

# CHAPTER 1: Numbers and Quantities

## Introduction

In this chapter, teachers explore what young children learn about numbers and quantities in the early grades. Teachers are encouraged to complete the mini-modules in order to develop knowledge of how children build their understanding of numbers.

### Mini-Modules in This Chapter

- A) Count
- B) Compose, decompose, and subitize
- C) Understand, read, and write numbers
- D) Compare numbers

### Goals of the Chapter

This chapter aims to help teachers:

- Identify and describe how children develop basic number skills in the lower primary grades.
- Identify some materials and strategies that are used to teach about numbers and quantities.
- Develop new teaching practices.

### Key terms

<b>Compose</b>	To put a number together using its parts (e.g., composing 4 and 2 makes 6)
<b>Decompose</b>	To break a number down into its parts (e.g., 5 can be decomposed into 2 and 3)
<b>Numeral</b>	A written number symbol (0, 1, 2, 3, ...)
<b>Quantity</b>	The amount or number of something
<b>Representation</b>	A way of showing a number or idea (using real objects, pictures, numerals, etc.)
<b>Skip count</b>	To count by a number other than 1 (e.g., counting by 2s: 0, 2, 4, 6, 8, ...)
<b>Subitize</b>	To identify a smaller quantity quickly and visually, without counting each object

## Connections with Other Mathematical Concepts

### OPERATIONS: ADDITION, SUBTRACTION, MULTIPLICATION, AND DIVISION

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Basic number skills prepare students for operations later on. For example, practice with composing and decomposing numbers prepares them to add and subtract. Practice with skip counting prepares them to multiply.

### PLACE VALUE

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Children usually learn to count, read, and write one-digit and two-digit numbers before they learn the place value of their digits. For example, they may be able to read and write 43 but do not identify that it is made of 4 tens and 3 ones. When they build strong skills with numbers and quantities, they will be prepared to learn about place value later on.



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