lines parallel planes transversal corresponding angles alternate interior angles alternate exterior angles consecutive interior angles perpendicular bisector

Resources for Vocabulary Development:

Textbook Resources

Unit Postulates and Theorems:

1.1 Ruler Postulate 1.2 Segment Addition Postulate 1.3 Protractor Postulate 1.4 Angle Addition Postulate

Big Ideas Chapters 1&3: Basics of Geometry & Parallel and Perpendicular Lines				
Standard	**Topic & Section**	**Suggested # of Blocks**	**Learning Target**	**Success Criteria**
G.CO.A.1, **G.CO.D.11**	1.1 Points, Lines, and Planes & 1.2 Measuring and Constructing Segments	1	Use defined terms and undefined terms, and measure and construct line segments.	· I can describe a point, a line, and a plane. · I can define and name segments and rays. · I can sketch intersections of lines and planes. · I can measure a line segment. · I can copy a line segment. · I can explain and use the Segment Addition Postulate.
G.CO.D.11	1.3 Using Midpoint and Distance Formulas	1	Find midpoints and lengths of segments.	· I can find lengths of segments. · I can construct a segment bisector. · I can find the midpoint of a segment.
G.CO.A.1, **G.CO.D.11**	1.5 Measuring and Constructing Angles	1	Measure, construct, and describe angles.	· I can measure and classify angles. · I can construct congruent angles. · I can find angle measures. · I can construct an angle bisector.
	1.6 Describing Pairs of Angles	1	Identify and use pairs of angles.	· I can identify complementary and supplementary angles. · I can identify linear pairs and vertical angles. · I can find angle measures in pairs of angles.

G.CO.A.1, G.CO.C.8, **G.CO.D.11**	3.1, 3.2, 3.3 Pairs of Lines, Angles, Parallel Lines, and Transversals	2	Understand lines, planes, and pairs of angles, and prove and use theorems about parallel lines.	· I can identify lines and planes. · I can identify parallel and perpendicular lines. · I can identify pairs of angles formed by transversals. · I can use properties of parallel lines to find angle measures. · I can prove theorems about parallel lines. · I can use theorems to identify parallel lines. · I can construct parallel lines. · I can prove theorems about identifying parallel lines.
G.CO.A.1, G.CO.C.8, G.GPE.B.4, G.GPE.B.5	3.4 Proofs with Perpendicular Lines, 3.5 Equations of Parallel and Perpendicular Lines	2	Prove and use theorems about perpendicular lines and partition a directed line segment and understand slopes of parallel and perpendicular lines.	· I can find the distance from a point to a line. · I can construct perpendicular lines and perpendicular bisectors. · I can prove theorems about perpendicular lines. · I can partition directed line segments using slope. · I can use slopes to identify parallel and perpendicular lines. · I can write equations of parallel and perpendicular lines. · I can find the distance from a point to a line.
Review & Assess		2	Review & Assess	

Engaging Scenarios

Engaging Scenarios: There are several options for engaging scenarios for this unit. They may be appropriate as a means for introducing concepts in the unit, as a unit-long project for attaching learning to, or as a culminating experience at the end of the unit.

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Unit 2: Transformations

Subject: HS Accelerated Geometry
Grade: 9, 10, 11, 12
Name of Unit: Transformations
Length of Unit: 6 blocks
Overview of Unit: Students will understand congruence and similarity in terms of transformations. Students will learn that rigid motions preserve distance and angle measure, whereas nonrigid transformations may change the shape or size of a figure. This chapter also establishes the approach of using rigid motions to identify congruent figures.

Priority Standards for unit:
- G.CO.A.5 Demonstrate the ability to rotate, reflect or translate a figure, and determine a possible sequence of transformations between two congruent figures.
- G.CO.B.6 Develop the definition of congruence in terms of rigid motions.
- G.CO.D.11 Construct geometric figures using various tools and methods.

Supporting Standards for unit:
- G.CO.A.2 Represent transformations in the plane and describe them as functions that take points in the plane as inputs and give other points as outputs.
- G.CO.A.3 Describe the rotational symmetry and lines of symmetry of two-dimensional figures.
- G.CO.A.4 Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.
- G.SRT.A.1 Construct and analyze scale changes of geometric figures.
- G.SRT.A.2 Use the definition of similarity to decide if figures are similar and to solve problems involving similar figures.

Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
the ability to rotate, reflect or translate a figure, and determine a possible sequence of transformations between two congruent figures.	Demonstrate	Knowledge	1
the definition of congruence in terms of rigid motions.	Develop	Create	4
geometric figures using various tools and methods.	Construct	Create	4

Essential Questions:

1. How can you change a figure's position without changing its size and shape?
2. How can you change a figure's size without changing its shape?
3. How can you represent a transformation in the coordinate plane?
4. How do you recognize congruence and similarity in figures?

