

# Unit 3: Chapter 3 Understand Multiplication

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

## Unit Summary

In this unit, students will begin to understand multiplication by thinking about addition. They will learn and apply strategies for multiplying including skip counting and modeling. Students will learn properties such as the Commutative Property of Multiplication, the Identity Property of Multiplication, and the Zero Property of Multiplication to understand multiplication.

## Standards

MA.3.OA.A.1	Interpret products of whole numbers, e.g., interpret $5 \times 7$ as the total number of objects in 5 groups of 7 objects each.
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.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.
TECH.8.1.5	Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.

## Student Learning Objectives

Students will learn to:

- model and skip count objects in equal groups to find out how many there are.
- write an addition sentence and a multiplication sentence for a model.
- model and skip count on a number line to find out how many there are.
- solve one- and two-step problems by using the strategy draw a diagram.
- use arrays to model products and factors.
- model the Commutative Property of Multiplication and use it to find products.
- model multiplication with the factors 1 and 0.

## Essential Questions

How can you use multiplication to find out how many in all?

## Enduring Understandings

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Students will understand that:

- multiplication is used to find out how many in all.
- there are multiple strategies to solve multiplication problems (skip counting, modeling etc.)
- Mathematical Properties can be used to find products (Commutative Property of Multiplication, Identity Property of Multiplication, Zero Property of Multiplication).

## Application

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Students will be able to independently use their learning to:

- use skip counting to help multiply.
- use multiplication properties to find products.
- find what types of problems that can be solved by using multiplication.

## Skills

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Students will be skilled at:

- multiply using a number line.
- multiply using an array.
- use models to solve problems.
- relate addition and multiplication.