Pacing & Curriculum Guide

Geometry Honors – 1206320

Content:

Part I

Geometry Honors Course Description
Mathematical Thinking & Reasoning Standards
9-12 ELA & ELD Standards
Proficiency Scale Units Pacing Chart
Units At-A-Glance Calendar

Part II

Teacher & Student Critical Concept Units with B.E.S.T. standards embedded

REVISED ~ July 202

The Pacing Guide and Units Guides will be reviewed and revised as necessary every year.

Year at a Glance
SY 2024-25

	Classroom Expectations
	Unit 0: Algebra 1/ Prerequisite Skills Review
	Unit 1: Basics of Geometry and Constructions

Unit 3: Lines and Angles
Unit 4: Rigid Motions and Congruence
Unit 5: Triangle Congruence

Unit 5: Triangle

Approximate Time	Critical Concept Units	Benchmarks	Critical Concept Unit Overview – Level 3.0
10 days	5 Triangle Congruence	MA.912.GR.1.2 MA.912.GR.1.6 MA.912.GR.2.1 MA.912.GR.2.3 MA.912.GR.2.6 MA.912.GR.5.1 MA.912.LT.4.10 **Honors Only:** MA.912.GR.2.7	Students will: f Gal 11 S02 P00 Concepts and Properties of Triangles (Si) 4.9 (d) 6.5 (e) 2.4 (e) 5.6 (g) 1.0 (h) 2.2 (i) 5.1 (j) 1.8c 0 Tw ol (i)5.c Angle, Angle-Angle-Side, Angle-Angle and Hypotenuse-Leg. 0 8 3 Tc 0 Tw 5 (P)-2 (rov) 2.8 (ef) 1.8 (Grove

Approximate Time

	Approximate Time	Critical Concepts	Units	Benchmarks	Unit Overview
4th Quarter	11 days	Justifying Relationships in Polygons in Circles	11	MA.912.GR.1.3 MA.912.GR.5.2 MA.912.GR.5.3 MA.912.GR.6.3 MA.912.LT.4.10 **Honors only:** MA.912.GR.5.4	Students will: f

Geometry Honors

Teacher Critical Concept

Basics of Geometry and Constructions

UNIT 1

MA.912.GR.2.2
MA.912.GR.2.3
MA.912.GR.2.6
MA.912.GR.2.8
MA.912.GR.5.1
MA.912.GR.5.2
MA.912.GR.2.4 Honors Only

- Topic 4 : MA.912.GR.2.8 Apply an appropriate transformation to map one figure onto another to justify that the two figures are similar.
  ŠClarification 1: Instruction includes showing that corresponding sides are proportional and that corresponding angles are congruent.
- Topic 5: MA.912.GR.5.1 Construct a copy of a segment or angle.
  ŠClarification 1: Instruction includes using a compass, straight edge, string, reflective devices, paper folding or dynamic geometric software.
- Topic 6: MA.912.GR.5.2 Construct the bisector of a segment or an angle, including the perpendicular bisector of a line segment.
  Š &OD U L I L F D W L R Q , Q V W U X F W L R Q L Q F O X G H V X V L Q J D F R P S D V V V W U D L J K W H G J H V
  reflective devices, paper folding or dynamic geometric software.
- Topic 7: Honors Only - MA.912.GR.2.4 De termine symmetries of reflections, rotations and translations of geometric figures.
  - Clarification1: Instruction includes determining the order of each symmetry.
  - Clarification 2: Instruction includes the connection between

