**ARC Week at Glance**

**Subject: Math Course: Advanced Algebra Concepts & Connections Grade: 9th – 12th Dates: 3/24 to 3/28**

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| **Standard(s):**  AA.GSR.7 Develop an introductory understanding of the unit circle; solve trigonometric equations using the unit circle.  AA.GSR.7.1 Define the three basic trigonometric ratios in terms of x, y, and r using the unit circle centered at the origin of the coordinate plane.  **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 special right triangles. | I can determine side lengths with 30, 60, 90 and 45,45,90 triangles. | Revisiting Special Right Triangles with teacher guidance. | Practice with Special Right Triangles with partners. | Check work, share exemplars and do nots. | How do you remember the side lengths with these special right triangles? |
| **Tuesday** | I am learning about the unit circle. | I can develop an understanding of the unit circle and define sine, cosine, and tangent in terms of the unit circle. | Right Triangles and the Unit Circle - Diagnostic Assessment  (page 1 in the Right Triangles and the Unit Circle Learning Task) | Right Triangles and the Unit Circle – **Desmos Activity**  **(Link in GADOE Instructional Learning Plan)** | Challenge Questions #1 and 2 | Explain how the unit circle definition of sin and cosine are related |
| **Wednesday** | I am learning about the unit circle. | I can label and interpret radian measures of angles around the unit circle. | Introducing the Unit Circle Learning Task Parts I and IIA: | Introducing the Unit Circle Learning Task Parts IIB and IIC: | Introducing the Unit Circle Learning Task Part III | What are some strategies or patterns you saw when converting the angle measures in degrees to radians? |
| **Thursday** | I am learning about the unit circle. | I can label and interpret radian measures of angles around the unit circle. | Label the unit circle handout with degrees and radian measures.  \*Formative Quiz | Constructing a Unit Circle Task Steps 1 & 3 in pairs (Skip Step 2, the unit circle with axis will be provided) | Label the unit circle handout with degrees and radian measures.  \*Summative Quiz | What are some strategies or patterns you saw when converting the angle measures in degrees to radians? |
| **Friday** | I am learning about the unit circle. | I can label the coordinates of the endpoints of interest around the unit circle. | Label triangles’ side measures (you cut these out yesterday).  \* Teacher displays special right triangle lengths for reference | Constructing a Unit Circle Task Steps 4 – 9 in pairs with teacher guidance, checks and exemplars shared.  **\*2-DAYS!** | Check work, share exemplars and do nots. | How do you remember the endpoints with these special right triangles? |

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