

Course: Geometry with Statistics Honors

If you have questions, please feel free to contact your teacher:

Amanda Martz amartz@greenville.k12.sc.us 355-6538	Erica Reese ereese@greenville.k12.sc.us 355-6519	Cody Younce dyounce@greenville.k12.sc.us 355-6541 Angel McGowan atmcgowan@greenville.k12.sc 355-6532	
Jennifer Wilson jwwilson@greenville.k12.sc.us 355-6649	Michael Wixted mwixted@greenville.k12.sc.us 355-6516		
Why is this course important? This course is needed to be successful in future mathematics courses, as well as ACT and SAT.	For course syllabus, please see your teacher's website.	Link to Course Standards	

Qua	ter 1	Quarter 2		
Week 1 Aug 11 - 15 Week 6 Sept 15 - 19		Week 10 Oct 13 - 17	Week 15 Nov 17 - 21	
Week 2 Aug 18 - 22	Week 2 Aug 18 - 22 Week 7 Sept 22 - 26		Week 16 Nov 24 - 28	
Week 3 Aug 25 - 29	Week 3 Aug 25 - 29 Week 8 Sept 29 - Oct 3		<u>Week 17 Dec 1 - 5</u>	
Week 4 Sept 1 - 5 Week 9 Oct 6 -10		Week 13 Nov 3 - 7	<u>Week 18 Dec 8 - 12</u>	
<u>Week 5 Sept 8 - 12</u>		Week 14 Nov 10 - 14	<u>Dec 15 - 19</u>	

	Monday	Tuesday	Wednesday	Thursday	Friday
Agenda	 Welcome to Geometry! Syllabus Course Expectations Evaluating Expressions Practice 	 One-Step Equations Two-Step Equations Distributive Property Practice Combining Like Terms Practice Variables on Both Sides Practice 	Multi-Step equationsPractice	 Solving Systems of Equations by Elimination Practice 	Quiz ReviewQuiz
Work to Submit	☐ Evaluating Expressions Practice (MathLib)	 One-step/Two-step/D istributive Property Practice (Worksheet) Combining Like Terms/Variables on Both Sides Practice (Worksheet) 	☐ Multi-Step Equations Practice (Worksheet)	☐ Solving Systems of Equations by Elimination Practice (Worksheet)	☐ Quiz Review ☐ Quiz 1
Learning Target	I can evaluate a given expression by recalling and applying the order of operations within a given problem.	I can solve equations when given problems involving distribution, combining like terms, and variables on both sides by using inverse operations in the correct sequence to isolate the variable.	I can apply the properties of equality to solve multi-step equations.	I can use the elimination method to solve a system of equations.	I can apply my knowledge attained throughout the week AEBMAT get an A on this first quiz.

8.PAFR.2. Write, simplify, and evaluate algebraic expressions; write and solve algebraic equations and inequalities.

	Monday	Tuesday	Wednesday	Thursday	Friday
Agenda	1.1 Points, Lines, Planes Notes & Practice 1.2 Segts and Meas. Notes & Practice	Finish 1.2 (if needed) 1.3 Midpoints & Bisectors Notes & Practice	Quiz Review Q&A	Quiz (30%) 1.4 Angles Notes & Practice	Finish 1.4 (if needed) 1.5 Angle Pairs Notes & Practice
Work to Submit	Practice will be checked for HW the next day.	Practice will be checked for HW the next day.	Quiz Review will be checked the next day.	Quiz Practice will be checked for HW the next day.	Practice will be checked for HW the next day.
Learning Target	I can list the 3 undefined terms in Geometry and name each using the correct notation by properly capitalizing or italicizing certain letters.	I can apply the properties of midpoints and bisectors to find missing lengths of a given segment.	← ————————————————————————————————————	I can name an angle and properly classify it based on its measure.	I can determine if a pair of angles has a special relationship and if so, apply the properties of that relationship to help solve problems.

GS.MGSR.5.1 Justify and apply the attributes of angle relationships/lines in mathematical and real-world situations.

