**ARC Week at Glance**

**Subject: Math Course: Advanced Algebra Concepts & Connections Grade: 10th – 12th Dates: 9/29 to 10/3**

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| **Standard(s):**  AA.FGR.3 Explore and analyze structures and patterns for exponential functions.  AA.FGR.3.2 Analyze, graph, and compare exponential and logarithmic functions.  AA.MM.1.2 Create mathematical models to explain phenomena that exist in the natural sciences, social sciences, liberal arts, fine and performing arts, and/or humanities contexts.  **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 about graphs and characteristics of exponential functions. | I can graph and describe characteristics of exponential growth & decay functions. | Compare & Contrast: | Complete **Practice** on Graphing Exponential Growth and Decay Handout  \*Formative | Solicit Commentary, share exemplars | T & T: How do you find the y-intercept?  How do you identify the asymptote? …domain & Range? |
| **Tuesday** | I am learning about graphs and characteristics of exponential functions. | I can graph and describe characteristics of exponential growth & Decay functions. | Quick Study with Q&A | **Quiz** on Graphing Exponential Growth and Decay Handout | I am learning about graphs and characteristics of exponential functions. | I can graph and describe characteristics of exponential growth & Decay functions. |
| **Wednesday** | I am learning about models for exponential growth and decay functions used in real-life. | I can solve application problems using exponential growth & decay models. | Return Quiz  (feedback) | Complete **Modeling Applications with Exponential Growth & Decay** #’s 1 and 3 with teacher guidance | Complete Modeling Applications with Exponential Growth & Decay #’s 2 and 4 with partner | What key words indicate using an exponential growth model? … exponential decay? |
| **Thursday** | I am learning about exponential growth & decay functions in real-life | I can calculate interest and value using the compound interest formula. | You strike a deal with you parents: if you perform all your chores for 30 days, you will get paid a penny on the first day then they will double the value each day. How much will they owe you on day 30? | Interest Problems Learning Task Parts I and II | Begin  “Which Job Would You Choose?” Project  due Oct. 11th & remember that I will PRE-CHECK before due date! | Compare interest rate, compounding times and time’s effects on balances and interest. |
| **Friday** | I am learning about exponential growth & decay functions in real-life | I can calculate interest and value using the continuous interest formula. | Determine value of n: quarterly, semi-annually, monthly, daily, every minute | Interest Problems Learning Task Parts III and IV | Continue  “Which Job Would You Choose?” Project | Compare linear and exponential growth patterns and make comparisons when choosing better outcomes over time |

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