Middle/Senior High School Curriculum Map

Rossville Middle/Senior High School Curriculum Map

Course Title: Geometry	**Quarter:** 1	**Academic Year: 24-25**

Essential Questions for this Quarter:

1. Have I mastered Algebra 1 standards?
2. Can I use the distance formula and midpoint formula?
3. Do I understand angle relationships (vertical, supplementary, complementary)?
4. Can I use angle relationships to find missing angle values?
5. Am I able to solve multi-step equations?
6. Can I understand/define basic geometric vocabulary?
7. Can I complete or find a missing step in a simple geometric proof?
8. Can I apply both deductive and inductive reasoning?
9. Can I use/identify all conditional statements (inverse, converse, contrapositive)?

Questions 1, 2, 4, 5 deemed high priority by SAT (Heart of Algebra)

Unit/Time Frame	Standards	Content	Skills	Assessment	Resources
Chapter 0: Preparing for Geometry Chapter 1: Tools of Geometry Chapter 2: Reasoning and Proof	All algebra standards G.GF.1, G.GF.3, G.GF 1, G.GF.5, G.PL.5 G.T.5, G.QP.4, G.CI.1, G.CI.3, G.TS.1, G.GF.2 G.TS.6	- *Expressions, Equations, Inequalities *Systems of equations *square roots/radicals *simple probability *distance/midpoint formulas *angle measures/relationships *2- and 3-dimensional figures *conditional statements	*Students will be able to solve algebraic equations and inequalities. *Students will be able to solve systems of equations. *Students will be able to apply the distance formula and the midpoint formula. *Students will be able to identify angles and angle relationships including vertical, supplementary, and complementary. *Students will be able to identify conditional statements and find inverse, converse, and contrapositive statements	Homework 20% Teacher designed assessments 55% Task cards/Projects: 25%	Textbook Teachers pay teachers website Kuta (free worksheets) Collaboration with fellow math teachers https://blog.prepscholar.com/whats-actually-tested-on-sat-math-topics

		*proofs using inductive/deductive reasoning	based on the original statement. *Students will be able to solve proofs using inductive and deductive reasoning.		

Curriculum Map

Course Title: GEOMETRY	**Quarter:** 2	**Academic Year:** 2019-2020

Essential Questions for this Quarter:

1. How can I use slope to identify parallel and perpendicular lines?
2. How can I find slope given an equation or a graph?
3. What is a transversal and what angle relationships are created by parallel lines cut by a transversal?
4. Can I classify triangles according to sides and angles?
5. Can I identify congruent triangles by using SAS, AAS, SSS, or HL?
6. Can I make transformations on the coordinate plane and find new coordinates?
7. Can I apply properties of medians and altitudes of triangles?
8. Can I apply the triangle inequality theorem?
9. Can I identify and apply the rules of quadrilaterals, including rhombi, kites, trapezoids, and parallelograms?

Questions 1 and 2 deemed high priority by SAT. Questions 4, 5, and 7 deemed medium priority.

Unit/Time Frame	Standards	Content	Skills	Assessment	Resources
Chapter 3: Parallel and perpendicular lines **Chapter 4: Congruent Triangles** **Chapter 5: Relationships in triangles** **Chapter 6: Quadrilaterals**	G.GF.3, G.GF 1, G.GF.5, G.PL.5 G.T.5, G.QP.4, G.CI.1, G.TS.1, G.GF.2 G.TS.6 G.T.1, G.T.4, G.T.3, G.QP.4, G.TS.1, G.T.3, G.QP.3, G.SP.4	*parallel/perpendicular lines *slope of all lines *equations on lines *classifying triangles *triangle congruency theorems *applying median and altitude theorems *Using the triangle inequality theorem *Applying properties of rhombi, squares, kites, parallograms, and trapezoids	*Students will be able to find slope and use it to identify parallel and perpendicular lines. *Students will be able to write equations for all lines. *Students will be able to classify triangles by sides and by angles. *Students will be able to apply triangle congruency theorems, including SAS, AAS, SSS, and HL. *Students will be able to identify medians and altitudes and apply their properties to	Homework 20% Teacher designed assessments 55% Task cards/Projects: 25%	Textbook Teachers pay teachers website Kuta (free worksheets) Collaboration with fellow math teachers SAT CONNECT: https://satsuite.collegeboard.org/media/pdf/official-sat-study-guide-about-math-test.pdf

			find missing angles/sides of triangles. *Students will be able to use the triangle inequality theorem. *Students will be able to use properties of quadrilaterals to find missing side/angle values.		

