## 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 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


## Monday \& Tuesday 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:

1. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v= BgblvF90UE
2. Classwork: Engage NY Lesson 3-5 and 3-6
3. Homework: Engage NY Lesson 3-5 and 3-6 Problem Set/Homework

## Wednesday Engage NY Lesson 3-8

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

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

## Thursday 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:

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

## Friday Engage NY Lesson 3-10

Objective: Students write and explain inequality statements involving rational numbers. Students justify inequality statements involving rational numbers.
Agenda:

1. Warm up: Fraction/Percent of the Day AND Video:
2. Classwork: Engage NY Lesson 3-10 Examples 1-2 and Exercises 1-9
3. Homework: Engage NY Lesson 3-10 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 3-5 and 3-6 | 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 | Direct Instruction: <br> Engage NY Lesson $3-10$ |
| 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: <br> Engage NY Lesson 3-5 and 3-6 Problem Set/Homework | Student Notes and Homework: <br> Engage NY Lesson 3-5 and 3-6 Problem Set/Homework | Student Notes and Homework: <br> Engage NY Lesson 3-8 Problem Set/Homework | Student Notes and Homework: <br> Engage NY Lesson 3-9 Problem Set/Homework | Student Notes and Homework: <br> Engage NY Lesson 3-10 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/Accommodatio <br> n - 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? <br> - Understand <br> - Know <br> - Do | 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 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. | Students write and explain inequality statements involving rational numbers. Students justify inequality statements involving rational numbers. |

Mrs. Rayman's 6th Grade Advanced 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 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


## Monday Engage NY Lesson 3-18

Objective: Students compute the length of horizontal and vertical line segments with integer coordinates for end points in the coordinate plane by counting the number of units between end points and using absolute value.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v=CARkStA-QSc
2. Classwork: Engage NY Lesson 3-18 Examples 1-3
3. Homework: Engage NY Lesson 3-18 Problem Set/Homework

## Tuesday Engage NY Lesson 3-19

Objective: Students solve problems related to the distance between points that lie on the same horizontal or vertical line. Students use the coordinate plane to graph points, line segments, and geometric shapes in various quadrants and then use the absolute value to find
the related points. Students will review all standards for Unit 3 and go through a series of questions to study for the Unit 3 Test Agenda:

1. Warm up: Fraction/Percent of the Day AND Video: https://www.youtube.com/watch?v=__QsR8xPCgc
2. Classwork: Engage NY Lesson 3-19 Exercises 1-7
3. Homework: Engage NY Lesson 3-19 Problem Set/Homework

## Wednesday: Unit 3 Review

Objective: Students will review all of the standards that they have learned throughout Unit 3 and work on a Unit 3 Review to study and reinforce standards learned.

## Agenda:

4. Warm up: Fraction/Percent of the Day AND Video:
5. Classwork: Unit 3 Review
6. Homework: Compass Learning for Extra Credit

## Thursday AND Friday: Unit 3 MARS Assessment and Unit 3 Assessment

Objective: Students will take the Unit 3 Assessment to determine what they have learned throughout unit 3.

## Agenda:

7. Warm up: Fraction/Percent of the Day AND Video:
8. Classwork: MARS Assessment and Unit 3 Review
9. Homework: Compass Learning for Extra Credit

## 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 3-18 | Direct Instruction: Engage NY Lessons 3-19 | Direct Instruction: <br> Unit 3 Review | Direct Instruction: Unit 3 TEST | Direct Instruction: <br> Unit 3 TEST |
| 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: <br> Engage NY Lesson 3-18 Problem Set/Homework | Student Notes and Homework: <br> Engage NY Lesson 3-19 Problem Set/Homework | Student Notes and Homework: <br> Student Work Pages | Student Notes and Homework: Student Work Pages | Student Notes and Homework: <br> Student Work Pages |
| 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? <br> - Understand <br> - Know <br> - Do | Students compute the length of horizontal and vertical line segments with integer coordinates for end points in the coordinate plane by counting the number of units between end points and using absolute value. | Students solve problems related to the distance between points that lie on the same horizontal or vertical line. Students use the coordinate plane to graph points, line segments, and geometric shapes in various quadrants and then use the absolute value to find the related points. | Students will review all of the standards that they have learned throughout Unit 3 and work on a Unit 3 Review to study and reinforce standards learned. | Students will take the Unit 3 Assessment to determine what they have learned and if they have mastered all of the objectives taught throughout unit 3. | Students will take the Unit 3 Assessment to determine what they have learned and if they have mastered all of the objectives taught throughout unit 3 . |

