

## All About Numbers

### What Is a Number?

What's in a number? Plenty! Numbers can describe amounts of all kinds, like:

- Exactly how many (“I have 4 books”) or how much (“That’s 2 teaspoons of sugar”).
- Approximately how many (about 20 people) or how much (almost a cup of water).
- Parts of things (6 pieces of the puzzle) or proportions (“We ate half of the pears”).
- The order of things (grocery store aisles) or the sequence of events (“First, put on your socks. Second, put on your shoes”).

### Why Is Learning About Numbers Important?

Numbers help us compare, measure, order, add, subtract, and solve problems of all kinds. When children begin kindergarten, their knowledge about numbers helps prepare them for learning math. Numbers remain important for all of us because children and adults use their number skills daily in their work and play, in their hobbies and games, and even in their chores.

### What Do Children (and Adults) Need to Know About Numbers?

Adults need to know that:

- Number words can be confusing for children, because of the many different ways number words are used. A child may hear, “1, 2, 3, 4, 5...,” “I’ll be home at 5 o’clock,” “José is 5 years old,” “Please wait 5 minutes,” “Our address is 5 Maple Drive,” and “The cat weighs 5 pounds.” Children may wonder, “How can ‘5’ mean all these things?”
- Children eventually learn that numbers are used in many ways.

Over time, children develop different number skills when they:

- Learn the correct order of number words.
- Learn the names for symbols for those words (like 4, 5, 6).
- Learn that a number tells us “how many,” and later, that each number word means a *specific* amount. Only then do children learn how numbers are related to each other.
- Try to figure out what numbers mean. It may be hard for children to know what numbers mean when talking about abstract ideas like time and money. For

example, children might not understand why three minutes is less than two days even if they do understand that four cookies is more than two cookies!

## How Can We Help Children Learn About Numbers?

**Notice that everyone uses numbers.** Adults are experts at using numbers all day long—maybe without noticing—to plan schedules, decide what to buy at the grocer, and prepare a meal.

**Be a number detective.** Find numbers and ways to use them, and help your child find them, too. Look for clues to what your child thinks number words mean!

**Use number talk:** Children learn what numbers mean from hearing adults talk about numbers. Children learn that numbers are useful and important when adults use numbers in a meaningful way. Even infants notice amounts, so start number talk with your children early.

### Babies and Toddlers

- **Notice amounts.** Point out amounts of things on the pages of books while looking at pictures together, and mention if the amounts are more or less.
- **Count aloud when your child is near.** For example, count how many fingers and toes your baby has, how many times you roll the ball back and forth, how many toy cars or blocks your child lined up or stacked.

### Preschoolers and Older Children

- Be a number detective. Find numbers in all these places:
  - In nature: “See the ladybug’s spots? How many spots are there?”
  - In your neighborhood: “The stop sign has eight sides.”
  - In your home while cooking, setting the table, cleaning up, or playing.
- Count with your child. Count the number of stairs you climb, bus stops you pass, forks and spoons you use to set the table, and cups of water you use to make soup. Compare amounts.
- Help your child learn number words like 1, 2, 3, but also words like some, a lot, a few, many, more, and most.
- Use number words to talk about order. “We are third in line. The first person in line left, so now we are second in line.”

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