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| **Common Core Strand** | **Cluster** | **Standard** | **Learning Targets**  4th Grade Math Curriculum Map – 2nd Quarter | **Resources** | **Vocabulary** | **Essential Questions** |
| **Operations and Algebraic Thinking** | **Use the four operations with whole numbers to solve problems.** | 4.OA.1  1. Interpret a multiplication equation as a comparison, e.g., interpret 35= 5 × 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. | 1. I can explain how a multiplication equation (e.g., 35= 5 x 7) can be interpreted as a comparison (e.g., Johnny has 5 times as many cards as Bill who has 7 cards.). (R) 2. I can write an equation for a situation involving multiplicative comparison. (S) | Topic 3 Topic 5 5-6A, 5-8A, 7-4A | Equation Multiplicative Comparisons | 1. How can I identify the quantity that is being repeated?  2. What strategies aid in mastering multiplication and division facts? |
| 4.OA.2  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.1 | 1. I can distinguish between multiplicative (as many times as) and additive (more) comparisons. (R)  2. I can determine when to multiply or divide in word problems. (R) 3. I can solve a multiplication or division word problems involving multiplicative comparisons using drawings and equations. (S) 4. I can write an equation using a variable to represent the unknown. (S) | Topic 3 Topic 4 Topic 5 | multiplicative comparison additive comparison multiplication (as repeated addition) division (as repeated subtraction) | 1. How can I identify the quantity that is being repeated?  2. What strategies aid in mastering multiplication and division facts? |
| **Operations and Algebraic Thinking** | **Use the four operations with whole numbers to solve problems.** | 4.OA.3  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. | 1. I can multiply a multi-digit number by a one-digit whole number. (S) 2. I can demonstrate multiplication of two two-digit numbers using rectangular arrays, place value, and the area model. (S) 3. I can solve multiplication of two two-digit numbers using properties of operations and equations. (S) 4. I can explain my chosen strategy. (R) | Topic 5 & 7 5-5, 7-3 7-4A | remainder estimation rounding operations interpret remainders | 1. How can I identify the quantity that is being repeated?  2. What strategies aid in mastering multiplication and division facts? |
| **Numbers and Operations in Base Ten** | **Use place value understanding and properties of operations to perform multi-digit arithmetic.** | 4.NBT.5 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. | 1. I can demonstrate division of a multi-digit numbers by a one-digit number using place value, rectangular arrays, and area model. (S) 2. I can solve division of multi-digit number by a one-digit number using properties of operations and equations. (S) 3. I can explain my chosen strategy. (R) | Topic 8 8-3A 8-3B 8-3C 8-8A | rectangular array area model array area distributive property | 1. How can I identify the quantity that is being repeated?  2. What strategies aid in mastering multiplication and division facts? |
| **Numbers and Operations in Base Ten** | **Use place value understanding and properties of operations to perform multi-digit arithmetic.** | 4.NBT.6 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. | 1. I can choose the correct operation to perform at each step of a multi-step word problem. (R) 2. I can interpret remainders in word problems. (R) 3. I can write equations using a variable to represent the unknown. (S) 4. I can use mental math or estimation strategies to check if my answer is reasonable. (S) | Topic 8 (8-10) | remainder rectangular array area model quotients dividends divisors | 1. Can I use vocabulary words and context clues in order to determine operations to solve a word problem? 2. How do I know which mathematical operation (+, -, x, ÷, exponents, etc.) to use?  3. How do I interpret the remainder(s)? 4. Can I break down a multi-step word problem into smaller chunks in order to better find the solution? 5. What strategies can I use to determine the reasonableness of my answer? |
| **Measurement and Data** | **Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.** | 4.MD.3 3. Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor. | 1. I can explain the formulas for area and perimeter. (K) 2. I can use the formulas for area and perimeter to solve real world problems. (S) | Topic 14 14-7A | area perimeter formula | 1. How does the distributive property relate to multiplying larger numbers? 2. What strategies can be used to solve multiplication problems? |