

1 <sup>st</sup> Nine Weeks				
Time	Cluster	Standards	Learning Targets	Lesson Topics/Resources
1 week	<b>6.RP.A</b> Understand ratio concepts and use ratio reasoning to solve problems.	<b>6.RP.A.1</b> Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, the ratio of wings to beaks in a bird house at the zoo was 2:1, because for every 2 wings there was 1 beak. Another example could be for every vote candidate A received, candidate C received nearly three votes.	I can write a ratio notation using a colon, the word “to”, and as a fraction.	Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York
1 week	<b>6.RP.A</b> Understand ratio concepts and use ratio reasoning to solve problems.	<b>6.RP.A.2</b> Understand the concept of a unit rate $a/b$ associated with a ratio $a:b$ with $b \neq 0$ . Use rate language in the context of a ratio relationship. For example, this recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar. Also, we paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.	I can define rate as a comparison of two quantities using different units.  I can use unit rates to solve mathematical or real life problems.	Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York
2 weeks	<b>6.RP.A</b> Understand ratio concepts and use ratio reasoning to solve problems.	<b>6.RP.A.3</b> Use ratio and rate reasoning to solve real-world and mathematical problems (e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations).  a. Make tables of equivalent ratios relating quantities with whole number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.	I can complete a table of equivalent ratios.  I can solve unit rate problems involving pricing.  I can find the percent of a number using the part or the whole.	Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York

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		<p>b. Solve unit rate problems including those involving unit pricing and constant speed. For example, if a runner ran 10 miles in 90 minutes, running at that speed, how long will it take him to run 6 miles? How fast is he running in miles per hour? c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.</p> <p>d. Use ratio reasoning to convert customary and metric measurement units (within the same system); manipulate</p>	<p>I can convert measurements using ratios.</p>	
1 week	<p><b>6.NS.B</b> Compute fluently with multi-digit numbers and find common factors and multiples.</p>	<p><b>6.NS.B.2</b> Fluently divide multi-digit numbers using a standard algorithm.</p>	<p>I can fluently divide multi-digit numbers.</p>	<p>Curriculum Associates Textbook</p> <p>commoncoresheets.com</p> <p>Khan Academy</p> <p>IXL Math</p> <p>Engage New York</p>
2 weeks	<p><b>6.NS.B</b> Compute fluently with multi-digit numbers and find common factors and multiples.</p>	<p><b>6.NS.B.3</b> Fluently add, subtract, multiply, and divide multi-digit decimals using a standard algorithm for each operation.</p>	<p>I can add, subtract, multiply, and divide multi-digit decimals.</p>	<p>Curriculum Associates Textbook</p> <p>commoncoresheets.com</p> <p>Khan Academy</p> <p>IXL Math</p>

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				Engage New York
1 week	<b>6.NS.B</b> Compute fluently with multi-digit numbers and find common factors and multiples.	<b>6.NS.B.4</b> Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express $36+8$ as $4(9+2)$ .	<p>I can derive the greatest common factor of two whole numbers less than or equal to 100.</p> <p>I can derive the least common multiple of two whole numbers less than or equal to 12.</p>	<p>Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York</p>
1 week	<b>6.NS.A</b> Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	<p><b>6.NS.A.1</b> Interpret and compute quotients of fractions, and solve contextual problems involving division of fractions (e.g. by using visual fraction models and equations to represent the problem is suggested).</p> <p>For example, create a story context for <math>(2/3) \div (3/4)</math> and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that <math>(2/3) \div (3/4) = 8/9</math> because <math>3/4</math> times <math>8/9</math> is <math>2/3</math> (<math>(a/b) \div (c/d) = ad/bc</math>.) Further example: How much chocolate will each person get if 3 people share <math>1/2</math> lb of chocolate equally? How wide is a rectangular strip of land with length <math>3/4</math> mi and area <math>1/2</math> square mi?</p>	I can divide fractions within word problems using multiple representations.	<p>Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York</p>

