

## ARC Week at Glance

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

<b>Standard(s):</b> 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						
<b>Assessment(s):</b> <input checked="" type="checkbox"/> Quiz <input type="checkbox"/> Unit Test <input type="checkbox"/> Project <input checked="" type="checkbox"/> 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
			<i>(Include at least one/two formatives*in any part of the lesson as needed)</i>			
<b>Monday</b>	I am learning about graphs of quadratic functions.	I can make sense of parabolas in real-world scenarios.	Complete Graphs Unmasked -Diagnostic Activity. <b>*Formative assessment</b>	Complete Graphs Unmasked -Explore Activity.	Begin Graphs Unmasked -Apply Activity in small groups <b>*Summative assessment</b>	Turn & Talk after you complete the explore activity. Do you and partner agree?
<b>Tuesday</b>	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 <b>*Summative assessment</b>	Correct and re-turn-in Graphs Unmasked - Apply Activity in small groups <b>*Summative assessment</b>	Complete Parts I and II on Introducing the Imaginary Unit $i$ (Homework)	What's a perfect square number?
<b>Wednesday</b>	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
<b>Thursday</b>	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 <b>*Formative assessment</b>	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 <b>*Summative assessment</b>		
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- \*  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 : \_\_\_\_\_