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

**Week 1: 12/16 - 12/20**

12/16 - Lesson 2: Real-World Positive and Negative Numbers and Zero

YWBAT use positive and negative numbers to indicate a change (gain or loss) in elevation with a fixed reference point, temperature, and the balance in a bank account

Success is: use vocabulary precisely when describing and representing situations involving integers

Success is:  choose an appropriate scale for the number line when given a set of positive and negative numbers to graph

* Warm up – using appropriate scale
  + how would you plot 150 on a number line?
    - discuss common misconceptions
* Example 1: banking vocabulary (credit, deposit, debit, withdrawal, change)
* Exercises 1 - 2
* Example 2: reading thermometers
* In table group: exercises 3-5
* Independent/guided practice: problem set
* Re-visit goals

12/17 - Lesson 3: Real-World Positive and Negative Numbers and Zero

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Success is: use vocabulary precisely when describing and representing situations involving integers

Success is:  choose an appropriate scale for the number line when given a set of positive and negative numbers to graph

* Correct homework
* Warm up – example 1
  + what does elevation mean?
* Example 1: discussion questions
* In table groups: exercises 1 – 2
* Misconceptions
* In pairs or independent: exercise 3
* Exploratory Challenge: creating real-world situations involving money, temperature or elevation
* Independent/guided practice: problem set
* Re-visit goals

12/19 - Lesson 4 The Opposite of a Number & Lesson 5 The Opposite of a Number’s Opposite

YWBAT understand that each nonzero integer, *a*, has an opposite, denoted -*a*; and that -*a* and *a* are opposites if they are on opposite sides of zero and are the same distance from zero on the number line

Success is: locate and position opposite numbers on a number line

* Correct homework
* Warm up – what is the relationship?
  + discussion
  + can you think of an opposite relationship involving integers?
* Students note patterns as teacher draws and labels an integer and its opposite
  + Student number line
* Vocabulary: simplify “opposite of a number” definition in student materials
* Example 1
* Independently: exercises 2-3
* Example 2
* Partners: exercises 4-5
* Example 1 (lesson 5):opposite of an opposite of a number
* Example 2: writing the opposite of an opposite of a number
* In table groups: exercises 1-3
* Re-visit goals

12/20 - Lesson 6: Rational Numbers on the Number Line

YWBAT understand a rational number as a point on the number line

Success is: find and position integers and other rational numbers on a horizontal or vertical number line diagram

* Warm up – fraction to decimal conversion review
* Example 1: Graphing Rational Numbers
  + Vocabulary: rational number
* Exercise 1
* Example 2: Rational Numbers and the Real World
* In table group: exercise 2
* Independent/guided practice: problem set
* Re-visit goals