Enduring Understanding/Big Ideas:

1. Transformations may be described geometrically or by coordinates. Symmetries of figures may be defined and classified by transformations.
2. A coordinate system in a plane is formed by two perpendicular number lines, called the x-and y-axes, and the quadrants they form. It is possible to verify some complex truths using deductive reasoning in combination with distance, midpoint, and slope formulas.
3. Visualization can help you see the relationships between two figures and help you connect properties of real objects with two-dimensional drawings of these objects.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Reflection Rotation Symmetry Scale Factor	transformation translation rigid motion glide reflection line symmetry rotational congruent figures dilation similar figures

Resources for Vocabulary Development:

Textbook Resources

Unit Postulates and Theorems:

4.1 Translation Postulate 4.2 Reflection Postulate 4.3 Rotation Postulate 4.1 Composition Theorem 4.2 Reflections in Parallel Lines Theorem 4.3 Reflections in Intersecting Lines Theorem

Big Ideas Chapter 4: Transformations				
Standard	**Topic & Section**	**Suggested # of Blocks**	**Learning Target**	**Success Criteria**
G.CO.A.2, G.CO.A.4, **G.CO.A.5**	4.1 Translations	1	Understand translations of figures.	· I can translate figures. · I can write a translation rule for a given translation. · I can explain what a rigid motion is. · I can perform a composition of translations on a figure.
G.CO.A.2, G.CO.A.4, **G.CO.A.5**	4.2 Reflections	1	Understand reflections of figures.	· I can reflect figures. · I can perform compositions with reflections. · I can identify line symmetry in polygons.
G.CO.A.2, G.CO.A.3, G.CO.A.4, **G.CO.A.5, G.CO.D.11, G.CO.B.6**	4.3 Rotations & 4.4 Congruence and Transformations	1	Understand rotations of figures and understand congruence transformations.	· I can rotate figures. · I can perform compositions with rotations. · I can identify rotational symmetry in polygons. · I can identify congruent figures. · I can describe congruence transformations. · I can use congruence transformations to solve problems.

G.CO.A.2, **G.CO.D.11**, G.SRT.A.1, G.SRT.A.2	4.5 Dilations & 4.6 Similarity and Transformations	1	Understand dilations of figures and similarity transformations.	· I can identify dilations. · I can dilate figures. · I can solve real-life problems involving scale factors and dilations. · I can perform similarity transformations. · I can describe similarity transformations. · I can prove that figures are similar.
Review & Assess		2		

Engaging Scenario

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- Students will be given parameters of a shape and will create a picture by rotating and transforming the shape (using Geogebra).

Unit 3: Congruent Triangles

Subject: HS Accelerated Geometry

Grade: 9, 10, 11, 12

Name of Unit: Congruent Triangles

Length of Unit: 9 blocks

Overview of Unit: Students will prove theorems about triangles and use the definition of congruence in terms of rigid motions to show that two triangles are congruent. Students will explain how the criteria for triangle congruence follows from the definition of congruence, and they will use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. Students will also use coordinates to prove theorems algebraically.

Priority Standards for unit:

- G.CO.D.11 Construct geometric figures using various tools and methods.
- G.SRT.B.4 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.
- G.GPE.B.3 Use coordinates to prove geometric theorems algebraically.

Supporting Standards for unit:

- G.CO.B.7 Develop the criteria for triangle congruence from the definition of congruence in terms of rigid motions.
- G.CO.C.9 Prove theorems about triangles.

Unwrapped Concepts (Students need to know)	**Unwrapped Skills (Students need to be able to do)**	**Bloom's Taxonomy Levels**	**Webb's DOK**
geometric figures using various tools and methods.	Construct	Apply	2
congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	Use	Understand	1
coordinates to prove geometric theorems algebraically.	Use	Understand	1

Essential Questions:

1. How do you identify corresponding parts of congruent triangles?
2. How do you show that two angles are congruent?
3. How can you tell whether a triangle is isosceles or equilateral?

Enduring Understanding/Big Ideas:

1. Visualization can help you connect properties of real objects with two-dimensional drawings of these objects.
2. Definitions establish meanings and remove possible misunderstanding. Other truths are more complex and difficult to see. It is often possible to verify complex truths by reasoning from simpler ones by using deductive reasoning.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
	interior angles exterior angles corresponding parts base base angles hypotenuse coordinate proof

Resources for Vocabulary Development:

Textbook Resources

Unit Postulates and Theorems:

5.1 Triangle Sum Theorem
5.2 Exterior Angle Theorem
Corollary 5.1 Corollary to the Triangle Sum
5.3 Properties of Triangle Congruence
5.4 Third Angles Theorem
5.5 Side-Angle-Side (SAS) Congruence Theorem
5.6 Base Angles Theorem
5.7 Converse of the Base Angles Theorem
Corollary 5.2 Corollary to the Base Angles Theorem
Corollary 5.3 Corollary to the Converse of the Base Angles Theorem
5.8 Side-Side-Side (SSS) Congruence Theorem
5.9 Hypotenuse-Leg (HL) Congruence Theorem
5.10 Angle-Side-Angle (ASA) Congruence Theorem
5.11 Angle-Angle-Side (AAS) Congruence Theorem

Big Ideas Chapter 5: Congruent Triangles

Standard	Topic & Section	Suggested # of Blocks	Learning Target	Success Criteria
	5.1 Angles of Triangles	1	Prove and use theorems about angles of triangles.	· I can classify triangles by sides and by angles. · I can prove theorems about angles of triangles. · I can find interior and exterior angle measures of triangles.
G.CO.B.7	5.2 Congruent Polygons	1	Understand congruence in terms of rigid motions.	· I can use rigid motions to show that two triangles are congruent. · I can identify corresponding parts of congruent polygons. · I can use congruent polygons to solve problems.
G.CO.C.9, **G.CO.D.11**	5.3, 5.5, 5.6 Proving Triangle Congruence by SAS, SSS, HL, ASA, and AAS	2	Prove and use the Side-Angle-Side Congruence Theorem, the Side-Side-Side Congruence Theorem, the Angle-Side-Angle Congruence Theorem, and the Angle-Angle-Side Congruence Theorem.	· I can use rigid motions to prove the SAS, SSS, and ASA Congruence Theorems. · I can use the SAS, SSS, HL, ASA, and AAS Congruence Theorems.
G.CO.C.9, **G.CO.D.11**	5.4 Equilateral and Isosceles Triangles	1	Prove and use theorems about isosceles and equilateral triangles.	· I can prove and use theorems about isosceles triangles. · I can prove and use theorems about equilateral triangles.
G.CO.C.9, **G.CO.D.11**, **G.SRT.B.4**	5.7 Using Congruent Triangles	1	Use congruent triangles in proofs and to measure distances.	· I can use congruent triangles to prove statements. · I can use congruent triangles to solve real-life problems. · I can use congruent triangles to prove constructions.

