Mrs. Rayman's 6th Grade Math Weekly Lesson Plans

Date: Week of January 7, 2019

Unit 3 Common Core State Standards

6.NS.5 Understand that positive and negative numbers are used togethers to describe quantities having opposite directions or values; use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.	**6.NS. 6** Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.	**6.NS.6a** Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a numbers is the numbers itself, -(-3)= 3, and that 0 is its own opposite.	**6.NS.6c** Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.	**6.NS.5** Understand that positive and negative numbers are used togethers to describe quantities having opposite directions or values; use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.

Unit 3 Essential Questions:

- *How do graphing points on the coordinate system help in solving problems?*
- *How does absolute value help us to understand distance on a coordinate plane and support a deeper understanding of the relationship between positive and negative rational numbers?*

Number Sense:

- *Count around the room*
- *Ways to make a number*
- *Organic number line*

<u>Monday Engage NY Lesson 3-1 & 3-2</u>

Objective: Students extend their understanding of the number line, which includes zero and numbers to the right or above zero that are greater than zero and numbers to the left or below zero that are less than zero. Students use positive integers to locate negative integers by moving in the opposite direction from zero. Students use positive and negative numbers to indicate change in elevation with a fixed reference point.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video:
2. Classwork: Engage NY Lesson 3-1 and Lesson 3-2
3. Homework: Engage NY Lesson 3-1 and 3-2 Problem Set/Homework

Tuesday Engage NY Lesson 3-4

Objective: Students 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. Students will recognize that zero is it's own opposite.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v=LxllUeusDYY
2. Classwork: Engage NY Lesson 3-4 Examples 1-2 and Exercises 1-6
3. Homework: Engage NY Lesson 3-4 Problem Set/Homework

Wednesday Engage NY Lesson 3-5 and Lesson 3-6

Objective: Students will learn that the opposite of an opposite will be the original number- for example -(-(25)= 25. Students will use the number lines that extend in both directions and use 0 and 1 to locate integers and rational numbers on the number line.

Agenda:

4. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v=_BgblvF90UE
5. Classwork: Engage NY Lesson 3-5 and 3-6
6. Homework: Engage NY Lesson 3-5 and 3-6 Problem Set/Homework

Thursday Engage NY Lesson 3-8

Objective: Students will write, interpret, and explain statements of order for rational numbers in the real world.

Agenda:

7. Warm up: Fraction/Percent of the Day AND Video:
8. Classwork: Engage NY Lesson 3-8 Examples 1-2 and Exercises 1-6
9. Homework: Engage NY Lesson 3-8 Problem Set/Homework

Friday Engage NY Lesson 3-9

Objective: Students will compare and interpret rational numbers' order on the number line, making statements that relate the numbers' location on the number line to their order.

Agenda:

10. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v=Oq2KoAGrY64
11. Classwork: Engage NY Lesson 3-9 Examples 1-2 and Exercises 1-6
12. Homework: Engage NY Lesson 3-9 Problem Set/Homework

Mrs. Rayman's Daily Instructional Plan- Grade 6 Math

	Monday	Tuesday	Wednesday	Thursday	Friday
Accessing Prior Knowledge - Where are your students headed? Where have they been? How will you make sure the students know where they are going?	Warm up: Fraction/Percent of the Day AND Video:	Warm up: Fraction/Percent of the Day AND Video:	Warm up: Fraction/Percent of the Day AND Video:	Warm up: Fraction/Percent of the Day AND Video:	Warm up: Fraction/Percent of the Day AND Video:
Guided Practice - What events will help students experience and explore the big idea and questions in the unit? How will you equip them with needed skills and knowledge?	Direct Instruction: Engage NY Lesson 3-1 Examples 1-2 and Exercises 1-5	Direct Instruction: Engage NY Lesson 3-4 Examples 1-2 and Exercises 1-6	Direct Instruction: Engage NY Lessons 3-5 and 3-6	Direct Instruction: Engage NY Lesson 3-8 Examples 1-2 and Exercises 1-6	Direct Instruction: Engage NY Lesson 3-9 Examples 1-2 and Exercises 1-6
Independent Practice - How will you cause students to reflect and rethink? How will you guide them in rehearsing, revising, and refining their work? How will students work together to ensure mastery for all?	Student Notes and Homework: Engage NY Lesson 3-1 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 3-4 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 3-5 and 3-6 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 3-8 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 3-9 Problem Set/Homework
Assessing Knowledge - How will you help students to exhibit and self-evaluate their growing skills, knowledge, and understanding throughout the unit?	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations
Differentiation/Accommodation - How will you tailor and otherwise personalize the learning plan to optimize the engagement and effectiveness of ALL students, without compromising the goals of the unit?	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments
Learner Outcome - How will students demonstrate, as a result of lesson, their level of mastery? • Understand • Know • Do	Students extend their understanding of the number line, which includes zero and numbers to the right or above zero that are greater than zero and numbers to the left or below zero that are less than zero. Students use positive integers to locate negative integers by moving in the opposite direction from zero.	Students 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. Students will recognize that zero is it's own opposite.	Students will learn that the opposite of an opposite will be the original number- for example -(-(25)= 25. Students will use the number lines that extend in both directions and use 0 and 1 to locate integers and rational numbers on the number line.	Students will write, interpret, and explain statements of order for rational numbers in the real world.	Students will compare and interpret rational numbers' order on the number line, making statements that relate the numbers' location on the number line to their order.

