**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):** [x]  **Quiz** [ ]  **Unit Test** [ ]  **Project** [x] **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 [x]  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 [x]  Worked Examples [ ]  Other : \_\_\_\_\_\_\_\_\_\_\_