5th Math Curriculum Unit
Gasconade County R-2 School District

Grade Level: 5th   **Subject:** Math

Month	Mathematics Missouri Learning Standards	Key Mathematics and Academic Vocabulary	MathLinks to New MLS	Essential Questions
Aug.	**5.NBT.A.3** Understand that in a multi-digit number, a digit represents 1/10 times what it would represents in the place to its left. **5.NBT.A.4** Evaluate the value of powers of 10 and understand the relationship to the place value system. **5.NBT.A.1** Read, write and identify numbers from billions to thousandths using number names, base ten numerals and expanded form.	**Lesson 1** base ten, thousandths, decimal, place value **Lesson 2** exponent, power of ten, inverse operations **Lesson 3** tenth, hundredth, expanded form	Item Specification Reports K-5 Missouri Learning Standards K-6 Math Glossary MAP Grade Level Blueprints	Can I recognize that place value in a decimal number is based on the same base-ten concepts as whole numbers? Can I identify the value of a digit in a number as 10 time the value it would have in the place to its right and 1/10 the value it would have in the place to its left? Can I explain the relationship between the values of number when multiplying or dividing by powers of 10? Can I explore the placement of the decimal point when multiplying or dividing a decimal by a power of 10? Can I use exponents to denote powers of 10? Can I read and write decimals to the thousandths place using base-ten numerals, number names, and expanded form?
Sept. Sept.	**5.NBT.A.2** Compare two numbers from billions to thousandths using the symbols >, = or	**Lesson 4** to estimate, compare, greater than symbol (>),		Can I use <,>, and = to compare decimals to the thousandths place? Can I use place-value relationships to round decimals to the nearest hundredth, tenth, and whole numbers?

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	<, and justify the solution. **5.NBT.A.5** Round numbers from billions to thousandths place. **5.NF.A.3** Compare and order fractions and/or decimals to the thousandths place using the symbols >, = or <, and justify the solution. **5.NBT.A.7** Multiply multi-digit whole numbers and decimals to the hundredths place, and justify the solution. **5.NBT.8** Divide multi-digit whole numbers and decimals to the hundredths place using up to two-digit divisors and four-digit dividends, and justify the solution. **5.NBT.6** Add and subtract multi-digit whole	less than symbol (<) **Lesson 5** distributive property, factor, product, partial products **Lesson 6** division, divisor, dividend, quotient, partial quotient **Lesson 7** sum, difference		Can I multiply three-digit numbers by two-digit numbers? Use the distributive property to break apart factors in order to solve multi-digit multiplication problems? Can I use the standard algorithm to solve multi-digit multiplication problems with whole numbers? Can I divide three- and four-digit dividends by two-digit divisors? Can I use the relationship between multiplication and division to estimate quotients? Can I divide whole number using area models and strategies such as place-value understanding, properties of operation, estimating quotients and finding partial quotients? Can I add and subtract decimals to the hundredths? Can I explain how to add and subtract decimals to hundredths?

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Sept.	numbers and decimals to the thousandths place, and justify the solution. **5.RA.C.5** Solve and justify multi-step problems involving variables, whole numbers, fractions and decimals.			
Oct.	**5.NBT.A.7** **5.NBT.8** **5.NF.B.4** Estimate results of sums, differences and products with fractions and decimals to the thousandths. **5.NF.B.6** Solve problems involving addition and subtraction of fractions and mixed numbers with unlike denominators, and justify the solution. **5.RA.C.5**	**Lesson 10** numerator, denominator, equivalent fractions, common denominator **Lesson 11** benchmark fraction		Can I multiply decimals to hundredths? Can I explain how to multiply decimals to hundredths? Can I divide decimals to hundredths? Can I explain how to divide decimals to hundredths? Can I write equivalent fractions for two fractions with unlike denominators? Can I use visual models to represent adding and subtracting fractions with unlike denominators? Can I use equivalent fractions to add and subtract fractions and mixed number with unlike denominators? Can I add and subtract fractions and mixed number with unlike denominators in order to solve word problems? Can I use benchmark fractions to estimate fraction sums and differences?

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Oct.				Can I use estimation to check whether a solution is reasonable?
Nov.	**5.NF.B.8a** Extend the concept of division to divide unit fractions and whole numbers by using visual fraction models and equations. Calculate and interpret the quotient of a unit fraction by a non-zero whole number. **5.NF.B.4** **5.RA.C.5** **5.NF.B.5** Justify the reasonableness of a product when multiplying with fractions. **5.NF.B.7** Extend the concept of multiplication to multiply a fraction or whole number by a fraction.	**Lesson 12** fraction **Lesson 13** unit fraction **Lesson 14** area, factor **Lesson 15** scaling		Can I use visual fraction models to represent a fraction as division? Can I solve word problems involving division of whole number in which the quotient is a fraction or mixed number? Can I understand a fraction as a way to represent division where the numerator is divided by the denominator? Can I understand what multiplying by a fraction means? Can I use visual fraction models to multiply a whole number by a fraction? Can I use visual fraction models to multiply a fraction by a fraction? Can I find the area of rectangles with fractional side lengths by tiling the area with square units? Can I find the area of rectangles with fractional side lengths by multiplying side lengths? Can I show that the number of unit squares that tile a rectangle with fractional side lengths is the same as the product of the side lengths? Can I understand a multiplication expression as a quantity and a resizing factor? Can I recognize that multiplying a whole number or fraction by a number greater than 1 results in a product greater than the whole number or fraction and multiplying by a number less than 1 results in a product less than the whole number or fraction? Can I estimate the size of product when multiplying a number by 1, a factor greater than 1, and a factor less than 1?

