

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 Engage NY Lesson 6-1

Objective: Students distinguish between statistical questions and those that are not statistical. Students formulate a statistical question and explain what data could be collected to answer the question. Students distinguish between categorical data and numerical data.

Agenda:

1. Warm up: Ways to Make a Number AND Video:
2. Classwork: Engage NY Lesson 1
3. Homework: Engage NY Lesson 1 Problem Set/Homework
4. Exit Ticket

Tuesday Engage NY Lesson 6- 2

Objective: Given a dot plot, students begin describing the distribution of the points on the dot plot in terms of center and variability.

Agenda:

5. Warm up: Ways to Make a Number AND Video::
6. Classwork: Engage NY Lesson 2 Exercises 1-3
7. Homework: Engage NY Lesson 2 Problem Set/Homework
8. Exit Ticket

Wednesday Engage NY Lesson 6-4

Objective: Students construct a frequency histogram. Students recognize that the number of intervals may affect the shape of a histogram.

Agenda:

1. Warm up: Ways to Make a Number AND Video:
2. Classwork: Engage NY Lesson 4 Exercises and Stations
3. Homework: Engage NY Lesson 4 Problem Set/Homework
4. Exit Ticket

Thursday Engage NY Lesson 6-6

Objective: Students define the center of data distribution by a “fair share” value called a mean. Students connect the “fair share” concept with a mathematical formula for finding the mean.

Agenda:

1. Warm up: Ways to Make a Number AND Video:
2. Classwork: Engage NY Lesson 6-6 Examples 1-3 and Exercises 1-4
3. Homework: Engage NY Lesson 6-6 Problem Set/Homework

Friday- Compass Learning, Begin Project: Statistical Question and Gathering Data (All Regular Classes)

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: 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:	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 Lesson 6-1	Direct Instruction: Engage NY Lesson 6-2 Examples 1-8	Direct Instruction: Engage NY Lesson 6-4 Examples 1-4	Direct Instruction: Engage NY Lesson 6-6 Examples 1-2 and Exercises 1-6	Direct Instruction: Engage NY Lessons: Begin Project- Rubric and Gathering Data
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 6-1 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 6-2 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 6-4 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 6-6 Problem Set/Homework	Student Notes and Homework: Begin Project
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? <ul style="list-style-type: none"> ● Understand ● Know ● Do 	Students distinguish between statistical questions and those that are not statistical. Students formulate a statistical question and explain what data could be collected to answer the question. Students distinguish between categorical data and numerical data	Given a dot plot, students begin describing the distribution of the points on the dot plot in terms of center and variability.	Students construct a frequency histogram. Students recognize that the number of intervals may affect the shape of a histogram.	Students define the center of data distribution by a "fair share" value called a mean. Students connect the "fair share" concept with a mathematical formula for finding the mean.	Students will begin gathering data and working on their Unit 6 Project.

Unit 7 Common Core State Standards (ALL)

<p>7.RP.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measured in like or different units.</p>	<p>7.RP.2a Decide whether two quantities are in a proportional relationship, e.g. by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.</p>	<p>7.RP.2b Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.</p>	<p>7.RP.2c Represent proportional relationships by equations. For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as $t=pm$</p>	<p>7.RP.2d Explain what a point (x,y) on a graph of a proportional relationship means in terms of the situation, with special attention to the points $(0,0)$ and $(1, r)$ where r is the unit rate.</p>	<p>7.G.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.</p>
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Unit 7 Essential Questions:

- How can you determine if a relationship is proportional or non-proportional from a table, graph, equation, and verbal description?
- How are scale drawings useful in the real world?

Number Sense:

- Number Talk
- Ways to make a function from a given solution (only make proportional)
- Always, Sometimes, Never
- Odd One Out
- What's my rule?
- Visual Patterns

Monday Engage NY Lesson 7.1.10

Objective: Students consolidate their understanding of equations representing proportional relationships as they interpret what points on the graph of a proportional relationship mean in terms of the situation or context of the problem, including the point (0,0). Students are able to identify and interpret in context the point (1,r) on the graph of a proportional relationship where r is the unit rate.

Agenda:

1. Warm up: Rate of the Day AND Video:
2. Classwork: Engage NY Lesson 7.1.10
3. Homework: Engage NY Lesson 7.1.10 Problem Set/Homework

Tuesday Engage NY Lesson 7.1.11

Objective: Students use ratio tables and ratio reasoning to compute unit rates associated with ratios of fractions in the context of measured quantities such as recipes, lengths, areas, and speed. Students work collaboratively to solve a problem while sharing their thinking processes, strategies, and solutions with the class.

