

Math Curriculum Unit
Gasconade County R-2 School District

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

Grade Level:

Subject:

Month	Mathematics Missouri Learning Standards	Key Mathematics and Academic Vocabulary	MathLinks to New MLS	Essential Questions
August	<p style="background-color: #f28b82;">7.NS.A.1a</p> <p style="background-color: #d9ead3;">7.NS.A.1b</p> <p style="background-color: #d9ead3;">7.NS.A.1c</p> <p style="background-color: #fff2cc;">7.NS.A.1f</p> <p style="background-color: #d9ead3;">7.NS.A.1d</p> <p style="background-color: #d9ead3;">7.NS.A.1e</p>	<p>Absolute Value a number's distance from 0 on the number line.</p> <p>Additive Inverses two numbers whose sum equal 0.</p> <p>Integers whole numbers and their opposites.</p>	<p>Item Specification Reports</p> <p>K-5 Missouri Learning Standards</p> <p>6-12 Missouri Learning Standards</p> <p>K-6 Math Glossary</p> <p>7-12 Math Glossary</p> <p>Missouri EOC Math Reference Sheet</p> <p>End of Course Blueprints</p> <p>MAP Grade Level</p>	<p>I can apply and extend previous understandings of numbers to add and subtract rational numbers.</p> <p>I can add and subtract rational numbers.</p> <p>I can represent addition and subtraction on a horizontal or vertical number line.</p> <p>I can describe situations and show that a number and its opposite have a sum of 0 (additive inverses) I can interpret sums and differences of rational numbers.</p> <p>I can understand subtraction of rational numbers as adding the additive inverse.</p> <p>I can determine the distance between two rational numbers on the number line is the absolute value of their distance.</p>

			Blueprints	
September	<p>7.NS.A.1a</p> <p>7.NS.A.1b</p> <p>7.NS.A.2a</p> <p>7.NS.A.2d</p> <p>7.NS.A.2e</p> <p>7.NS.A.2c</p> <p>7.NS.A.2b</p> <p>7.NS.A.2f</p>	<p>Rational Number a number that can be expressed as a quotient of two integers.</p> <p>Terminating Decimal decimals that end and whose only repeating digit is 0.</p> <p>Repeating Decimal decimals that never end and repeat the same digits over and over.</p>	<p>Item Specification Reports</p> <p>K-5 Missouri Learning Standards</p> <p>6-12 Missouri Learning Standards</p> <p>K-6 Math Glossary</p> <p>7-12 Math Glossary</p> <p>Missouri EOC Math Reference Sheet</p> <p>End of Course Blueprints</p> <p>MAP Grade Level Blueprints</p>	<p>I can apply and extend previous understandings of numbers to add and subtract rational numbers.</p> <p>I can add and subtract rational numbers.</p> <p>I can represent addition and subtraction on a horizontal or vertical number line.</p> <p>I can apply and extend previous understandings of numbers to multiply and divide rational numbers.</p> <p>I can multiply and divide rational numbers.</p> <p>I can convert a rational number to a decimal.</p> <p>I can understand that all rational numbers can be written as fractions or decimal numbers that terminate or repeat.</p> <p>I can understand that every quotient of integers (with non-zero divisor) is a rational number.</p> <p>I can determine that a number and its reciprocal have a product of 1 (multiplicative inverse).</p> <p>I can interpret products and quotients of rational numbers by describing real-world contexts.</p>
October	<p>7.NS.A.1a</p> <p>7.NS.A.1b</p>	<p>Approximations numbers that are not exact but are close enough to be used when solving</p>	<p>Item Specification Reports</p> <p>K-5 Missouri Learning Standards</p>	<p>I can apply and extend previous understandings of numbers to add and subtract rational numbers.</p> <p>I can add and subtract rational numbers.</p>

