## Math Curriculum Unit Gasconade County R-2 School District

Standard Highlights Key				
Highlight	alight Meaning			
Red	We'll Fix (Essential to know, make sure all students understand)			
Yellow	l'Il Fix (Important to know, address in class and/or RTI)			
Green	Drip (Something that repeated exposure will fix)			

Grade Level: 6th Subject: Math

Month	Mathematics Missouri Learning Standards	Key Mathematics and Academic Vocabulary	MathLinks to New MLS	Essential Questions
August	6.NS.B.4a 6.NS.B.4b 6.RP.A.1 6.RP.A.3a	prime number - a number divisible by only 1 and itself  composite number - a number divisible by more than 1 and itself.  factors - numbers you multiply together to get another number  multiples - a number obtained by multiplying a number by another	Item Specification Reports  K-5 Missouri Learning Standards  6-12 Missouri Learning Standards  K-6 Math Glossary  7-12 Math Glossary  Missouri EOC Math Reference Sheet  End of Course Blueprints  MAP Grade Level	I can find the greatest common factor (GCF) and the least common multiple (LCM).  I can find common factors and multiples using the distributive property to express a sum of two whole numbers with a common factor as a multiple of a sum of two whole numbers.  I can understand a ratio as a comparison of two quantities and represent these comparisons.  I can solve problems involving ratio and rates, create tables of equivalent ratios, find missing values in the tables, and plot the pairs of values on the Cartesian Coordinate plane.

whole	<u>Blueprints</u>		
non-negative			
number			
greatest common			
factor - the			
greatest factor two			
numbers have in			
common.			
least common			
multiple - the			
lowest multiple			
shared by two or			
more numbers.			
distributive			
property -			
distributing the			
common factor			
does not change			
the value of the			
expression.			
ratio - a way to			
compare two			
different quantities.			
·			
equivalent ratios			
- two or more			
ratios that are			
equal to one			
another.			
equivalent -			
having the same			
value			
coordinate plane			

		- a two-dimensional number line where the vertical line is called the y-axis and the horizontal is called the x-axis. These lines are perpendicular and intersect at their zero points.  ordered pair - a pair of numbers used to locate a point on a coordinate plane.		
September	6.RP.A.3b 6.RP.A.3d 6.RP.A.3c 6.NS.C.8	rate - an equivalent ratio that compares the first quantity in a ratio to only one of the second quantity.  unit rate - the part of the rate that is being compared to 1.  unit price - the price for 1 unit.  constant speed - when the speed of an object stays the same.	Item Specification Reports  K-5 Missouri Learning Standards  6-12 Missouri Learning Standards  K-6 Math Glossary  7-12 Math Glossary  Missouri EOC Math Reference Sheet  End of Course Blueprints  MAP Grade Level Blueprints	I can understand the concept of unit rate associated with a ratio, and describe the meaning of unit rate.  I can solve unit rate problems.  I can convert measurement units within and between two systems of measurement.  I can solve percent problems.  I can extend prior knowledge to generate equivalent representations of rational numbers between fractions, decimals, and percents.

		percent - a rate "for every 100" or "per 100"		
October	6.NS.A.1a 6.NS.B.2 6.NS.B. 3	fraction - a number between 0 and 1, expressed as one number over another.  numerator - top number in a fraction  denominator - bottom number in a fraction  mixed number - a whole number and a fraction combined  improper fraction - a fraction where the numerator is larger or equal to the denominator.  multiplicative inverse - a number is the multiplicative inverse of another number if the product of the two numbers is 1.	Item Specification Reports  K-5 Missouri Learning Standards  6-12 Missouri Learning Standards  K-6 Math Glossary  7-12 Math Glossary  Missouri EOC Math Reference Sheet  End of Course Blueprints  MAP Grade Level Blueprints	I can compute and interpret quotients of positive fractions and solve problems involving division of fractions by fractions.  I can demonstrate fluency with division of multi-digit whole numbers.  I can demonstrate fluency with addition, subtraction, multiplication, and division of decimals.