Mrs. Rayman's 6th Grade Advanced Math
Weekly Lesson Plans

Date: Week of January 7, 2019

Unit 4 Common Core State Standards

6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.	**6.EE.2** Write, read, and evaluate expressions in which letters stand for numbers.	**6.EE.2c** Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations)	**6.EE.3** Apply the properties of operations to generate equivalent expressions.	**6.EE.4** Identify when two expressions are equivalent (i.e. when the two expressions name the same number regardless of which value is substituted into them).

Unit 4 Essential Questions:

- *How can one use algebraic symbols to write equations and inequalities representing real-world situations?*
- *How can one solve one-step equations and use substitution to determine if a given value is a solution?*

Number Sense:

- *Ways to make an equivalent expression*
- *Ways to make a solution*
- *Always, sometimes, never*
- *What's my rule?*

<u>Monday Engage NY Lesson 4-1 & 4-2</u>

Objective: Students build and clarify the relationship of addition and subtraction by evaluating identities such as w-x+x= w and w+x-x= w
Students build and clarify the relationship of multiplication and division by evaluating identities such as a / b x b= a and a x b / b = a.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v=l3XzepN03KQ
2. Classwork: Engage NY Lesson 4-1 and 4-2
3. Homework: Engage NY Lesson 4-1 & 4-2 Problem Set/Homework

Tuesday Engage NY Lesson 4-3 & 4-4

Objective: Students build and clarify the relationship of multiplication and addition by evaluating identities such as 3 x g= g + g + g Students build and clarify the relationship of division and subtraction by determining that 12 / x = 4 means 12- x- x- x- x= 0

Agenda:

4. Warm up: Fraction/Percent of the Day AND Video:
5. Classwork: Engage NY Lesson 4-3 and 4-4
6. Homework: Engage NY Lesson 4-3 & 4-4 Problem Set/Homework

Wednesday Engage NY Lesson 4-5

Objective: Students discover that 3x= x + x + x is NOT the same thing as x^3. Which is x * x * x Students understand that a base number can be represented with a positive whole number, positive fraction, or positive decimal and that for any number a, a^m is defined as the product of m factors of a. The number a is the base, and m is called the exponent or power of a.

Agenda:

7. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v=ZJDb7E6aCrA
8. Classwork: Engage NY Lesson 4-5
9. Homework: Engage NY Lesson 4-5 Problem Set/Homework

Thursday Engage NY Lesson 4-6

Objective: Students evaluate numerical expressions. They recognize that in the absence of parentheses, exponents are evaluated first.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v=S3IEeCyUWWA
2. Classwork: Engage NY Lesson 4-6
3. Homework: Engage NY Lesson 4-6 Problem Set/Homework

Friday Engage NY Lesson 4-7

Objective: Students understand that a letter represents one number in an expression. When that number replaces the letter, the expression can be evaluated to one number.

Agenda:

1. Warm up: Fraction/Percent of the Day
2. Classwork: Engage NY Lesson 4-7
3. Exit Ticket: Rate/Evaluate how you performed in math class today.
4. Homework: Engage NY Lesson 4-7 Homework/Problem Set

Mrs. Rayman's Daily Instructional Plan- Grade 6 Advanced Math

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Guided Practice - What events will help students experience and explore the big idea and questions in the unit? How will you equip them with needed skills and knowledge?	Direct Instruction: Engage NY Lesson 4-1 & 4-2	Direct Instruction: Engage NY Lessons 4-3 & 4-4	Direct Instruction: Engage NY Lesson 4-5 Examples 1-2 and Exercises 1-6	Direct Instruction: Engage NY Lesson 4-6 Examples 1-2 and Exercises 1-6	Direct Instruction: Engage NY Lesson 4-7
Independent Practice - How will you cause students to reflect and rethink? How will you guide them in rehearsing, revising, and refining their work? How will students work together to ensure mastery for all?	Student Notes and Homework: Engage NY Lesson 4-1 & 4-2 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 4-3 & 4-4 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 4-5 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 4-6 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 4-7 Problem Set/Homework
Assessing Knowledge - How will you help students to exhibit and self-evaluate their growing skills, knowledge, and understanding throughout the unit?	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations
Differentiation/Accommodation - How will you tailor and otherwise personalize the learning plan to optimize the engagement and effectiveness of ALL students, without compromising the goals of the unit?	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments
Learner Outcome - How will students demonstrate, as a result of lesson, their level of mastery? • Understand • Know • Do	Students build and clarify the relationship of addition and subtraction by evaluating identities such as w-x+x= w and w+x-x= w Students build and clarify the relationship of multiplication and division by evaluating identities such as a / b x b= a and a x b / b = a.	Students build and clarify the relationship of multiplication and addition by evaluating identities such as 3 x g= g + g + g Students build and clarify the relationship of division and subtraction by determining that 12 / x = 4 means 12- x- x- x- x= 0	Students discover that 3x= x + x + x is NOT the same thing as x^3. Which is x * x * x Students understand that a base number can be represented with a positive whole number, positive fraction, or positive decimal and that for any number a, a^m is defined as the product of m factors of a. The number a is the base, and m is called the exponent or power of a.	Students evaluate numerical expressions. They recognize that in the absence of parentheses, exponents are evaluated first.	Students understand that a letter represents one number in an expression. When that number replaces the letter, the expression can be evaluated to one number.