	<p>7.NS.A.1f 7.NS.A.2a</p> <p>7.NS.A.2f</p> <p>7.NS.A.3</p> <p>7.RP.A.1</p> <p>7.RP.A.2a</p> <p>7.RP.A.2b</p> <p>7.RP.A.2c</p>	<p>certain problems.</p> <p>Unit Rate a rate in which the first quantity is compared to 1 unit of the second quantity.</p> <p>Complex Fraction a fraction where either the numerator is a fraction, the denominator is a fraction, or both the numerator and the denominator are fractions.</p> <p>Proportional Relationship the relationship among a group of ratios that are equivalent.</p> <p>Constant of Proportionality what the unit rate is called in a proportional relationship.</p>	<p>6-12 Missouri Learning Standards</p> <p>K-6 Math Glossary</p> <p>7-12 Math Glossary</p> <p>Missouri EOC Math Reference Sheet</p> <p>End of Course Blueprints</p> <p>MAP Grade Level Blueprints</p>	<p>I can represent addition and subtraction on a horizontal or vertical number line.</p> <p>I can interpret sums and differences of rational numbers.</p> <p>I can apply and extend previous understandings of numbers to multiply and divide rational numbers.</p> <p>I can multiply and divide rational numbers.</p> <p>I can interpret products and quotients of rational numbers by describing real-world contexts.</p> <p>I can solve problems involving the four arithmetic operations with rational numbers.</p> <p>I can compute unit rates, including those that involve complex fractions, with like or different units.</p> <p>I can recognize and represent proportional relationships between quantities.</p> <p>I can determine when two quantities are in a proportional relationship.</p> <p>I can identify and/or compute the constant of proportionality (unit rate).</p> <p>I can explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation.</p>
November	<p>7.RP.A.2c</p> <p>7.RP.A.2d</p>	<p>Markup a percent added to the cost of an item to determine the</p>	<p>Item Specification Reports</p> <p>K-5 Missouri Learning</p>	<p>I can recognize and represent proportional relationships between quantities.</p> <p>I can explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation.</p>

	<p>7.RP.A.3</p>	<p>selling price.</p> <p>Simple interest a percent of an amount borrowed that is paid to the lender in addition to the amount borrowed.</p> <p>Tax a percent of a purchase that is added to the purchase and paid to a government.</p> <p>Gratuity a percent added on to the cost of a service.</p> <p>Commission a percent of a sales amount awarded to the person making the sale.</p> <p>Percent the number of parts per 100.</p> <p>Percent change the ratio that compares the amount of change to the original amount.</p>	<p>Standards</p> <p>6-12 Missouri Learning Standards</p> <p>K-6 Math Glossary</p> <p>7-12 Math Glossary</p> <p>Missouri EOC Math Reference Sheet</p> <p>End of Course Blueprints</p> <p>MAP Grade Level Blueprints</p>	<p>I can recognize that the graph of any proportional relationship will pass through the origin.</p> <p>I can solve problems involving ratios, rates, percentages and proportional relationships.</p>
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		<p>Percent increase the percent a quantity increases from its original amount.</p> <p>Percent decrease the percent a quantity decreases from its original amount.</p> <p>Percent Error the ratio that describes how far an estimate is from the actual amount.</p>		
December	<p>7.RP.A.3</p> <p>7.GM.B.5</p> <p>7.GM.B.2a</p> <p>7.GM.B.2b</p> <p>7.GM.B.6a</p>	<p>Percent the number of parts per 100.</p> <p>Percent change the ratio that compares the amount of change to the original amount.</p> <p>Percent increase the percent a quantity increases from its original amount.</p> <p>Percent decrease the percent a quantity decreases from its original</p>	<p>Item Specification Reports</p> <p>K-5 Missouri Learning Standards</p> <p>6-12 Missouri Learning Standards</p> <p>K-6 Math Glossary</p> <p>7-12 Math Glossary</p> <p>Missouri EOC Math Reference Sheet</p> <p>End of Course Blueprints</p> <p>MAP Grade Level Blueprints</p>	<p>I can solve problems involving ratios, rates, percentages and proportional relationships.</p> <p>I can use angle properties to write and solve equations for an unknown angle.</p> <p>I can use a variety of tools to construct geometric shapes.</p> <p>I can determine if provided constraints will create a unique triangle through construction.</p> <p>I can construct special quadrilateral given specific parameters.</p> <p>I can understand the relationship between area, surface area and volume.</p> <p>I can find the area of triangles, quadrilaterals and other polygons composed of triangles and rectangles.</p>

		<p>amount.</p> <p>Percent Error the ratio that describes how far an estimate is from the actual amount.</p> <p>Complementary Angles two angles whose measures add up to 90°.</p> <p>Supplementary Angles two angles whose measures add up to 180°.</p> <p>Congruent when comparing, angles that have the same measurement and sides that are the same length.</p> <p>Vertical Angles opposite angles formed when two lines intersect; vertical angles are congruent.</p>		
January	7.EE1.A.1	Equivalent Expressions expressions that	Item Specification Reports	I can apply properties of operations to simplify and to factor linear algebraic expressions with rational coefficients.

