Jane Long Academy Lesson Plan Template with Unpacking the Standards

2015 – 2016

Course: Geometry

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| Teacher: Andrea Valencia-Hernandez | | | | | Lesson Plan Week of: WEEK #5 September 21-25 | | |
|  |  | **Monday** | **Tuesday** | **Wednesday** | | **Thursday** | **Friday** |
|  |  |  |  |  | |  |  |
| **Pre-Planning: Unpacking the Standards** | **TEKS:**  (R) - Readiness Standard  (S) -Supporting Standard | RG.5A - Investigate patterns to make conjectures about geometric relationships, **including angles formed by parallel lines cut by a transversal**, criteria required for triangle congruence, special segments of triangles, diagonals of quadrilaterals, interior and exterior angles of polygons, and special segments and angles of circles choosing from a variety of tools  G.5B - Construct congruent segments, congruent angles, a segment bisector, an angle bisector, **perpendicular lines**, the perpendicular bisector of a line segment, and a line **parallel** to a given line through a point not on a line using a compass and a straightedge. | RG.6A - Verify theorems about angles formed by the intersection of lines and line segments, including vertical angles, and **angles formed by parallel lines cut by a transversal** and prove equidistance between the endpoints of a segment and points on its perpendicular bisector and apply these relationships to solve problems.  G.5C - Use the constructions of congruent segments, congruent angles, angle bisectors, and perpendicular bisectors to make conjectures about geometric relationships. | **FALL HOLIDAY** | | **GEOM.6B** Prove two triangles are congruent by applying the Side-Angle-Side, Angle-Side-Angle, Side-Side-Side, Angle-Angle-Side, and Hypotenuse-Leg congruence conditions.  **GEOM.6C** Apply the definition of congruence, in terms of rigid transformations, to identify congruent figures and their corresponding sides and angles.  **GEOM.6D** Verify theorems about the relationships in triangles, including proof of the Pythagorean Theorem, the sum of interior angles, base angles of isosceles triangles, midsegments, and medians and apply these relationships to solve problems. | **GEOM.6B** Prove two triangles are congruent by applying the Side-Angle-Side, Angle-Side-Angle, Side-Side-Side, Angle-Angle-Side, and Hypotenuse-Leg congruence conditions.  **GEOM.6C** Apply the definition of congruence, in terms of rigid transformations, to identify congruent figures and their corresponding sides and angles.  **GEOM.6D** Verify theorems about the relationships in triangles, including proof of the Pythagorean Theorem, the sum of interior angles, base angles of isosceles triangles, midsegments, and medians and apply these relationships to solve problems. |
| **Verb(s)**  - What verbs define the actions students will need to take when mastering this objective? | Verify, investigate, construct and prove. | Create, analyze, organize, calculate, explain, describe, narrate, communicate and verify |  | | Prove, apply, verify, analyze, organize, explain, describe, communicate, and investigate. | Prove, apply, verify, analyze, organize, explain, describe, communicate, and investigate. |
| **Concept**  -What am I teaching?  -What do the students need to know? | How do the physical constructs of a line correspond with the numeric attributes of parallel and perpendicular lines? | How do the physical constructs of a line correspond with the numeric attributes of parallel and perpendicular lines? |  | | How to determine if triangles are congruent? | How to determine if triangles are congruent? |
| **Context**  ***Readiness:***   * Connections from previous grade level. * To what degree will this impact learning two years down the road?   ***Supporting:***   * What Readiness Standards or concepts from the Readiness Standards does it support? * How does it support the Readiness Standards? | The student uses constructions to validate statements.  The students is expected to derive and use formulas involving length, parallel and perpendicular lines.  The student is expected to write using newly acquired basic vocabulary and content based grade-level vocabulary. | The student uses constructions to validate statements.  The students is expected to derive and use formulas involving length, parallel and perpendicular lines.  The student is expected to write using newly acquired basic vocabulary and content based grade-level vocabulary. |  | | The student is expected to make conjectures about angles, lines, polygons, circles, and three dimensional figures and determine validity of the conjectures, choosing from a variety of approaches such as coordinate, transformational. Or axiomatic. | The student is expected to formulate and test conjectures about the properties and attributes of polygons and their component parts based on explorations and concrete models. |
