GEOMETRY: CURRICULUM MAP				
Pleasant Hill High School		School Year: 2021-2022	Teacher: Mrs. Simonsen	
		Content	Skills (Verbs)	Assessment
1st Quarter	August	Chapter 1 - Points, Lines, Planes and Angles ● Points, Lines, and Planes ● Linear Measure and Precision ● Distance and Midpoints (Pythagorean Theorem)	Chapter 1 ● Develop understanding of definitions, theorems, and postulates ● Describe points, lines, and planes, and the product of their intersections. ● Recognize and use proper notations for points, lines, segments, rays, angles, and triangles ● Recognize and define betweenness of points	Vocabulary Lesson Notes & Class Discussion Textbook Assignments Lesson Reviews Quizzes
	September	● Pythagorean Theorem ● Angle Measure ● Angle Relationships	● Correctly interpret diagrams to solve algebraic problems ● Use relationships of complementary and supplementary angles to solve problems.	
	October	● Polygons	● Identify and name Polygons ● Find perimeters of polygons	

		Chapter 3 - Parallel and Perpendicular Lines ● Parallel Lines and Transversals ● Angles and Parallel Lines ● Slopes of Lines ● Equations of Lines ● Proving Lines Parallel (Points of Intersection) ● Perpendiculars and Distance	Chapter 3 ● Identify the relationships between two lines or two planes ● Name angles formed by a pair of lines and a transversal ● Use the properties of parallel lines to determine congruent angles ● Use algebra to find angle measures ● Find slopes of lines ● Use slope to identify parallel and perpendicular lines ● Write an equation of a line given information about its graph ● Solve problems by writing equations ● Recognize angle conditions that occur with parallel lines ● Prove two lines are parallel based on given angle relationships ● Find the distance between a point and a line ● Find the distance between parallel lines	
2nd Quarter	November	Chapter 4 - Congruent Triangles ● Classifying Triangles (Angles of Triangles)	Chapter 4 ● Identify and classify triangles by angles	

		• Angles of Triangles • Congruent Triangles • Proving Congruence (SSS, SAS, ASA, AAS) • Congruence in Right Triangles • Isosceles Triangles • Triangles and Coordinate Proof	• Identify and classify triangles by sides • Apply the Angle Sum Theorem • Apply the Exterior Angle Theorem • Name and label corresponding parts of congruent triangles • Identify congruence transformations • Use the SSS Postulate to test for triangle congruence • Use the SAS Postulate to test for triangle congruence • Use the ASA Postulate to test for triangle congruence • Use the AAS Theorem to test for triangle congruence • Use properties of isosceles triangles • Use properties of equilateral triangles • Position and label triangles for use in coordinate proofs • Write coordinate proofs	
	December	Chapter 5 - Relationships in Triangles • Bisectors, Medians, and Altitudes • Inequalities and Triangles	Chapter 5 • Identify and use perpendicular bisectors, medians, altitudes, and	

		• Indirect Proof • The Triangle Inequality • Inequalities Involving Two Triangles	angle bisectors • Identify and use medians and altitudes in triangles • Recognize and apply properties of inequalities to measures of angles of triangle • Recognize and apply properties of inequalities to the relationships between angles and sides of a triangle • Use indirect proof with algebra • Use indirect proof with geometry • Apply the Triangle Inequality Theorem • Determine the shortest distance between a point and a line • Apply the SAS & SSS Inequalities	
	January	Chapter 6 - Proportions and Similarity • Proportions • Similar Polygons • Similar Triangles • Parallel Lines and Proportional Parts • Parts of Similar Triangles • Fractals and Self-Similarity	Chapter 6 • Write ratios • Use properties of proportions • Identify similar figures • Solve problems involving scale factors • Identify similar triangles • Use similar triangles to solve problems • Use proportional parts of triangles	

			● Divide a segment into parts ● Recognize and use proportional relationships of corresponding perimeters of similar triangles ● Recognize and use proportional relationships of corresponding angle bisectors, altitudes, and medians of similar triangles ● Draw a Sierpinski Triangle ● Recognize and describe characteristics of fractals ● Draw your own fractal ● Identify non geometric iteration	
3rd Quarter	February	Chapter 7 - Right Triangles and Trigonometry ● Geometric Mean ● The Pythagorean Theorem and Its Converse ● Special Right Triangles ● Trigonometry ● Angle of Elevation and Depression	Chapter 7 ● Find the geometric mean between two numbers ● Solve problems involving relationships between parts of a right triangle and the altitude to its hypotenuse ● Use the Pythagorean Theorem ● Use the converse of the Pythagorean Theorem ● Use properties of 45-45-90 triangles ● Use properties of	

			30-60-90 triangles ● Find trigonometric ratios using the right triangles ● Solve problems using trigonometric ratios ● Solve problems involving angles of elevation ● Solve problems involving angles of depression	
	March	● The Law of Sines ● The Law of Cosines Chapter 8 - Quadrilaterals ● Angles of Polygons ● Parallelograms ● Tests for Parallelograms	● Use the Law of Sines to solve triangles ● Solve problems by using the Law of Sines ● Use the Law of Cosines to solve triangles ● Solve problems by using the Law of Cosines ● Use trigonometric ratios to identify trigonometric identities Chapter 8 ● Find the sum of the measures of the interior angles of a polygon ● Find the sum of the measures of the exterior angles of a polygon ● Recognize and apply properties of the sides and angles of parallelograms ● Recognize and apply properties of the diagonals of	

			parallelograms ● Recognize the conditions that ensure a quadrilateral is a parallelogram ● Prove that a set of points forms a parallelogram in the coordinate plane	
4th Quarter	April	● Rectangles ● Rhombi and Squares ● Trapezoids ● Coordinate Proof with Quadrilaterals Chapter 9 - Transformations ● Reflections	● Recognize and apply the properties of rhombi ● Recognize and apply the properties of squares ● Recognize and apply the properties of trapezoids ● Solve problems involving the medians of trapezoids ● Position and label quadrilaterals for use in coordinate proofs ● Prove theorems using coordinate proofs Chapter 9 ● Draw reflected images ● Recognize and draw lines of symmetry and points of symmetry	
	May	● Translations ● Rotations ● Tessellations ● Dilations ● Vectors ● Transformations with Matrices	● Draw translated images using coordinates ● Draw translated images by using repeated reflections ● Draw rotated images using the angle of	

			rotation ● Identify figures with rotational symmetry ● Identify regular tessellations ● Create tessellations with specific attributes ● Make tessellations using a translation and a rotation ● Determine whether a dilation is an enlargement, a reduction, or a congruence transformation ● Determine the scale factor for a given dilation ● Find magnitudes and directions of vectors ● Perform translation with vectors ● Use matrices to determine the coordinates of translations and dilations ● Use matrices to determine the coordinates of reflections and rotations	