	9 Topic 3 and 4 : ŠDescribe a single transformation that was applied . ŠRecognize the relationship between corresponding sides and corresponding angles of congruent and similar figures. ŠWrite a congruency statement to relate corresponding parts after a transformation. Also write a similarity statement to relate corresponding parts after a dilation. 9 Topic 5 and 6: ŠConstruct and/or copy a line segment, an angle, bisector of a segment, perpendicular bisector and an angle bisector. ŠUse the segment addition and angle addition postulates. ŠUse rigid motions to show that a triangle formed by drawing two segments from the endpoints of a segment to a point on the perpendicular bisector is isosceles. 9 Topic 7: Honors Only ŠDetermine symmetries of reflections, rotations and translations.	• Rotation • Translation • Isometry • Ruler Postulate • Collinear Points • Segment Addition Postulate • Ray • Angle Addition Postulate	• Tessellation • Symmetry • Segment Bisector • Right Triangle • Isosceles Triangle • Perpendicular Bisector • Angle Bisector
1.5	Partial success at score 2.0 content, and major errors or omissions regarding score 3.0 content.		
1.0	With help, partial success at score 2.0, content and score 3.0 content.		
0.5	With help, partial success at score 2.0 content but not at score 3.0 content.		
0	Even with help, no success.		

Student Name:	Student Critical Concept Basics of Geometry and Constructions	UNIT 1

Optional Enrichment

[redacted]

[redacted]

[redacted]

	Determine symmetries of translation. 1.8: — Construct a copy of a line segment. Use the segment addition postulate. 1.9: — Construct a copy of an angle. Use the angle addition postulate. 1.10: — Construct the bisector of a segment. Use the definition of a midpoint to solve problems. 1.11: — Construct a perpendicular bisector. Use rigid transformations to show that any triangle formed by drawing two segments from the endpoints of a segment to a point on its perpendicular bisector is isosceles. — Use the properties of a perpendicular bisector to solve problems. 1.12: Construct an angle bisector.	
1.5	I have partial success at 2.0 content.	
1.0 0.5	With help, I have partial success at score 2.0, content and score 3.0 content.	

Teacher Critical Concept

Proofs and Logic

2.5	No major error or omissions regarding score 2.0 content, and partial success at score 3.0 content.	

The student will:

9 Topic 1:

ŠUnderstand the difference between a definition, postulate and theorem. Also, what the role of a proof is.

ŠRelate the properties of equality and congruence.

ŠUse inductive and deductive reasoning to complete proofs based on an assumption or given.

ŠRecognize a paragra ph, flowchart and two -column proofs.

9 Topic 2:

ŠWrite a conjecture and a counterexample.

ŠComplete and determine if an argument leads to a logical conclusion. Reflect on the mathematical thinking found in a proof.

ŠBe able to /MCID 21 >>BDC /C4>uCID 21 >>BDC /C4>uC.

2.0

Proficiency Scales

Student Name:	Student Critical Concept Proofs and Logic	UNIT 2
M.C. Formative Assessment Name: DFA Geo Honors Unit 2 Proofs and Logic	My Score:	MA.912.GR.1.1 MA.912.LT.4.10 MA.912.LT.4.3

		Resources & Assignments
4.0 Optional Enrichment	By the end of the unit, I will be able to: Be able to complete paragraph proofs, two -column proofs and flowchart proofs for the concepts previously learned.	
3.5	I have mastered 3.0 content and with help I am successful at 4.0 content .	

By the end of the unit, I will be able to:

☐ Goal 1-

3.0

Proficiency Scales

I can:

2.1:

- [ ] Distinguish between definition, postulate, and theorem.
- [ ] Understand the role of proof.
- [ ] Relate properties of equality to the properties of congruence.

2.2:

- [ ] Write a conjecture.
- [ ] Write a counterexample.
- [ ] Use inductive and deductive reasoning.

2.3:

- [ ] Complete an argument that leads to a logical conclusion.
- [ ] Determine if an argument leads to a logical conclusion.

2.4:

- [ ] Identify the hypothesis of a statement.
- [ ]

2.0

Geometry Honors	Teacher Critical Concept Lines and Angles	UNIT 3
	M.C. Formative Assessment Name: DFA Geo Honors Unit 3 Lines and Angles	MA.912.GR.1.1 MA.912.LT.4.10 MA.912.LT.4.3

4.0	The student will: 9 Understand the relationships and theorems about lines, angles and continue their understanding of proofs.	Resources & Assignments

