Assessment Plan

Grade: 7 Unit 3: Rational Number Operations

Standards/Topics	Conceptual Understanding	Procedural Skill & Fluency	Application
6.NS.5 6.NS.6 6.NS.7	**Integers and Absolute Value** Lesson 1 Number Line *Pre-Assessment* *Answer Key* *Self-Assessment Skeleton*		
7.NS 1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. a. Describe situations in which opposite quantities combine to make 0. *For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.* *(PBA/MYA), (EOY)*	**Contexts and Representations for Adding and Subtracting Integers** Lesson 2 *Formative* **Contexts and Representations for Adding and Subtracting Rational Numbers** Lesson 3 *Summative*	**Contexts and Representations for Adding and Subtracting Integers** Lesson 2 *Formative* **Contexts and Representations for Adding and Subtracting Rational Numbers** Lesson 3 *Summative*	
7.NS 1. Apply and extend previous understandings of addition and subtraction to rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b. Understand $p + q$ as the number located a distance $\|q\|$ from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts. *(PBA/MYA), (EOY)*	**Contexts and Representations for Adding and Subtracting Integers** Lesson 2 *Formative* **Contexts and Representations for Adding and Subtracting Rational Numbers** Lesson 3 *Summative*	**Contexts and Representations for Adding and Subtracting Integers** Lesson 2 *Formative* **Contexts and Representations for Adding and Subtracting Rational Numbers** Lesson 3 *Summative*	**Contexts and Representations for Adding and Subtracting Integers** Lesson 2 *Formative* **Contexts and Representations for Adding and Subtracting Rational Numbers** Lesson 3 *Summative* **NASA Task** Lesson 3 *Summative*

7.NS 1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c. Understand subtraction of rational numbers as adding additive inverse, *p- q = p + (-q).* Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts. *(PBA/MYA), (EOY)*	**Contexts and Representations for Adding and Subtracting Integers** Lesson 2 *Formative* **Contexts and Representations for Adding and Subtracting Rational Numbers** Lesson 3 *Summative*	**Contexts and Representations for Adding and Subtracting Integers** Lesson 2 *Formative* **Contexts and Representations for Adding and Subtracting Rational Numbers** Lesson 3 *Summative* **Salute** Lesson 2 *Observation Checklist* *Formative* **Integer Game** Lesson 2 *Formative*	**Contexts and Representations for Adding and Subtracting Integers** Lesson 2 *Formative* **Contexts and Representations for Adding and Subtracting Rational Numbers** Lesson 3 *Summative* **Problem Solving 1** Lesson 2 *Formative*
7.NS 1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. d. Apply properties of operations as strategies to add and subtract rational numbers. *(PBA/MYA), (EOY)*		**Contexts and Representations for Adding and Subtracting Integers** Lesson 2 *Formative* **Contexts and Representations for Adding and Subtracting Rational Numbers** Lesson 3 *Summative* **Salute** Lesson 2 *Observation Checklist* *Formative*	

7.NS 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (-1)(-1) = 1 and the rules for multiplying signed numbers, interpret products of rational numbers by describing real-world contexts. *(PBA/MYA), (EOY)*	**Contexts and Representations for Multiplying and Dividing Integers** Lesson 4 *Formative* **Contexts and Representations for Multiplying and Dividing Rational Numbers** Lesson 5 *Summative*	**Salute** Lesson 4 *Observation Checklist* *Formative*	
7.NS 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. b. Understand that integers can be divided , provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If *p* and *q* are integers, then *–(p/1) = (-p/q = p/(-q)*. Interpret quotients of rational numbers by describing real-world contexts. *(PBA/MYA), (EOY)*	**Contexts and Representations for Multiplying and Dividing Integers** Lesson 4 *Formative* **Contexts and Representations for Multiplying and Dividing Rational Numbers** Lesson 5 *Summative*	**Contexts and Representations for Multiplying and Dividing Integers** Lesson 4 *Formative* **Contexts and Representations for Multiplying and Dividing Rational Numbers** Lesson 5 *Summative* **Salute** Lesson 4 *Observation Checklist* *Formative*	**Contexts and Representations for Multiplying and Dividing Integers** Lesson 4 *Formative* **Contexts and Representations for Multiplying and Dividing Rational Numbers** Lesson 5 *Summative* **Problem Solving 2** Lesson 5 *Formative*
7.NS 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. c. Apply properties of operations as strategies to multiply and divide rational numbers. *(PBA/MYA), (EOY)*	**Contexts and Representations for Multiplying and Dividing Integers** Lesson 4 *Formative* **Contexts and Representations for Multiplying and Dividing Rational Numbers** Lesson 5 *Summative*	**Contexts and Representations for Multiplying and Dividing Integers** Lesson 4 *Formative* **Contexts and Representations for Multiplying and Dividing Rational Numbers** Lesson 5 *Summative*	

7.NS 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. c. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats. *(PBA/MYA)*	**Rational Number Scoot** Lesson 5 *Formative* *Observation Checklist*	**Rational Number Scoot** Lesson 5 *Formative* *Observation Checklist*	
7.NS 3. Solve real-world and mathematical problems involving the four operations with rational numbers. *(PBA/MYA), (EOY)*	**Contexts and Representations for Adding and Subtracting Integers** Lesson 2 *Formative* **Contexts and Representations for Adding and Subtracting Rational Numbers** Lesson 3 *Summative* **Contexts and Representations for Multiplying and Dividing Integers** Lesson 4 *Formative* **Contexts and Representations for Multiplying and Dividing Rational Numbers** Lesson 5 *Summative*		**Problem Solving 1** Lesson 2 *Formative* **Problem Solving 2** Lesson 5 *Formative* **Rational Number Task Lesson 5** *Summative* *Observational checklist*