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Dec. Dec.	**5.NF.B.7b** Calculate and interpret the product of a fraction by a whole number and a whole number by a fraction. **5.NF.B.7c** Calculate and interpret the product of two fractions less than one. **5.NF.B.8** Extend the concept of division to divide unit fractions and whole numbers by using visual fraction models and equations.	**Lesson 16** equation		Can I represent a real-world problem involving multiplication of fractions and mixed number using visual models and equations? Can I solve real-world problems involving multiplication of fractions and mixed numbers using visual models and equations? Can I identify situations that involve dividing a unit fraction by a whole number and dividing a whole by a unit fraction? Can I use a visual fraction model to find the quotient of a unit fraction divided by a whole number or the quotient of a whole number divided by a unit fraction? Can I use the relationship between multiplication and division to write a related multiplication equation for a given division equation using a unit fraction? Can I represent and solve real-world problems involving division of unit fraction by whole numbers using visual fraction models and equations?
Jan.	**5.RA.B.3** Write, evaluate and interpret numerical expressions using the order of operations. **5.RA.B.4** Translate written expressions into algebraic expressions. **5.RA.A.1** Investigate the	**Lesson 19** evaluate, parentheses **Lesson 20** corresponding terms, ordered pair **Lesson 21** convert, metric		Can I evaluate expressions containing parentheses? Can I write numerical expressions containing parentheses? Can I interpret numerical expressions without evaluating them? Can I generate a numerical pattern given a rule? Can I identify relationships between corresponding terms of two patterns? Can I plot corresponding terms of two patterns as ordered pairs in the first quadrant of the coordinate plane?

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Jan.	relationship between two numeric patterns. **5.GM.C.6** Define a first quadrant Cartesian coordinate system. **5.GM.C.7** Plot and interpret points in the first quadrant of the Cartesian coordinate plane. **5.GM.D.8** Convert measurements of capacity, length and weight within a given measurement system. **5.GM.D.9** Solve multi-step problems that require measurement conversions.	system, customary system		Can I convert from a larger unit of measurement to a smaller unit of measurement within the same measurement system? Can I convert from a smaller unit of measurement to a larger unit of measurement within the same measurement system? Can I convert units of measurement within a given measurement system to solve multi-step word problems?
Feb.	**5.DS.A.2** Create a line plot to represent a given or generated data set, and analyze the data to answer questions and solve problems, recognizing the outliers and	**Lesson 23** distribution, line plot, scale **Lesson 24** plane figure, solid figure, volume,		Can I create a line plot that displays measurement data that has fractional units? Can I use a line plot to solve word problems about measurement data given in fractional units? Can I analyze data shown on a line plot? Can I understand the concept of volume as an attribute of solid figures?

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Feb.	generating the median. **5.GM.B.4** Understand the concept of volume and recognize that volume is measured in cubic units. **5.GM.B.5** Apply the formulas V = l × w × h and V = B × h for volume of right rectangular prisms with whole-number edge lengths	cubic unit, rectangular prism **Lesson 26** formula **Lesson 27** square unit		Can I find the volume of rectangular prisms with whole number side lengths by counting unit cubes? Can I use addition and multiplication to find the total number of unit cube in order to find the volume of a rectangular prism? Can I find the volume of a rectangular prism in various cubic units by filling it with unit cubes and counting them or by counting the number of unit cubes in one layer and multiplying by the number of layers? Can I recognize that the volume of a unit cube depends on the measurement unit used for its dimensions? Can I determine the third dimension of a rectangular prism given its volume and two dimensions? Can I find the volume of a rectangular prism by multiplying its height by the area of its base? Can I find the volume of a rectangular prism using the formula $V = L \times w \times h$ Can I solve real-world problems involving volumes of rectangular prisms? Can I recognize volume as an additive? Can I use addition to find volumes of solid figures composed of two non-overlapping rectangular prisms?
March	**5.GM.C.6** **5.GM.C.7** **5.GM.A.1** Understand that attributes belonging	**Lesson 28** coordinate plane, x-axis, y-axis, x-coordinate,		Can I recognize the coordinate plate as formed by the intersection of a horizontal and vertical number line? Can I identify the x- and y- coordinates of a point on the coordinate plane?

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	to a category of figures also belong to all subcategories. **5.GM.A.2** Classify figures in a hierarchy based on properties. **5.GM.A.3** Analyze and describe the properties of prisms and pyramids.	y-coordinate, origin **Lesson 30** hierarchy, polygon, Venn diagram **Lesson 31** convex polygon, concave polygon, attribute		Can I plot a point on the coordinate plane given its x- and y- coordinate? Can I interpret coordinate values of points in the context of a problem? Can I find the horizontal and vertical distance between two points in the first quadrant? Can I use points in the coordinate plane to solve real world and mathematical problems? Can I classify two-dimensional figures in a hierarchy based on properties of the figures? Can I draw and use flow charts, Venn diagrams, and tree diagrams to show the hierarchical relationship of two-dimensional figures. Can I recognize that two-dimensional figures can be categorized based on shared attributes and properties? Can I use Venn diagrams, flow charts, and tree diagrams to model how attributes are shared by categories of polygons?
March				
April				Review math concepts.

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May				Review math concepts.