

Unit 5 Common Core State Standards

6.SP.1 Recognize a statistical question as one that anticipates variability in the data related to the question and .accounts for it in the answers	6.SP.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.	6.SP.3 Recognize that a measure of center for numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	6.SP.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	6.SP.5 Summarize quantitative measures of center and variability, as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
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Unit 5 Essential Questions:

- *What are the benefits of each type of data plot when analyzing the distribution of a given data set?*
- *What do the measurements of variation: range, interquartile range (IQR) and mean absolute deviation (MAD); represent with respect to a numerical data set and how do they help us understand it better?*

Number Sense:

- *Odd one out*
- *Ways to make a number*
- *Always, Sometimes, Never*

Monday MSTEP Prep/ Directions and Guidelines

Students will get familiar with the math tools and given a chance to work through Grades 4-7 MSTEP MATH Practice Questions

Tuesday M STEP MATHEMATICS 1-3rd Hours 4-6th Hours (Compass Learning)

Wednesday Engage NY Lesson 6-13

Objective: Given a set of data, students describe how the data might have been collected. Students describe the unit of measurement for observations in a data set. Students calculate the median of the data. Students describe the variability in the data by calculating the interquartile range.

1. Warm up: Ways to Make a Number AND Video:
2. Classwork: Engage NY Lesson 6-13 Example 1 and Exercises 1-6
3. Homework: Engage NY Lesson 6-13 Problem Set/Homework

Thursday Engage NY Lesson 6-14

Objective: Students construct a box plot from a given set of data

4. Warm up: Ways to Make a Number AND Video:
5. Classwork: Engage NY Lesson 6-14 Examples 1-2 and Exercises 1-11
6. Homework: Engage NY Lesson 6-14 Problem Set/Homework

Friday Engage NY Lesson 6-15

Objective: Given a box plot, students summarize the stat by the 5-number summary (Min, Q1, Median, Q3, and Max). Students describe a set of stat using the 5-number summary and the interquartile range. Students construct a box plot from a 5-number summary.

7. Warm up: Ways to Make a Number AND Video:
8. Classwork: Engage NY Lesson 6-15 Examples 1-2 and Exercises 1-15
9. Homework: Engage NY Lesson 6-15 Problem Set/Homework

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

	Monday	Tuesday	Wednesday	Thursday	Friday
<p>Accessing Prior Knowledge - <i>Where</i> are your students headed? Where have they been? How will you make sure the students know where they are going?</p>	<p>MSTEP PRACTICE, RULES and GUIDELINES</p>	<p>MSTEP 1st-3rd Hours</p>	<p>Warm up: Ways to Make a Number of the Day AND Video:</p>	<p>Warm up: Ways to Make a Number of the Day AND Video:</p>	<p>Warm up: Ways to Make a Number of the Day AND Video: :</p>
<p>Guided Practice - What events will help students <i>experience and explore</i> the big idea and questions in the unit? How will you equip them with needed skills and knowledge?</p>			<p>Direct Instruction: Engage NY Lessons: 6-13</p>	<p>Direct Instruction: Engage NY Lessons: 6-14</p>	<p>Direct Instruction: Engage NY Lessons 6-15</p>
<p>Independent Practice - How will you cause students to <i>reflect and rethink</i>? How will you guide them in rehearsing, revising, and refining their work? How will students work together to ensure mastery for all?</p>			<p>Student Notes and Homework: Engage NY Lesson 6-13 Problem Set/Homework</p>	<p>Student Notes and Homework: Engage NY Lesson 6-14 Problem Set/Homework</p>	<p>Student Notes and Homework: Engage NY Lesson 6-15 Problem Set/Homework</p>
<p>Assessing Knowledge - How will you help students to <i>exhibit and self-evaluate</i> their growing skills, knowledge, and understanding throughout the unit?</p>			<p>Exit Tickets and Teacher Observations</p>	<p>Exit Tickets and Teacher Observations</p>	<p>Exit Tickets and Teacher Observations</p>
<p>Differentiation/Accommodation - How will you <i>tailor</i> and otherwise personalize the learning plan to optimize the engagement and effectiveness of ALL students, without compromising the goals of the unit?</p>			<p>Pre written vocabulary & notes, extended time, preferential seating, reduced assignments</p>	<p>Pre written vocabulary & notes, extended time, preferential seating, reduced assignments</p>	<p>Pre written vocabulary & notes, extended time, preferential seating, reduced assignments</p>
<p>Learner Outcome - How will students <i>demonstrate</i>, as a result of lesson, their level of mastery?</p> <ul style="list-style-type: none"> • Understand • Know • Do 			<p>Given a set of data, students describe how the data might have been collected. Students describe the unit of measurement for observations in a data set. Students calculate the median of the data. Students describe the variability in the data by calculating the interquartile range.</p>	<p>Students construct a box plot from a given set of data</p>	<p>Given a box plot, students summarize the stat by the 5-number summary (Min, Q1, Median, Q3, and Max). Students describe a set of stat using the 5-number summary and the interquartile range. Students construct a box plot from a 5-number summary.</p>

