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| **Name: Lauren Milne**  **Teaching Date: 20 October 2011**  **Lesson Topic: Parallelograms, Rectangles, Squares, and Rhombuses** | | |
| **Preplanning Tasks:**   1. **National & State Standards:**   **-National:**  **Grade Level:** 3  **Core Content:** 3.4. Geometry (Geometry/Measurement)  **Description:** Students learn about lines and use lines, line segments, and right angles as they work with quadrilaterals. Students connect this geometric work to numbers, operations, and measurement as they determine simple perimeters in ways they will use when calculating perimeters of more complex figures in later grades.  **Performance Expectation:** 3.4.CIdentify and describe special types of quadrilaterals.  **-State:**  **Grade Level:** 3  **Core Content:** 3.4.Geometry (Geometry/Measurement)  **Description:** Students learn about lines and use lines, line segments, and right angles as they work with quadrilaterals. Students connect this geometric work to numbers, operations, and measurement as they determine simple perimeters in ways they will use when calculating perimeters of more complex figures in later grades.  **Performance Expectation:** 3.4.C Identify and describe special types of quadrilaterals.  **Content Analysis**: Concept Analysis  **Concept Name:** Different Types of *quadrilaterals*  **Definition of a quadrilateral:** A quadrilateral in which both pairs of opposite sides are parallel  **Critical Attributes:** It must have four sides  **Noncritical Attributes:** It may or may not have opposite parallel lines, adjacent perpendicular lines, or square corners.  **Examples:** a square, rectangle, or rhombus.  **Non-examples:** a triangle.  **Related Concepts:**  **Objectives (lesson & academic):**   1. **Pre-requisite knowledge/skills:** measuring with centimeters, 2. **Key Pre-requisite Vocabulary:**   Quadrilateral:  Rectangle: a parallelogram with four squares corners.  Square: a rectangle in which all four sides are the same length.  Parallel: two lines that are (everywhere) the same distance apart and never cross.  Perpendicular: two lines that cross or meet to form square corners.  Opposite: two lines that are across from each other and do not meet at a point.  Adjacent: two lines that meet or connect at a point.   1. **Materials:** DocCam, tangrams, Whiteboard x2 (me), student whiteboards, rulers, and class activity guide 2. **Resources (if applicable)** | | |
|  | **AABs, ASRs, CFUs** | **TIME** |
| **Lesson Opening:**   1. **Signal for Attention: “Good Morning Boys and Girls”**   *AP = Student’s respond with, “Good Morning Ms. M.”*   1. **Behavior Expectations:** 2. Materials Ready   *ASR/CFU*   1. Stay in Seat 2. Eyes and Ears on Speaker 3. Mouths Closed   *ASR/CFU*   1. Raise Hand to Speak   *ASR/CFU*   1. Stay on Task 2. **Statement of Target:**   “Our target today is to be able to use our knowledge of opposite parallel lines and adjacent perpendicular lines in *telling the difference between different quadrilaterals*.”   1. **Key Vocabulary:**   Parallelogram: a quadrilateral in which *both* pairs of opposite sides are parallel  Rectangle: a parallelogram with four squares corners.  Square: a rectangle in which all four sides are the same length.  Rhombus: a parallelogram in which all four sides are the same length.   1. **Activate Background Knowledge:** |  |  |
| **Lesson Body:**   1. **Presentation of Information:** 2. **Define and Measure Parallelograms** 3. **Define a Parallelogram (I DO/WE DO)**   *\*Use Class Activity pg. 55, showing the top row only\**   1. “These are examples of parallelograms.”   *\*Use Class Activity pg. 55, uncover second row\**   1. “These are not parallelograms.”   *\* Raise screen and write* “Parallelogram” *on the board and draw an example next to word\**  a. “Think about what word is part of ‘parallelogram’”  *\*Underline “parallel”\**  *\*Have class define “parallelogram”\**  ASR/CFU   1. **Measure Parallelogram (YOU DO)** 2. “With your white boards and your rulers, measure…”  * A parallelogram with two sides being 4 cm and two sides being 3 cm * A parallelogram that has two sides at 3 cm and two sides at 2 cm * A parallelogram that has two sides at 1 cm and two sides at 4 cm   *\*Walk around classroom and then have students show their figures\**  *ASR/CFU*  *\*Lower Screen and reveal bottom figures\**  *ASR/CFU*  *\*Discuss Answers\**   1. **Rectangles, Squares, and Rhombuses** 2. **Define a Rectangle**   *\*Use Class Activity pg. 56 and uncover down to Adel’s statement\**  a. “Is Adel right? Are Rectangles parallelograms?”  b. “How do you know?”  c. “Adel said that rectangles are *special* parallelograms. What makes them special?  *\*Raise screen and write “Rectangle” on board with definition(s)\**   1. **Explore Squares and Rhombuses**   *\*Lower screen and read aloud Takeshi’s statement\**  a. “Is Takeshi right? Are square rectangles?  b. “How do you know?”  c. “What makes squares ‘special’ rectangles?”  *\*Move on to section with rhombuses\**  a. Define  *\*Raise screen and write definitions of squares and rhombuses\**   1. **OPTIONAL: Explore Trapezoids**   *\*Draw three different trapezoids on board\**  a. “These quadrilaterals are called trapezoids. What do you notice about them?”  *\*Write this on board and have students answer with whiteboards: A trapezoid is a quadrilateral \_\_\_\_ with just one pair of parallel lines\**   1. **Perimeters of Rectangles and Squares** 2. **Find the Perimeters of Squares and Rectangles**   **QUESTION: can I give only 2 length and have them make a rectangle or a square out of those lengths, or is this a good time to pass out sheets?**   1. **Name Quadrilaterals** 2. **Describe Quadrilaterals**   **\*Use Class Activity pg. 58 and lower screen**   1. **OPTIONAL: Visualize Figures with Tangrams**   **1. Tangram Figures**   1. **Demonstration** 2. **Additional Examples** 3. **Supervised Practice:** |  |  |
| **Lesson Closing:**   1. **Statement of review:** 2. **Evaluation:** 3. **Transition statement:** |  |  |