reciprocal - the multiplicative inverse of a number; with fractions, the numerator and denominator are switched. quotient - answer to a division problem. algorithm - a step-by-step way to solve a problem. dividend -the amount you want to divide up. divisor - the number you divide by **sum** - answer to an addition problem. addends -any numbers added together difference -answer to a subtraction problem minuend - first

	number in a subtraction problem.  subtrahend -the second number of a subtraction problem.		
November  6.NS.B.3 6.NS.C.6a 6.NS.C.6b 6.NS.C.7 6.GM.A.3a 6.GM.A.3b 6.GM.A.3c	product -the answer to a multiplication problem.  positive number -numbers greater than 0 and located to the right of 0 on a number line.  negative number -numbers less than 0 and located to the left of 0 on a number line.  signed number - positive and negative numbers  opposites - numbers that are the same distance from zero but in opposite directions.  integers - all whole numbers	Item Specification Reports  K-5 Missouri Learning Standards  6-12 Missouri Learning Standards  K-6 Math Glossary  7-12 Math Glossary  Missouri EOC Math Reference Sheet  End of Course Blueprints  MAP Grade Level Blueprints	I can demonstrate fluency with addition, subtraction, multiplication, and division of decimals.  I can use positive and negative numbers to represent quantities.  I can locate rational numbers on a horizontal or vertical number line.  I can write, interpret and explain problems of ordering of rational numbers.  I understand that a number and its opposite (additive inverse) are located on opposite sides of zero on the number line.  I understand that the absolute value of a rational number is its distance from 0 on the number line.  I can understand signs of numbers in ordered pairs as indicating locations in quadrants of the Cartesian coordinate plane.  I can recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.  I can find distances between points with the same first coordinate or the same second coordinate.

and their	
opposites.	
absolute value - a	
number's distance	
from 0 on a	
number line.	
rational number -	
any number that	
can be expressed	
as the quotient or	
fraction of two	
integers.	
quadrants - the	
four spaces of the	
coordinate plane that are created	
when the x-axis	
and y- axis	
intersect at the	
origin.	
aviete the point	
origin -the point	
where the x-axis	
and y-axis	
intersect on a	
coordinate plane.	
coordinate pair	
coordinate pair - another name for	
an ordered pair.	
coordinates -a set	
of values that	
show and exact	
position	

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		coordinate system - a system that uses one or more numbers, or coordinates, to determine the position of points.		
		x-axis - the line that runs horizontally in a coordinate plane.		
		y-axis - the line that runs vertically through a coordinate plane.		
		x-coordinate - the horizontal value of an ordered pair, it is always written first in an ordered pair.		
		y-coordinate - the vertical value of an ordered pair, it is always written second in an ordered pair.		
		plot - to draw on a graph or map.		
December	6.GM.A.1 6.GM.A.2a 6.GM.A.2b 6.GM.A.3a	area - the amount of space within a two-dimensional shape.	Item Specification Reports  K-5 Missouri Learning	I can find the area of polygons by composing or decomposing the shapes into rectangles or triangles.

6.0	GM.A.3b		<u>Standards</u>	I understand that the volume of a right
	GM.A.3c	polygon - a		rectangular prism can be found by filling the prism with multiple layers of the
	GM.A.3d	two-dimensional	6-12 Missouri Learning	base.
6.0	GM.A.4a	shape made with	Standards	
6.0	GM.A.4b	straight lines.		
			K-6 Math Glossary	I can find the volume of right rectangular prisms by applying V = I * w * h and
		compose - a		V = Bh to find the volume of right rectangular prisms.
		shape made by	7-12 Math Glossary	
		putting together		
		other shapes	Missouri EOC Math	I can understand signs of numbers in ordered pairs as indicating
			Reference Sheet	locations in quadrants of the Cartesian coordinate plane.
		decompose		
		-breaking apart a	End of Course Blueprints	I can recognize that when two ordered pairs differ only by signs, the
		shape into more		locations of the points are related by reflections across one or both axes.
		simple shapes.	MAP Grade Level	
			Blueprints	I can find distances between points with the same first coordinate or the
		base -the face of a		same second coordinate.
		geometric figure		
		from which the		I can construct polygons in the Cartesian coordinate plane.
		height can be		
		measured.		I can represent three-dimensional figures using nets made up of rectangles
		not a flat		and triangles.
		<b>net</b> -a flat, "unfolded"		
		representation of a		I can use nets to find the surface area of three-dimensional figures whose
		prism or pyramid.		sides are made up of rectangles and triangles.
		prism or pyramia.		sides are made up of rectangles and thangles.
		surface area - the		
		sum of the areas		
		of the faces of a		
		figure.		
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		triangular prism -		
		three-dimensional		
		figure that has two		
		parallel triangular		
		faces that are the		
		same size and		
		shape.		