Unit 7 Common Core State Standards

7.NS.1 Apply and extend previous understanding of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	7.NS.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	7.NS.1a 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.	7.NS.2b Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers is a rational number.
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Unit 7 Essential Questions:

- *What rules can we find to generalize patterns when operations with rational numbers? What connections can we make to operations with whole numbers, fractions and decimals?*
- *How are rational number operations useful in the real world?*

Number Sense:

- *Count around the room*
- *Ways to make a number*
- *Ways to solve a math problem mentally*
- *Organic number line*

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1. **Monday MSTEP Prep/ Directions and Guidelines**
 2. Students will get familiar with the math tools and given a chance to work through Grades 4-7 MSTEP MATH Practice Questions
 3. **Tuesday M STEP MATHEMATICS 1-3rd Hours 4-6th Hours (Compass Learning)**

Wednesday Engage NY Lesson 2-1

Objective: Students add positive integers by counting up and negative integers by counting down (using curved arrows on the number line). Students play the integer game to combine integers, justify that an integer plus its opposite add to zero. Students know the opposite of a number is called the additive inverse because of the sum of the two numbers is zero.

10. Warm up: Ways to Make a Number AND Video:
11. Classwork: Engage NY Lesson 2-1 Example 1 and Exercises 1-6
12. Homework: Engage NY Lesson 2-1 Problem Set/Homework

Thursday Engage NY Lesson 2-2

Objective: Students model integer addition on the number line by using horizontal arrows. Students recognize that the length, of an arrow on the number line is the absolute value of the integer. Students add arrows (realizing that adding arrows is the same as combining numbers in the Integer Game. Given several arrows, students indicate the number that the arrows represent (the sum).

13. Warm up: Ways to Make a Number AND Video:
14. Classwork: Engage NY Lesson 2-2 Examples 1-2 and Exercises 1-11
15. Homework: Engage NY Lesson 2-2 Problem Set/Homework

Friday Engage NY Lesson 2-3

Objective: Students understand addition of integers as putting together or counting up. For negative numbers “counting up” is actually counting down. Students use arrows to show the sum of two integers, $p + q$, on a number line and to show that the sum is distance $|q|$ from p to the right if q is positive and to the left if q is negative. Students refer back to the Integer Game to reinforce their understanding of addition.

16. Warm up: Ways to Make a Number AND Video:
17. Classwork: Engage NY Lesson 2-3 Examples 1-2 and Exercises 1-15
18. Homework: Engage NY Lesson 2-3 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?	MSTEP PRACTICE, RULES and GUIDELINES	MSTEP 1st-3rd Hours	Warm up: Ways to Make a Number of the Day AND Video:	Warm up: Ways to Make a Number of the Day AND Video:	Warm up: Ways to Make a Number 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: 2-1	Direct Instruction: Engage NY Lessons: 2-2	Direct Instruction: Engage NY Lessons 2-3
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 2-1 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 2-2 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 2-3 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
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
Learner Outcome - How will students demonstrate , as a result of lesson, their level of mastery? <ul style="list-style-type: none"> ● Understand ● Know ● Do 			Students add positive integers by counting up and negative integers by counting down (using curved arrows on the number line). Students play the integer game to combine integers, justify that an integer plus its opposite add to zero. Students know the opposite of a number is called the additive inverse because of the sum of the two numbers is zero.	Students model integer addition on the number line by using horizontal arrows. Students recognize that the length, of an arrow on the number line is the absolute value of the integer. Students add arrows (realizing that adding arrows is the same as combining numbers in the Integer Game. Given several arrows, students indicate the number that the arrows represent (the sum).	Students understand addition of integers as putting together or counting up. For negative numbers "counting up" is actually counting down. Students use arrows to show the sum of two integers, $p + q$, on a number line and to show that the sum is distance $ q $ from p to the right if q is positive and to the left if q is negative. Students refer back to the Integer Game to reinforce their understanding of addition.