G.CO.C.9, **G.GPE.B.3**	5.8 Coordinate Proofs	1	Use coordinates to write proofs.	· I can place figures in a coordinate plane. · I can write plans for coordinate proofs. · I can write coordinate proofs.
Review & Assess		2		

Engaging Scenario

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Unit 4: Quadrilaterals and Other Polygons

Subject: HS Accelerated Geometry
Grade: 9, 10, 11, 12
Name of Unit: Quadrilaterals and Other Polygons
Length of Unit: 6 blocks
Overview of Unit:
Students will prove theorems about parallelograms. They will also use coordinates and properties of trapezoids and kites to find measures.

Priority Standards for unit:

- G.SRT.B.4 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.
- G.CO.C.10 Prove theorems about polygons.

Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	Use	Understand	1
theorems about polygons.	Prove	Create	4

Essential Questions:

1. How can you find the sum of the measures of polygon angles?
2. How can you classify quadrilaterals?
3. How can you use coordinate geometry to prove general relationships?

Enduring Understanding/Big Ideas:

1. Some attributes of geometric figures, such as length, area, volume, and angle measure, are measurable. Units are used to describe these attributes.
2. Definitions establish meanings and remove possible misunderstanding. Other truths are more complex and difficult to see. It is often possible to verify complex truths by reasoning from simpler ones using deductive reasoning.

3. A coordinate system in a plane is formed by two perpendicular lines, called the x- and y-axes. It is possible to verify some complex truths using deductive reasoning in combination with Distance, Midpoint, and Slope formulas.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Diagonal Rectangle Square	equilateral polygon equiangular polygon parallelogram rhombus trapezoid base angles isosceles trapezoid midsegment of a trapezoid kite

Resources for Vocabulary Development:
Textbook Resources

Unit Postulates and Theorems:

7.1 Polygon Interior Angles Theorem
Corollary 7.1 Corollary to the Polygon Interior Angles Theorem
7.2 Polygon Exterior Angles Theorem
7.3 Parallelogram Opposite Sides Theorem
7.4 Parallelogram Opposite Angles Theorem
7.5 Parallelogram Consecutive Angles Theorem
7.6 Parallelogram Diagonals Theorem
7.7 Parallelogram Opposite Sides Converse
7.8 Parallelogram Opposite Angles Converse
7.9 Opposite Sides Parallel and Congruent Theorem
7.10 Parallelogram Diagonals Converse
Corollary 7.2 Rhombus Corollary
Corollary 7.3 Rectangle Corollary
Corollary 7.4 Square Corollary
7.11 Rhombus Diagonals Theorem
7.12 Rhombus Opposite Angles Theorem
7.13 Rectangle Diagonals Theorem

7.14 Isosceles Trapezoid Base Angles Theorem
7.15 Isosceles Trapezoid Base Angles Converse
7.16 Isosceles Trapezoid Diagonals Theorem
7.17 Trapezoid Midsegment Theorem
7.18 Kite Diagonals Theorem
7.19 Kite Opposite Angles Theorem

Big Ideas Chapter 7: Quadrilaterals and Other Polygons

Standard	Topic & Section	Suggested # of Blocks	Learning Target	Success Criteria
	7.1 Angles of Polygons	1	Find angle measures of polygons.	· I can find the sum of the interior angle measures of a polygon. · I can find interior angle measures of polygons. · I can find exterior angle measures of polygons.
G.CO.C.10, G.SRT.B.4	7.2 Properties of Parallelograms	1	Prove and use properties of parallelograms.	· I can prove properties of parallelograms. · I can use properties of parallelograms. · I can solve problems involving parallelograms in the coordinate plane.
G.CO.C.10, G.SRT.B.4	7.4 Properties of Special Parallelograms	1	Explain the properties of special parallelograms.	· I can identify special quadrilaterals. · I can explain how special parallelograms are related. · I can find missing measures of special parallelograms. · I can identify special parallelograms in a coordinate plane.
G.CO.C.10, G.SRT.B.4	7.5 Properties of Trapezoids and Kites (+ Midsegment Theorem from 6.5)	1	Use properties of trapezoids and kites to find measures.	· I can identify trapezoids and kites. · I can use properties of trapezoids and kites to solve problems. · I can find the length of the midsegment of a trapezoid. · I can explain the hierarchy of quadrilaterals.
Review & Assess		2		

Engaging Scenario

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Unit 5: Similarity

Subject: HS Accelerated Geometry
Grade: 9, 10, 11, 12
Name of Unit: Similarity
Length of Unit: 6 blocks
Overview of Unit: Students will understand properties of similar figures and prove theorems involving similarity. Then they will use similar triangles to prove the slope criteria for parallel and perpendicular lines. Students will also learn to construct a point along a directed line segment that partitions the segment in a given ratio.

Priority Standards for unit:

- G.SRT.B.4 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.
- G.CO.D.11 Construct geometric figures using various tools and methods.

Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	Use	Understand	1
geometric figures using various tools and methods.	Construct	Apply	2

Essential Questions:

1. How do you use proportions to find side lengths in similar polygons?
2. How do you show two triangles are similar?
3. How do you identify corresponding parts of similar triangles?

Enduring Understanding/Big Ideas:

1. Two geometric figures are similar when corresponding lengths are proportional and corresponding angles are congruent.
2. Definitions establish meanings and remove possible misunderstanding. Other truths are more complex and difficult to see. It is often possible to verify complex truths by reasoning from simpler ones by using deductive reasoning.
3. Visualization can help you see the relationships between two figures and help you connect the properties of real objects with two-dimensional drawings of these objects.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
	similar figures similarity transformation corresponding parts proportion

Resources for Vocabulary Development:

Textbook Resources

Unit Postulates and Theorems:

8.1 Perimeters of Similar Polygons 8.2 Areas of Similar Polygons 8.3 Angle-Angle (AA) Similarity Theorem 8.4 Side-Side-Side (SSS) Similarity Theorem 8.5 Side-Angle-Side (SAS) Similarity Theorem 8.6 Triangle Proportionality Theorem 8.7 Converse of the Triangle Proportionality Theorem 8.8 Three Parallel Lines Theorem 8.9 Triangle Angle Bisector Theorem

Big Ideas Chapter 8: Similarity				
Standard	**Topic & Section**	**Suggested # of Blocks**	**Learning Target**	**Success Criteria**
G.SRT.A.1, G.SRT.A.2	8.1 Similar Polygons	1	Understand the relationship between similar polygons.	· I can use similarity statements. · I can find corresponding lengths in similar polygons. · I can find perimeters and areas of similar polygons. · I can decide whether polygons are similar.
G.SRT.A.3, **G.SRT.B.4**, G.GPE.B.4, G.GPE.B.5	8.2 Proving Triangle Similarity by AA, SSS, and SAS	1	Understand and use triangle similarity theorems	· I can use similarity transformations to prove the Angle-Angle Similarity Theorem. · I can use angle measures of triangles to determine whether triangles are similar. · I can prove triangle similarity using the Angle-Angle Similarity Theorem. · I can use the SSS and SAS Similarity Theorems to determine whether triangles are similar. · I can use similar triangles to prove theorems about slopes of parallel and perpendicular lines. · I can solve real-life problems using similar triangles.
G.CO.D.11, **G.SRT.B.4**	8.4 Proportionality Theorems	1	Understand and use proportionality theorems.	· I can use proportionality theorems to find lengths in triangles. · I can find lengths when two transversals intersect three parallel lines. · I can find lengths when a ray bisects an angle of a triangle.
G.GPE.B.5	Directed Line Segments	1	Understand and use directed line segments	· I can use directed line segments
Review & Assess		2		

Engaging Scenario

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Unit 6: Right Triangles and Trigonometry

Subject: HS Accelerated Geometry

Grade: 9, 10, 11, 12

Name of Unit: Right Triangles and Trigonometry

Length of Unit: 8 blocks

Overview of Unit: Students will prove and use theorems involving similarity. They will also define trigonometric ratios and solve problems involving right triangles.

Priority Standards for unit:

- G.SRT.B.4 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.
- G.SRT.C.7 Use trigonometric ratios and the Pythagorean Theorem to solve right triangles.
- G.CO.C.10 Prove theorems about polygons.

Supporting Standards for unit:

- G.CO.C.9 Prove theorems about triangles.
- G.SRT.C.5 Understand that side ratios in right triangles define the trigonometric ratios for acute angles.
- G.SRT.C.6 Explain and use the relationship between the sine and cosine of complementary angles.
- G.SRT.C.8 Derive the formula A = 1/2 ab sin(C) for the area of a triangle.

Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	Use	Understand	1
trigonometric ratios and the Pythagorean Theorem to solve right triangles	Use	Understand	1
theorems about polygons.	Prove	Create	4

Essential Questions:

1. How do you find a side length or angle measure in a right triangle?
2. How do trigonometric ratios relate to similar right triangles?

Enduring Understanding/Big Ideas:

1. Some attributes of geometric figures, such as length, area, volume, and angle measure, are measurable. Units are used to describe these attributes.
2. Two geometric figures are similar when corresponding lengths are proportional and corresponding angles are congruent.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
	angle of depression angle of elevation cosine law of cosines law of sines pythagorean triple sine tangent

Resources for Vocabulary Development:

Textbook Resources

Unit Postulates and Theorems:

9.1 Pythagorean Theorem 9.2 Converse of the Pythagorean Theorem 9.3 Pythagorean Inequalities Theorem 9.4 45°-45°-90° Triangle Theorem 9.5 30°-60°-90° Triangle Theorem 9.6 Right Triangle Similarity Theorem 9.7 Geometric Mean (Altitude) Theorem 9.8 Geometric Mean (Leg) Theorem 9.9 Law of Sines 9.10 Law of Cosines

Big Ideas Chapter 9: Right Triangles and Trigonometry				
Standard	**Topic & Section**	**Suggested # of Blocks**	**Learning Target**	**Success Criteria**
G.CO.C.9, G.CO.C.10	9.1 The Pythagorean Theorem	1	Understand and apply the Pythagorean Theorem.	· I can list common Pythagorean triples. · I can find missing side lengths of right triangles. · I can classify a triangle as *acute, right,* or *obtuse* given its side lengths.
	9.2 Special Right Triangles	1	Understand and use special right triangles.	· I can find side lengths in 45°- 45°- 90° triangles. · I can find side lengths in 30°- 60°- 90° triangles. · I can use special right triangles to solve real-life problems.
G.SRT.B.4	9.3 Similar Right Triangles	1	Use proportional relationships in right triangles.	· I can explain the Right Triangle Similarity Theorem. · I can find the geometric mean of two numbers. · I can find missing dimensions in right triangles.
G.SRT.C.5, G.SRT.C.6, G.SRT.C.8	9.4&5 Trigonometric Ratios	1	Understand and use the tangent, sine and cosine ratios.	· I can explain the tangent ratio. · I can find tangent ratios. · I can use tangent ratios to solve real-life problems. · I can explain the sine and cosine ratios. · I can find sine and cosine ratios. · I can use sine and cosine ratios to solve real-life problems.