Agenda:

1. Warm up: Rate of the Day AND Video:
2. Classwork: Engage NY Lesson 7.1.11
3. Homework: Engage NY Lesson 7.1.11 Problem Set/Homework

Tuesday Engage NY Lesson 7.1.12

Objective: Students use ratio tables and ratio reasoning to compute unit rates associated with ratios of fractions in the context of measured quantities, such as recipes, lengths, areas, and speed. Students use unit rates to solve problems and analyze unit rates in the context of the problem

Agenda:

1. Warm up: Rate of the Day AND Video:
2. Classwork: Engage NY Lesson 7.1.12
3. Homework: Engage NY Lesson 7.1.12 Problem Set/Homework

Wednesday Engage NY Lesson 7.1.14

Objective: Students solve multi-step ratio problems including fractional markdowns, markups, commissions, and fees.

Agenda:

4. Warm up: Rate of the Day AND Video:
5. Classwork: Engage NY Lesson 7.1.14
6. Homework: Engage NY Lesson 7.1.14 Problem Set/Homework

Thursday Engage NY Lesson 7.1.15

Objective: Students use equations and graphs to represent proportional relationships arising from ratios and rates involving fractions. Students interpret what points on the graph of the relationship mean in terms of the situation or context of the problem.

Agenda:

7. Warm up: Rate of the Day AND Video:
8. Classwork: Engage NY Lesson 7.1.15
9. Homework: Engage NY Lesson 7.1.15 Problem Set/Homework

Friday Engage NY Lesson 7.1.16

Objective: Students understand that a scale drawing is either the reduction or the enlargement of a two-dimensional picture. Students compare the scale drawing picture with the original picture and determine if the scale drawing is a reduction or an enlargement. Students match points and figures in one picture with points and figures in the other picture.

Agenda:

10. Warm up: Rate of the Day AND Video:
11. Classwork: Engage NY Lesson 7.1.16
12. Homework: Engage NY Lesson 7.1.16 Problem Set/Homework

Friday Engage NY Lesson 7.1.17

Objective: Students recognize that the enlarged or reduced distances in a scale drawing are proportional to the corresponding distances in the original picture. Students recognize the scale factor to be the constant of proportionality. Given a picture or description of geometric figures, students make a scale drawing with a given scale factor

Agenda:

13. Warm up: Rate of the Day AND Video:
14. Classwork: Engage NY Lesson 7.1.17
15. Homework: Engage NY Lesson 7.1.17 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: 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:	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 Lesson 7.1.10	Direct Instruction: Engage NY Lessons: 7.1.11 AND 7.1.12	Direct Instruction: Engage NY Lessons: 7.1.14	Direct Instruction: Engage NY Lessons: 7.1.15	Direct Instruction: Engage NY Lessons 7.1.16
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 7.1.10 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 7.1.11 AND 7.1.12 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 7.1.14 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 7.15 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 7.1.16 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? <ul style="list-style-type: none"> ● Understand ● Know ● Do 	7.1.10 Students consolidate their understanding of equations representing proportional relationships as they interpret what points on the graph of a proportional relationship mean in terms of the situation or context of the problem, including the point (0,0). Students are able to identify and interpret in context the point (1,r) on the graph of a proportional relationship where r is the unit rate. using variable choices other than xx and yy .	7.1.11 Students use ratio tables and ratio reasoning to compute unit rates associated with ratios of fractions in the context of measured quantities such as recipes, lengths, areas, and speed. Students work collaboratively to solve a problem while sharing their thinking processes, strategies, and solutions with the class. 7.1.12 Students use ratio tables and ratio reasoning to compute unit rates associated with ratios of fractions in the context of measured quantities, such as recipes, lengths, areas, and speed. Students use unit rates to solve problems and analyze unit rates in the context of the problem	7.1.14 Students solve multi-step ratio problems including fractional markdowns, markups, commissions, and fees.	7.1.15 Students use equations and graphs to represent proportional relationships arising from ratios and rates involving fractions. Students interpret what points on the graph of the relationship mean in terms of the situation or context of the problem.	7.1.16 Students understand that a scale drawing is either the reduction or the enlargement of a two-dimensional picture. Students compare the scale drawing picture with the original picture and determine if the scale drawing is a reduction or an enlargement. Students match points and figures in one picture with points and figures in the other picture. 7.1.17 Students recognize that the enlarged or reduced distances in a scale drawing are proportional to the corresponding distances in the original picture. Students recognize the scale factor to be the constant of proportionality. Given a picture or description of geometric figures, students make a scale drawing with a given scale factor.

