MRS. GAWLIK/MRS. CACHIA October 27-31, 2014

**Monday October 27, 2014**

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| **Content Standard:**  **Understand the connections between proportional relationships, lines, and linear equations.**   * 8.FA.3 Interpret the equation y=mx+b as defining a linear function whose graph is a straight line; give examples of functions that are not linear. | **ELP Standard:**  English language learners communicate information, ideas and concepts necessary for academic success in the content area of Mathematics. |
| **Content Objective:**  I can demonstrate comprehension of inverse relationships by completing Problem 3.4. | **Language Objective:**  I can write to answer questions of inverse relationships using content specific vocabulary. |
| * TARGET STATEMENT:   **I CAN**   1. I can use a table or graph to determine if a mathematical model suggests an inverse variation | |
| **Key Vocabulary:**  Independent and Dependent variable, linear relationship, nonlinear relationship, x-axis, y-axis, variables, function, mathematical model, residual, slope, additive inverse, multiplicative inverse, inverse variation  **HOTS (Questions):**   * What are the variables involved? (w and l) * What is the form of the function that you would expect? (w=k/l) * How would you guess the value of k? (Look at the product of w and l in a few cases.) | **Content Specific:**   * What functions did you come up with? (Inverse function) * How did you find the functions? (Students should show an understanding of how to use a table or a graph)   **General Terms:** |
| **Visuals, Materials, & Text**  **TEXT:** Thinking with Mathematical Models  **VISUALS:**  **MATERIALS:** | **Accommodations**  **Partners, small groups,** |

**Tuesday, October 28**

**(Technology)**

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| * TARGET STATEMENT * I can use technology as a tool to assist me with math concepts. |

**Wednesday/Thursday October 29-30, 2014**

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| **Content Standard:**  **Understand the connections between proportional relationships, lines, and linear equations.**   * 8.SP.A.1 Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. | **ELP Standard:**  English language learners communicate information, ideas and concepts necessary for academic success in the content area of Mathematics.   * Explicit instruction of bivariate data vocabulary using tactile and virtual tools (ex: software tools, example of scatter plots). * Real world examples to reinforce bivariate data vocabulary (positive, negative, and no relationship graphs). |
| **Content Objective:**  I can demonstrate comprehension of the model of fit by examining the closeness of the data points to the line. | **Language Objective:**  I can write to draw conclusions of the model of fit using mathematical models. |
| * TARGET STATEMENT:   **I CAN**   1. I can determine whether a linear model is a good fit based on given data. | |
| **Key Vocabulary:**  Independent and Dependent variable, linear relationship, nonlinear relationship, x-axis, y-axis, variables, function, mathematical model, residual, slope, additive inverse, multiplicative inverse, inverse variation, correlation coefficient, outlier, residual, scatter plot, standard deviation, variance  **HOTS (Questions):**  **Essential Questions:**   * What relationships can be seen in bivariate data? * What conclusions can be drawn from data displayed on a graph? * What do the slope and -intercept of a line of best fit signify on a graph? * How can graphs, tables, or equations be used to predict data? | **Content Specific:**   * Do you think the data support the claim that arm span and height are about equal? * What equation would relate, the two variables if each student in the class had arm span equal to height?   **General Terms:**   * What is a scatter plot? * What does it compare? * Why is it useful in this scenario? |
| **Visuals, Materials, & Text**  **TEXT:** Thinking with Mathematical Models  **VISUALS:** Show Launch  **MATERIALS:** Lab sheet 4.1, graph paper | **Accommodations**  **Partners, small groups, master copy of lab sheets** |
| **Wrap up/Ticket Out**   * Today I learned….. | |

**Friday, October 31, 2014**

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| **Content Standard:**  **Understand the connections between proportional relationships, lines, and linear equations.**   * 8.SP.A.1 Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. | **ELP Standard:**  English language learners communicate information, ideas and concepts necessary for academic success in the content area of Mathematics. |
| **Content Objective:**  . | **Language Objective:** |
| * TARGET STATEMENT:   **I CAN** complete application questions, 1-3 on page 96-97. | |
| **Key Vocabulary:** Independent and Dependent variable, linear relationship, nonlinear relationship, x-axis, y-axis, variables, function, mathematical model, residual, slope, additive inverse, multiplicative inverse, inverse variation, correlation coefficient, outlier, residual, scatter plot, standard deviation, variance  **HOTS (Questions):** | **Content Specific:**  **General Terms:** |
| **Visuals, Materials, & Text**  **TEXT:** Thinking with Mathematical Models  **VISUALS:** None  **MATERIALS:** ACE lab sheet 4 Exercise 1 and 3 | **Accommodations**  **Partners, small groups, master copy of tables, graphs** |
| **Wrap up/Ticket Out**   * Today I learned….. | |