Agenda	1 N
Work to Submit	f
Learning Target	I p e w

Monday	Tuesday	Wednesday	Thursday	Friday
1.5b Angles w/ WP Notes & Practice	Quiz Review	Quiz: 1.4 - 1.5 (30%)	Test Review	Test: Chapter 1 (60%)
Practice will be checked for HW the next day.	Quiz Review will be checked for HW the next day.	Quiz	Test Review will be checked for HW the next day.	Test
I can translate a word problem into a solvable equation by locating key words within the problem and translate them into operations.	← ————————————————————————————————————	← ————————————————————————————————————	← ————————————————————————————————————	← ————————————————————————————————————

GS.MGSR.5.1 Justify and apply the attributes of angle relationships/lines in mathematical and real-world situation

Week: Sept 1 - 5

Unit 2: Parallel and Perpendicular Lines

	Monday School Holiday	Tuesday	Wednesday	Thursday	Friday
Agenda		 Notes 2.1 Special Lines & Angles Notes 2.2 Parallel Lines Theorems Practice 	Finish Notes 2.22.2 PracticeQuiz Review	 Vocab Practice [on Formative] Go over answers to quiz review Quiz 	Notes: 2.3 Slope & Equations of Lines
Work to Submit		☐ 2.1 Formative	☐ 2.1-2.2 Practice ☐ Quiz Review	□ Quiz 4	☐ 2.3 Practice
Learning Target		I can differentiate between parallel and skew lines and identify special angle pairs formed by 2 lines and a transversal by analyzing a 2- or 3-dimensional diagram.	I can use Parallel Line Theorems and my algebra skills to find missing angle measures in a 2-dimensional figure.	I can use Parallel Line Theorems and my algebra skills to find missing angle measures in a 2-dimensional figure	I can use my algebra skills to find the y-intercept given the slope and any point on the line. I can then write the equation of a line in slope-intercept form.

Standards for the Week **GS.MGSR.5.1** Justify and apply the attributes of angle relationships/lines in mathematical and real-world situations.

	Monday	Tuesday	Wednesday	Thursday	Friday
a	Go over 2.3 Practice	Go over 2.4 Practice	Q&A on Quiz Review	Test Review: Unit 2	Test: Unit 2
Agenda	Notes: 2.4 Parallel & Perpendicular	Quiz Review: 2.3 - 2.4	Quiz 5: 2.3 - 2.4		
Work to Submit	2.3 Practice check	2.4 Practice check	Quiz		Test
Learning Target	I can write the equation of line, parallel or perpendicular to a given line that passes through a particular point.	I can determine the equations of lines from multiple forms and distinguish between what is parallel vs. perpendicular.	I can use my algebra skills to find the y-intercept given the slope and any point on the line. I can then write the equation of a line in slope-intercept form.	I can write the equation of line, parallel or perpendicular to a given line that passes through a particular point.	I can determine the equations of lines from multiple forms and distinguish between what is parallel vs. perpendicular.

GS.MGSR.5.1 Justify and apply the attributes of angle relationships/lines in mathematical and real-world situations.

GS.PAFR.2.2 Analyze slopes of lines to determine whether lines are parallel, perpendicular,or neither.

GS.PAFR.2.3 Determine the equation of a line passing through a given point that is parallel or perpendicular to a given line.

Week: Sept 15 - 19

Unit 3: Statistical Analysis / Unit 4: Transformations

	Monday	Tuesday	Wednesday	Thursday	Friday
Agenda	 Notes 3.1 Scatterplots and Lines of Best Fit Practice 	Notes 3.2 Statistical QuestioningPractice	Quiz ReviewQuiz 6	Notes 4.1 Distance and MidpointPractice	 Notes 4.2 Intro to Transformations Notes 4.3 Reflections Practice
Work to Submit	☐ 3.1 Practice (Worksheet)	☐ 3.2 Practice (Worksheet)	□ Quiz 6	☐ 4.1 Practice (Worksheet)	☐ 4.3 Practice (Worksheet)
Learning Target	I can describe the relationship between variables in a scatterplot, write an equation for a line of best fit, and distinguish between correlation and causation.	I can identify and write statistical questions and use the results to answer an investigative question.		I can use the distance and midpoint formulas to find the length and midpoint of a segment in the coordinate plane.	I can draw and describe the reflection of a figure across a line of reflection.