Curriculum Map

Course Title: GEOMETRY	**Quarter:** 3	**Academic Year:** 2019-2020

Essential Questions for this Quarter:

1. Can I solve a ratio/proportion and identify proportional parts?
2. Can I identify parts of similar triangles?
3. Can I perform similarity transformations on the coordinate plane?
4. How can I apply the Pythagorean Theorem and its converse to find missing sides/distance?
5. Can I apply the rules of special right triangles such as 30-60-90, and 45-45-90?
6. How can I use the Law of Sines and the Law of Cosines to find missing angles and sides of triangles?
7. Can I find angles of elevation and depression?
8. Can I perform transformations including rotations, dilations, translations, and reflections?
9. Can I identify symmetry?

Questions 4, 6, 7 deemed high priority by SAT

Unit/Time Frame	Standards	Content	Skills	Assessment	Resources
Chapter 7: Proportions and similarity Chapter 8: Right triangles and trigonometry Chapter 9: transformations and	G.GF.3, G.GF 1, G.GF.5, G.GF.4 G.T.5, G.CI.2, G.CI.1, G. CI. 3, G.CI. 4, G.TS.1, G.GF.2 G.TS.6 G.T.1, G.T.4, G.T.3, G.QP.4, G.TS.1, G.T.3, G.QP.3, G.SP.4	*Ratios/proportions *similar polygons/triangles *Similarity transformations *special right triangles including 30-60-90 and 45-45-90 *Angles of elevation/depression *The Pythagorean Theorem/converse of same *Law of Sines/Law of Cosines *Performing transformations on the coordinate plane: reflections, rotations, dilations, and translations *Finding symmetry	*Students will be able to solve ratios and proportions *Students will be able to identify similar 2 and three dimensional shapes and use them to find missing sides/angles. *Students will be able to apply properties of special right triangles to find missing sides/angles. *Students will be able to find missing angles of elevation/depressing using trigonometric functions. *Students will be able to apply the Pythagorean theorem and its converse. *Students will be able to apply the Law of Sines and the Law of Cosines. *Students will be able to perform all transformations on the coordinate plane. *Students will be able to identify lines of symmetry and be able to tell how to find the number of lines of	Homework 20% Teacher designed assessments 55% Task cards/Projects: 25%	Textbook Teachers pay teachers website Kuta (free worksheets) Collaboration with fellow math teachers

symmetry			symmetry for all 3 dimensional shapes.		

Curriculum Map

Course Title: GEOMETRY	**Quarter:** 4	**Academic Year:** 2019-2020

Essential Questions for this Quarter:

1. Can I find the circumference and area of a circle, and use the converse to find missing radius/diameter values?
2. What are arcs and chords, and what are the properties of each?
3. What are secants and tangents and what are the properties of each?
4. How do you find area of trapezoids, rhombi, and kites?
5. What are sectors and what are the properties of sectors?
6. Can I find the surface area and volume of all 3-dimensional shapes?
7. Can I identify congruent and similar solids and use them to find missing dimensions?
8. Can I perform simple permutations and combinations?
9. Can I find probability of dependent and independent events?

**Applying definitions and theorems related to lines, angles, triangles, and circles. Working with right triangles, the unit circle, and trigonometric functions deemed medium priority by SAT.

Unit/Time Frame	Standards	Content	Skills	Assessment	Resources
Chapter 10: Circles Chapter 11: Areas of polygons and circles	G.GF.3, G.GF.4, G.GF.5, G.PL.5 G.T.5, G.CI.2,	*area/surface area of all 2 and 3 dimensional shapes *volume of all 3 dimensional shapes *circumference and area of circles	*Students will be able to find area/surface area of all 2 and 3 dimensional shapes. *Students will be able to find volume of all 3 dimensional shapes.	Homework 20% Teacher designed assessments 55%	Textbook Teachers pay teachers website

Chapter 12: extending surface area and volume Chapter 13: Probability and measurement	G.CI.1, G. CI. 3, G.CI. 4, G.TS.1, G.GF.2 G.TS.6 G.T.1, G.T.4, G.T.3, G.QP.4, G.TS.1, G.T.3, G.QP.3, G.SP.4 PS.1, thru PS. 8	*Area of similar figures *Finding and using congruent/similar solids to find missing dimensions *Using properties of secants, tangents, chords, and arcs to find missing values. *Equations of circles *probabilities of dependent and independent events *simple permutations and combinations *geometric probability *representing sample space	*Students will be able to find circumference and area of circles, and use the converse to find missing values. *Students will be able to apply properties of secants, tangents, chords, and arcs to find missing values of circles and the angles inside. *Students will be able to write the equations of circles given the radius or given a graph. *Students will be able to perform simple permutations and combinations. *Students will be able to represent sample space, and find dependent and independent probability.	Task cards/Projects: 25%	Kuta (free worksheets) Collaboration with fellow math teachers https://satsuite.collegeboard.org/	