

**4th Grade Math Curriculum  
Gasconade County R-2 School District  
2018-19**

**Grade Level: 4**

**Subject: Math**

Month	Unit Name and Ready Math Resource Link	Missouri Learning Standards	Key Vocabulary	Essential Questions
Aug.	<p><b>Lesson 1:</b> <a href="#">Understand Place Value</a></p> <p><b>Lesson 2:</b> <a href="#">Compare Whole Numbers</a></p> <p><b>Lesson 3:</b> <a href="#">Add and Subtract Whole Numbers</a></p>	<p><b>4.NBT.A.2</b> Read, write and identify multi-digit whole numbers up to one million using number names, base ten numerals &amp; expanded form.</p> <p><b>4.NBT.A.3</b> Compare two multi-digit numbers using the symbols <math>&gt;</math>, <math>=</math> or <math>&lt;</math>, and justify the solution.</p> <p><b>4.NBT.A.4</b> Understand that in a multi-digit whole number, a digit represents 10 times what it would represent in the place to its right.</p> <p><b>4.NBT.A.5</b> Demonstrate fluency with addition &amp; subtraction of whole numbers.</p>	<p><b>Lesson 1:</b> place value, period, word form, standard form, expanded form</p> <p><b>Lesson 2:</b> compare, greater than, less than</p> <p><b>Lesson 3:</b> sum, difference, regroup</p>	<p>Can I use a place value chart to understand the value of each digit in a number?</p> <p>Can I identify the value of a digit based on its position in a number?</p> <p>Can I demonstrate how moving from one place- value position to the next changes the value of a digit by a factor of ten?</p> <p>Can I show that any number can be represented in different ways?</p> <p>Can I use standard, word, and expanded form to read &amp; write multi-digit whole numbers?</p> <p>Can I use symbols (<math>&gt;</math>, <math>&lt;</math>, <math>=</math>) to show the relationship between two multi-digit numbers?</p> <p>Can I compare multi- digit numbers in order to solve word problems?</p> <p>Can I use the standard algorithm to add multi- digit whole numbers?</p> <p>Can I use the standard algorithm to subtract multi-digit whole numbers?</p>

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Sept.	<p><a href="#">Lesson 4: Round Whole Numbers</a></p> <p><a href="#">Lesson 5: Understand Multiplication</a></p> <p><a href="#">Lesson 6: Multiplication and Division in Word Problems</a></p> <p><a href="#">Lesson 7: Multiples and Factors</a></p>	<p><b>4.NBT.A.1</b> Round multi-digit whole numbers to any place.</p> <p><b>4.NBT.A.6</b> Multiply a whole number of up to four digits by a one-digit whole number &amp; multiply two two-digit numbers, and justify the solution.</p> <p><b>4.NBT.A.7</b> Find whole-number quotients &amp; remainders with up to four-digit dividends &amp; one-digit divisors, and justify the solution.</p> <p><b>4.RA.A.1</b> Multiply or divide to solve problems involving a multiplicative comparison.</p> <p><b>4.RA.A.2</b> Solve multi-step whole number problems involving the four operations &amp; variables &amp; using estimation to interpret the reasonableness of the answer.</p> <p><b>4.RA.B.4</b> Recognize that a whole number is a multiple of each of its factors &amp; find the multiples for a given whole number.</p> <p><b>4.RA.B.5</b> Find all factor pairs for whole numbers within 100.</p> <p><b>4.RA.B.5</b> Determine if a whole number within 100 is composite or prime . . .</p>	<p><b>Lesson 4:</b> round, to estimate, an estimate</p> <p><b>Lesson 5:</b> multiplicative comparison, product, factor, equation</p> <p><b>Lesson 6:</b> unknown, symbol</p> <p><b>Lesson 7:</b> factors of a number, factor pair, multiple, composite number, prime number</p>	<p>Can I round multi- digit whole numbers?</p> <p>Can I explain how to round a multi-digit whole number to a specific place value?</p> <p>Can I use rounded numbers to estimate a sum or difference in a word problem?</p> <p>Can I use a multiplication sign to represent the relationship between two numbers as a multiplicative comparison?</p> <p>Can I identify a multiplication equation as showing two ways to describe a product as a comparison between two factors?</p> <p>Can I write an equation to represent a multiplicative comparison described in a word problem?</p> <p>Can I write a word problem using a multiplicative comparison to describe a given multiplication equation?</p> <p>Can I use drawings &amp; symbols to represent a word problem involving multiplicative comparison?</p> <p>Can I use an equation to solve for</p>

