

## Mt. Zion High School Curriculum Map

Name: Diehl Department: Math Subject: Geometry

Quarter	Essential Skills	Strategies and Activities	CC Standards	Assessments
1	1. Students will utilize basic tools of geometry in order to develop an awareness of structure of a mathematical system involving definitions, postulates, logical reasoning, and theorems.	1a. identify and model points, lines, and planes, intersecting lines and planes  1b. measure segments and perform calculations with measures  1c. find the distance between 2 points and the midpoint of a segment  1d. measure and classify angles and identify congruent angles and angle bisectors  1e. identify and use special pairs of angles and identify perpendicular lines  1f. identify and name polygons and find perimeter, circumference and area of 2-dimensional polygons  1g. identify and name 3-dimensional figures and find surface area and volume	1a.G.CO.1  1b.G.CO.1, G.CO.12  1c.G.CO.1, G.CO.12  1d.G.CO.1, G.CO.12  1e.G.CO.12  1f. G.GPE.7  1g.G.GMD.3	Chapter 1 quiz, test, semester exam

Quarter	Essential Skills	Strategies and Activities	CC Standards	Assessments
1.	2. Students will use inductive, deductive, and logical reasoning to formulate conjectures, prove statements are true, and counterexamples to disprove statements that are false leading into the development of proofs.	2a. identify and use basic postulates about points, lines, and planes in order to write paragraph proofs.  2b. develop proofs involving segment addition  2c. develop proofs involving congruence  2d. write proofs involving supplementary/complementary angles, and congruent/right angles.	2a.G.MG.3  2b.G.CO.9, G.CO.12  2c.G.CO.9,G.CO.12  2d.G.CO.9	Chapter 2 quiz, chapter 2 test, semester exam
1.	3. Students will make conjectures about lines and angles and determine the validity; investigate geometric relationships using slopes;	3a. identify the relationship between lines and planes and name angles formed by parallel lines.  3b. use theorems to determine the relationships between specific pairs of angles and use algebra to find angle measurements  3c. find slopes of lines and use slope to identify parallel and perpendicular lines.  3d. write equations of lines given information about the graph and solve problems by writing equations	3a.G.CO.1  3b.G.CO.1, G.CO.9  3c.G.GPE.5  3d.G.GPE.5	Chapter 3 quiz, chapter 3 test, semester exam

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Name: \_\_\_\_\_ Department: \_\_\_\_\_ Subject: \_\_\_\_\_

Quarter	Essential Skills	Strategies and Activities	CC Standards	Assessments
1.	3 cont	3e. Recognize angles pairs in parallel lines; prove 2 lines are parallel  3f. Find the distance between a point and a line and between 2 parallel lines	3e.G.CO.O, G.CO.12  3f.G.CO.12, G.MG.3	
2.	4. Students will make conjectures about polygons and use numeric/geometric patterns to generalize about geometric properties	4a. identify and classify triangles by angle measures and side measures  4b. apply the triangle sum theorem and exterior angle theorem  4c. name and use corresponding parts of congruent polygons and prove triangles are congruent using the definition of congruent  4d. use SSS and SAS to prove triangles are congruent  4e. use ASA and AAS to prove triangles are congruent  4f. use properties of isosceles and equilateral triangles  4g. identify reflections, rotations and translations  4h. position and label triangles for use in coordinate proofs	4a. G.CO.12  4b. G.CO.10  4c.G.CO.7, G.SRT.5  4d.G.CO.10, G.SRT.5  4e.G.CO.10, G.SRT.5  4f. G.CO.10, G.CO.12  4g.G.CO.6, G.CO.7  4h.G.CO.12,G.GPE.4	Chapter 4 quiz, chapter 4 test, semester exam

Quarter	Essential Skills	Strategies and Activities	CC Standards	Assessments
2	5. Students will use slope and equations of lines to investigate geometric relationships and analyze geometric relationships in order to verify conjectures	5a. identify and use perpendicular and angle bisectors in triangles  5b. identify and use medians and altitudes in triangles  5c. recognize and apply properties of inequalities to the measures of the angles and sides of a triangle  5d. write indirect algebraic and geometric proofs  5e. use the Triangle Inequality Theorem to identify possible triangles  5f. apply the Hinge Theorem/converse to compare 2 triangles	5a. G.CO.10, G.MG.3  5b. G.CO.10, G.MG.3  5c. G.CO.10  5d. G.CO.10  5e. G.CO.10, G.MG.3  5f. G.CO.10	Chapter 5 quiz, chapter 5 test, semester exam
2	6. Students will use numeric and geometric patterns to make generalizations about geometric properties (polygons); formulate and test conjectures about those properties; derive and use formulas involving length, slope, midpoint	6a. find and use the sum of the measures of interior and exterior angles of a polygon  6b. recognize and apply the properties of sides, angles, and diagonals of parallelogram  6c. recognize the conditions that ensure a quadrilateral is a parallelogram and prove  6d. recognize and apply properties of rectangles and determine whether parallelograms are rectangles  6e. recognize and apply properties of rhombi and squares and determine whether quadrilaterals are rectangles, rhombi, or squares	6a.G.MG.1  6b. G.CO.11, G.GPE.4  6c.G.CO.11, G.GPE.4  6d.G.CO.11,G.GPE.4  6e.G.CO.11,G.GPE.4	Chapter 6 quiz, chapter 6 test, semester exam

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Name: \_\_\_\_\_ Department: \_\_\_\_\_ Subject: \_\_\_\_\_

Quarter	Essential Skills	Strategies and Activities	CC Standards	Assessments
2	6cont	6f. recognize and apply the properties of trapezoids and kites	6f.G.GPE.4, G.MG.3	