G.SRT.C.7	9.6 Solving Right Triangles	1	Find unknown side lengths and angle measures of right triangles.	· I can explain inverse trigonometric ratios. · I can use inverse trigonometric ratios to approximate angle measures. · I can solve right triangles. · I can solve real-life problems by solving right triangles.
G.SRT.C.7, G.SRT.C.8	9.7 Law of Sines and Law of Cosines	1	Find unknown side lengths and angle measures of acute and obtuse triangles.	· I can find areas of triangles using formulas that involve sine. · I can solve triangles using the Law of Sines. · I can solve triangles using the Law of Cosines.
Review & Assess		2		

Engaging Scenario

Engaging Scenarios: There are several options for engaging scenarios for this unit. They may be appropriate as a means for introducing concepts in the unit, as a unit-long project for attaching learning to, or as a culminating experience at the end of the unit.

- Performance Task found in the Big Ideas Assessment Book (accessible in the physical Assessment Book, or the digital version in the Assess area of the Featured Chapter Resources after selecting the appropriate Chapter).
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Unit 7: Circumference, Area, Surface Area, and Volume

Subject: HS Accelerated Geometry

Grade: 9, 10, 11, 12

Name of Unit: Circumference, Area, Surface Area, and Volume

Length of Unit: 9 blocks

Overview of Unit: Students will explain and use the formulas for the circumference and area of a circle. They will derive the fact that the length of the arc intercepted by an angle is proportional to the radius and explain and use radian measure. Students will derive the formula for the area of a sector. They will also apply geometric concepts in modeling situations. Students will identify the shapes of cross sections of solids and solids generated by rotations of two-dimensional objects. They will explain and use volume formulas for cylinders, pyramids, cones, and spheres. Students will also apply geometric concepts in modeling situations, such as finding densities of various solids.

Priority Standards for unit:

- G.GMD.A.2 Use volume formulas for cylinders, pyramids, cones, spheres and composite figures to solve problems.

Supporting Standards for unit:

- G.CO.A.1 Define angle, circle, perpendicular line, parallel line, line segment and ray based on the undefined notions of point, line, distance along a line and distance around a circular arc.
- G.C.B.4 Derive the formula for the length of an arc of a circle.
- G.GMD.A.1 Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone.
- G.C.B.5 Derive the formula for the area of a sector of a circle.

Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom'T Taxonomy Levels	Webb's DOK
volume formulas for cylinders, pyramids, cones, spheres, and composite figures to solve problems.	Use	Apply	2

Essential Questions:

1. How do you find the area and perimeter of polygons and circles?
2. How do area and perimeters of similar polygons compare?
3. How can you determine the intersection of a solid and a plane?
4. How do you find the surface area and volume of a solid?

Enduring Understanding/Big Ideas:

1. Some attributes of geometric figures, such as length, area, volume, angle measure, are measurable. Units are used to describe these attributes.
2. Two geometric figures are similar when corresponding lengths are proportional and corresponding angles are congruent. Areas of similar figures are proportional to the squares of their corresponding lengths.
3. Visualization can help you connect properties of real objects with two-dimensional drawings of these objects.
4. Some attributes of geometric figures, such as length, area, volume, and angle measure, are measurable. Units are used to describe these attributes.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Density Volume Cross section Prism Pyramid Cone Sphere Cylinder	adjacent arcs apothem arc length central angle concentric circles congruent arcs composite figure diameter major arc minor arc radius sector of a circle segment of a circle face polyhedron surface area

Resources for Vocabulary Development:

Textbook Resources

Big Ideas Chapters 11 & 12: Circumference and Area & Surface Area and Volume

Standard	Topic & Section	Suggested # of Blocks	Learning Target	Success Criteria
G.CO.A.1, G.C.B.4, G.GMD.A.1, G.C.B.5	11.1 Circumference and Arc Length & 11.2 Areas of Circles and Sectors	1	Understand circumference, arc length, and radian measure, and find areas of circles and areas of sectors of circles.	· I can use the formula for the circumference of a circle to find measures. · I can find arc lengths and use arc lengths to find measures. · I can solve real-life problems involving circumference. · I can explain radian measure and convert between degree and radian measure. · I can use the formula for area of a circle to find measures. · I can find areas of sectors of circles. · I can solve problems involving areas of sectors.
G.GMD.A.1	11.3 Areas of Polygons	1	Find angle measures and areas of regular polygons.	· I can find areas of rhombuses and kites. · I can find angle measures in regular polygons. · I can find areas of regular polygons. · I can explain how the area of a triangle is related to the area formulas for rhombuses, kites, and regular polygons.
G.MG.A.1, G.MG.A.2, **G.MG.A.3**	11.4 Modeling with Area	1	Understand the concept of population density and modeling with area.	· I can explain what population density means. · I can find and use population densities. · I can use area formulas to solve problems.

