Curriculum Map **Course: CP GEOMETRY**

Topic: Coordinate Geometry and Right Triangles

Key Learning(s): G.2.1.1

The student will be able to solve problems involving right triangles.

CC.2.3.HS.A.7, CC.2.2.HS.C.9

Optional Instructional Tools:

Unit Essential Question(s):

What are the different methods used to solve problems involving right triangles?

Concept: G.2.1.1.1 Use the Pythagorean theorem to write and/or solve problems involving right Triangles.	**Concept: G.2.1.1.2** Use trigonometric ratios to write and/or solve problems involving right triangles.	**Concept**
Lesson Essential Questions: How is the Pythagorean theorem used to write and/or solve problems involving right triangles?	**Lesson Essential Questions:** How are trigonometric ratios used to write and/or solve problems involving right triangles?	**Lesson Essential Questions:**
Vocabulary: Pythagorean Theorem, right triangles	**Vocabulary:** Trigonometric ratios, right triangle	**Vocabulary:**

Concept:	**Concept**	**Concept:**
Lesson Essential Questions:	**Lesson Essential Questions:**	**Lesson Essential Questions:**
Vocabulary:	**Vocabulary:**	**Vocabulary:**

Attached Document(s):

Additional Info:

Coordinate Geometry and Right Triangles

Topic:

Key Learning(s): G.2.1.2

The students will solve problems using analytic geometry.

CC.2.3.HS.A.11

Optional Instructional Tools:

Unit Essential Question(s):

How can you solve problems using analytic geometry?

Concept: G.2.1.2.1	**Concept: G.2.1.2.2**	**Concept: G.2.1.2.3**
Calculate the distance and/or midpoint between two points on a number line or on a coordinate plane.	Relate slope to perpendicularity and/or parallelism (limit to linear algebraic equations).	G.2.1.2.3 Use slope, distance, and/or midpoint between two points on a coordinate plane to establish properties of a 2-dimensional shape.
Lesson Essential Questions: How is the distance and/or midpoint calculated between two points on a number line or on a coordinate plane?	**Lesson Essential Questions:** What is the relationship between the slopes of parallel lines? What is the relationship between the slopes of perpendicular lines?	**Lesson Essential Questions:** How are the slope, distance, and/or midpoint between two points on a coordinate plane used to establish properties of a 2-dimensional shape?
Vocabulary: distance, midpoint	**Vocabulary:slope, parallel, perpendicular**	**Vocabulary:slope, distance, midpoint, 2-dimensional**

Concept:	**Concept:**	**Concept:**
Lesson Essential Questions: 1.	**Lesson Essential Questions:** 1.	**Lesson Essential Questions:**
Vocabulary:	**Vocabulary:**	**Vocabulary:**

Attached Document(s):

Additional Info:

Curriculum Map **Course: CP Geometry**

Topic: Measurement of Two-Dimensional Shapes and Figures

Key Learning(s): G.2.2.1

The students will use and/or compare measurements of angles

CC.2.3.HS.A3

Optional Instructional Tools:

Unit Essential Question(s):

How can you use and/or compare measurements of angles?

Concept: G.2.2.1.1 Use properties of angles formed by intersecting lines to find the measures of missing angles.	**Concept: G.2.2.1.2** Use properties of angles formed when two parallel lines are cut by a transversal to find the measures of missing angles.	**Concept:**
Lesson Essential Questions: How can the properties of angles formed by intersecting lines are used to find the measures of missing angles?	**Lesson Essential Questions:** How are the properties of angles formed when two parallel lines are cut by a transversal used to find the measures of missing angles?	**Lesson Essential Questions:**
Vocabulary:	**Vocabulary:**	**Vocabulary:**

Concept:	**Concept:**	**Concept:**
Lesson Essential Questions: 1.	**Lesson Essential Questions:** 1.	**Lesson Essential Questions:**
Vocabulary:	**Vocabulary:**	**Vocabulary:**

Attached Document(s):

Additional Info:

Measurement of Two-Dimensional Shapes and Figures

Topic:

Key Learning(s): G.2.2.2

The students will use and/or develop procedures to determine or describe measures of perimeter, circumference, and/or area.

CC.2.3.HS.A3,CC.2.3.HS.A.9

Unit Essential Question(s):

What are the procedures to determine or describe measures of perimeter, circumference, and/or area?

