



# Intro to Multiplication

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Math  
Grades 3–5



## Introduction

Much of the third grade year is spent memorizing multiplication facts. However, it is critically important for students to understand the process behind those multiplication facts. This lesson involves fun, hands-on, group activities to solidify understanding of the multiplication process.

## Learning Objectives

([CCSS.MATH.CONTENT.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. *For example, describe a context in which a total number of objects can be expressed as  $5 \times 7$ .*

## Materials Needed

- Large number of small items (pennies, cubes, counters, craft sticks, or any items of which you have access to a large amount)
- Paper circles

## Procedure

**Warm-up** - Some students will already know some of their multiplication facts so have a multiplication facts speed game pairing students up to see who can answer the question the fastest. If students are not familiar with multiplication facts, perhaps make the game about addition and subtraction facts and throw in an occasional basic multiplication fact.

1. Talk to students about the process of multiplication. Begin by explaining to students that the multiplication sign can be replaced with the phrase “groups of”.
  - Examples:
    - $2 \times 3 = 2$  groups of 3
    - $4 \times 7 = 4$  groups of 7
    - $3 \times 5 = 3$  groups of 5
    - $10 \times 10 = 10$  groups of 10
2. Demonstrate this point further by using large circles printed out (one large circle per one piece of paper).

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- Display the problem:  $3 \times 7$ . Then change the problem to say: 3 groups of 7.
  - Explain that the number of groups the problem calls for is also the number of circles you should have. Then, explain that there should be 7 items in each group, because the problem states there are 3 groups of 7.
  - Now you have 3 groups of 7 smiley faces. Count the smileys to determine that: 3 groups of 7 = 21 so,  $3 \times 7 = 21$ . Go through a few more examples like this.
3. Then put students into pairs. Give each pair a set of paper circles (make sure they have enough circles to match the largest multiplicand that they will be using).
  4. Give students several multiplication problems. Have them change the problem to the new phrasing first. Then use their circles and manipulatives to find the answer.
    - $6 \times 5$ . 6 groups of 5. Count to find this answer. It is helpful to start with multipliers that are easy to count by (2, 5, 10).
    - Then, students should record answer: 6 groups of 5 = 30. Then, they should change the problem to say:  $6 \times 5 = 30$ . Continue this with several more problems while the students continue to work in groups and record answers.

## Evaluation

As a formative assessment, have the students complete the following exit ticket.

$$4 \times 4 = 16$$

**Using words and a drawing, explain and prove that this is true.**