| **I will know my students have mastered this standard when they can….** | When my students communicate and determine the meaning of this concept. | When my students communicate and explain the difference between parallel and perpendicular lines. |  | | When my students determine if triangles are congruent using triangle congruence postulates. | When my students determine if triangles are congruent using triangle congruence postulates. |
| **I will assess the standard by…..** | Check for Understanding:   * Fist to Five * Color Cards * Essential Questioning * Kahoot * Exit Ticket * Four Corners | Check for Understanding:   * Fist to Five * Color Cards * Essential Questioning * Kahoot * Exit Ticket * Four Corners | Check for Understanding:   * Fist to Five * Color Cards * Essential Questioning * Kahoot * Exit Ticket * Four Corners | | Check for Understanding:   * Fist to Five * Color Cards * Essential Questioning * Kahoot * Exit Ticket * Four Corners | Check for Understanding:   * Fist to Five * Color Cards * Essential Questioning * Kahoot * Exit Ticket * Four Corners |
| **Vocabulary**  (Academic and Content) | Parallel lines, skew lines, transversal, corresponding angles, alternate interior angles, consecutive interior angles | Parallel lines, skew lines, transversal, corresponding angles, alternate interior angles, consecutive interior angles. |  | | AAS, ASA, Congruence, corresponding angles, corresponding sides, included angle, included side, SAS, SSS, Similar. | AAS, ASA, Congruence, corresponding angles, corresponding sides, included angle, included side, SAS, SSS, Similar. |
| **Lesson Topic** (Content Objective) | I can explain how a pair of lines can parallel or perpendicular lines. | I can explain how a pair of lines can parallel or perpendicular lines. |  | | I can determine if triangles are congruent using triangle congruence postulates. | I can determine if triangles are congruent using triangle congruence postulates. |
| **ELPS** (Language Objective) | The student is expected to narrate, describe, and explain with increasing specificity and detail to fulfill content area writing needs as more English is acquired. | The student is expected to narrate, describe, and explain with increasing specificity and detail to fulfill content area writing needs as more English is acquired. |  | | The student is expected to write using newly acquired basic vocabulary and content based grade-level vocabulary. | I can write the reason why triangles are congruent.  CG5. |
| **Lesson Cycle** | **Engage:**  **Warm-Up/Opening (min)** | Review | **Review** |  | | How much is enough | How much is enough |
| **Explore:**  **INM/Review (min):** | Scavenger | Scavenger |  | | How much is enough II? | How much is enough II? |
| **Explain:**  **Guided Practice (min):** | Compare and contrast | Compare and contrast |  | | Triangle congruence Folded Notes. | Are they congruent? Notes page |
| **Elaborate:**  **Independent Practice (min):** | Write down at least 5 sentences on how you determined the equations of lines that were **parallel** and **perpendicular**to the line given and passing through the point given | Write down at least 5 sentences on how you determined the equations of lines that were **parallel** and **perpendicular**to the line given and passing through the point given |  | | Overlapping Triangles. | Overlapping Triangles. |
| **Evaluate:**  **Closing ( min.):** | Test | Test |  | | Triangle congruence. | Triangle congruence. |
| **Reinforcement** | **Materials/ Resources:** | Region 4 book, copies, rulers, makers, color pencils, pencils. | Region 4 book, copies, rulers, color pencils, pencils. |  | | Region 4 book, copies, rulers, color pencils, pencils. | Region 4 book, copies, rulers, color pencils, pencils. |
| **Homework** |  | Practice | Practice | | Triangle congruence.  Finish work | Triangle congruence. |
| **MODIFICATIONS and/or ACCOMODATIONS:**  *-Gifted and Talented*  *-ELL/ ESL*  *-Special Education* |  |  |  | |  |  |