	<p>7.EE1.A.2</p> <p>7.EE1.B.3a</p>	<p>have the same value for every possible value of the variable.</p>	<p>K-5 Missouri Learning Standards</p> <p>6-12 Missouri Learning Standards</p> <p>K-6 Math Glossary</p> <p>7-12 Math Glossary</p> <p>Missouri EOC Math Reference Sheet</p> <p>End of Course Blueprints</p> <p>MAP Grade Level Blueprints</p>	<p>I can understand how to use equivalent expressions to clarify quantities in a problem.</p> <p>I can solve multi-step problems posed with rational numbers.</p> <p>I can convert between equivalent forms of the same number.</p>
February	<p>7.EE1.B.4b</p> <p>7.EE1.B.4a</p> <p>7.EE1.B.4c</p> <p>7.EE1.B.3b</p> <p>7.GM.A.4b</p> <p>7.GM.B.4a</p>	<p>Equivalent Expressions expressions that have the same value for every possible value of the variable.</p> <p>Circumference the distance around a circle.</p> <p>Center a point inside a circle that is equivalent from each point on the circle.</p> <p>Diameter</p>	<p>Item Specification Reports</p> <p>K-5 Missouri Learning Standards</p> <p>6-12 Missouri Learning Standards</p> <p>K-6 Math Glossary</p> <p>7-12 Math Glossary</p> <p>Missouri EOC Math Reference Sheet</p> <p>End of Course Blueprints</p> <p>MAP Grade Level</p>	<p>I can write and/or solve linear equations and inequalities in one variable.</p> <p>I can write and/or solve two-step equations of the form $px + q = r$ and $p(x + q) = r$, where p, q and r are rational numbers, and interpret the meaning of the solution in the context of the problem.</p> <p>I can write and/or solve equations of the form $x + p = q$ and $px = q$ in which p and q are rational numbers.</p> <p>I can write, solve and/or graph inequalities of the form $px + g > r$ or $px + q < r$, where p, q and r are rational numbers.</p> <p>I can solve multi-step problems posed with rational numbers.</p> <p>I can assess the reasonableness of answers using mental computation and estimation strategies.</p> <p>I can understand the concept of circles.</p> <p>I can apply the formulas for circumference and area of circles to solve problems.</p>

		<p>the distance across the circle through the center</p> <p>Radius the distance from the center to any point on the circle.</p> <p>Pi the ratio of the circumference to the diameter, represented by the Greek letter π.</p>	<p>Blueprints</p>	<p>I can analyze the relationships among the circumference, the radius, the diameter, the area and pi (π) in a circle.</p>
<p>March</p>	<p>7.GM.A.1</p> <p>7.GM.B.6b</p> <p>7.GM.A.3</p> <p>7.DSP.A.1a</p> <p>7.DSP.A.1b</p> <p>7.DSP.A.1c</p>	<p>Scale Drawing a drawing that shows an object with its measurements in proportion to the actual measurements of the object.</p> <p>Scale a ratio that compares the measurements used in a scale drawing with the actual</p>	<p>Item Specification Reports</p> <p>K-5 Missouri Learning Standards</p> <p>6-12 Missouri Learning Standards</p> <p>K-6 Math Glossary</p> <p>7-12 Math Glossary</p> <p>Missouri EOC Math Reference Sheet</p> <p>End of Course</p>	<p>I can solve problems involving scale drawings of real objects and geometric figures, including computing actual lengths and areas from a scale drawing and reproducing the drawing at a different scale.</p> <p>I can understand the relationship between area, surface area and volume.</p> <p>I can find the volume and surface area of prisms, pyramids and cylinders.</p> <p>I can describe two-dimensional cross sections of pyramids, prisms, cones and cylinders</p> <p>I can understand that statistics can be used to gain information about a population by examining a sample of the population</p> <p>I can understand that a sample is a subset of a population.</p> <p>I can understand that generalizations from a sample are valid only if the sample is</p>

