

# Unit 4: Chapter 4 Multiplication Facts and Strategies

Content Area: **Mathematics**  
Course(s): **Math 3**  
Time Period: **December**  
Length: **3 weeks**  
Status: **Published**

## Unit Summary

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Students will solve multiplication problems using various strategies. Students will use the Commutative Property of Multiplication, Associative Property of Multiplication, and Distributive Property of Multiplication. They will develop strategies to solve and memorize multiplication facts.

## Standards

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MA.3.OA.A.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.
MA.3.OA.B.5	Apply properties of operations as strategies to multiply and divide.
MA.3.OA.C.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$ , one knows $40 \div 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
MA.3.OA.D.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.
MA.3.OA.D.9	Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.

## Student Learning Objectives

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Students will learn to:

- draw a picture, count by 2s, or use doubles to multiply with the factors 2 and 4.
- use skip counting, a number line, or a bar model to multiply with the factors 5 and 10.
- draw a picture, use 5s facts and addition, doubles, or a multiplication table to multiply with the factors 3 and 6.
- use the Distributive Property to find products by breaking arrays.
- use the Commutative or Distributive Property or known facts to multiply with the factor 7.
- use the Associative Property of Multiplication to multiply with three factors.
- identify and explain patterns on the multiplication table.
- use doubles, a number line, or the Associative Property of Multiplication to multiply with the factor 8.
- use the Distributive Property with addition or subtraction or patterns to multiply with the factor 9.
- solve multiplication problems by using the strategy *make a table*.

## Essential Questions

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What strategies can you use to multiply?

## **Enduring Understandings**

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Students will know how to use strategies to multiply.