- **GS.DPSR.1.1** Represent data for two quantitative variables on a scatter plot and describe how the variables are related.
- **GS.DPSR.1.2** Use two representative points from the data to find an approximate line of fit and compare it to the line of best fit.
- **GS.DPSR.1.3** Conduct an investigation for a statistical question, interpret statistical significance in the context of a situation, and answer investigative questions appropriately.
- **GS.PAFR.3.2** Determine distance and midpoint of segments in a coordinate plane to find areas of triangles and quadrilaterals, when given coordinates.
- **GS.MGSR.2.1** Describe the results of transformations on a given figure using geometric terminology from the definitions of the transformations.
- **GS.MGSR.2.2** Describe and apply a sequence of transformations that maps a preimage onto its image.

	Monday	Tuesday	Wednesday	Thursday	Friday
Agenda	 Notes 4.4 Translations Notes 4.5 Rotations Practice 	 Notes 4.6 Dilations Notes 4.7 Compositions Practice 	Notes 4.8 SymmetryTest Review	Unit 4 Test	 Notes 5.1 Classifying Triangles Notes 5.2 Triangle Measurements Practice
Work to Submit	☐ 4.4 Practice (Worksheet)☐ 4.5 Practice (Worksheet)	☐ 4.4 Practice (Worksheet)☐ 4.5 Practice (Worksheet)	☐ Test Review	□ Unit 4 TEST	☐ 5.2 Formative
Learning Target	I can draw and describe the translation of a figure for a given vector. I can draw and describe the rotation of a figure for a given angle of rotation.	I can draw and describe the dilation of a figure for a given scale vector.	I can identify different types of symmetry in two-dimensional figures.		I can use triangle measurement theorems to find missing angle measures in triangles when given a diagram or verbal description.

GS.PAFR.3.2 Determine distance and midpoint of segments in a coordinate plane to find areas of triangles and quadrilaterals, when given coordinates.

GS.MGSR.2.1 Describe the results of transformations on a given figure using geometric terminology from the definitions of the transformations.

GS.MGSR.2.2 Describe and apply a sequence of transformations that maps a preimage onto its image.

GS.MGSR.5.2 Apply the attributes of triangles in mathematical and real-world situations.

Week: Sept 29 - Oct 3

Unit 5: Triangle Measurement & Congruence

	Monday	Tuesday	Wednesday	Thursday	Friday
Agenda	5.1-5.2 Extra PracticeQuiz Review	Go over quiz review answersQuiz 7Begin 5.3 Notes	 Notes 5.3 Congruent Triangles Notes 5.4 Triangle Congruence Criteria Practice 	Worksheet 5.4BQuiz Review	Go over quiz review answersQuiz 8
Work to Submit	□ 5.1-5.2 Extra Practice Worksheet□ Quiz Review	□ Quiz 7	☐ 5.3-5.4 Practice (Worksheet)	☐ Quiz Review	□ Quiz 8
Learning Target	I can use theorems about triangle relationships to solve for missing segment & angle measures in triangles.	I can use theorems about triangle relationships to solve for missing segment & angle measures in triangles.	I can identify the corresponding parts of congruent triangles and use them to find missing segment and angle measures.	I can use the triangle congruence theorems and my reasoning skills to determine if two triangles are congruent.	I can apply the definition of congruent triangles and use the triangle congruence theorems and my reasoning skills to determine if two triangles are congruent.

Standards for the Week **GS.MGSR.5.2** Apply the attributes of triangles in mathematical and real-world situations.

GS.MGSR.3.2 Demonstrate that triangles and quadrilaterals are congruent by a combination of translations, rotations, and reflections. **GS.MGSR.3.3** Recognize the criteria for showing triangles are congruent using a sequence of rigid motions that map one triangle to another and justify that the two triangles are congruent by applying the Side-Side-Side, Side-Angle-Side, Angle-Side-Angle, Angle-Angle-Side, and Hypotenuse-Leg congruence conditions.

Week: Oct 6 -10

Unit 5: Triangle Measurement & Congruence

	Monday	Tuesday PSAT (2nd Per. Hold AM)	Wednesday	Thursday	Friday End of Q1 Grading Period
Age lea	Test Review	PSAT Testing Job Shadowing Day	Unit 5 Test	 Notes 6.1 Ratios and Proportions Practice 6.1 	Notes 6.2 Similar PolygonsPractice 6.2
			Unit 5 TEST	☐ Practice 6.1	☐ Practice 6.2
ial ger				I can use ratios and proportions to solve real world problems.	I can use ratios and proportions to solve for missing measures in similar polygons.