	<p>7.DSP.A.2</p>	<p>measurements.</p> <p>Scale Factor a constant of proportionality.</p> <p>Right Prism a solid with two parallel bases that are polygons and lateral faces perpendicular to the bases.</p> <p>Cross-section a two-dimensional shape that is exposed by making a straight cut through a section of a three-dimensional figure.</p> <p>Random Sample a sample in which every element in the population has an equal chance of being selected.</p> <p>Population the entire group considered for a survey.</p> <p>Biased Sample a sample that does not represent the whole population.</p>	<p>Blueprints MAP Grade Level Blueprints</p>	<p>representative of the population.</p> <p>I can understand that random sampling is used to produce representative samples and support valid inferences.</p> <p>I can use data from multiple samples to draw inferences about a population and investigate variability in estimates of the characteristic of interest.</p>
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		<p>Random Variable a variable is subject to random variation if its value is not predictable.</p>		
April	<p>7.DSP.B.3</p> <p>7.DSP.B.4</p> <p>7.DSP.A.2</p> <p>7.DSP.C.5a</p> <p>7.DSP.C.5b</p> <p>7.DSP.C.6a</p> <p>7.DSP.C.6b</p> <p>7.DSP.C.6c</p> <p>7.DSP.C.7a</p> <p>7.DSP.C.7b</p> <p>7.DSP.C.8a</p>	<p>Random Sample a sample in which every element in the population has an equal chance of being selected.</p> <p>Population the entire group considered for a survey.</p> <p>Biased Sample a sample that does not represent the whole population.</p> <p>Random Variable a variable is subject to random variation if its value is not predictable.</p> <p>Mean the average of the numbers; the sum of the values divided by the number of the values.</p>	<p>Item Specification Reports</p> <p>K-5 Missouri Learning Standards</p> <p>6-12 Missouri Learning Standards</p> <p>K-6 Math Glossary</p> <p>7-12 Math Glossary</p> <p>Missouri EOC Math Reference Sheet</p> <p>End of Course Blueprints</p> <p>MAP Grade Level Blueprints</p>	<p>I can analyze different data distributions using statistical measures.</p> <p>I can compare the numerical measures of center, measures of frequency and measures of variability from two random samples to draw inferences about the population.</p> <p>I can use data from multiple samples to draw inferences about a population and investigate variability in estimates of the characteristic of interest.</p> <p>I can investigate the probability of chance events.</p> <p>I can determine probabilities of simple events.</p> <p>I can understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring.</p> <p>I can investigate the relationship between theoretical and experimental probabilities for simple events.</p> <p>I can predict outcomes using theoretical probability.</p> <p>I can perform experiments that model theoretical probability. I can compare theoretical and experimental probabilities.</p> <p>I can explain possible discrepancies between a developed probability model and observed frequencies.</p> <p>I can develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events.</p> <p>I can develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process.</p>

7.DSP.C.8b

Mean Absolute Deviation (MAD)

the average distance of each data point from the mean.

Probability

the likelihood of an event happening.

Experiment

a repeatable procedure involving chance that results in one or more possible outcomes.

Outcome

one of the possible results of an experiment.

Event

a set of one or more outcomes of an experiment.

Certain

the probability of an event when that specific event will definitely happen.

Impossible

the probability of

I can find probabilities of compound events using organized lists, tables, tree diagrams and simulations.

I can represent the sample space of a compound event.

I can design and use a simulation to generate frequencies for compound events.

an event when that specific event will definitely not happen.

Trial

what an experiment is called in probability.

Experimental Probability

the probability of an event based on the results from an experiment.

Theoretical Probability

what is expected to happen in an experiment.

Sample Space

the set of possible outcomes for an experiment.

Uniform Probability Model

when each outcome of a probability model is equally likely.

Non-Uniform Probability Model

when each

		<p>outcome of a probability model is not equally likely.</p> <p>Compound Event an event that consists of two or more simple events.</p> <p>Tree Diagram a visual model that shows all possible outcomes of an event.</p>		
May				