3.5

Proficiency Scales

Student Name:	Student Critical Concept Lines and Angles	**UNIT 3**
M.C. Formative Assessment Name: DFA Geo Honors Unit 3 Lines and Angles	**My Score:**	MA.912.GR.1.1 MA.912.LT.4.10 MA.912.LT.4.3

		Resources & Assignments
4.0 Optional Enrichment	**By the end of the unit, I will be able to:** **Understand the relationships and theorems about lines, angles and continue their understanding of proofs.**	
3.5	I have mastered 3.0 content and with help I am successful at 4.0 content	

	Topic 4: MA.912.GR.2.5 Given a geometric figure and a sequence of transformations, draw the transformed figure on a coordinate plane. o Clarification 1: Transformations include translations, dilations, rotations and reflections described using words or coordinates. o Clarification 2: Instruction includes two or more transformations. **Topic 5: MA.912.GR.2.6 Apply rigid transformations to map one figure onto another to justify that two figures are congruent.** Š Clarification 1: Instruction Includes showing that the corresponding angles are Congruent.	
2.5	No major error or omissions regarding score 2.0 content, and partial success at score 3.0 content.	

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The student will:

Topic 1:

Š Relate a translation, rotation and reflection on the coordinate plane to an algebraic notation of the transf.6Bar[(13.3 (7 l13 Tdcoy)57.0

2.0

Student Name:

Student Critical Concept

Rigid Motions and Congruence

UNIT 4

Optional Enrichment

Geometry Honors	Teacher Critical Concept Triangle Congruence	**Unit 5**
	M.C. Formative Assessment Name: **DFA Geo Honors**	MA.912.GR.1.2, MA.912.GR.1.6, MA.912.GR.2.1, MA.912.GR.2.3, MA.912.GR.2.6, MA.912.GR.5.1, MA.912.LT.4.10 **MA.912.GR.2.7 Honors Only**

	Topic 4: MA.912.GR.2.3 Identify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure. o Clarification 1: Instruction includes the understanding that when a figure is mapped onto itself using a reflection,, it occurs over a line of symmetry. **Topic 5: MA.912.GR.2.6 Apply rigid transformations to map one figure onto another to justify that the two figures are congruent.** o Clarification 1: Instruction includes showing that the corresponding sides and the corresponding angles are congruent. **Topic 6: MA.912.GR.5.1 Construct a copy of a segment or angle.** o Clarification 1: Instruction includes using compass and straightedge, string, reflective devices, paper folding or dynamic geometric software. **Topic 7: Honors Only - MA.912.GR.2.7 Justify the criteria for triangle congruence using the definition of congruence in terms of rigid transformations.**	
2.5	No major error or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
2.0	**The student will:** **Topic 1:** o Use constructions to determine if SAS congruence can be used to show that two triangles are congruent. o Use constructions to determine if ASA congruence can be used to show that two triangles are congruent. o Use constructions to determine if SSA congruence can be used to show that two triangles are congruent. o Use constructions to determine if AAS congruence can be used to show that two triangles are congruent. o Be able to determine if HL congruence can be used to show that two triangles are congruent using deduction. o Be able to prove two triangles are congruent using SSS, SAS, ASA, AAS, or HL congruence. o Understand how to use corresponding parts of congruent triangles in a proof. o Be able to prove parts of triangles are congruent using triangle congruence and corresponding parts of congruent triangles. **Topic 2:** o Be able to solve mathematical and real-world problems involving congruence o Be able to use corresponding parts of congruent triangles to write congruence statements. **Topic 3:** o Use constructions and transformations to determine if SSS congruence can be used to show that two triangles are congruent.	**The student will recognize or recall specific vocabulary:** • Side-Side-Side (SSS) • Side-Angle-Side (SAS) • Angle-Side-Angle (ASA) • Hypotenuse-Leg (HL) • Angles • Congruence • Rigid Motions • Transformation • Corresponding Parts of Congruent Triangles are Congruent (CPCTC) • Corresponding parts of congruent polygons are congruent

Topic 4:

- Be able to use definitions, properties, postulates, and theorems to draw conclusions about triangles from given information.