Standards for the Week

Agenda

Work to Submit

Learning Target

GS.MGSR.5.2 Apply the attributes of triangles in mathematical and real-world situations.

GS.MGSR.3.2 Demonstrate that triangles and quadrilaterals are congruent by a combination of translations, rotations, and reflections. **GS.MGSR.3.3** Recognize the criteria for showing triangles are congruent using a sequence of rigid motions that map one triangle to another and justify that the two triangles are congruent by applying the Side-Side-Side, Side-Angle-Side, Angle-Side-Angle, Angle-Angle-Side, and Hypotenuse-Leg congruence conditions.

	Monday	Tuesday	Wednesday	Thursday	Friday
Agenda	Teacher Workday NO SCHOOL	 Notes 6.3 Similar Triangles Practice 6.3 Quiz Review 	Go over quiz review answersQuiz 1	 Notes 6.4 Proportional Parts Theorems Practice 6.4 	Test Review
Work to Submit		☐ Practice 6.3 ☐ Quiz Review	□ Quiz 1	☐ Practice 6.4	☐ Test Review
Learning Target		I can use proportions and similarity theorems to determine if two triangles are similar.		I can apply the proportional parts theorems and angle bisector theorem to solve triangles that have special features.	I can apply the definition of similar figures to determine if figures are similar and to solve for missing parts in the figures.

GS.MGSR.4.3 Recognize the criteria for showing triangles are similar using a similarity transformation and justify that the two triangles are similar by applying Angle-Angle, Side-Side, and Side-Angle-Side similarity conditions.

Unit(s): Unit 6: Similarity/Unit 7: Right Triangles & Trigonometry

Week: Oct 20 - 24

	Monday Q1 Report Card	Tuesday	Wednesday	Thursday	Friday
Agenda	Unit 6 Test	Notes 7.1 - Radicals	Notes 7.2 - Pythagorean Thm	 Notes 7.3 Special Right Triangles 	Quiz ReviewQuiz 2: 7.1-7.3
Work to Submit	□ Unit 6 TEST	7.1 Practice (Worksheet)	☐ 7.2 Practice (Worksheet)	☐ 7.3 Practice (Worksheet)	□ Quiz 2
Learning Target		I can simplify radicals and perform operations with radicals.	I can use the Pythagorean Theorem to solve for missing segment lengths in right triangles.	I can use the properties of special right triangles to solve for missing lengths in geometric figures.	I can apply Pythagorean Theorem and Special Right Triangle formulas to solve for missing lengths in geometric figures.

- **GS.NR.1.1** Rewrite numerical expressions of irrational and rational numbers involving radicals, including addition, subtraction, multiplication, and division, to recognize geometric patterns.
- **GS.MGSR.6.1** Discover and apply the converse of the Pythagorean Theorem.
- **GS.MGSR.6.2** Discover and apply the constant ratios of the sides in 30-60-90 and 45-45-90 right triangles.
- **GS.MGSR.6.3** Define the trigonometric ratios using the properties of similar right triangles.
- **GS.MGSR.6.4** Determine the sine, cosine, and tangent of an acute angle in a right triangle in the context of mathematical and real-world situations.
- **GS.MGSR.6.5** Apply trigonometric ratios (sine, cosine, tangent) and the Pythagorean Theorem to solve right triangle problems in real-life situations.

Week: Oct 27 - Oct 31

Unit 7: Right Triangles & Trigonometry

	Monday	Tuesday	Wednesday	Thursday	Friday
Agenda	Quiz ReviewQuiz 2: 7.1-7.3	 Notes 7.4 Trigonometric Ratios & Finding Missing Sides 	 Notes 7.5 Trig Word Problems 	Notes 7.6 Law of Sines and Cosines	Quiz ReviewQuiz 3: 7.4-7.6
Work to Submit	□ Quiz 2	☐ 7.4 Practice (Worksheet)	☐ 7.5 Practice (Worksheet)	☐ 7.6 Practice (Worksheet)	□ Quiz 3
Learning Target	I can apply Pythagorean Theorem and Special Right Triangle formulas to solve for missing lengths in geometric figures.	I can use trigonometric ratios to solve right triangles.	I can use trigonometric ratios to solve right triangles in applied problems.	I can use the Law of Sines and Cosines to solve non-right triangles.	I can use trigonometry to solve triangles for their missing sides or angles.

