High Priority Standards: (State, National, CCSS)	
The Number System	
Learning Goal Students will be able to: multiply and divide fractions by fractions.	**Learning Targets** ● Apply and extend previous understandings of multiplication and division to fractions. ● Interpret and compute quotients of fractions and solve word problems involving division of fractions by fractions.
Learning Goal Students will be able to compute fluently with multi-digit numbers and find common factors and multiples.	**Learning Targets** ● Fluently divide multi-digit whole numbers using a standard algorithm. ● Fluently add, subtract, multiply, and divide multi digit decimals using a standard algorithm for each operation. ● Find the greatest common factor of two whole numbers less than or equal to 100. ● Find the least common multiple of two whole numbers less than or equal to 12. ● Use the distributive property to express the sum of two whole numbers. ● Use the distributive property to express the product of two whole numbers.
Learning Goal Apply and extend previous understandings of numbers to the	**Learning Target** ● Use positive and negative numbers to represent quantities

system of rational numbers	in real-world contexts, explaining the meaning of 0 in each situation. (e..g., temperatures, elevation, etc.
	
	• Fluently add, subtract, multiply, and divide positive and negative numbers.
	
	• 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
	  ○ recognize opposite signs of numbers as indicating locations of opposite sides of 0 on a number line; recognize that the opposite of the number is the number itself, and that 0 is its own opposite.
	  ○ Recognize signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
	  ○ Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
	
	• Order and find the absolute value of rational numbers.
	  ○ Interpret statements of inequality as statements about the relative position of two numbers on a

	- number line diagram. ○ Write, interpret, and explain statements of order for rational numbers in real-world contexts. ○ Show understanding of a rational number as its distance from 0 on a number line by interpreting the absolute value as magnitude for a positive or negative quantity in a real-world situation. ○ Distinguish comparisons of absolute value from statements about order. - 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.

Mary Queen of Peace Curriculum--Math Sixth Grade

High Priority Standards: (State, National, CCSS)	
Ratios and Proportional Relationships	
Learning Goal	Learning Targets
Understand ratio concepts and use ratio reasoning to solve problems	Use ratio language to describe a ratio relationship between two quantities.

	- Solve problems using the concept of a unit rate a/b associated with a ratio a:b when b does not equal 0. - Use ratio and rate reasoning to solve real-world and mathematical problems. - Use tables to compare ratios - Solve unit rate problems including those involving unit pricing and constant speed. - Find a percent of a quantity as a rate per 100; solve problems involving finding the whole, given a part, and the percent. - Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

Mary Queen of Peace Curriculum--Math Sixth Grade

High Priority Standards: (State, National, CCSS)	
Expressions and Equations	
Learning Goal	Learning Targets
Apply and extend previous understandings of arithmetic to algebraic expressions	- Write and evaluate numerical expressions involving whole-number exponents. - Write, read, and evaluate expressions in which letters

stand for numbers
- ○ Write expressions that record operations with numbers and with letters standing for numbers.
- ○ Identify parts of an expression using mathematical terms; view one or more parts of an expression as a single entity.
- ○ Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order.
- Apply the properties of operations to generate equivalent expressions.
- Identify when two expressions are equivalent.

Learning Goal	Learning Targets
Reason about and solve one-variable equations and inequalities	- Explain why solving an equation or inequality is a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given

	number in a specified set makes an equation or inequality true. ● use variables to represent numbers and expressions when solving a real-world or mathematical problem; explain that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set. ● 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. ● Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Explain that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.
Learning Goal Represent and analyze quantitative relationships between dependent and independent variables.	**Learning Target** ● Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express on 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 variable and independent variables using graphs and tables, and relate these to the equation.

High Priority Standards: (State, National, CCSS)

Geometry

Learning Goal	Learning Targets
Students will be able to: solve real-world and mathematical problems involving area, surface area, and volume.	- 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. - 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 a prism. Apply the formulas V= l w h and V= b h to find volumes of right triangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems. - 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. - Represent three-dimensional figures using nets made up of rectangles and triangles, and use 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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Mary Queen of Peace Curriculum--Math Sixth Grade

High Priority Standards: (State, National, CCSS)	
Statistics and Probability	
Learning Goal	Learning Targets
Students will be able to: develop understanding of statistical variability.	● Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in 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. ● 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. ● 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.
Learning Goal	● Display numerical data in plots on number lines, including dot plots,

Students will be able to: summarize and describe distributions	histograms, and box plots.
	● Summarize numerical data sets in relation to their context, such as by
	  ○ reporting the number of observations
	  ○ describing the nature of the attribute under investigation, including how it was measured and its units of measurement
	  ○ giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), 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.
	  ○ relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

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