2 <sup>nd</sup> Nine Weeks				
Time	Cluster	Standards	Learning Targets	Lesson Topics/Resources
2 weeks	6.NS.C Apply and extend previous understandings of numbers to the system of rational numbers.	<p>6.NS.C.5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real world contexts, explaining the meaning of 0 in each situation.</p> <p>6.NS.C.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.</p> <p>a. 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. For example, <math>-(-3) = 3</math>, and that 0 is its own opposite.</p> <p>6.NS.C.7 Understand ordering and absolute value of rational numbers.</p> <p>a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For</p>	<p>I can represent and describe quantities in real world situations using positive and negative numbers.</p> <p>I can identify a rational number as a point on a number line.</p> <p>I can write, interpret, and explain statements of order for rational numbers in real-world contexts.</p>	<p>Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York</p>

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		<p>example, interpret <math>-3 &gt; -7</math> as a statement that <math>-3</math> is located to the right of <math>-7</math> on a number line oriented from left to right.</p> <p>b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write <math>-30C &gt; -70C</math> to express the fact that <math>-30C</math> is warmer than <math>-70C</math>.</p> <p>b. Understand the absolute value of a rational number as its distance from 0 on the number line and distinguish comparisons of absolute value from statements about order in a real-world context. For example, an account balance of <math>-24</math> dollars represents a greater debt than an account balance <math>-14</math> dollars because <math>-24</math> is located to the left of <math>-14</math> on the number line.</p>		
1 week	6.NS.C Apply and extend previous understandings of numbers to the system of rational numbers.	6.NS.C.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.	<p>I can label quadrants on a coordinate plane.</p> <p>I can plot a point on the coordinate plane in any quadrant using ordered pairs.</p>	<p>Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York</p>
1 week	6.EE.A Apply and extend previous understandings of arithmetic to algebraic expressions.	6.EE.A.1 Write and evaluate numerical expressions involving whole-number exponents.	I can write and evaluate numerical expressions involving whole numbers with whole-number exponents following order of operations.	<p>Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York</p>



		<p>18y to produce the equivalent expression <math>6(4x + 3y)</math>; apply properties of operations to <math>y + y + y</math> to produce the equivalent expression <math>3y</math>.</p> <p>6.EE.A.4 Identify when expressions are equivalent (i.e., when the expressions name the same number regardless of which value is substituted into them). For example, the expression <math>5b + 3b</math> is equivalent to <math>(5 + 3)b</math>, which is equivalent to <math>8b</math>.</p>		
3rd Nine Weeks				
Time	Cluster	Standards	Learning Targets	Lesson Topics/Resources
2 weeks	6.EE.B Reason about and solve one-variable equations and inequalities.	<p>6.EE.B.5 Understand solving an equation or inequality is carried out by determining if any of the values from a given set make the equation or inequality true. Use substitution to determine whether a given number in a specified set makes an equation or inequality true.</p> <p>6.EE.B.6 Use variables to represent numbers and write expressions when solving a realworld or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.</p> <p>6.EE.B.7 Solve real-world and mathematical problems by writing and solving onestep equations of the form <math>x + p = q</math> and <math>px = q</math> for cases in which <math>p</math>, <math>q</math>, and <math>x</math> are all nonnegative rational numbers.</p>	<p>I can write a one-step inequality to model a real-world problem and determine whether a particular value satisfies the inequality.</p> <p>I can represent numbers using words, algebraic tiles, and algebraic expressions.</p> <p>I can graph an inequality on a number line.</p>	<p>Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York</p>

