**ARC Week at Glance**

**Subject: Math Course: A.P. Statistics Grade: 11th – 12th Dates: 9/23 – 9/27**

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| **AP Standard ID**: Analyze Bivariate Quantitative Data with Least-squares Regression Lines, Residual plots, Outliers, and Influential Points.  **Assessment(s):  Quiz  Unit Test  MML  Lab  FRQ** | | | | | | |
|  | **Learning Target**  **(I am learning about…)** | **Criteria for Success**  **(I can…)** | **Opening**  *(10 - 15 Mins)* | **Work-Session**  *(20 - 25 mins)* | **Closing**  *(5 - 10 mins)* | **Literacy Tasks/Focus** |
| *(Include at least one/two formatives\*in any part of the lesson as needed)* | | |
| **Monday** | I am learning about how to describe bivariate quantitative data. | I can describe and analyze relationships between two quantitative data. | Tylervigen.com  Spurious Correlations | **Practice & Review on**  **Chapter 6** | Make-up your own spurious correlation  **\*MyMathLab 6.1 due Friday by 8:00 am** | See Closing |
| **Tuesday** | I am learning about how to describe bivariate quantitative data. | I can describe and analyze relationships between two quantitative data. | Share best spurious correlation | **Quiz on Chapter 6** |  |  |
| **Wednesday** | I am learning about Least-Squares Regression Lines.  (L.S.R.L.) | I can find correlation and determine whether lurking variables or outliers are influencing the relationship observed | See Scatterplot of protein versus fat content on the entire menu at BK: comment on what you see in the scatterplot. What was added to the scatterplot in the figure below? | Notes, modeling and guided practice for **Chapter 7: Linear Regression pages 171 – 177** | What does the slope tell us, in the context of the BK menu? What does the y-intercept tell us? | See Opening and Closing |
| **Thursday** | I am learning about using Least-Squares Regression Lines to make predictions | I can use LSRL’s to model associations between bivariate quantitative data and use it to make predictions | Just Checking page 178 | Notes, modeling and guided practice on **Chapter 7: Linear Regression pages 178 – 180** | Practice Problem #18 on pages 199 (4th Edition Text) | Does your model do a good job of making predictions? Why or why not? |
| **Friday** | I am learning about residuals. | I can construct residual plots and use them to determine how well the LSRL fits the data | Hurricane Katrina had a central pressure at 920 millibars. What does our regression model predict for her maximum wind speed?  2. How good was that prediction given that Katrina’s actual wind speed was measured at 110 knots?  3. So, what was the residual for this prediction?  4. Did our model overestimate or underestimate the wind speed? | Chapter 7: Linear Regression pages 188 – 191 | Practice Problem #56 on pages 199 (4th Edition Text) | Does your model do a good job of making predictions? Why or why not? |

**\*** Exit Ticket/Final Stretch Check  Electronic Tools  Dry Erase Boards – quick checks  Turn & Talk Discussion (verbal responses)  Teacher Observation – document Clipboard

Quick Write/Draw  Annotation  Extended Writing  Socratic Seminar  Jigsaw  Thinking Maps  Worked Examples  Other : \_\_\_\_\_\_\_\_\_\_\_