		pyramid - a three-dimensional figure whose base is a polygon and whose other faces are triangles.  rectangular prism - three-dimensional figure that has six rectangular faces.  cube -three-dimensional figure with 6 square faces.  volume - measure of the amount of space in a solid figure.		
January	6.EEI.A.2a 6.EEI.A.2b 6.EEI.A.2c 6.EEI.A.2d 6.EEI.A.2e	base - the number that is multiplied by itself when it is raised to a certain power.  exponent - a number that shows how many times a base is used as a factor.  exponential expression - expressions	Item Specification Reports  K-5 Missouri Learning Standards  6-12 Missouri Learning Standards  K-6 Math Glossary  7-12 Math Glossary  Missouri EOC Math Reference Sheet	I can create and evaluate expressions involving variables and whole number exponents by identifying parts of an expression using mathematical terminology.  I can evaluate expressions at specific values of the variables.  I can evaluate non-negative rational number expressions.  I can write and evaluate algebraic expressions.  I understand the meaning of the variable in the context of the situation.

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written with exponents.	End of Course Blueprints	3			
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expression - numbers, symbols,	MAP Grade Level Blueprints				
and operations	<u>ыйертініз</u>				
grouped together					
to show the value of something.					
or something.					
numerical					
<b>expression</b> - an expression					
containing only					
numbers and					
operations.					
order of					
operations - the rule that tells					
which operations					
come first in an					
expression.					
variable - a letter					
that stands for an					
unknown number.					
term - a known					
number, a					
variable, or the product of a known					
number and					
variable.					
variable term - a					
term that includes					
variables.					

		constant - a number on its own  coefficient - a number used to multiply a variable ( a number connected to a variable)  algebraic expression - a mathematical phrase that contains numbers, operations, and variables.		
February	6.EEI.A.2b 6.EEI.A.2c 6.EEI.A.2d	commutative property of addition -	Item Specification Reports	I can create and evaluate expressions involving variables and whole number exponents by identifying parts of an expression using mathematical terminology.
	6.EEI.A.2e 6.EEI.A.3	reordering the terms does not	K-5 Missouri Learning Standards	I can evaluate expressions at specific values of the variables.
	6.EEI.B.5	change the value	C 40 Missaud L	
	6.EEI.B.6 6.EEI.B.7	of the expression.	6-12 Missouri Learning Standards	I can evaluate non-negative rational number expressions.
		associative		I can write and evaluate algebraic expressions.
		property of	K-6 Math Glossary	
		addition -	7 12 Math Classon	I understand the meaning of the variable in the context of the
		regrouping the terms does not	7-12 Math Glossary	situation.
		change the value	Missouri EOC Math	
		of the expression.	Reference Sheet	I can identify and generate equivalent algebraic expressions using
		distributive	End of Course Blueprints	mathematical properties.

