

## 6<sup>th</sup> Grade- Math 4 Quarter Plans

### Quarter 1- August, September, Mid-October

**Focus Areas:** Division, fractions, decimals, ratios

<b>6.NS.A.1</b>	I can interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions.	<b>Resources Used:</b> -SMARTBoard -Chromebooks -MyMath online curriculum -MyMath student workbooks
<b>6.NS.B.2</b>	I can fluently divide multi-digit numbers using the standard algorithm.	
<b>6.NS.B.3</b>	I can fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	
<b>6.RP.A.1</b>	I understand the concept of ratio and use ratio language to describe a ratio relationship between two quantities.	
<b>6.RP.A.2</b>	I understand the concept of a unit rate $a/b$ associated with a ratio $a:b$ with $b \neq 0$ , and use rate language in the context of a ratio relationship.	
<b>6.RP.A.3</b>	I can use ratio and rate reasoning to solve real-world and mathematical problems.	<b>Summary:</b> In Q1, students will fluently use all four operations including problems that involve decimals and multi-digits. Students will explore the concepts of ratios and quantities and learn about independent and dependent variables.
<b>6.EE.9</b>	I can use variables to represent two quantities in a real-world problem that change in relationship to one another; 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, analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.	

## 6th Grade- Math 4 Quarter Plans

### Quarter 2- Mid-October, November, December

Focus Areas: Greatest common factor, least common multiple, negative numbers, exponents, absolute value, coordinate plane

<b>6.NS.B.4</b>	I can 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 and 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.	<b>Resources Used:</b> <ul style="list-style-type: none"><li>-SMARTBoard</li><li>-Chromebooks</li><li>-MyMath online curriculum</li><li>-MyMath student workbooks</li></ul>
<b>6.NS.C.5</b>	I understand that positive and negative numbers are used together to describe quantities having opposite directions or values, I can use positive and negative numbers to represent quantities in real-world contexts, and I can explain the meaning of 0 in each situation.	<b>Summary:</b> In Q2, students will be learning many new concepts. Students will explore the distributive property, greatest common factor, least common multiple, exponents and absolute value. Students will also use all four quadrants of the coordinate plane in many new ways including drawing polygons.
<b>6.NS.C.6</b>	I understand a rational number as a point on the number line and can extend number line diagrams and coordinate axes familiar from previous grades to represent points on line and in the plan with negative number coordinates.	
<b>6.NS.C.7</b>	I understand ordering and absolute value of rational numbers.	
<b>6.NS.C.8</b>	I can solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane and include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.	
<b>6.G.A.3</b>	I can 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, and apply these techniques in the context of solving real-world and mathematical problems.	
<b>G.EE.A.1</b>	I can write and evaluate numerical expressions involving whole-number exponents.	

<b>6.EE.A.2</b>	I can write, read, and evaluate expressions in which letters stand for numbers.	
<b>6.EE.A.3</b>	I can apply the properties of operations to generate equivalent expressions.	
<b>6.EE.A.4</b>	I can identify when two expressions are equivalent.	

## 6th Grade- Math 4 Quarter Plans

### Quarter 3- January, February, Mid-March

**Focus Areas:** Equations and inequalities, expressions, and area

<b>6.EE.B.5</b>	I understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? and use substitution to determine whether a given number in a specified set makes an equation or inequality true.	<b>Resources Used:</b> -SMARTBoard -Chromebooks -MyMath online curriculum -MyMath student workbooks
<b>6.EE.B.6</b>	I can use variables to represent numbers and write expressions when solving a real-world 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.	
<b>6.EE.B.7</b>	I can solve real-world and mathematical problems by writing and solving equations of the form $x+p=q$ and $px=q$ for cases in which $p$ , $q$ , and $x$ are all nonnegative rational numbers.	
<b>6.EE.B.8</b>	I can write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem, recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions, and represent solutions of such inequalities on number line diagrams.	<b>Summary:</b> In Q3, students will continue to build upon their knowledge from Q1 and Q2. Students will write expressions and inequalities and use variables appropriately. Students can apply their knowledge to real-world problems. Students will also learn how to find the area of triangles and other shapes, represent three-dimensional figures using nets, and find the
<b>6.EE.C.9</b>	I can use variables to represent two quantities in a real-world problem that change in relationship to one another; 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, analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.	
<b>6.G.A.1</b>	I can find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes and apply these	

	techniques in the context of solving real-world and mathematical problems.	volume of three-dimensional shapes.
<b>6.G.A.2</b>	I can 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, and apply the formulas $V=lwh$ and $V=bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	
<b>6.G.A.4</b>	I can represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures, and apply these techniques in the context of solving real-world and mathematical problems.	

## 6<sup>th</sup> Grade- Math 4 Quarter Plans

### Quarter 4- Mid-March, April, May

**Focus Areas:** Data and statistics, variables, coordinate plane, volume

<b>6.SP.A.1</b>	I can recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers.	<b>Resources Used:</b> -SMARTBoard -Chromebooks -MyMath online curriculum -MyMath student workbooks
<b>6.SP.A.2</b>	I 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.	
<b>6.SP.A.3</b>	I can 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.	
<b>6.SP.B.4</b>	I can display numerical data in plots on a number line, including dot plots, histograms, and box plots.	
<b>6.SP.B.5</b>	I can summarize numerical data sets in relation to their context.	
<b>6.EE.C.9</b>	I can use variables to represent two quantities in a real-world problem that change in relationship to one another, 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, and analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.	
<b>6.NS.8</b>	I can solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane.	<b>Summary:</b> In Q4, students will focus on data and statistical questions. Students will learn how to display and summarize numerical data. Students will continue to demonstrate their knowledge of coordinate planes,
<b>6.G.A.2</b>	I can 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, show that the volume is the same as would be found by multiplying the edge lengths of the prism, and apply the formulas $V=lwh$ and $V=bh$ to find volumes of right rectangular prisms with	

fractional edge lengths in the context of solving real-world and mathematical problems.

volume, and variables in this quarter.

**Note: Plans are subject to change due to what the teacher deems as appropriate pacing for the group of students being taught in that current year. Resources are also subject to change due to availability.**

**\*NS=The Number System**

**\*RP= Ratios & Proportional Relationships**

**\*EE= Expressions & Equations**

**\*G= Geometry**

**\*SP= Statistics & Probability**