Topic 5:

- Be able to relate the definition of congruence in terms of rigid motions to

I can:

5.1:

- ☐ Use constructions to determine if SSS congruence can be used to show that two triangles are congruent.

5.2:

- ☐ Use constructions to determine if SAS congruence can be used to show that two triangles are congruent.
- ☐ Use constructions to determine if ASA congruence can be used to show that two triangles are congruent.
- ☐ Use constructions to determine if SSA congruence can be used to show that two triangles are congruent.

5.3:

- ☐

2.0

5.8:

- ☐ Prove two triangles are congruent using SSS, SAS, ASA, AAS, or HL congruence.
- ☐

Geometry Honors	Teacher Critical Concept Dilations and Similarity	**Unit 6** MA.912.GR.1.2, MA.912.GR.1.6, MA.912.GR.2.1, MA.912.GR.2.2, MA.912.GR.2.3, MA.912.GR.2.5, MA.912.GR.2.8 **Honors Only**

- Clarification 1: Instruction includes the understanding that when a figure is mapped onto itself using a reflection it occurs over a line of symmetry.

Topic

- Describe a dilation by giving the scale factor and center of dilation.
- Describe a sequence of transformations that includes a dilation.
- Represent a sequence of transformations using coordinate notation with algebraic descriptors.

Topic 2:

- Use a description of a sequence of transformations to determine if the transformation does or does not preserve distance.
- Draw a sequence of transformations to determine if the transformation does or does not preserve distance.
- Identify transformations that do or do not preserve distance.

Topic 3:

- Describe and represent a sequence of transformations that will map the preimage onto the image.

Topic 4:

- Draw the transformed figure when given a geometric figure and a sequence of transformations as a written description or an algebraic description.

Topic 5:

- Identify similar triangles and write similarity statements.
- Use given information to show that two triangles are similar.
- Use triangle similarity to prove triangles are similar.

	☐ **Goal 7 - Solve mathematical and real-world problems involving congruence or similarity in two-dimensional figures.** ☐ **Goal 8 - Honors Only - Justify the criteria for triangle similarity using the definition of similarity in terms of nonrigid transformations.** ☐ **Goal 9 - Honors Only - Apply transformations to prove that all circles are similar.** ☐ **Goal 10 - Honors Only - Construct proofs, including proofs by contradiction.**	
2.5	I have mastered 2.0 content and with help I am successful at 3.0 content.	

2.0

I can:

6.1:

- ☐ Write an algebraic description using coordinate notation of a dilation on a coordinate plane.
- ☐ Describe a dilation by giving the scale factor and center of dilation.

6.2:

- ☐ Describe a sequence of transformations that includes a dilation.
- ☐ Represent a sequence of transformations using coordinate notation with algebraic descriptors.

6.3:

- ☐ Use a description of a sequence of transformations to determine if the transformation does or does not preserve distance.
- ☐ Draw a sequence of transformations to determine if the transformation does or does not preserve distance.
- ☐ Identify transformations that do or do not preserve distance.

6.4:

- ☐ Represent a sequence of transformations that will map the preimage onto the image.
- ☐ Describe a sequence of transformations that will map the preimage onto the image.
- ☐ Identify transformations that do or do not preserve distance.
- ☐ Use a description of a sequence of transformations to determine if the transformation does or does not preserve distance.

I will be able to recognize or recall specific vocabulary:

