**Math Unit 3: Rational Numbers (4-6 weeks)**

**Week 4: 1/13 - 1/17**

1/13 - Lesson 11: Absolute Value – Magnitude and Distance

YWBAT understand the absolute value of a number as its distance from zero on the number line

Success is: use absolute value to find the magnitude of a positive or negative quantity in a real-world situation

* Warm up – opening exercise: find two different rational numbers that are the same distance from zero
	+ what is the relationship between each pair of numbers you thought of?
	+ how does each pair of numbers relate to zero?
* Vocabulary: absolute value
* Example 1
* In table groups: exercises 1-3
* Example 2: explaining greater value
* Example 2
	+ what does ‘magnitude’ mean?
* In table group: exercises 4-8
* Independent/guided practice: exercises 9-19
	+ discuss answers
* Re-visit goals

1/14 - Lesson 12: The Relationship Between Absolute Value and Order

YWBAT understand that the order of negative numbers is the opposite order of their absolute values

Success is: order rational numbers and their absolute values correctly

* Correct homework
* Warm up – opening exercise: ordering integers from least to greatest
	+ explain reasoning
* Example 1: comparing order of integers to the order of their absolute values
* Example 2: the order of negative integers and their absolute values
* In table groups: exercise 1
	+ discuss
* Independent/guided practice: exercise 2
* Lesson 12 foldable
	+ Front as a class
	+ 1-2 in pairs
	+ 3-4 as a class
	+ 5-6 in pairs
* Re-visit goals

1/15 - Lesson 13: Statements of Order in the Real World

YWBAT apply understanding of order and absolute value when examining real-world scenarios

Success is: correctly use the idea of magnitude and absolute value to determine distance in each scenario

* Correct homework
* Warm up – opening exercise
	+ discuss
* Example 1: ordering numbers in the real world
* In pairs: exercises 1-4
	+ each problem takes 3 minutes and students switch partners each problem
	+ discuss answers and reasoning
* Example 2: using absolute value to solve real world-problems (use graph paper)
* Independently: example 3: making sense of absolute value and statements of inequality
* Independent/guided practice: problem set
* Assign homework

1/16 - Mid-Module Assessment

YWBAT understand ordering and absolute value of rational numbers

Success is: demonstrating master of the concept on the assessment

* Warm up
* Assessment

1/17 - Lesson 14: Ordered Pairs and Lesson 15: Locating Ordered Pairs on the Coordinate Plane

YWBAT use ordered pairs to name points in a grid and to locate points on a map and to expand understanding to all four quadrants of the coordinate plane

Success is: use appropriate vocabulary when working with ordered pairs

Success is: identify the origin and locate other points on the coordinate plane

* Warm up – assessment hiccups
* Vocabulary: ordered pair, first coordinate, second coordinate, x-axis, y-axis, x-coordinate, y-coordinate, origin, coordinate pair, quadrant
* Example 1: the *order* in ordered pair using (row/column, seat)
* Example 2: using ordered pairs to name locations; discuss:
	+ concert/stadium seats scenario
	+ longitude/latitude scenario
	+ salt lake city scenario
* Exercise 1 (a-d as a class, e-h in pairs)
* Independent/guided practice: exercise 2
* Example 1: extending the axes beyond zero
* Example 2: components of the coordinate plane
* As a class: exercise 1
* In table groups: exercises 2-3
* Example 3: quadrants of the coordinate plane
* Independent/guided practice: exercises 4-6
* Re-visit goals