- **GS.NR.1.1** Rewrite numerical expressions of irrational and rational numbers involving radicals, including addition, subtraction, multiplication, and division, to recognize geometric patterns.
- **GS.MGSR.6.1** Discover and apply the converse of the Pythagorean Theorem.
- **GS.MGSR.6.2** Discover and apply the constant ratios of the sides in 30-60-90 and 45-45-90 right triangles.
- **GS.MGSR.6.3** Define the trigonometric ratios using the properties of similar right triangles.
- **GS.MGSR.6.4** Determine the sine, cosine, and tangent of an acute angle in a right triangle in the context of mathematical and real-world situations.
- **GS.MGSR.6.5** Apply trigonometric ratios (sine, cosine, tangent) and the Pythagorean Theorem to solve right triangle problems in real-life situations.

Wednesday

Notes 8.1 Parts of

Thursday

Notes 8.3 Chords

Friday

Finish Notes 8.4

Monday

Test Review

Agenda	i iodi itoviovi	o omer root	a Circle Notes 8.2 Central Angles and Arcs	Notes 8.4 Inscribed Angles	Inscribed Angles • Quiz Review
Work to Submit	☐ Test Review	☐ Unit 7 Test	☐ 8.2 Practice (Worksheet)	☐ 8.3 Practice (Worksheet)	☐ Quiz Review
Learning Target	I can use trigonometric ratios to solve right triangles in applied problems.		I can identify the parts of a circle and find the measures of central angles and arcs in circles.	I can apply circle theorems to find missing segment, angle, and arc measures in circles.	I can identify the parts of circles and apply circle theorems to find missing segment, angle, and arc measures in circles.

Standards for the Week

- GS.PAFR.1.1 Discover and apply the formulas for the length of an arc and the area of a sector in a circle to develop mathematical models and solve mathematical and realworld situations.
- **GS.MGSR.7.1** Use angle and segment relationships in circles to solve mathematical and realworld situations.

Tuesday

Unit 7 Test

- GS.MGSR.7.2 Investigate and apply relationships in circles, inscribed angles, radii, secants, and chords; among inscribed angles, central angles, and circumscribed angles; and between radii and tangents to circles.
- GS.MGSR.5.3 Apply the attributes of quadrilaterals, including diagonals, sides, and angles, to prove that a given quadrilateral is a parallelogram in mathematical and realworld situations.

Week: Nov 10 - 14	Unit 8: Circles
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	Monday	Tuesday	Wednesday	Thursday	Friday
Agenda	• Quiz 4: 8.1-8.4	• Notes 8.5	• Notes 8.6	Quiz ReviewQuiz 5: 8.5-8.6	Test Review
Work to Submit	□ Quiz 4	☐ 8.5 Practice (Worksheet)	☐ 8.6 Practice (Worksheet)	□ Quiz 5	☐ Test Review
Learning Target	I can identify the parts of circles and apply circle theorems to find missing segment, angle, and arc measures in circles.	I can find the missing segment measures in a circle by applying the secant and tangent theorems.	I can find the missing angle and arc measures in a circle by applying the secant and tangent theorems.	I can apply circle theorems to find missing segment, angle, and arc measures in circles.	I can apply circle theorems to find missing segment, angle, and arc measures in circles.

- **GS.PAFR.1.1** Discover and apply the formulas for the length of an arc and the area of a sector in a circle to develop mathematical models and solve mathematical and realworld situations.
- **GS.MGSR.7.1** Use angle and segment relationships in circles to solve mathematical and realworld situations.
- **GS.MGSR.7.2** Investigate and apply relationships in circles, inscribed angles, radii, secants, and chords; among inscribed angles, central angles, and circumscribed angles; and between radii and tangents to circles.
- **GS.MGSR.5.3** Apply the attributes of quadrilaterals, including diagonals, sides, and angles, to prove that a given quadrilateral is a parallelogram in mathematical and realworld situations.