Optional Instructional Tools:

Concept: G.2.2.2.1	**Concept: : G.2.2.2.2**	**Concept: : G.2.2.2.3**
Estimate area, perimeter, or circumference of an irregular figure.	Find the measurement of a missing length, given the perimeter, circumference, or area.	Find the side lengths of a polygon with a given perimeter to maximize the area of the polygon.
Lesson Essential Questions: How do you estimate area, perimeter, or circumference of an irregular figure?	**Lesson Essential Questions:** How can you find the measurement of a missing length, given the perimeter, circumference, or area?	**Lesson Essential Questions:** How can you find the side lengths of a polygon with a given perimeter to maximize the area of the polygon?
Vocabulary:estimate, area, perimeter, circumference, irregular	**Vocabulary:perimeter, circumference, area**	**Vocabulary:polygon, perimeter, maximize, area**

Concept: G.2.2.2.4	**Concept: G.2.2.2.5**	**Concept:**
Develop and/or use strategies to estimate the area of a compound/composite figure.	Find the area of a sector of a circle.	
Lesson Essential Questions: How can you develop and/or use strategies to estimate the area of a compound/composite figure?	**Lesson Essential Questions:** How can you find the area of a sector of a circle?	**Lesson Essential Questions:**
Vocabulary:compound, composite figure	**Vocabulary:sector**	**Vocabulary:**

Attached Document(s):

Additional Info:

Measurement of Two-Dimensional Shapes and Figures

Topic:

Key Learning(s): G.2.2.3

The students will describe how a change in one dimension of a 2-dimensional figure affects other measurements of that figure.

CC.2.3.HS.A.8

Unit Essential Question(s):

Can you describe how a change in one dimension of a 2-dimensional figure affects other measurements of that figure?

Optional Instructional Tools:

Concept: G.2.2.3.1 Describe how a change in the linear dimension of a figure affects its perimeter, circumference, and area.	**Concept:**	**Concept:**
Lesson Essential Questions: How does changing the length of the radius of a circle affect the circumference of the circle?	**Lesson Essential Questions:** 1.	**Lesson Essential Questions:** 1.
Vocabulary:radius, circumference	**Vocabulary:**	**Vocabulary:**

Attached Document(s):

Additional Info:

Measurement of Two-Dimensional Shapes and Figures

Topic:

Key Learning(s): G.2.2.4

The students will apply probability to practical situations.

CC.2.3.HS.A.10

Optional Instructional Tools:

Unit Essential Question(s):

How can probability be applied to practical situations?

Concept: G.2.2.4.1 Use area models to find probabilities.	**Concept:**	**Concept:**
Lesson Essential Questions: How is area models used to find probabilities?	**Lesson Essential Questions:** 1.	**Lesson Essential Questions:** 1.
Vocabulary: models, probabilities	**Vocabulary:**	**Vocabulary:**

Concept:	**Concept:**	**Concept:**
Lesson Essential Questions: 1.	**Lesson Essential Questions:** 1.	**Lesson Essential Questions:**
Vocabulary:	**Vocabulary:**	**Vocabulary:**

Attached Document(s):

Additional Info:

Curriculum Map **Course: CP Geometry**

Topic: Measurements of Three-Dimensional Shapes and Figures

Key Learning(s): G.2.3.1

The students will use and/or develop procedures to determine or describe measures of surface area and/or volume.

CC.2.3.HS.A.12, CC.2.3.HS.A.14

Optional Instructional Tools:

Unit Essential Question(s):

What procedures can be developed to determine or describe measures of surface area and/or volume?

Concept: G.2.3.1.1 Calculate the surface area of prisms, cylinders, cones, pyramids, and/or spheres. Formulas are provided on a reference sheet.	**Concept: G.2.3.1.2** Calculate the volume of prisms, cylinders, cones, pyramids, and/or spheres. Formulas are provided on a reference sheet.	**Concept: G.2.3.1.3** Find the measurement of a missing length, given the surface area or volume.
Lesson Essential Questions: How can the surface area of prisms, cylinders, cones, pyramids, and/or spheres be calculated?	**Lesson Essential Questions:** How can the volume of prisms, cylinders, cones, pyramids, and/or spheres be calculated?	**Lesson Essential Questions:** How can the measurement of a missing length be found, given the surface area or volume?
Vocabulary:surface area, prism, cylinder,cone,sphere	**Vocabulary:volume,prisms,cylinders, Pyramids, spheres**	**Vocabulary:surface area, volume**

Concept:	**Concept:**	**Concept:**
Lesson Essential Questions: 1.	**Lesson Essential Questions:** 1.	**Lesson Essential Questions:**
Vocabulary:	**Vocabulary:**	**Vocabulary:**

Attached Document(s):

Additional Info:

Measurements of Three-Dimensional Shapes and Figures

Topic:

Key Learning(s): G.2.3.2

The students will be able to describe how a change in one dimension of a 3-dimensional figure affects other measurements of that figure.