[redacted]	**6.5:** ☐ Draw the transformed figure when given a geometric figure and a sequence of transformations as a written description or an algebraic description. **6.6:** ☐ Map one similar figure onto another and justify that the figures are similar. ☐ Describe a sequence of transformations that will map the preimage onto the image. **6.H1:** ☐ Justify that two circles are similar and conclude that any circle can be mapped to another circle using similarity transformations. **6.H2:** ☐ Use proof by contradiction to justify that all circles are similar. **6.7:** ☐ Identify similar triangles and write similarity statements. ☐ Use given information to show that two triangles are similar. **6.8:** ☐ Use triangle similarity to prove triangles are similar. **6.9:** ☐ Use triangle similarity to prove that triangles are similar. **6.H3:** ☐ Use the definition of similarity to justify that SSS similarity, SAS similarity, and AA similarity are sufficient to show that two triangles are similar. **6.10:** ☐ Solve mathematical and real-world problems using corresponding angles and sides of similar figures. **6.11:** ☐ Solve mathematical problems involving similarity in two-dimensional figures.. **6.12:** ☐ Solve mathematical and real-world problems involving similarity in two-dimensional figures. **6.13:** ☐ Solve mathematical and real-world problems involving similarity in two-dimensional figures.	
1.5	I have partial success at 2.0 content.	
1.0	With help, I have partial success at score 2.0, content and score 3.0 content.	
0.5	With help, I have partial success at 2.0 content.	
0	Even with help, I have no success.	

Geometry Honors	Teacher Critical Concept Trigonometric Ratios **M.C. Formative Assessment Name:** **DFA Geo Honors Unit 7 Trigonometric Ratios**	**Unit 7** MA.912.T.1.1, MA.912.T.1.2, **Honors Only** **MA.912.T.1.3, MA.912.T.1.4**

		Resources & Assignments
4.0	**The student will:** **Use an understanding of the Pythagorean Theorem and similar triangles to develop and apply the definitions of sine, cosine, and tangent.**	
3.5	In addition to score 3.0 performance, partial success at score 4.0 content.	
3.0	**The student will:** **Topic 1: MA.912.T.1.1 Define trigonometric ratios for acute angles in right triangles.** o Clarification 1: Instruction includes using the Pythagorean Theorem and using similar triangles to demonstrate that trigonometric ratios stay the same for similar right triangles. o Clarification 2: Instruction includes using the coordinate plane to make connections to the unit circle. o Clarification 3: Trigonometric ratios are limited to sine, cosine, and tangent. **Topic 2: MA.912.T.1.2 Solve mathematical and real-world problems involving right triangles using trigonometric ratios and the Pythagorean Theorem.** o Clarification 1: Instruction includes procedural fluency with the relationships of side lengths in special right triangles having angle measures of $30^0 – 60^0 – 90^0$ and $45^0 – 45^0 – 90^0$. **Topic 3: Honors Only - MA.912.T.1.3 Apply the Law of Sines and the Law of Cosines to solve mathematical and real-world problems involving**	

2.5	No major error or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
2.0	**The student will:** **Topic 1:** o Find the missing side of a right triangle using the Pythagorean Theorem. o Define sine and cosine using similar triangles. o Use the ratios of sine and cosine to define the tangent ratio. o Determine trigonometric ratios using the coordinate plane. o Use trigonometric ratios to find the side and an angle of a right triangle. o Use side ratios of 45-45-90 and 30-60-90 triangles to solve problems. o Explore relationships between the coordinates of vertices when the triangles are in different quadrants. **Topic 2:** o Use trigonometric ratios and the Pythagorean Theorem to solve mathematical and real-world problems. **Topic 3: Honors Only** o Solve mathematical and real-world problems involving triangles using the Law of Sines and the Law of Cosines. **Topic 4: Honors Only** o Find the area of a triangle using the sine ratio.	**The student will recognize or recall specific vocabulary:** • Hypotenuse • Pythagorean Theorem • Sine • Cosine • Tangent • Opposite Leg • Adjacent Leg • Slope • Reference Angle • Inverse Trigonometric Functions • Arccosine • Arcsine • Arctangent • Unit Circle • Polar Graph • Angle of Elevation • Angle of Depression **Honors Only** • Law of Sines • Law of Cosines
1.5	Partial success at score 2.0 content, and major errors or omissions regarding score 3.0 content.	
1.0	With help, partial success at score 2.0, content and score 3.0 content.	
0.5	With help, partial success at score 2.0 content but not at score 3.0 content.	
0	Even with help, no success.	

