GEOMETRY 2022-23

| MASTERY TARGET | Learning Target (Objectives) | Standard | Pacing (days) |
|--|--|----------|------------------|
| MT 1 Points, Planes, Lines | Name specific terms (line, ray, etc) Illustrate a diagram given terms Know definition of terms | G.PL.1 | 1-2 |
| MT 2 Angles | Sketch angles (right, obtuse, etc) Identify and Name Angles Classifying Angles (adjacent, linear, supplementary, complementary, vertical) | G.PL.1 | 2-3 |
| MT 3 Addition Postulates | Angle Addition Segment Addition Angle Bisector Solving with Linear Pair/Vertical | G.PL.1 | 2-3 |
| | TEST (10 days) | | |
| MT 4 Distance Formula | Distance between 2 points given ordered pairs, on a coordinate plane Apply to real world with a given scale Perimeter of a 2D on coordinate plane Derive from Pythag Thrm | G.PL.4 | 2 |
| MT 5 Midpoint Formula | Midpoint between 2 points as ordered pairs, on a coordinate plane Find endpoint when given midpoint and 1 endpoint Apply to real world when given a scenario | G.PL.4 | 2 |
| | TEST (6 days) | | |
| MT 6 Parallel, Perpendicula r or Neither | Identify/Calculate slopes of lines Given 2 equations or given 2 slopes or 1 of each to determine parallel, perpendicular, neither Be able to put into slope intercept form from standard form and 2 points | G.PL.2 | 2-3 |
| | TEST (3 days) | | |
| MT 7 Transversal Relationships | Identify and name angle relationships from a transversal diagram including: corresponding, alternate interior, alternate exterior, consecutive interior, and consecutive exterior angles | G.PL.1 | 2 |
| MT 8 Transversal Measures | Solve for angle measures of a transversal diagram given one angle Solve algebraic equations using the transversal relationships between angles | G.PL.1 | 3 |

| | TEST (6 days total) | | |
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| MT 9 Conditional Statements | Given a conditional statement, identify the hypothesis and conclusion Determine if a conditional statement is true or false Provide counterexamples to show conditional statement is false Write conditional statements from declarative statements Write a converse, inverse, contrapositive statement using a given conditional statement Determine if a bi-conditional statement can be written and write one if possible | G.LP.3 | 3 |
| MT 10 Geometric Proofs | Prove geometric relationships including but not limited to: segment addition, angle addition, midpoint, transversal relationships, complementary and supplementary angles | | 3 |
| | TEST (7 days total) | | |
| MT 11 Angles of Triangles | Use the triangle sum theorem to solve for missing angles and problems involving algebraic expressions Use the exterior angle theorem to solve for missing angles and problems involving algebraic expressions | | |
| MT 12 Isosceles and Equilateral Triangles | Know and apply the Isosceles Triangle Theorem and its converse | | |
| MT 13 Triangle Congruence | Understand what it means for two triangles to be congruent Name and identify the Triangle Congruence Postulates and Theorems (SSS,SAS,ASA,AAS, and HL) Name and identify corresponding parts of two congruent triangles (sides and angles) Solve algebraically using corresponding congruent parts | | |
| MT 14 Triangle Proofs | Prove two triangles are congruent using 2-column format Prove corresponding parts of congruent triangles are congruent (CPCTC) | | |
| MT 15 Similar Triangles/ Angle Bisector | Determine if two triangles are similar by identifying the postulates AA~, SAS~, and SSS~ Solve for lengths of sides of triangles using similarity Solve real world problems involving similar triangles Use the Angle Bisector Theorem to solve problems | | |

| MT 16 Parallel Lines & Proportional Parts | Set up and solve proportions involving sides of triangles Understand and apply that a line parallel to a side of a triangle divides the intersected sides proportionally Understand and apply that if the parts of the sides of the triangles are cut proportionally, then the lines are parallel | |
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| MT 17 Triangle Inequalities/ Hinge Theorem | • | |
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