	Monday	Tuesday	Wednesday	Thursday	Friday
Agenda	Unit 8 Test	Notes 9.1 Parallelograms	 Notes 9.2 Rectangles/ Notes 9.3 RhombusSquare 	Quadrilateral Mixed Practice Quiz Review	Quiz : 9.1-9.3
Work to Submit	□ Unit 8 Test	☐ Practice 9.1 Worksheet	☐ Practice 9.2 Worksheet	☐ Quadrilateral Quiz Review Worksheet (or Formative)	□ Quiz 7
Learning Target	I can apply circle theorems to find missing segment, angle, and arc measures in circles.	I can identify the properties of a parallelogram and use them to solve for missing measures.	I can identify the properties of rectangles, rhombi, and squares and use them to find missing measures.	I can use the properties of quadrilaterals to solve for missing measures.	I can use the properties of quadrilaterals to solve for missing measures.

GS.MGSR.5.3 Apply the attributes of quadrilaterals, including diagonals, sides, and angles, to prove that a given quadrilateral is a parallelogram in mathematical and real-world situations.

Week: Nov 24 - 28	Unit(s):

	Monday	Tuesday	Wednesday School Holiday	Thursday School Holiday	Friday School Holiday
Agenda	 Notes 9.4 Proving Quadrilaterals 	 Quadrilateral Coordinate Proofs 			
Work to Submit					
Learning Target					

GS.MGSR.5.3 Apply the attributes of quadrilaterals, including diagonals, sides, and angles, to prove that a given quadrilateral is a parallelogram in mathematical and real-world situations.
GS.PAFR.3.1 Use coordinates to prove simple geometric theorems algebraically.

Week: Dec 1 - 5	Unit(s):

	Monday	Tuesday	Wednesday	Thursday	Friday
Agenda	 Notes 10.1 Perimeter and Area 	Notes 10.1 Perimeter and Area cont	 Notes 10.2 Surface Area and Volume 	Test Review	Test
Work to Submit	☐ Practice 10.1 Worksheet	☐ Practice 10.2 Worksheet	☐ Practice 10.2 Worksheet	☐ Unit 10 Test Review	□ Unit 10 TEST
Learning Target	I can find the perimeter and area of 2-D geometric figures.	I can find the perimeter and area of 2-D geometric figures.	I can find the surface area and volume of 3-D geometric figures.	I can find the measures of 2D and 3D figures given a test review.	I can find the measures of 2D and 3D figures given a test.

GS.PAFR.1.2 Analyze and apply the derivations of the formulas for the circumference of a circle, area of a circle, and volume of a cylinder, pyramid, and cone to model real phenomena and solve mathematical and real-world situations.

GS.PAFR.2.1 Apply surface area and volume formulas for prisms, cylinders, pyramids, cones, spheres, and/or compositions of figures to solve problems and justify results.

GS.MGSR.1.1 Apply area and volume formulas of two- and three-dimensional figures to solve real-world situations.

Week: Dec 8 - 12	Unit(s):

	Monday	Tuesday	Wednesday	Thursday	Friday
Agenda	Test Review	Test	Exam Review Day	Exam Review Day	Exam Review Day
Work to Submit	☐ Unit 10 Test Review	□ Unit 10 TEST			
Learning Target	I can find the measures of 2D and 3D figures given a test review.	I can find the measures of 2D and 3D figures given a test.			

GS.PAFR.1.2 Analyze and apply the derivations of the formulas for the circumference of a circle, area of a circle, and volume of a cylinder, pyramid, and cone to model real phenomena and solve mathematical and real-world situations.

GS.PAFR.2.1 Apply surface area and volume formulas for prisms, cylinders, pyramids, cones, spheres, and/or compositions of figures to solve problems and justify results.

GS.MGSR.1.1 Apply area and volume formulas of two- and three-dimensional figures to solve real-world situations.

Week: Dec 15 - 19	Unit(s):	

	Monday	Tuesday	Wednesday	Thursday	Friday End of Q2 Grading Period Half Day for Students
Agenda	Exam Review Day	Final Exams	Final Exams	Make- Up Exam Day Holiday Activity: Christmas Boxes	Half Day Holiday Activity: Snowflakes
Work to Submit					
Learning Target					
Standards for the Week					