Proficiency Scales

Student Name:	Student Critical Concept Trigonometric Ratios	**UNIT 7**
M.C. Formative Assessment Name: DFA Geo Honors Unit 7 Trigonometric Ratios	**My Score:**	MA.912.T.1.1, MA.912.T.1.2, **Honors Only** **MA.912.T.1.3, MA.912.T.1.4**

By the end of the unit, I will be able to:

4.0 Optional Enrichment

2.5	No major error or omissions regarding score 2.0 content, and partial success at score 3.0 content.	

The student will:

Topic 0:

- Determine the interior angle sum of polygons with different number of sides.

Topic 1:

- Define a parallelogram.
- Prove opposite sides and opposite angles of a parallelogram are congruent.
- Prove consecutive angles of a parallelogram are supplementary.
- Prove diagonals of a parallelogram bisect each other.
- Be able to determine if a quadrilateral is a parallelogram using properties of a parallelogram.
- Prove rectangles are parallelograms.
- Use properties of parallelograms to identify special parallelograms.
- Use properties of a parallelogram, kites, and special parallelograms to solve mathematical problems.

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2.5	I have mastered 2.0 content and with help I am successful at 3.0 content.	
	I can:	**I will be able to recognize or recall specific vocabulary:**
	8.0: Determine the interior angle sum of polygons with different number of sides.	
	8.1: Define a parallelogram. Prove opposite sides and opposite angles of a parallelogram are congruent. Prove consecutive angles of a parallelogram are supplementary. Prove diagonals of a parallelogram bisect each other.	Parallelogram Kite Quadrilateral Rectangle
	8.2: Determine if a quadrilateral is a parallelogram using properties of a parallelogram.	Trapezoid Isosceles Trapezoid
2.0	**8.3:** Prove rectangles are parallelograms. Use properties of parallelograms to identify special parallelograms.	
	8.4: Use properties of a parallelogram, kites, and special parallelograms to solve real-world problems.	
	8.5: Prove relationships and theorems about trapezoids. Use relationships and theorems about trapezoids.	
	8.6: Use properties of parallelograms to solve real-world problems. Use properties of trapezoids to solve real-world problems.	
	8.7: Prove the trapezoid midsegment theorem. Use properties of trapezoids to solve mathematical and real-world problems.	

Geometry Honors	Teacher Critical Concept Two- and Three- Dimensional Shapes	**UNIT 9** MA.912.GR.4.1 MA.912.GR.4.2 MA.912.GR.4.3 MA.912.GR.4.4 MA.912.GR.4.5 MA.912.GR.4.6

	Topic 5: GR.4.3- Extend previous understanding of scale drawings and scale factors to determine how dilations affect the area of two-dimensional figures and the surface area or volume of three-dimensional figures.	
2.5	No major error or omissions regarding score 2.0 content, and partial success at score 3.0 content.	

Proficiency Scales

Student Name	Student Critical Concept Two- and Three- Dimensional Shapes	UNIT 9
M.C. Formative Assessment Name: DFA Geo Honors Unit 9 Two - and Three - Dimensional Shapes	My Score:	MA.912.GR.4.1 MA.912.GR.4.2 MA.912.GR.4.3 MA.912.GR.4.4 MA.912.GR.4.5 MA.912.GR.4.6

		Resources & Assignments
4.0 Optional Enrichment	By the end of the unit, I will be able to: Find the area, density, surface area, and volume of two - and three-dimensional shapes.	
3.5	I have mastered 3.0 content and with help I am successful at 4.0 content .	

By the end of the unit, I will be able to:

Goal 1 -

3.0

Proficiency Scales

I can:

9.1:

Solve mathematical and real-world problems involving the area of two-dimensional figures

9.2:

Solve real-world problems involving deriving area.

