**ARC Week at Glance**

**Subject: Math Course: Advanced Algebra Concepts & Connections Grade: 9th – 12th Dates: 1/13 to 1/17**

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| **Standard(s):**  AA.FGR.5.1 Graph and analyze quadratic functions in contextual situations and include analysis of data sets with regressions.  AA.FGR.5.2 Define complex numbers i such that i 2 = –1 and show that every complex number has the form a + bi where a and b are real numbers and that the complex conjugate is a - bi.  AA.FGR.5.3 Use the relation i 2 = –1 and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers  **Assessment(s):  Quiz  Unit Test  Project Apply Activity (Major)** | | | | | | |
|  | **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 of quadratic functions. | I can make sense of parabolas in real-world scenarios. | Complete Graphs Unmasked -Diagnostic Activity.  \*Formative assessment | Complete Graphs Unmasked -Explore Activity. | Begin Graphs Unmasked -Apply Activity in small groups  \*Summative assessment | Turn & Talk after you complete the explore activity. Do you and partner agree? |
| **Tuesday** | I am learning about graphs of quadratic functions. | I can make sense of parabolas in real-world scenarios. | Return teacher pre-checked with feedback Graphs Unmasked - Apply Activity in small groups  \*Summative assessment | Correct and re-turn-in Graphs Unmasked - Apply Activity in small groups  \*Summative assessment | Complete Parts I and II on Introducing the Imaginary Unit I (Homework) | What’s a perfect square number? |
| **Wednesday** | I am learning about the imaginary unit i. | I can simplify expressions with powers of I and negative radicands. | Check Parts I and II on Introducing the Imaginary Unit i | Modeling and guided practice for Parts III and IV on Introducing the Imaginary Unit i | T&T: Why do simplifications repeat when we raise the imaginary unit I to exponents greater than 4? | See closing |
| **Thursday** | I am learning about the imaginary unit I and how to perform operations with complex numbers. | I can add, subtract, multiply and divide complex numbers. | Complete #’s 1 – 15 on Practice with Complex Numbers | Do odds or evens on rest of the Practice Worksheet  \*Formative assessment | Check, display or model exemplars | How do we simplify expressions with the imaginary unit I raised to some power? |
| **Friday** | I am learning about the imaginary unit I and how to perform operations with complex numbers. | I can simplify expressions with powers of I and negative radicands and I can add, subtract, multiply and divide complex numbers | Quick Study | Quiz on Imaginary Unit I and Complex #’s  \*Summative assessment |  |  |

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