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		6.EE.B.8 Interpret and write an inequality of the form $x > c$ or $x < c$ which represents a condition or constraint in a real-world or mathematical problem. Recognize that inequalities have infinitely many solutions; represent solutions of inequalities on number line diagrams.		
2 weeks	6.EE.C Represent and analyze quantitative relationships between dependent and independent variables.	6.EE.C.9 Use variables to represent two quantities in a real- world problem that change in relationship to one another. For example, Susan is putting money in her savings account by depositing a set amount each week (50). Represent her savings account balance with respect to the number of weekly deposits ( $s = 50w$ , illustrating the relationship between balance amount sand number of weeks $w$ ).  a. Write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable.  b. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.	I can define and identify independent and dependent variables.	Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York
1 week	6.G.A Solve real-world and mathematical problems involving area, surface area, and volume.	6.G.A.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; know and apply these techniques in	I can find the area of triangles, trapezoids, and composite figures.	Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York



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		the context of solving real-world and mathematical problems.		
1 week	6.G.A Solve real-world and mathematical problems involving area, surface area, and volume.	6.G.A.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side that joins two vertices (vertical or horizontal segments only). Know and apply these techniques in the context of solving real-world and mathematical problems.	I can draw polygons on the coordinate plane and calculate area.	Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York
1 week	6.G.A Solve real-world and mathematical problems involving area, surface area, and volume.	6.G.A.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.	I can use nets to find the surface area of prisms and pyramids.	Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York
1 week	6.G.A Solve real-world and mathematical problems involving area, surface area, and volume.	6.G.A.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. Know and apply the formulas $V = lwh$ and $V = Bh$ where $B$ is the area of the base to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	I can find the volume of rectangular prisms with fractional units.	Curriculum Associates Textbook commoncoresheets.com Khan Academy IXL Math Engage New York
<b>4th Nine Weeks</b>				
<b>Time</b>	<b>Cluster</b>	<b>Standards</b>	<b>Learning Targets</b>	<b>Lesson Topics/Resources</b>
1 week	6.SP.A	6.SP.A.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in	I can distinguish between a statistical and non-statistical question.	Curriculum Associates Textbook commoncoresheets.com

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	Develop understanding of statistical variability.	<p>the answers. For example, "How old am I?" Is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.</p> <p>6.SP.A.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center (mean, median, mode) spread (range), and overall shape. 6.SP.A.3 Recognize that a measure of center for a 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.</p>	<p>I can recognize that data can have variability.</p> <p>I can describe data distribution by its center (median/mean).</p> <p>I can describe data distribution by its spread (range).</p> <p>I can describe data distribution by its data clusters, peaks, gaps, symmetry, and overall shape (line plot).</p> <p>I can calculate the range, median, mean, and mode of a set of data.</p> <p>I can summarize a set of data using the measures of central tendencies.</p> <p>I can describe the variability by examining graphs of data for spread and overall shape.</p>	<p>Khan Academy IXL Math Engage New York</p>
2 weeks	6.SP.A	6.SP.B.4 Display a single set of numerical data using dot plots (line plots), box plots, pie charts and stem plots.	<p>I can identify the components of dot plots, histograms, and box plots.</p>	<p>Curriculum Associates Textbook commoncoresheets.com</p>

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	Develop understanding of statistical variability.	<p>6.SP.B.5 Summarize numerical data sets in relation to their context.</p> <p>a. Report the number of observations.</p> <p>b. Describe the nature of the attribute under investigation, including how it was measured and its units of measurement.</p> <p>c. Give quantitative measures of center (median and/or mean) and variability (range) as well as describing any overall pattern with reference to the context in which the data were gathered.</p> <p>d. Relate the choice of measures of center to the shape of the data distribution and the context in which the data were gathered.</p>	<p>I can display data using visual representations.</p> <p>I can describe data patterns using measures of central tendency.</p>	<p>Khan Academy</p> <p>IXL Math</p> <p>Engage New York</p>
6 weeks		Ongoing review of all standards		<p>Curriculum Associates</p> <p>Textbook</p> <p>commoncoresheets.com</p> <p>Khan Academy</p> <p>IXL Math</p> <p>Engage New York</p>