		property - distributing the common factor does not change the value of the expression.  like terms - two or more terms in a variable expression that have the same variable factors.  equation - a statement that shows two equivalent expressions.	MAP Grade Level Blueprints	I understand that if any solutions exist, the solution set for an equation or inequality consists of values that make the equation or inequality true.  I can write and solve equations using variables to represent quantities, and understand the meaning of the variable in the context of the situation.  I can solve one-step linear equations in one variable involving non-negative rational numbers.
March	6.EEI.B.4 6.EEI.B.5 6.EEI.B.6 6.EEI.B.7 6.EEI.B.8a 6.EEI.C.9a 6.EEI.C.9b	isolate the variable -get the variable by itself on one side of the equals sign.  balance the equation - keep the two expressions equivalent to each other  inverse operations - operations that "undo" each other.  inequality - two	Item Specification Reports  K-5 Missouri Learning Standards  6-12 Missouri Learning Standards  K-6 Math Glossary  7-12 Math Glossary  Missouri EOC Math Reference Sheet  End of Course Blueprints  MAP Grade Level	I can use substitution to determine whether a given number in a specified set makes a one-variable equation or inequality true.  I understand that if any solutions exist, the solution set for an equation or inequality consists of values that make the equation or inequality true.  I can write and solve equations using variables to represent quantities, and understand the meaning of the variable in the context of the situation.  I can solve one-step linear equations in one variable involving non-negative rational numbers.  I can recognize that inequalities may have infinitely many solutions and write an inequality of the form x > c, x < c, or x ≤ c to represent a constraint or condition.  I can graph the solution set of an inequality.

dependent
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		variable - a variable whose value depends on the values of one or more independent variables.  independent variable - a variable whose value determines the value of other variables.		
April	6.DSP.A.1 6.DSP.A.2 6.DSP.A.4a 6.DSP.A.4b 6.DSP.A.5a 6.DSP.A.5b 6.DSP.A.5c 6.DSP.A.5d	statistical question - questions with answers involving variability.  statistics - the collection, organization, analysis, and interpretation of numerical data.  statistical variability - measure of the spread of data.  data - collection of numbers or values	Item Specification Reports  K-5 Missouri Learning Standards  6-12 Missouri Learning Standards  K-6 Math Glossary  7-12 Math Glossary  Missouri EOC Math Reference Sheet  End of Course Blueprints  MAP Grade Level Blueprints	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.  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.  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 from a single number.  I can display and interpret data by using dot plots, histograms and box plots to display and interpret numerical data.  I can create and interpret circle graphs.  I can summarize numerical data sets in relation to the context and report the number of observations.

particular subject.

cluster - a group
of data points that
crowd near each
other.

skewed left when most of the
data points on a
graph are
clustered near

skewed right when most of the data points on a graph are clustered near lower values.

higher values.

symmetrical graphs - graphs that have the same shape on either side of a middle point.

**peak** - what forms when many data points are at one value

outlier - a data point far away from the other data points; it doesn't quite fit with the rest of the data I can describe the nature of

the attribute under investigation, including how it was measured and its units of

measurement.

I can give 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 of the data.

I can analyze the choice of measures of center and variability based on the shape of the data distribution and/or the context of the data.

points.		
median - the middle number in an ordered set of numbers.		
mode - the most common number in a set of numbers.		
range - the difference between the least and greatest values in a data set.		
mean absolute deviation (MAD) - the average of the distances of each data point from the mean.		
mean - the average of a set of numbers.		
measure of center - the value that attempts to describe the center position of the data set.		
measure of variability - the value that		

describes how fa spread out a set	
data is.	
spread - how much a data set	s l
spread out or scattered.	
dot plot - a display of data	
using dots.	
line plot - a grap that displays dat	h a
as dots above a number line.	
histogram - a	
display where da	
ranges and plotte as bars.	ed
maximum - largest data valu	
in a set of data.	
minimum - smallest data	
value in a set of data.	
circle graph -	
circular chart divided into	
sections.	
lower quartile	

	T	
(first quartile) - the middle number between the minimum and the median in an ordered set of		
numbers.  upper quartile (third quartile) - the middle number between the median and the		
maximum in an ordered set of numbers.  box plot - a 5-number		
summary that includes the minimum, the lower quartile, the median, the upper quartile, and the maximum.		
interquartile range IQR) - the difference between the upper quartile and the lower quartile.		

May	Review all		