

Unit 5 Common Core State Standards

6.G.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	6.G.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = L \times W \times H$ and $V = B \times H$ to find the volume of right rectangular prisms.	6.G.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.	6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.
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Unit 5 Essential Questions:

- *What are the similarities and differences of finding the area and perimeter of a 2-dimensional shape compared to the volume and surface area of a 3-dimensional shape?*
- *What strategies can be used to find the area of non-regular shapes?*

Number Sense:

- *Odd one out*
- *Always, Sometimes, Never*

Monday-Tuesday NWEA TESTING: MATH

Wednesday Engage NY Lesson 6.5.7

Objective: Students use absolute value to determine distance between integers on the coordinate plane in order to find the side lengths of polygons.

Agenda:

1. Warm up: Ways to Make a Number AND Video:
2. Classwork: Engage NY Lesson 7 Exercises and Stations
3. Homework: Engage NY Lesson 7 Problem Set/Homework
4. Exit Ticket

Thursday Engage NY Lesson 6.5.8

Objective: Given coordinates for the vertices, students draw polygons in the coordinate plane. Students find the area enclosed by the polygon by composing or decomposing using polygons with known area formulas.

Agenda:

1. Warm up: Ways to Make a Number AND Video:
2. Classwork: Engage NY Lesson 8 Examples 1-5 and Exercises 1-4
3. Homework: Engage NY Lesson 8 Problem Set/Homework

1.

Tuesday Engage NY Lesson 6.5.11

Objective: Students extend their understanding of the volume of a right rectangular prism with integer side lengths to right rectangular prisms with fractional side lengths. They apply the formula $V = l * w * h$ to find the volume of a right rectangular prism and use the correct volume units when writing the answer.

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

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

	Monday	Tuesday	Wednesday	Thursday	Friday
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?			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 <i>experience and explore</i> the big idea and questions in the unit? How will you equip them with needed skills and knowledge?			Direct Instruction: Engage NY Lesson 6.5. 7 Examples 1-8	Direct Instruction: Engage NY Lesson 6.5.8 Examples 1-8	Direct Instruction: Engage NY Lessons 5.5
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?	NWEA TESTING	NWEA TESTING	Student Notes and Homework: Engage NY Lesson 6.5.7 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 6.5.8 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 5-5 Problem Set/Homework
Assessing Knowledge - How will you help students to <i>exhibit and self-evaluate</i> 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 <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?			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 <i>demonstrate</i> , as a result of lesson, their level of mastery? <ul style="list-style-type: none"> ● Understand ● Know ● Do 			6.5.7 Students use absolute value to determine distance between integers on the coordinate plane in order to find the side lengths of polygons.	6.5.8 Given coordinates for the vertices, students draw polygons in the coordinate plane. Students find the area enclosed by the polygon by composing or decomposing using polygons with known area formulas.	6.5.11 Students extend their understanding of the volume of a right rectangular prism with integer side lengths to right rectangular prisms with fractional side lengths. They apply the formula $V = l * w * h$ to find the volume of a right rectangular prism and use the correct volume units when writing the answer.

Grade 7 Unit 1 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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Grade 7 Unit 1 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-Tuesday NWEA TESTING: MATH

Wednesday Engage NY Lesson 7.2.21

Objective: Students understand that if a number sentence is true and we make any of the following changes to the number sentence, the resulting number sentence will be true:

- i. Adding the same number to both sides of the equation
If $a=b$, then $a+c=b+c$.
- ii. Subtracting the same number from both sides of the equation
If $a=b$, then $a-c=b-c$.
- iii. Multiplying each side of the equation by the same number
If $a=b$, then $a(c)=b(c)$.
- iv. Dividing each side of the equation by the same nonzero number
If $a=b$ and $c \neq 0$, then $a \div c = b \div c$.

Students revisit the integer game to justify the above referenced if-then statements.

Agenda:

1. Warm up: Rate of the Day AND Video:
2. Classwork: Engage NY Lesson 7.2.21
3. Homework: Engage NY Lesson 7.2.21 Problem Set/Homework

Thursday Engage NY Lesson 7.2.22

Objective: Students use algebra to solve equations (of the form $px+q = r$ and $p(x + q) = r$, where p , q , and r are specific rational numbers), using techniques of making zero (adding the additive inverse) and making one (multiplying by the multiplicative inverse) to solve for the variable. Students identify and compare the sequence of operations used to find the solution to an equation algebraically, with the sequence of operations used to solve the equation with tape diagrams. They recognize the steps as being the same. Students solve equations for the value of the variable using inverse operations, by making zero (adding the additive inverse) and making one (multiplying by the multiplicative inverse).

Agenda:

4. Warm up: Rate of the Day AND Video:
5. Classwork: Engage NY Lesson 7.2.22
6. Homework: Engage NY Lesson 7.2.22 Problem Set/Homework

Friday Engage NY Lesson 7.2.23

Objective: Students use algebra to solve equations (of the form $px+q=r$ and $p(x+q)= r$ where p , q , and r are specific rational numbers); using techniques of making zero (adding the additive inverse) and making one (multiplying by the multiplicative inverse) to solve for the variable. Students identify and compare the sequence of operations used to find the solution to an equation algebraically, with the sequence of operations used to solve the equation with tape diagrams. They recognize the steps as being the same. Students solve equations for the value of the variable using inverse operations; by making zero (adding the additive inverse) and making one (multiplying by the multiplicative inverse).

Agenda:

7. Warm up: Rate of the Day AND Video:
8. Classwork: Engage NY Lesson 7.2.23
9. Homework: Engage NY Lesson 7.2.23 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:
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?	NWEA TESTING	NWEA TESTING	Direct Instruction: Engage NY Lessons: 7.2.21	Direct Instruction: Engage NY Lessons: 7.2.22	Direct Instruction: Engage NY Lessons 7.2.23
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 7.2.21 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 7.2.22 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 7.2.23 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 			<p>7.2.21 Students understand that if a number sentence is true and we make any of the following changes to the number sentence, the resulting number sentence will be true:</p> <ol style="list-style-type: none"> i. Adding the same number to both sides of the equation If $a=b$, then $a+c=b+c$. ii. Subtracting the same number from both sides of the equation If $a=b$, then $a-c=b-c$. iii. Multiplying each side of the equation by the same number If $a=b$, then $a(c)=b(c)$. iv. Dividing each side of the equation by the same nonzero number If $a=b$ and $c \neq 0$, then $a/c=b/c$. <p>Students revisit the integer game to justify the above referenced if-then statements.</p>	<p>7.2.22 Students use algebra to solve equations (of the form $px+q=r$ and $p(x+q)=r$, where p, q, r are specific rational numbers), using techniques of making zero (adding the additive inverse) and making one (multiplying by the multiplicative inverse) to solve for the variable. Students identify and compare the sequence of operations used to find the solution to an equation algebraically, with the sequence of operations used to solve the equation with tape diagrams. They recognize the steps as being the same. Students solve equations for the value of the variable using inverse operations, by making zero (adding the additive inverse) and making one (multiplying by the multiplicative inverse)</p>	<p>7.2.23 Students use algebra to solve equations (of the form $px+q=r$ and $p(x+q)=r$ where p, q, r are specific rational numbers); using techniques of making zero (adding the additive inverse) and making one (multiplying by the multiplicative inverse) to solve for the variable. Students identify and compare the sequence of operations used to find the solution to an equation algebraically, with the sequence of operations used to solve the equation with tape diagrams. They recognize the steps as being the same. Students solve equations for the value of the variable using inverse operations; by making zero (adding the additive inverse) and making one (multiplying by the multiplicative inverse).</p>

