**Common Core State Standards   
Grade 3  
Unit 3: Whole Number Concepts, Estimation, and Computation with Early Multiplication and Division**

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| **Operations and Algebraic Thinking**  **Represent and solve problems involving multiplication and division.**  3.OA.1 - Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe* *a context in which a total number of objects can be expressed as 5 × 7.*  3.OA.2 - Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For* *example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.*  3.OA.3 - Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.  3.OA.4 - Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the* *unknown number that makes the equation true in each of the equations 8* *× ? = 48, 5 =* 􀃍 *÷ 3, 6 × 6 = ?.*  **Understand properties of multiplication and the relationship between multiplication and division.**  3.OA.5 - Apply properties of operations as strategies to multiply and divide. *Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known.*  *(Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)*  **Solve problems involving the four operations, and identify and explain patterns in arithmetic.**  3.OA.8 - Solve two-step word problems using the four operations. 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.  3.OA.9 - Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.  *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*  **Number and Operations in Base Ten**  **Use place value understanding and properties of operations to perform multi-digit arithmetic.**  3.NBT.1 - Use place value understanding to round whole numbers to the nearest 10 or 100.  3.NBT.2 - Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. |