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				<p>the unknown in a multiplicative comparison problem?</p> <p>Can I solve word problems involving multiplicative comparisons by using multiplication or division?</p> <p>Can I use basic multiplication facts to list all the factors of a number?</p> <p>Can I use basic multiplication facts to determine whether a number is a multiple of another number?</p> <p>Can I apply understanding of multiples &amp; factors to solving problems?</p>
Oct.	<p><a href="#">Lesson 8: Number and Shape Patterns</a></p> <p><a href="#">Lesson 9: Model Multi-Step Problems</a></p> <p><a href="#">Lesson 10: Solve Multi-Step Problems</a></p> <p><a href="#">Lesson 11: Multiply Whole Numbers</a></p> <p><a href="#">Lesson 12: Divide Whole Numbers</a></p>	<p><b>4.NBT.A.6</b> Multiply a whole number of up to four digits by a one-digit whole number &amp; multiply two two-digit numbers, and justify the solution.</p> <p><b>4.NBT.A.7</b> Find whole-number quotients &amp; remainders with up to four-digit dividends and one-digit divisors, &amp; justify the solution.</p> <p><b>4.RA.A.2</b> Solve multi-step whole number problems involving the four operations &amp; variables &amp; using estimation to interpret the reasonableness of the answer.</p> <p><b>4.RA.A.3</b> Solve whole number division problems involving variables in which</p>	<p><b>Lesson 8:</b> rule, pattern</p> <p><b>Lesson 9:</b> expression</p> <p><b>Lesson 10:</b> remainder, reasonable</p> <p><b>Lesson 11:</b> partial products, multiplication</p> <p><b>Lesson 12:</b> dividend, divisor, partial quotient</p>	<p>Can I use rules to generate or extend a number pattern?</p> <p>Can I use manipulatives or drawings to show a shape pattern?</p> <p>Can I describe, analyze, &amp; extend patterns in numbers &amp; shapes?</p> <p>Can I use equations with a letter standing for the unknown to represent multi-step word problems?</p> <p>Can I write &amp; solve an equation in order to solve a multi-step word problem?</p>

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		<p>remainders need to be interpreted, and justify the solution.</p> <p><b>4.RA.C.6</b> Generate a number pattern that follows a given rule.</p> <p><b>4.RA.C.7</b> Use words or mathematical symbols to express a rule for a given pattern.</p>		<p>Can I interpret the remainder in a division word problem?</p> <p>Can I use estimation strategies to check that an answer is reasonable?</p> <p>Can I multiply whole numbers of up to four digits by one-digit whole numbers?</p> <p>Can I multiply a two-digit number by a two-digit number?</p> <p>Can I use area models &amp; partial products to multiply?</p> <p>Can I divide up to four-digit dividends by one-digit divisors, with remainders?</p> <p>Can I use area models, subtraction of partial products, &amp; partial quotients to divide?</p> <p>Can I recognize the relationship between multiplication &amp; division?</p>

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Nov.	<p><b>Lesson 13:</b> <a href="#">Understand Equivalent Fractions</a></p> <p><b>Lesson 14:</b> <a href="#">Compare Fractions</a></p> <p><b>Lesson 15:</b> <a href="#">Understand Fraction Addition and Subtraction</a></p> <p><b>Lesson 16:</b> <a href="#">Add and Subtract Fractions</a></p>	<p><b>4.NF.A.1</b> Explain and/or illustrate why two fractions are equivalent.</p> <p><b>4.NF.A.2</b> Recognize &amp; generate equivalent fractions.</p> <p><b>4.NF.B.4</b> Understand addition &amp; subtraction of fractions as joining/ composing &amp; separating/decomposing parts referring to the same whole.</p> <p><b>4.NF.B.5</b> Decompose a fraction into a sum of fractions with the same denominator &amp; record each decomposition with an equation &amp; justification.</p> <p><b>4.NF.B.6</b> Solve problems involving adding &amp; subtracting fractions &amp; mixed numbers with like denominators.</p>	<p><b>Lesson 13:</b> fraction, numerator, denominator, equivalent fractions</p> <p><b>Lesson 14:</b> benchmark fraction, common denominator</p> <p><b>Lesson 15:</b> unit fraction</p>	<p>Can I understand the value of a fraction?</p> <p>Can I understand how a fractions model represents a fraction?</p> <p>Can I use models to demonstrate that two fractions are equivalent?</p> <p>Can I represent equivalent fractions using models?</p> <p>Can I multiply &amp; divide to find equivalent fractions?</p> <p>Can I use symbols (&gt;,&lt;=) to compare fractions with different numerators &amp; denominators?</p> <p>Can I recognize that fractions with different denominators &amp; the same numerators represent different values?</p> <p>Can I use benchmark fractions to compare fractions?</p> <p>Can I recognize that you can only compare two fractions when both refer to the same whole?</p> <p>Can I understand addition as joining parts?</p> <p>Can I understand subtraction as</p>

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				<p>separating parts?</p> <p>Can I extend my understanding of addition &amp; subtraction of whole numbers to addition &amp; subtraction of fractions?</p> <p>Can I use fraction models to add &amp; subtract fractions with like denominators?</p> <p>Can I add fractions with like denominators?</p> <p>Can I subtract fractions with like denominators?</p> <p>Can I use fraction models, number lines, and equations to represent word problems?</p>
Dec.	<p><a href="#">Lesson 17: Add and Subtract Mixed Numbers</a></p> <p><a href="#">Lesson 18: Understand Fraction Multiplication</a></p> <p><a href="#">Lesson 19: Multiply Fractions</a></p>	<p><b>4.NF.B.4</b> Understand addition &amp; subtraction of fractions as joining/ composing &amp; separating/decomposing parts referring to the same whole.</p> <p><b>4.NF.B.5</b> Decompose a fraction into a sum of fractions with the same denominator &amp; record each decomposition with an equation &amp; justification.</p> <p><b>4.NF.B.6</b> Solve problems involving adding &amp; subtracting fractions &amp; mixed numbers with like denominators.</p>	<p><b>Lesson 17:</b> mixed number</p> <p><b>Lesson 18:</b> product</p>	<p>Can I break apart fractions greater than 1 into a fraction equivalent to 1 and a fraction less than 1?</p> <p>Can I write a mixed number as a fraction &amp; write a fraction greater than 1 as a mixed number?</p> <p>Can I add &amp; subtract mixed numbers with like denominators?</p> <p>Can I write &amp; solve an equation with mixed numbers with like denominators in order to solve a</p>

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		<p><b>4.NF.B.7</b> Apply &amp; extend previous understandings of multiplication to multiply a fraction by a whole number.</p> <p><b>4.NF.B.8</b> Solve problems involving multiplication of a fraction by a whole number.</p>		<p>word problem?</p> <p>Can I multiply a unit fraction (numerator of 1) by a whole number?</p> <p>Can I multiply a fraction with a numerator greater than 1 by a whole number?</p> <p>Can I solve word problems that involve multiplying a fraction by a whole number?</p>
Jan.	<p><b>Lesson 20:</b> <a href="#">Fractions as Tenths and Hundredths</a></p> <p><b>Lesson 21:</b> <a href="#">Relate Decimals and Fractions</a></p> <p><b>Lesson 22:</b> <a href="#">Compare Decimals</a></p> <p><b>Lesson 23:</b> <a href="#">Convert Measurements</a></p>	<p><b>4.NF.A.3</b> Compare two fractions using the symbols <math>&gt;</math>, <math>=</math> or <math>&lt;</math>, and justify the solution.</p> <p><b>4.NF.C.9</b> Use decimal notation for fractions with denominators of 10 or 100.</p> <p><b>4.NF.C.10</b> Understand that fractions &amp; decimals are equivalent representations of the same quantity.</p> <p><b>4.NF.C.11</b> Read, write &amp; identify decimals to the hundredths place using number names, base ten numerals &amp; expanded form.</p> <p><b>4.NF.C.12</b> Compare two decimals to the hundredths place using the symbols <math>&gt;</math>, <math>=</math> or <math>&lt;</math>, and justify the solution.</p> <p><b>4.GM.C.6a</b> Know relative sizes of</p>	<p><b>Lesson 20:</b> tenths, hundredths</p> <p><b>Lesson 21:</b> decimal, decimal point</p> <p><b>Lesson 23:</b> convert, metric system, customary system</p>	<p>Can I rewrite a fraction that has a denominator of 10 as an equivalent fraction with a denominator of 100?</p> <p>Can I rewrite a fraction that has a denominator of 100 as an equivalent fraction with a denominator of 10?</p> <p>Can I explain the relationship between tenths &amp; hundredths?</p> <p>Can I add two fractions with denominators of 10 and 100?</p> <p>Can I convert decimals into fractions, with denominators of 10 or 100?</p> <p>Can I convert fractions into decimals, with denominators of 10</p>

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		<p>measurement units within one system of units. Convert measurements in a larger unit in terms of a smaller unit.</p> <p><b>4.GM.C.7</b> Use the four operations to solve problems involving distances, intervals of time, liquid volume, weight of objects &amp; money.</p>		<p>or 100?</p> <p>Can I compare two decimals up to hundredths, using the <math>&gt;</math>, <math>&lt;</math>, and <math>=</math> symbols?</p> <p>Can I solve word problems involving comparisons of tenths &amp; hundredths decimals?</p> <p>Can I identify the units of measurement within a measurement system?</p> <p>Can I convert measurements from a larger unit to a smaller unit within the same system?</p> <p>Can I use a conversion table showing equivalent measurements within the same system?</p>
Feb.	<p><b>Lesson 24:</b> <a href="#">Time and Money</a></p> <p><b>Lesson 25:</b> <a href="#">Length, Liquid Volume, and Mass</a></p> <p><b>Lesson 26:</b> <a href="#">Perimeter and Area</a></p> <p><b>Lesson 27:</b> <a href="#">Line Plots</a></p>	<p><b>4.GM.C.7</b> Use the four operations to solve problems involving distances, intervals of time, liquid volume, weight of objects &amp; money.</p> <p><b>4.GM.C.8</b> Apply the area . . . formulas for rectangles to solve problems.</p> <p><b>4.GM.C.8</b> Apply the area &amp; perimeter formulas for rectangles to solve problems.</p> <p><b>4.DS.A.1</b> Create a . . . line plot to display</p>	<p><b>Lesson 25:</b> liquid volume, mass,</p> <p><b>Lesson 26:</b> formula, perimeter, area,</p> <p><b>Lesson 27:</b> line plot</p>	<p>Can I solve word problems involving time &amp; money?</p> <p>Can I convert larger units of time to smaller units in order to solve word problems about time?</p> <p>Can I convert amounts of money in bills &amp; coins to solve word problems about money?</p> <p>Can I convert large units of measurement to smaller units in</p>

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		<p>measurement data.</p> <p><b>4.DS.A.2</b> Solve problems involving addition &amp; subtraction by using information presented in a data display.</p>		<p>order to solve word problems involving length, liquid volume or mass?</p> <p>Can I write &amp; solve equations in order to solve word problems involving length, liquid volume, and mass?</p> <p>Can I use the formula for perimeter to solve problems?</p> <p>Can I use the formula for area to solve problems?</p> <p>Can I make a line plot that displays data in fractional units?</p> <p>Can I solve addition word problems by using a line plot?</p> <p>Can I solve subtraction word problems by using a line plot?</p>
Mar.	<p><a href="#">Lesson 28: Understand Angles</a></p> <p><a href="#">Lesson 29: Measure and Draw Angles</a></p> <p><a href="#">Lesson 30: Add and Subtract with Angles</a></p> <p><a href="#">Lesson 31: Points, Lines, Rays, and Angles</a></p>	<p><b>4.GM.A.1</b> Draw &amp; identify points, lines, line segments, rays, angles, perpendicular lines &amp; parallel lines.</p> <p><b>4.GM.B.4</b> Identify &amp; estimate angles &amp; their measure.</p> <p><b>4.GM.B.5</b> Draw &amp; measure angles in whole-number degrees using a protractor.</p>	<p><b>Lesson 28:</b> angle, ray, vertex, degree, right angle, acute, obtuse,</p> <p><b>Lesson 29:</b> protractor</p> <p><b>Lesson 30:</b> compose, decompose</p> <p><b>Lesson 31:</b> point, line segment, line, parallel</p>	<p>Can I recognize an angle as a geometric shape?</p> <p>Can I identify acute, right &amp; obtuse angles?</p> <p>Can I recognize the relationship between the measure of an angle &amp; the part of a circle that the angle turns through?</p>

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			<p>lines, perpendicular lines</p>	<p>Can I use a protractor to measure an angle?</p> <p>Can I draw an angle of a specific degree?</p> <p>Can I use benchmark angle measures to estimate the measure of an angle?</p> <p>Can I recognize that an angle can be split up into several smaller angles?</p> <p>Can I recognize that several smaller angles can be combined to form a larger angle?</p> <p>Can I add &amp; subtract to find angle measures?</p> <p>Can I use addition &amp; subtraction to solve word problems about angle measures?</p> <p>Can I identify &amp; draw points, lines, line segments, rays, &amp; angles, &amp; identify them in two-dimensional figures?</p> <p>Can I identify &amp; draw parallel &amp; perpendicular lines, distinguish between the two, &amp; identify them in two-dimensional figures?</p>
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Apr.	<p><b>Lesson 32:</b> <a href="#">Classify Two-Dimensional Figures</a></p> <p><b>Lesson 33:</b> <a href="#">Symmetry</a></p>	<p><b>4.GM.A.2</b> Classify two-dimensional shapes by their sides and/or angles.</p> <p><b>4.GM.A.3</b> Construct lines of symmetry for a two-dimensional figure.</p>	<p><b>Lesson 32:</b> polygon, rectangle, equilateral triangle, isosceles triangle, scalene triangle, acute triangle, right triangle, obtuse triangle, quadrilateral, parallelogram, rhombus, trapezoid</p> <p><b>Lesson 33:</b> line of symmetry</p>	<p>Can I sort two-dimensional figures based on parallel or perpendicular sides &amp; on acute, obtuse, or right angles?</p> <p>Can I recognize that triangles can be classified based on the lengths of their sides (isosceles, scalene, equilateral)?</p> <p>Can I name a triangle based on the kind of angles it has (acute, right, obtuse)?</p> <p>Can I recognize lines of symmetry in two-dimensional figures?</p> <p>Can I draw lines of symmetry in two-dimensional figures?</p>
May	<p><b>Grade 4:</b> <a href="#">Additional Fluency Practice</a></p>	<p>Review of all necessary MO Learning Standards</p>	<p>Review of vocabulary</p>	