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

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 number is the number 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*

Monday Engage NY Lesson 3-12
Objective: Students understand that the order of positive numbers is the same as the order of their absolute values. Students understand that the order of negative numbers is the opposite order of their absolute value. They also understand that negative numbers are always less than positive numbers.

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

Tuesday Engage NY Lesson 3-13 OR 14 (See Pacing Guide)
Objective: Students apply understanding of order and absolute value when examining real-world scenarios. Students realize, for instance, that the depth of a location below sea level is the absolute value of a negative number, while the height of an object above sea level is the absolute value of a positive number.

Agenda:
1. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v=LxllUeusDYY
2. Classwork: Engage NY Lesson 3-13 Examples 1-2 and Exercises 1-6
3. Homework: Engage NY Lesson 3-13 Problem Set/Homework

Wednesday Engage NY Lesson 3-15
Objective: Students extend their understanding of the coordinate plane to include all four quadrants and recognize that axes (identified as the x-axis and the y-axis) of the coordinate plane divide the plane into four regions called quadrants. They identify the origin and locate points other than the origin, which lie on an axis. They can locate points in the coordinate plane that correspond to given ordered pairs of integers and other rational numbers.

Agenda:
1. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v=LxllUeusDYY
2. Classwork: Engage NY Lesson 3-15 Examples 1-3 and Exercises 1-6
3. Homework: Engage NY Lesson 3-15 Problem Set/Homework

Thursday Engage NY Lesson 3-16
Objective: Students understand that two numbers are said to differ only by the signs if they are opposite of each other. Students recognize that when two ordered pairs differ only by the sign of one or both of the coordinates, then the locations of the points are related by reflections across one or both axes.

Agenda:
1. Warm up: Fraction/Percent of the Day AND Video:
2. Classwork: Engage NY Lesson 3-16 Examples 1-2 and Exercises 1-2
3. Homework: Engage NY Lesson 3-16 Problem Set/Homework

Friday Engage NY Lesson 3-17
Objective: Students draw a coordinate plane on graph paper in two steps (1) Draw and label the horizontal and vertical axis; (2) Mark the number scale on each axis. Given some points as ordered pairs, students make reasonable choices for scales on both axes and locate and label the points on graph paper.

Agenda:
1. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v=1O12C9EcdFo and https://www.youtube.com/watch?v=r16I6LB2YbQ
2. Classwork: Engage NY Lesson 3-17 Examples 1-4
3. Homework: Engage NY Lesson 3-17 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 Lessons 3-12	Direct Instruction: Engage NY Lessons 3-14	Direct Instruction: Engage NY Lesson 3-15 Examples 1-2 and Exercises 1-6	Direct Instruction: Engage NY Lesson 3-16 Examples 1-2 and Exercises 1-6	Direct Instruction: Engage NY Lessons 3-17
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 3-12 and 3-6 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 3-14 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 3-15 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 3-16 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 3-17 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 understand that the order of positive numbers is the same as the order of their absolute values. Students understand that the order of negative numbers is the opposite order of their absolute value. They also understand that negative numbers are always less than positive numbers.	Students use ordered pairs to name points in a grid and to locate points on a map. Students identify the first number in an ordered pair as the *first coordinate* and the second number as the *second coordinate*.	Students extend their understanding of the coordinate plane to include all four quadrants and recognize that axes (identified as the x-axis and the y-axis) of the coordinate plane divide the plane into four regions called quadrants. They identify the origin and locate points other than the origin, which lie on an axis. They can locate points in the coordinate plane that correspond to given ordered pairs of integers and other rational numbers.	Students understand that two numbers are said to differ only by the signs if they are opposite of each other. Students recognize that when two ordered pairs differ only by the sign of one or both of the coordinates, then the locations of the points are related by reflections across one or both axes.	Students draw a coordinate plane on graph paper in two steps (1) Draw and label the horizontal and vertical axis; (2) Mark the number scale on each axis. Given some points as ordered pairs, students make reasonable choices for scales on both axes and locate and label the points on graph paper.

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

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?*

Monday 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

Tuesday Engage NY Lesson 4-9 & 4-10
Objective: Students write expressions that record addition and subtraction operations with numbers/. Students identify parts of an expression using mathematical terms for multiplication. They view one or more parts of an expression as a single entity.
> Agenda:
1. Warm up: Fraction/Percent of the Day AND Video: https://youtu.be/NybHckSEQBI
2. Classwork: Engage NY Lesson 4-9 and 4-10
3. Homework: Engage NY Lesson 4-9 & 4-10 Problem Set/Homework

Wednesday Engage NY Lesson 4-11
Objective: Students model and write equivalent expressions using the distributive property. They move from expanded form to factored form of an expression.
> Agenda:
1. Warm up: Fraction/Percent of the Day AND Video:
2. Classwork: Engage NY Lesson 4-11
3. Homework: Engage NY Lesson 4-11 Problem Set/Homework

Thursday Engage NY Lesson 4-12
Objective: Students model and write equivalent expressions using the distributive property. They move from the factored form to the expanded form of an expression.
> Agenda:
1. Warm up: Fraction/Percent of the Day AND Video:
2. Classwork: Engage NY Lesson 4-12
3. Homework: Engage NY Lesson 4-12 Problem Set/Homework

Friday Engage NY Lesson 4-13
Objective: Students write numerical expressions in two forms "dividend / divisor" and "dividend divided by divisor", and note the relationship between the two.
> Agenda:
1. Warm up: Fraction/Percent of the Day AND Video:
2. Classwork: Engage NY Lesson 4-13
3. Homework: Engage NY Lesson 4-13 Problem Set/Homework

Mrs. Rayman's Daily Instructional Plan- Grade 6 Advanced 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 4-7	Direct Instruction: Engage NY Lesson 4-9 & 10	Direct Instruction: Engage NY Lessons 4-11	Direct Instruction: Engage NY Lesson 4-12 Examples 1-2 and Exercises 1-6	Direct Instruction: Engage NY Lesson 4-13
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 4-7 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 4-9 & 4-10 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 4-11 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 4-12 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 4-13 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 understand that a letter represents one number in an expression. When that number replaces the letter, the expression can be evaluated to one number.	Students write expressions that record addition and subtraction operations with numbers/. Students identify parts of an expression using mathematical terms for multiplication. They view one or more parts of an expression as a single entity.	Students model and write equivalent expressions using the distributive property. They move from the factored form to the expanded form of an expression.	Students model and write equivalent expressions using the distributive property. They move from the factored form to the expanded form of an expression.	Students write numerical expressions in two forms "dividend / divisor" and "dividend divided by divisor", and note the relationship between the two.