G.GMD.B.3, G.GMD.B.4	12.1 Cross Sections of Solids & 12.7 Solids of Revolution	1	Describe and draw cross sections, and sketch and use solids of revolution.	· I can describe attributes of solids. · I can describe and draw cross sections. · I can solve real-life problems involving cross sections. · I can sketch and describe solids of revolution. · I can find surface areas and volumes of solids of revolution. · I can form solids of revolution in the coordinate plane.
G.GMD.A.1, **G.GMD.A.2**	12.2, 12.3, 12.4, 12.5 **Surface Area and Volume** of Prisms, Cylinders, Cones, Pyramids, and Spheres	2	Find and use **surface areas and volumes** of prisms, cylinders, cones, pyramids, and spheres.	· I can find surface areas and volumes of prisms, cylinders, cones, pyramids, and spheres.
G.MG.A.1, **G.MG.A.3**	12.6 Modeling with Surface Area and Volume	1	Understand the concept of density and modeling with volume.	· I can explain what density means. · I can use the formula for density to solve problems. · I can use geometric shapes to model objects. · I can solve modeling problems.
Review & Assess		2		

Engaging Scenario

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Unit 8: Probability

Subject: HS Accelerated Geometry

Grade: 9, 10, 11, 12

Name of Unit: Probability

Length of Unit: 7 blocks

Overview of Unit: Students will understand independent probability and conditional probability, use them to interpret data, and use probability rules to find probabilities of compound events.

Priority Standards for unit:

- G.CP.A.2 Understand the definition of independent events and use it to solve problems.
- G.CP.A.5 Recognize and explain the concepts of conditional probability and independence in a context.

Supporting Standards for unit:

- G.CP.A.1 Describe events as subsets of a sample space using characteristics of the outcomes, or as unions, intersections or complements of other events.
- G.CP.A.3 Calculate conditional probabilities of events.
- G.CP.A.4 Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two- way table as a sample space to decide if events are independent and to approximate conditional probabilities.
- G.CP.A.6 Apply and interpret the Addition Rule for calculating probabilities.
- G.CP.A.7 Apply and Interpret the general Multiplication Rule in a uniform probability model.
- G.CP.A.8 Use permutations and combinations to solve problems.

Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
the definition of independent events and use it to solve problems.	Understand	Understand	1
and explain the concepts of conditional probability and independence in a context.	Recognize	Understand	1

Essential Questions:

1. What is the difference between experimental probability and theoretical probability?
2. What is a frequency table?
3. What does it mean for an event to be random?

Enduring Understanding/Big Ideas:

1. Probability describes the likelihood that an event will occur. The probability of an event can range from 0 (impossible) to 1 (certain). Experimental probability is based on observation or trials of an experiment, while theoretical probability is based on what should happen mathematically. Combinations and permutations can be used to count the number of possible outcomes.
   - Probability is a measure of the likelihood that an event will occur
   - Counting techniques can be used to find all of the possible ways to complete different tasks or choose items from a list.
   - The probability of compound events can be found by using the probability of each part of the compound event.
2. A frequency table is a data display that shows how often an item appears in a particular category. Frequency tables can be used to calculate the relative frequencies of each item. A two-way frequency table, or contingency table, displays the frequencies of data in two different categories. Contingency tables can be used to find conditional probabilities.
   - Tables can be used to organize data by frequency and find probabilities.
   - Two-way frequency tables can be used to organize data and identify sample spaces to approximate probabilities.
   - Tables, tree diagrams, and formulas can be used to find conditional probability.
3. A random event has no bias or inclination toward any particular outcome. Random number tables and electronic random number generators can be used to model random events. In order to reach a fair decision, each possible choice must have the same probability of being selected. Expected value uses theoretical probability to tell you what you can expect in the long run, which can help you make more informed decisions.
4. Probability can be used to make fair decisions based on prior experience.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
	Combination Conditional probability Dependent events Experimental probability Theoretical probability Independent events Mutually exclusive events Permutation Sample Space

Resources for Vocabulary Development:

Textbook Resources

Big Ideas Chapter 13: Probabilities

Standard	Topic & Section	Suggested # of Blocks	Learning Target	Success Criteria
G.CP.A.1	13.1 Sample Spaces and Probability	1	Find sample spaces and probabilities of events.	· I can list the possible outcomes in a sample space. · I can find theoretical probabilities. · I can find experimental probabilities.
G.CP.A.4	13.2 Two-Way Tables and Probability	1	Use two-way tables to represent data and find probabilities.	· I can make two-way tables. · I can find and interpret relative frequencies and conditional relative frequencies. · I can use conditional relative frequencies to find probabilities.
G.CP.A.3, **G.CP.A.2, G.CP.A.5**	13.3 Conditional Probability & 13.4 Independent and Dependent Events	1	Find and use conditional probabilities and understand and find probabilities of independent and dependent events.	· I can explain the meaning of conditional probability. · I can find conditional probabilities. · I can make decisions using probabilities · I can explain how independent events and dependent events are different. · I can determine whether events are independent. · I can find probabilities of independent and dependent events.

G.CP.A.6, G.CP.A.7	13.5 Probability of Disjoint and Overlapping Events	1	Find probabilities of disjoint and overlapping events.	· I can explain how disjoint events and overlapping events are different. · I can find probabilities of disjoint events. · I can find probabilities of overlapping events. · I can solve real-life problems using more than one probability rule.
G.CP.A.8	13.6 Permutations and Combinations	1	Count permutations and combinations.	· I can explain the difference between permutations and combinations. · I can find numbers of permutations and combinations. · I can find probabilities using permutations and combinations.
Review & Assess		2		

Engaging Scenario

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Unit 9: Circles

Subject: HS Accelerated Geometry

Grade: 9, 10, 11, 12

Name of Unit: Circles

Length of Unit: 7

Overview of Unit: Students will understand and apply theorems about circles. They will translate between geometric descriptions and equations for circles and parabolas. Students will also write coordinate proofs involving circles.

