**Standards-Driven Planning for PLCs @ Work**

| **Teacher(s): Cortes & Long** | **Course: Geometry** | **When taught: Mid first nine weeks** | **Instructional days needed: 12** |
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| **Unit: Parallel & Perpendicular Lines** |
| **Standards**:4. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.29a.. Develop and use precise definitions of figures such as angle, circle, perpendicular lines, parallel lines, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.29b. Find patterns and relationships in figures including lines, triangles, quadrilaterals, and circles, using technology and other tools.b. Identify different sets of properties necessary to define and construct figures. **30. Develop and use precise definitions of figures such as angle, circle, perpendicular lines, parallel lines, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. Justify whether conjectures are true or false in order to prove theorems and then apply those theorems in solving problems, communicating proofs in a variety of ways, including flow chart, two-column, and paragraph formats.****a. Investigate, prove, and apply theorems about lines and angles, including but not limited to: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; the points on the perpendicular bisector of a line segment are those equidistant from the segment's endpoints.****b. Investigate, prove, and apply theorems about triangles, including but not limited to: the sum of the measures of the interior angles of a triangle is 180˚; the base angles of isosceles triangles are congruent; the segment joining the midpoints of two sides of a triangle is parallel to the third side and half the length; a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem using triangle similarity.****c. Investigate, prove, and apply theorems about parallelograms and other quadrilaterals, including but not limited to both necessary and sufficient conditions for parallelograms and other quadrilaterals, as well as relationships among kinds of quadrilaterals.** |
| **Assessment(s):** *(link)*Parallel Lines, Transversals, & Angles QuizProving Lines Parallel QuizEquations of Parallel & Perpendicular Lines QuizUnit 2 TEST (honors) |
| Q1: What do we want each student to learn? Q3: What will we do when the student doesn’t learn it? Q2: How will we know when each student has learned it? Q4: What will we do if a student already knows it? |
| **Essential Learning Targets: Links to: Formative Assessment,****Q3***(intervention)***, Q4** *(extension)*I can describe parallel lines and their characteristics. Delta MathI can identify and properly name parallel lines. Delta MathI can use parallel lines and their transversals to solve problems. Delta MathI can prove lines are parallel. Proof Quiz |
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| **SMART goal:** Students will master the essential learning target “I can use parallel lines and their transversals to solve problems.” to 95% proficiency by unit assessment or after re-teaching and assessing a week after unit assessment is given. (95% of students will score a 75% on the assessment) |
| **Day 1** | * Review slope & writing equations of lines
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| **Day 2** | * Warm-Up: slopes & writing equations of lines
* Slopes of parallel & perpendicular lines (Geogebra Activity)
* Writing equations of parallel & perpendicular lines
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| **Day 3** | * Warm-Up: slopes of parallel & Perpendicular lines
* Writing equations of parallel & Perpendicular lines
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| **Day 4** | * Warm-Up:writing equations of parallel & perpendicular lines
* Parallel Lines, Transversals, & Angle Pairs (DESMOS activity)
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| **Day 5** | * Warm-Up: identifying angle pairs
* Equations of Parallel & Perpendicular Lines Quiz
* Parallel Lines, Transversals, & Angle Pairs with Algebra
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| **Day 6** | * Warm-Up: Finding Missing Angles in Parallel Lines with Transversals using Algebra
* Proving Angles Congruent/Supplementary in Parallel Lines with Transversals (DESMOS activities)
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| **Day 7** | * Warm-Up: More review on finding missing angles in parallel lines with transversals
* Parallel Lines, Transversals, & Angles Quiz
* Converse Theorems proving lines parallel (DESMOS activity)
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| **Day 8** | * Warm-Up: Identifying parallel lines when given angles congruent
* Practice proving lines parallel
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| **Day 9** | * Warm-up: Proving lines parallel
* review
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| **Day 10** | * Catch Up Day
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| **Day 11** | * Catch Up Day
 |
| **Day 12** | * Unit Assessment
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| **Notes for future planning:** Need more practice time in class. |