**ARC Week at Glance**

**-Subject: Mathematics Course: Algebra: Concepts & Connections Grade:** **9th – 12th Date: 8/18/2025**

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| **Standard(s):** A.FGR.2.2: Construct and interpret the graph of a linear function that models real-life phenomena and represent key characteristics of the graph using formal notation.  A.FGR.2.4: Use function notation to build and evaluate linear functions for inputs in their domains and interpret statements that use function notation in terms of a mathematical framework.  A.FGR.2.5: Analyze the difference between linear functions and nonlinear functions by informally analyzing the graphs of various parent functions (linear, quadratic, exponential, absolute value, square root, and cube root parent curves).  **Assessment(s):  Quiz  Unit Test  Project  Lab  None** | | | |
|  | **Learning Target**  **(I am learning about…)** | **Success Criteria**  **(I can….)** | **Lesson/Activities of the Day** | **Assignments/Formative Assessment** |
| **Monday** | I am learning to analyze the difference between linear and nonlinear functions  I am learning to use function notation to build and evaluate linear functions and interpret statements using function notation | I can analyze the difference between linear and nonlinear functions  I can use function notation to evaluate linear functions and interpret statements using function notation | Engage: Students will view the board with different linear and nonlinear graphs. Students will then participate in “What I Know, What I Notice and What I Wonder. Students will then discuss with their partners and the class  Explore: Students will explore linear and nonlinear functions  Explain: Teacher will explain the characteristics between linear and nonlinear functions  Elaborate: Teacher will discuss the various and label the various nonlinear functions  Evaluate: Teacher will provide a TOTD over labeling linear and nonlinear functions | T.O.T.D. over labeling linear and nonlinear functions |
| **Tuesday** | I am learning to analyze the difference between linear and nonlinear functions  I am learning to use function notation to build and evaluate linear functions and interpret statements using function notation | I can analyze the difference between linear and nonlinear functions  I can use function notation to evaluate linear functions and interpret statements using function notation | Engage: Teacher will provide students with a retrieval quiz over function notation. After collecting the quiz, teacher and students will review quiz  Explore: Students will explore statements that use function notation  Explain: Teacher will explain how we can use function notation to create hypotheses about a given topic  Elaborate: Teacher will present statements from topics using function notation, create a hypothesis about the topic and test the hypothesis  Evaluate: Teacher will provide discussion question about a statement using function notation. Students will then participate in a Socratic Seminar about what they believe may happen. Together, we will test the statement. | Socratic Seminar |
| **Wednesday** | I am learning to analyze the difference between linear and nonlinear functions  I am learning to use function notation to build and evaluate linear functions and interpret statements using function notation | I can analyze the difference between linear and nonlinear functions  I can use function notation to evaluate linear functions and interpret statements using function notation | Engage: Teacher will review linear and nonlinear functions  Explore: Students will explore the affects of adding and subtracting to a linear function  Explain: Teacher will explain the how these affects create transformations of linear functions from the original parent function  Elaborate: Students will be provided guided practice discussing transformations of linear functions  Evaluate: Students will be provided practice sheets over Function Notation Statements and Linear and Nonlinear Functions (Small Group and 1 on 1 time will be provided for the students) | Practice Sheet over Function Notation Statements and Linear and Nonlinear Functions |
| **Thursday** | I am learning to analyze the difference between linear and nonlinear functions  I am learning to use function notation to build and evaluate linear functions and interpret statements using function notation | I can analyze the difference between linear and nonlinear functions  I can use function notation to evaluate linear functions and interpret statements using function notation | Engage: Teacher will review linear and nonlinear functions and function notation statements  Explore: Students will revisit linear and nonlinear functions and function notation statements  Explain: Teacher will provide small group and 1 on 1 for practice sheets  Elaborate: Students will work on practice sheets  Evaluate: Students will be provided practice sheets over Function Notation Statements and Linear and Nonlinear Functions (Small Group and 1 on 1 time will be provided for the students | Construct and interpret real-world graphs from a linear function Task |
| **Friday** | I am learning to analyze the difference between linear and nonlinear functions  I am learning to use function notation to build and evaluate linear functions and interpret statements using function notation | I can analyze the difference between linear and nonlinear functions  I can use function notation to evaluate linear functions and interpret statements using function notation | * Assessment over Function Notation Statements and Linear and Nonlinear Functions | Formative Assessment over Function Notation Statements and Linear and Nonlinear Functions |

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