



## 2018-2019 Curriculum Map for *Fourth Grade Math* 2<sup>nd</sup> Nine Weeks

Go Math  
Chapters

<p>M.4.2 <i>Operations and Algebraic Thinking- Use the four operations with whole numbers to solve problems.</i> 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) and distinguish multiplicative comparison from additive comparison.</p>	4
<p>M.4.3 <i>Operations and Algebraic Thinking- Use the four operations with whole numbers to solve problems.</i> Solve multi-step 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>	4
<p>M.4.4 <i>Operations and Algebraic Thinking- Gain familiarity with factors and multiples.</i> 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>	5
<p>M.4.5 <i>Operations and Algebraic Thinking- Generate and analyze patterns.</i> 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. (e.g., 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.)</p>	5
<p>M.4.11 <i>Number and Operations Base Ten- Use place value understanding and properties of operations to perform multi-digit arithmetic.</i> 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>	4
<p>M.4.12 <i>Number and Operations-Fractions- Extend understanding of fraction equivalence and ordering.</i> Explain why a fraction <math>\frac{a}{b}</math> is equivalent to a fraction <math>\frac{n \times a}{n \times b}</math> 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>	5
<p>M.4.13 <i>Number and Operations-Fractions- Extend understanding of fraction equivalence and ordering.</i> 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 <math>\frac{1}{2}</math>). Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols <math>&gt;</math>, <math>=</math> or <math>&lt;</math>, and justify the conclusions by using a visual fraction model.</p>	5
<p>M.4.14 <i>Number an Operations-Fractions- Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</i> Understand the fraction <math>\frac{a}{b}</math>, with <math>a &gt; 1</math>, as the sum of <math>a</math> of the fractions <math>\frac{1}{b}</math>. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation and justify decompositions by using a visual fraction model (e.g., <math>\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}</math>; <math>\frac{3}{8} = \frac{1}{8} + \frac{2}{8}</math>; <math>2 \frac{1}{8} = 1 + 1 + \frac{1}{8} = \frac{8}{8} + \frac{8}{8} + \frac{1}{8}</math>). Add and subtract mixed numbers with like denominators by replacing each mixed number with an equivalent fraction and/or by using properties of operations and the relationship between addition and subtraction. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators by using visual fraction models and equations to represent the problem.</p>	6
<p>Include <b>Number Talks</b> and integrate the <b>Mathematical Habits of Mind</b>. 1. Make sense of problems and persevere in solving them. 2. Reason Abstractly and Quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.</p>	