**ARC Week at Glance**

**Subject: Math Course: Advanced Algebra Concepts & Connections Grade: 10th – 12th Dates: 8/12 – 8/16**

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| **Standard(s):** AA.DSR.2 Communicate descriptive and inferential statistics by collecting, critiquing, analyzing, and interpreting real-world data. AA.DSR.2.1 Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each. Distinguish between primary and secondary data and how it affects the types of conclusions that can be drawn. AA.DSR.2.2. When collecting and considering data, critically evaluate ethics, privacy, potential bias, and confounding variables along with their implications for interpretation in answering a statistical investigative question. Implement strategies for organizing and preparing big data sets. AA.DSR.2.3. Distinguish between population distributions, sample data distributions, and sampling distributions. Use sample statistics to make inferences about population. AA.DSR.2.6 Model sample-to-sample variability in sampling distributions of a statistic using simulations taken from a given population.  AA.MM.1: Apply mathematics to real-life situations; model real-life phenomena using mathematics  **Assessment(s):  Quiz  Unit Test  Project  Lab  None** | | | | | | |
|  | **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 how to collect and analyze data. | I can list the variables in a data set and classify them as either categorical or quantitative. | Quick Study then **Vocabulary Quiz**  \*Formative or Summative  (see below) | Complete 1a and 1b on the “What are My Classmates Like?” Task from ILP- A Framework for Statistical Reasoning | Complete 1c on the “What are My Classmates Like?” Task from ILP- A Framework for Statistical Reasoning | What are some examples of data you could summarize with a bar graph? |
| **Tuesday** | I am learning how to graph quantitative data. | I can determine a five-number summary and create a boxplot with univariate quantitative data. | **Vocabulary Re-Quiz**  \*Summative (optional) then Choose one of the quantitative variables that your group will analyze further today on the “What are My Classmates Like?” Task and begin constructing a frequency chart. | Complete #2 on the “What are My Classmates Like?” Task - Create a frequency chart and construct a boxplot for your chosen quantitative variable of interest and list the five-number summary. | What percentage of the data falls between:  1. The minimum and the maximum  2. The minimum and the median  3. The median and the maximum:  4. The Q1 and Q3  5. The minimum and Q3 | Turn & Talk about closing questions |
| **Wednesday** | I am learning how to graph data. | I can construct and interpret histograms and bar charts. | Poll Class on their favorite social media app (Facebook, Instagram, Snapchat, Twitter, etc.) then construct a bar chart to display the data. | Now convert the counts to percent’s and then construct a relative frequency bar chart (using percent’s) | “Which cell phone speaks to you?” Task (begin in class / finish for homework) | Is the shape of the bar chart and the relative bar chart the same? What are the similarities and differences? |
| **Thursday** | I am learning how to collect and analyze data | I can use appropriate vocabulary, plan simulations and collect & display data in graphs. | Check homework with student exemplars and do nots: “Which cell phone speaks to you?” Task | Practice on Analyzing and Collecting Data  \*Formative | Check Practice, Q&A, feedback | Identify types of sources and data, describe performing a simulation in real-world scenario. |
| **Friday** | I am learning how to collect and analyze data | I can use appropriate vocabulary, plan simulations and collect & display data in graphs. | Quick study with Q&A | Quiz on Analyzing and Collecting Data  \*Summative | What did you know? What do you need to practice further? | Identify types of sources and data, describe performing a simulation in real-world scenario. |

**\*** 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 : \_\_\_\_\_\_\_\_\_\_\_