9.3:

Identify the shapes of two-dimensional cross-sections of three-dimensional figures

9.4:

Identify three-dimensional objects by nets of two-dimensional figures

9.5:

2.0

Understand that volume of a 3D figure is the total space occupied.
Use Cavalieri's principle to give informal arguments about the formulas for the volumes of right and oblique cylinders, prisms, pyramids, and cones

9.6:

Find the volumes of spheres, pyramids, prisms, and cylinders

9.7:

Use volume to solve problems in real-world applications problems

9.8:

Solve mathematical problems involving the surface areas of cylinders, pyramids, prisms, cones, and spheres
Solve mathematical problems involving the lateral areas of cylinders, pyramids, prisms, cones, and spheres

9.9:

Solve real-world problems involving the surface areas of cylinders, pyramids, prisms, cones, and spheres
Solve real-world problems involving the surface areas of prism figures

9.10:

Geometry Honors	Teacher Critical Concept Arc s and Angle Relationships in Circles M.C. Formative Assessment Name : DFA Geo Honors Unit 10 Arc s and Angle Relationships in Circles	UNIT 10 MA.912.GR.6.2 MA.912.GR.6.4 MA.912.GR.5.5 Honors Only

4.0	The student will: (9 Explore relationships that involve arc length and sectors.	Resources & Assignments

5 6

The student will:

9 Topic 1:

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

2.0

Geometry Honors	Teacher Critical Concept **Justifying Relationships in Polygons with Circles** M.C. Formative Assessment Name: DFA Geo Honors Unit 11 Justifying Relationships in Polygons with Circles	UNIT 11 MA.912.GR.1.3 MA.912.GR.5.3 MA.912.GR.6.3 MA.912.LT.4.10 MA.912.GR.5.2 MA.912.GR.5.4 - Honors only

		Resources & Assignments
4.0	The student will: 9 Explore relationships of figures inscribed in a circle as well as circumscribed circles.	
3.5	In addition to score 3.0 performance, partially assess a score 4.0 content.	
3.0	The student will: 9 Topic 1: MA.912.GR.1.3 - Prove relationships and theorems about triangles and solve mathematical and real-world problems involving postulates, relationships, and theorems of triangles. o Clarification 1: Postulates, relationships and theorems include measures of interior angles of a triangle sum to 180°, measures of a set of exterior angles of a triangle sum to 360°, triangle inequality theorem; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point. o Clarification 2: Instruction includes constructing two-column proofs, pictorial proofs, paragraph and narrative proofs, flowchart proofs or informal proofs. o Clarification 3: Instruction focuses on helping a student choose a method they can use reliably. 9 Topic 2: MA.912.GR.5.3 - Construct the inscribed and circumscribed circles of a triangle. (also assesses MA.912.GR.5.2) o Clarification 1: Instruction includes using a compass and straightedge, string, reflective devices, paper folding or dynamic geometric software. 9 Topic 3: MA.912.GR.6.3 - Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle. o Clarification 1: Instruction includes triangles in a circle and semicircle. 9 Topic 4: MA.912.GR.5.4 Honors Only - Construct a regular polygon inscribed in a circle (limited to triangles, quadrilaterals, and hexagons.) o Clarification 1: When given a circle, the center must be provided.	

	o Qualification 2: Instruction includes using a compass and straightedge, string, reflective devices, paper folding or dynamic geometric software.	
2.5	Major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	

The student will:

- Topic 1:
  - Show that the sum of the interior angles of a triangle is 180 degrees.
  - Show that the sum of the exterior angles of a triangle is 360 degrees.
  - Determine is a set of triangle side lengths can be used to construct a triangle
  - Use the triangle inequality theorem to prove relationships in triangles.
  - Find the centroid of a triangle.
  - Use the relationship of the distance centroid is from a vertex to the midpoint of the opposite side to solve problems.
  - Discover the triangle midsegment theorem using Similarity
  - Use the triangle midsegment theorem to prove relationships and to solve problems.
  - Solve mathematical and real-world problems involving postulates, relationships, and theorems of triangles.
- Topic 2:
  - State that a triangle's circumcenter is the point equidistant from all three vertices of the triangle.
  - Explain that a triangle's circumcenter is also the center of its circumscribed circle 28(0)1.2 (en)9(t)[illegible] 334.8[illegible]<00428[illegible]Explain that a tri:

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9 Topic 4 Honors Only:

Proficiency Scales

Student Name:	Student Critical Concept Justifying Relationships in Polygons with Circles	UNIT 11
M.C. Formative Assessment Name: DFA Geo Honors Unit 11 Justifying Relationships in Polygons with Circles	My Score:	MA.912.GR.1.3 MA.912.GR.5.2 MA.912.GR.5.3 MA.912.GR.6.3 MA.912.LT.4.10 MA.912.GR.5.4 Honors only

	By the end of the unit, I will be able to:	Resources & Assignments
4.0	Solve and prove relationships using figures inscribed and circumscribed circles.	
3.5	I have mastered 3.0 content and with help I am successful at 4.0 content.	