CC.2.3.HS.A.13

Optional Instructional Tools:

Unit Essential Question(s):

How does a change in one dimension of a 3-dimensional figure affect other measurements of that figure?

Concept: G.2.3.2.1 Describe how a change in the linear dimension of a figure affects its surface area or volume	**Concept:**	**Concept:**
Lesson Essential Questions: How does changing the length of the edge of a cube affect the volume of the cube?	**Lesson Essential Questions:** 1.	**Lesson Essential Questions:** 1.
Vocabulary:cube, volume	**Vocabulary:**	**Vocabulary:**

Concept:	**Concept:**	**Concept:**
Lesson Essential Questions: 1.	**Lesson Essential Questions:** 1.	**Lesson Essential Questions:**
Vocabulary:	**Vocabulary:**	**Vocabulary:**

Attached Document(s):

Additional Info:

Curriculum Map **Course: CP GEOMETRY**

Topic: Properties of Circles, Spheres, and Cylinders

Key Learning(s): G.1.1.1

The students will identify and/or use parts of circles and segments associated with circles, spheres, and cylinders.

CC2.3.HS.A.13, CC.2.3.HS.A.8, CC.2.3.HS.A.9

Optional Instructional Tools:

Unit Essential Question(s): How can you identify and/or use parts of circles and segments associated with circles, spheres, and cylinders?

Concept: G.1.1.1.1 Identify, determine, and/ or use the radius, diameter, segment, and/ or tangent of a circle.	**Concept: G.1.1.1. 2** Identify, determine, and/or use the arcs, semicircles, sectors, and/or angles of a circle.	**Concept: G.1.1.1.3** Use chords, tangents, and secants to find missing arc measures or missing segment measures.
Lesson Essential Questions: How can you identify, determine, and/ or use the radius, diameter, segment, and/ or tangent of a circle?	**Lesson Essential Questions:** How can you identify, determine, and/or use the arcs, semicircles, sectors, and/or angles of a circle?	**Lesson Essential Questions:** How can you use chords, tangents, and secants to find missing arc measures or missing segment measures?
Vocabulary:radius, diameter, segment, tangent	**Vocabulary:arcs, semicircles, sectors, angles**	**Vocabulary:chords, tangents, secants**

Concept G.1.1.1.4 Identify and/or use the properties of a Sphere or cylinder.	**Concept:**	**Concept:**
Lesson Essential Questions: How can you identify and/or use the properties of a sphere or cylinder?	**Lesson Essential Questions:**	**Lesson Essential Questions:**
Vocabulary: sphere, cylinder	**Vocabulary:**	**Vocabulary:**

Attached Document(s):

Additional Info:

Curriculum Map **Course: CP GEOMERTY**

Topic: Properties of Polygons and Polyhedra

Key Learning(s): **G.1.2.1**

The students will recognize and/or apply properties of angles, polygons, and polyhedra.

CC.2.3.HS.A.3,CC.2.3.HS.A.13

Optional Instructional Tools:

Unit Essential Question(s): How can you recognize and/or apply properties of angles, polygons, and polyhedral?

Concept: G.1.2.1.1 Identify and/or use properties of triangles.	**Concept: G.1.2.1.2** Identify and/or use properties of quadrilaterals	**Concept: G.1.2.1.3** Identify and/or use properties of isosceles and equilateral triangles.
Lesson Essential Questions: How can you identify and/or use properties of triangles?	**Lesson Essential Questions:** How can you identify and/or use properties of quadrilaterals?	**Lesson Essential Questions:** How can you identify and/or use properties of isosceles and equilateral triangles?
Vocabulary:triangles	**Vocabulary:quadrilaterals**	**Vocabulary:isosceles, equilateral triangles**

Concept: G.1.2.1.4 Identify and/or use properties of regular polygons.	**Concept: G.1.2.1.5** Identify and/or use properties of pyramids and prisms.	**Concept:**
Lesson Essential Questions: How can you identify and/or use properties of regular polygons?	**Lesson Essential Questions:** How can you identify and/or use properties of pyramids and prisms?	**Lesson Essential Questions:**
Vocabulary:regular polygons	**Vocabulary:pyramids, prisms**	**Vocabulary:**

Attached Document(s):

Additional Info: