

4th Grade Mathematics Curriculum Map 2023

Pacing Guide	Standard Code & Indicator	Sample Learning Activities	Sample Assessments	Additional Standards
<p style="text-align: center;">August-September</p>	<p>4.OA.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p> <p>4.OA.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.</p> <p>4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.</p> <p>4.NBT.2 Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of</p>	<ul style="list-style-type: none"> -Review basic facts -Read and write whole numbers to millions -Compare and order numbers -Round to nearest thousand, ten thousand and hundred thousand. - Understand negative numbers - Estimate sums, differences, products, and quotients - Add, subtract, multiply, and divide whole numbers <p>Instructional Resources Big Ideas Textbook</p> <p>Teacher Technology: Promethean Board/Activ Panel YouTube Videos ActiView Brain Pop My Math</p> <p>Student Technology: Kahoot Study Island Google Classroom</p>	<p>Formative Assessments: Chapter PreTest Quizzes Math Facts Mini White boards Homework/Classwork</p> <p>Summative Assessment: Chapter Test</p> <p>Benchmark Assessment: LinkIt BOY Benchmark 4th Grade BOY Benchmark</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: Phys Ed 2.2.5.PF.1: Athletic Contributions and Comparisons</p> <p>Technology Standard: 8.2.5.ED.2: Collaborate with peers to collect information and brainstorm to solve a problem.</p>

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	<p>the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> <p>4.NBT.3 Use place value understanding to round multi-digit whole numbers to any place.</p> <p>4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p>	<p>Chromebook/ iPad IXL Fun4thebrain Xtra Math Place Value Plug In Race to the Moon</p>		
<p>October-November</p>	<p>4.OA.1 Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.</p> <p>4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison</p> <p>4.OA.4 Find all factor pairs for a whole number in the range 1–100. Recognize that a whole</p>	<p>-Estimate sums, differences, products, and quotients</p> <p>-Add, subtract, multiply, and divide whole numbers</p> <p>-Determine answers to open ended, non-routine, and multiple solution problems</p> <p>-Understand and use strategies for problem solving</p> <p>-Determine reasonable solutions</p> <p>-Understand and use the language of math</p> <p>Instructional Resources Big Ideas Textbook</p> <p>Teacher Technology:</p>	<p>Formative Assessments: Chapter PreTest Quizzes Turn and Talk Mini White boards Homework/Classwork</p> <p>Summative Assessment: Chapter Test</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: RI.4.3 Word Problem Match Up use information from the text to match up word problems</p> <p>Technology Standard: 8.2.5.ED.2: Collaborate with peers to collect information and brainstorm to solve a problem.</p>

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	<p>number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.</p> <p>4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.</p> <p>4.NBT.3 Use place value understanding to round multi-digit whole numbers to any place.</p> <p>4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models</p> <p>4.NBT.6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value,</p>	<p>Promethean Board/Activ Panel YouTube Videos ActiView Brain Pop My Math</p> <p>Student Technology: Kahoot Study Island Google Classroom Chromebook/ iPad IXL Fun4thebrain Xtra Math Multiplication Quest Multiplication Boss</p>		
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	<p>the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p>			
<p>December-January</p>	<p>4.OA.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p> <p>4.OA.4 Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.</p> <p>4.OA.5 Generate a number or shape pattern that follows a given</p>	<p>-Estimate sums, differences, products, and quotients</p> <p>-Add, subtract, multiply, and divide whole numbers</p> <p>-Identify number patterns</p> <p>-Understand and use input/output machines</p> <p>-Identify properties of numbers</p> <p>Instructional Resources Big Ideas Textbook</p> <p>Student Technology: Kahoot Study Island Google Classroom Chromebook/ iPad IXL Fun4thebrain Xtra Math Division Dots</p>	<p>Formative Assessments: Chapter PreTest Quizzes Scoot Think pair share Homework/Classwork Input/Output Quiz</p> <p>Summative Assessment: Chapter Test</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: RI.4.7 Create input and output charts based on text</p> <p>Technology Standard: 8.2.5.ED.2: Collaborate with peers to collect information and brainstorm to solve a problem.</p>

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	<p>rule. Identify apparent features of the pattern that were not explicit in the rule itself. <i>For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.</i></p> <p>4.NWT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right..</p> <p>4.NWT.3 Use place value understanding to round multi-digit whole numbers to any place</p> <p>4.NWT.6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p>	<p>Teacher Technology: Promethean Board/Activ Panel YouTube Videos ActiView Brain Pop My Math</p>		
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<p>February-March</p>	<p>4.OA.4 Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.</p> <p>4.NF.1 Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.</p> <p>4.NF.2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction</p>	<ul style="list-style-type: none"> -Add and subtract fractions - Compare fractions with like numerators/denominators - Compare fractions with unlike numerators/denominators -Determine equivalent fractions -Identify mixed numbers -Add and subtract mixed numbers -Identify improper fractions -Decompose a fraction into a sum of fractions -Identify the steps and apply to multiply fractions by a whole number -Apply skills in word problems <p>Instructional Resources Big Ideas Textbook</p> <p>Student Technology: Kahoot Study Island Google Classroom Chromebook/ iPad IXL Fun4thebrain</p>	<p>Formative Assessments: Chapter PreTest Fractions Quiz Word Problem Sort Homework/Classwork</p> <p>Summative Assessment: Chapter Test</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: W 4.2 Response to essential questions explaining the why and how.</p> <p>Technology Standard: 8.2.5.ED.2: Collaborate with peers to collect information and brainstorm to solve a problem.</p>
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	<p>model.</p> <p>4.NF.3.A Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.</p> <p>4.NF.3b Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decomposition, eg., by using a visual fraction model.</p> <p>4.NF.3c Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.</p> <p>4.NF.3d Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.</p>	<p>Xtra Math Multiple Line Up Fraction Boss</p> <p>Teacher Technology: Promethean Board/Activ Panel YouTube Videos ActiView Brain Pop My Math</p>		
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	<p>4.NF.4.A Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. Understand a fraction a/b as a multiple of $1/b$.</p> <p>4.NF.4.B Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number.</p> <p>4.NF.4.C Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem.</p> <p>4.NF.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.²</p>			
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<p>April</p>	<p>4.NF.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.²</p> <p>4.NF.6 Use decimal notation for fractions with denominators 10 or 100.</p> <p>4.NF.7 Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.</p>	<ul style="list-style-type: none"> -Find fraction/decimal equivalents -Order fractions and decimals -Add and subtract decimals -Round decimals and fractions -Compare two decimals to hundredths -Use visual models when comparing decimals <p>Instructional Resources: Big Ideas Textbook</p> <p>Student Technology: Kahoot Study Island Google Classroom Chromebook/ iPad IXL Fun4thebrain Xtra Math Three in a Row Three in a Row-Multiplication Decimal Boss</p> <p style="text-align: center;">Teacher Technology: Promethean Board/Activ Panel YouTube Videos</p>	<p>Formative Assessments: Chapter PreTest Decimal Quiz Comparing Decimal Sort Homework/Classwork</p> <p>Summative Assessment: Chapter Test</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: Visual Arts 1.5.5.Cr2a: Students will identify fractions with different pieces of art. Students will then compare and contrast their data with a partner’s using similar art styles.</p> <p>Technology Standard: 8.2.5.ED.2: Collaborate with peers to collect information and brainstorm to solve a problem.</p>
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<p>May</p>	<p>4.MD.1 Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.</p> <p>4.MD.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.</p> <p>4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems.</p> <p>4.MD.4 Make a line plot to display a data set of</p>	<ul style="list-style-type: none"> -Estimate measurements -Use a table to record measurement data collected -Compare units of length, weight, capacity (customary) -Determine elapsed time -Estimate and determine perimeter, area, and volume -Estimate and use the metric system -Apply understanding and knowledge of four operations to complete word problems <p>Instructional Resources: Big Ideas Textbook</p> <p>Student Technology: Kahoot Study Island Google Classroom Chromebook/ iPad IXL Fun4thebrain Xtra Math Conversion Flip and Find Area Roll</p>	<p>Formative Assessments: Chapter PreTest Estimation Quiz Measurement Quiz Homework/Classwork</p> <p>Summative Assessment: Chapter Test</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: W 4.2 - Students will write a paragraph using academic vocabulary and transitions to determine the steps to finding the area and perimeter of a town they designed.</p> <p>Technology Standard: 8.2.5.ED.2: Collaborate with peers to collect information and brainstorm to solve a problem.</p>
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	measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots.	Teacher Technology: Promethean Board/Activ Panel YouTube Videos ActiView Brain Pop My Math		
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<p>June</p>	<p>4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.</p> <p>4.G.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.</p> <p>4.G. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.</p> <p>4.MD.5 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement.</p> <p>4.MD.5a Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle</p>	<ul style="list-style-type: none"> -Identify 2 dimensional figures and understand their attributes -Identify 3 dimensional figures and understand their attributes -Define and understand congruence -Define and identify: symmetry -Use ordered pairs on a grid -Identify lines, angles, circles -Understand and create transformations -Identify and create tessellations -Understand spatial relationships <p>Instructional Resources: MyMath Textbook</p> <p>Student Technology: Kahoot Study Island Google Classroom Chromebook/ iPad IXL Fun4thebrain</p>	<p>Formative Assessments: Chapter PreTest Shapes Quiz Homework/Classwork</p> <p>Summative Assessment: Chapter Test</p> <p>Benchmark Assessments: LinkIt EOY Benchmark 4th Grade EOY Benchmark</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: RI 4.7 Create a house diagram including geometric points, lines, and rays. Include a key and paragraph explaining the diagram.</p> <p>Technology Standard: 8.2.5.ED.2: Collaborate with peers to collect information and brainstorm to solve a problem.</p>
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	<p>measurement: An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is called a “one-degree angle,” and can be used to measure angles.</p> <p>4.MD.5b Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: An angle that turns through n one-degree angles is said to have an angle measure of n degrees.</p> <p>4.MD.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.</p> <p>4.MD.7 Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an</p>	<p>Xtra Math Geometry Dots Pyramid Climb and Slide</p> <p>Teacher Technology: Promethean Board/Activ Panel YouTube Videos Flip Charts ActiView Brain Pop My Math</p>		
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	equation with a symbol for the unknown angle measure.			
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Alternate Assessments: Thanksgiving Budget; Identifying Geometry in Nature (Label/Draw/Written explanations)

21st Century Standards: Critical Thinking and Collaboration

21st Century Skills:9.1.4.B.1 and 9.1.4.B.3

Career Ready Practices: CRP2, CRP 4, CRP 8