3.0

By the end of the unit, I will be able to:

- Goal 1 -Prove relationships and theorems about triangles and solve mathematical and real-world problems involving postulates, relationships, and theorems of triangles.
- Goal 2 - Construct the inscribed and circumscribed circles of a triangle.
- Goal 3 - Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.
- Goal 4 Honors Only - Construct a regular polygon inscribed in a circle (limited to

I can:

11.1:
‰ Construct the circumscribed circle of a triangle.
‰ Locate the circumcenter of a triangle.

11.2:
‰ Construct an inscribed circle in a triangle.
‰ Locate the incenter of a triangle.

11.3:
‰ Solve mathematical problems involving triangle s and quadrilaterals inscribed in a circle.

11.4:
‰ Solve mathematical problems involving quadrilaterals inscribed in a circle.

11.5:
‰ Show that the sum of the interior an gles of a triangle is 180 degrees.
‰ Show that the sum of the exterior angles of a triangle is 360 degrees.

2.0

11.6:
‰ Determine is a set of triangle side leng ths can be used to construct a triangle.
‰ Use the triangle inequality theorem to prove relationships in triangles.

11.7:
‰ Find the centroid of a triangle.
‰ Use the relationship of the distance a centroid is from a vertex to the midpoint of the opposite side to solve problems.

11.8:
‰ Discover the triangle midsegment theorem using AA similarity.
‰ Use the triangle midsegment theorem to pr obe relationships and to solve problems.

11.9:
‰ Solve mathematical and real-world problems involving postulates, relationships, and theorems of triangles.

11.H1:
‰ Construct an equilateral triangle inscribed in a circle.
‰ Construct a square inscribed in a circle.
‰ Cons9 -1lpJ /C2_0 1 T1es.

Proficiency Scales

Student Name:	Student Critical Concept Segment Relationships in Circles	UNIT 12
M.C. Formative Assessment Name: DFA Geo Honors Unit 12 Segment Relationships in Circles	My Score:	MA.912.GR.6.1 MA.912.GR.7.2 MA.912.GR.7.3

By the end of the unit, I will be able to:

4.0 Optional Enrichment

Prove the relationships b1e3raB-4.1 (e rel)-5.3 (ati)-1.7 (o)-9.4 (n)-4.1 -9.4 (n)-4.1 4.22 (o)-9.4 (n)mmTw 3.727 0 Td ((o)5.3 (reP)-2.2 f)-3 (th)

Proficiency Scales

I can:

12.1:

Solve mathematical and real -

2.0

Geometry Honors	Teacher Critical Concept Shapes on a Coordinate Plane M.C. Formative Assessment Name : DFA Geo Honors Unit 13 Shapes on a Coordinate Plane	UNIT 13 MA.912.GR.3.1 MA.912.GR.3.2 MA.912.GR.3.3 MA.912.GR.3.4 MA.912.GR.7.2

		Resources & Assignments
4.0	The student will: 9 Use coordinate geometry to apply relationships learned throughout the course.	

Proficiency Scales

2.0

I can:

13.1:

‰ Use coordinate geometry to identify parallel and perpendicular lines.

13.2:

‰ Use coordinate geometry to determine parts of a circle in a mathematical context.

‰ Draw a circle using given definitions, properties, and theorems in a mathematical context.

13.3:

‰ Determine whether a point is on the circumference of a circle, in a circle, or outside a circle.

‰ Find the center of a circle given two points.

‰ Write the equation of a circle given the endpoints of a diameter.

13.4:

‰ Use coordinate geometry to partition a line segment.

13.5:

‰