**ARC Week at Glance**

**Subject: Math Course: Advanced Algebra Concepts & Connections Grade: 9th – 12th Dates: 11/4 to 11/8**

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| **Standard(s):**  AA.FGR.3.3 Use the definition of a logarithm, logarithmic properties, and the inverse relationship between exponential and logarithmic functions to solve problems in context.  AA.FGR.3.4 Create exponential equations and use logarithms to solve contextual problems for which only one variable is unknown.  AA.FGR.3.5 Create and interpret logarithmic equations in one variable and use them to solve problems.  **Assessment(s):  Quiz  Unit Test  Project  Lab** | | | | | | |
|  | **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 properties of exponents and logarithms. | I can evaluate log expressions using technology/calculator. | **Finish Card Sorting Activity with Exponential and Logarithmic Equations**  \*Formative | Complete Part III on “**What Is a Logarithm- Spotlight Task**?” | Complete Part IV on “**What Is a Logarithm- Spotlight Task**?” | What is the change of base formula? How do we apply it? |
| **Tuesday** | I am learning about how to solve **exponential equations.** | I can solve **exponential** equations using the properties of logarithms. | RCSS Flexbook **Lesson 4.22** Solving Exponential Equations  Teacher models examples A, B, and C | RCSS Flexbook Lesson 4.22 Solving Exponential Equations  Guided Practice #’s 1 – 3 | RCSS Flexbook Lesson 4.22 Solving Exponential Equations  Practice #’s 1 – 13 | T&T: When do you re-express equation in logarithmic form? |
| **Wednesday** | I am learning about how to solve **logarithmic equations.** | I can solve **logarithmic** equations using the properties of logarithms. | RCSS Flexbook **Lesson 4.28** Solving Logarithmic Equations  Teacher models examples A, B, and C | RCSS Flexbook Lesson 4.28 Solving Logarithmic Equations  Guided Practice #’s 1 – 3 | RCSS Flexbook Lesson 4.28 Solving Logarithmic Equations  Practice #’s 1 – 10 | T&T: When do you  re-express equation in exponential form? |
| **Thursday** | I am learning about how to solve **logarithmic and exponential** equations. | I can solve **logarithmic** **and exponential** equations using the properties of logarithms. | Practice & Review Worksheet on Solving Exponential and Logarithmic Equations  \*Formative | Choose a problem to present/work for the class to see | Students present and get feedback/ evaluation from their classmates | Justification of procedures and inverse operations used in solving their equations. |
| **Friday** | I am learning about how to solve **logarithmic and exponential** equations. | I can solve **logarithmic** **and exponential** equations using the properties of logarithms. | Quick Study Time with Q&A | Quiz on Solving Exponential and Logarithmic Equations  \*Summative | Self-Evaluation | What did you know? What do you need to study or practice further? What questions do you have? |

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