Priority Standards for unit:

- G.CO.D.11 Construct geometric figures using various tools and methods.
- G.GPE.B.3 Use coordinates to prove geometric theorems algebraically.

Supporting Standards for unit:

- G.C.A.1 Prove that all circles are similar using similarity transformations.
- G.C.A.2 Identify and describe relationships among inscribed angles, radii, and chords of circles.
- G.CO.A.1 Define angle, circle, perpendicular line, parallel line, line segment and ray based on the undefined notions of point, line, distance along a line and distance around a circular arc.
- G.GPE.A.1 Derive the equation of a circle.

Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
geometric figures using various tools and methods.	Construct	Apply	2
coordinates to prove geometric theorems algebraically.	Use	Understand	1

Essential Questions:

1. How can you prove relationships between angles and arcs in a circle?
2. When lines intersect a circle, or within a circle, how do you find the measures Of resulting angles, arcs, and segments?
3. How do you find the equation of a circle in the coordinate plane?

Enduring Understanding/Big Ideas:

1. Definitions establish meanings and remove possible misunderstanding. Other truths are more complex and difficult to see. It is often possible to verify complex truths by reasoning from simpler ones by using deductive reasoning.
2. Some attributes of geometric figures, such as length, area, volume, and angle measure, are measurable. Units are used to describe these attributes.
3. It is possible to verify some complex truths on the coordinate plane using deductive reasoning in combination with distance, midpoint, and slope formulas.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
	chord inscribed angle intercepted arc point of tangency secant standard form of an equation of a circle tangent to a circle

Resources for Vocabulary Development:

Textbook Resources

Unit Postulates and Theorems:

10.1 Arc Addition Postulate 10.1 Tangent Line to Circle Theorem 10.2 External Tangent Congruence Theorem 10.3 Congruent Circles Theorem 10.4 Congruent Central Angles Theorem 10.5 Similar Circles Theorem 10.6 Congruent Corresponding Chords Theorem 10.7 Perpendicular Chord Bisector Theorem 10.8 Perpendicular Chord Bisector Converse 10.9 Equidistant Chords Theorem 10.10 Measure of an Inscribed Angle Theorem 10.11 Inscribed Angles of a Circle Theorem 10.12 Inscribed Right Triangle Theorem 10.13 Inscribed Quadrilateral Theorem 10.14 Tangent and Intersected Chord Theorem 10.15 Angles Inside the Circle Theorem 10.16 Angles Outside the Circle Theorem 10.17 Circumscribed Angle Theorem 10.18 Segments of Chords Theorem 10.19 Segments of Secants Theorem 10.20 Segments of Secants and Tangents Theorem

Big Ideas Chapter 10: Circles				
Standard	**Topic & Section**	**Suggested # of Blocks**	**Learning Target**	**Success Criteria**
G.CO.A.1, **G.CO.D.11**, G.C.A.2	10.1 Lines and Segments That Intersect Circles	Remainder of semester	Identify lines and segments that intersect circles and use them to solve problems.	· I can identify special segments and lines that intersect circles. · I can draw and identify common tangents. · I can use properties of tangents to solve problems.
G.CO.A.1, G.C.A.1, G.C.A.2	10.2 Finding Arc Measures		Understand arc measures and similar circles.	· I can find arc measures. · I can identify congruent arcs. · I can prove that all circles are similar.
G.C.A.2	10.3 Using Chords		Understand and apply theorems about chords.	· I can use chords of circles to find arc measures. · I can use chords of circles to find lengths. · I can describe the relationship between a diameter and a chord perpendicular to a diameter. · I can find the center of a circle given three points on the circle.
G.CO.D.11, G.C.A.2	10.4 Inscribed Angles and Polygons		Use properties of inscribed angles and inscribed polygons.	· I can find measures of inscribed angles and intercepted arcs. · I can find angle measures of inscribed polygons. · I can construct a square inscribed in a circle.
G.C.A.2	10.5 Angle Relationships in Circles		Understand angles formed by chords, secants, and tangents.	· I can identify angles and arcs determined by chords, secants, and tangents. · I can find angle measures and arc measures involving chords, secants, and tangents. · I can use circumscribed angles to solve problems.
Review & Assess		2		

Engaging Scenario

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Unit 10: Relationships within Triangles and Construction Project

Subject: HS Accelerated Geometry

Grade: 9, 10, 11, 12

Name of Unit: Relationships within Triangles and Construction Project

Length of Unit: Remainder of blocks in semester with 2 for review and assessment

Overview of Unit: Students will learn precise definitions of line segment and angle, which are based on the undefined notions of point and line. They will make formal geometric constructions and find perimeters and areas of polygons in the coordinate plane. Students will also use geometric shapes, their measures, and their properties to describe objects.

Priority Standards for unit:

- G.CO.D.11 Construct geometric figures using various tools and methods.
- G.GPE.B.3 Use coordinates to prove geometric theorems algebraically.
- G.CO.C.10 Prove theorems about polygons.
- G.SRT.B.4 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

Supporting Standards for unit:

- G.C.A.1 Prove that all circles are similar using similarity transformations.
- G.C.A.2 Identify and describe relationships among inscribed angles, radii, and chords of circles.
- G.CO.A.1 Define angle, circle, perpendicular line, parallel line, line segment and ray based on the undefined notions of point, line, distance along a line and distance around a circular arc.
- G.GPE.A.1 Derive the equation of a circle.

Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
geometric figures using various tools and methods.	Construct	Apply	2
coordinates to prove geometric theorems algebraically.	Use	Understand	1
theorems about polygons.	Prove	Create	4
congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	Use	Understand	1

Essential Questions:

1. How do you use coordinate geometry to find relationships within triangles?
2. How do you solve problems that involve measurement of triangles?

Enduring Understanding/Big Ideas:

1. A coordinate system in a plane is formed by two perpendicular number lines, called the x- and y-axes, and the quadrants they form. It is possible to verify some complex truths using deductive reasoning in combination with Distance, Midpoint, and Slope formulas.
2. Definitions establish meanings and remove possible misunderstanding. Other truths are more complex and difficult to see. It is often possible to verify complex truths by reasoning from simpler ones by using deductive reasoning.
3. Some attributes of geometric figures, such as length, area, volume, and angle measure, are measurable. Units are used to describe these attributes.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
	altitude centroid circumcenter concurrent equidistant incenter indirect proof median midsegment orthocenter

Resources for Vocabulary Development:
Textbook Resources

Unit Postulates and Theorems:

6.1 Perpendicular Bisector Theorem
6.2 Converse of the Perpendicular Bisector Theorem
6.3 Angle Bisector Theorem
6.4 Converse of the Angle Bisector Theorem
6.5 Circumcenter Theorem
6.6 Incenter Theorem
6.7 Centroid Theorem
6.8 Triangle Midsegment Theorem
6.9 Triangle Longer Side Theorem
6.10 Triangle Larger Angle Theorem
6.11 Triangle Inequality Theorem
6.12 Hinge Theorem
6.13 Converse of the Hinge Theorem

Big Ideas Chapter 10: Circles

Standard	Topic & Section	Suggested # of Blocks	Learning Target	Success Criteria
G.CO.C.8, G.CO.C.9, **G.CO.C.10**, **G.SRT.B.4**	6.1 Perpendicular and Angle Bisectors		Use theorems about perpendicular and angle bisectors.	· I can identify a perpendicular bisector and an angle bisector. · I can use theorems about bisectors to find measures in figures. · I can write equations of perpendicular bisectors.
G.CO.C.9, G.CO.C.10, **G.CO.D.11**, **G.SRT.B.4**, G.C.A.3, **G.GPE.B.3**	6.2 Bisectors of Triangles		Use bisectors of triangles.	· I can find the circumcenter and incenter of a triangle. · I can circumscribe a circle about a triangle. · I can inscribe a circle within a triangle. · I can use points of concurrency to solve real-life problems.
G.CO.C.9, G.CO.C.10, **G.CO.D.11**, **G.SRT.B.4**	6.3 Medians and Altitudes of Triangles		Use medians and altitudes of triangles.	· I can draw medians and altitudes of triangles. · I can find the centroid of a triangle. · I can find the orthocenter of a triangle.
G.CO.C.9, G.CO.C.10, **G.GPE.B.3**	6.4 The Triangle Midsegment Theorem		Find and use midsegments of triangles.	· I can use midsegments of triangles in the coordinate plane to solve problems. · I can solve real-life problems involving midsegments.

G.CO.C.9, G.CO.C.10	6.5 Indirect Proof and Inequalities in One Triangle		Write indirect proofs and understand inequalities in a triangle.	· I can write indirect proofs. · I can order the angles of a triangle given the side lengths. · I can order the side lengths of a triangle given the angle measures. · I can determine possible side lengths of triangles.
G.CO.C.9, G.CO.C.10	6.6 Inequalities in Two Triangles		Understand inequalities in two triangles.	· I can explain the Hinge Theorem. · I can compare measures in triangles. · I can solve real-life problems using the Hinge Theorem.
Review & Assess		2		

Engaging Scenario

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Unit of Study Terminology

Appendices: All Appendices and supporting material can be found in this course's shell course in the District's Learning Management System.

Assessment Leveling Guide: A tool to use when writing assessments in order to maintain the appropriate level of rigor that matches the standard.

Big Ideas/Enduring Understandings: Foundational understandings teachers want students to be able to discover and state in their own words by the end of the unit of study. These are answers to the essential questions.

Engaging Experience: Each topic is broken into a list of engaging experiences for students. These experiences are aligned to priority and supporting standards, thus stating what students should be able to do. An example of an engaging experience is provided in the description, but a teacher has the autonomy to substitute one of their own that aligns to the level of rigor stated in the standards.

Engaging Scenario: This is a culminating activity in which students are given a role, situation, challenge, audience, and a product or performance is specified. Each unit contains an example of an engaging scenario, but a teacher has the ability to substitute with the same intent in mind.

Essential Questions: Engaging, open-ended questions that teachers can use to engage students in the learning.

Priority Standards: What every student should know and be able to do. These were chosen because of their necessity for success in the next course, the state assessment, and life.

Supporting Standards: Additional standards that support the learning within the unit.

Topic: These are the main teaching points for the unit. Units can have anywhere from one topic to many, depending on the depth of the unit.

Unit of Study: Series of learning experiences/related assessments based on designated priority standards and related supporting standards.

Unit Vocabulary: Words students will encounter within the unit that are essential to understanding. Academic Cross-Curricular words (also called Tier 2 words) are those that can be found in multiple content areas, not just this one. Content/Domain Specific vocabulary words are those found specifically within the content.