

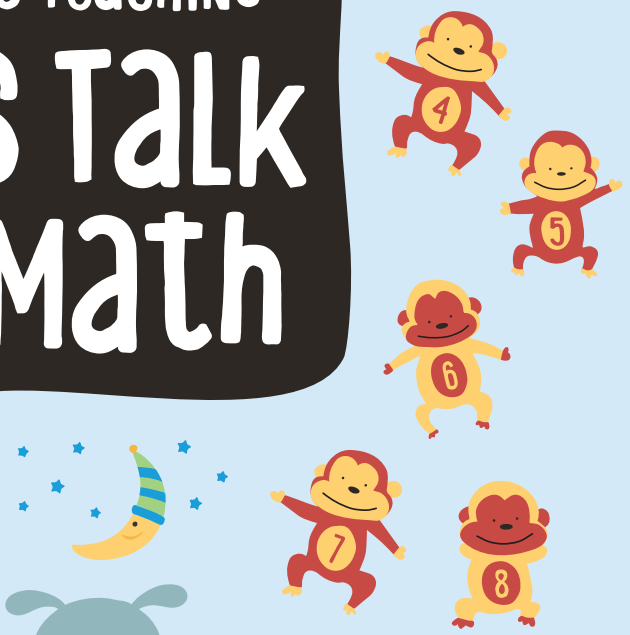
WHAT SHAPES
DO YOU SEE?

HOW MANY
MONKEYS
ARE THERE?

TALKING IS TEACHING Let's Talk About Math



CAN YOU SPOT
THE PATTERN?



A FUN-FILLED activity book to introduce
Early Math CONCEPTS AND WORDS TO YOUR CHILD



Math is all around us!



If you've ever passed out snacks to a group of children, you know that they are quick to notice if they didn't each receive the same amount. The ideas of **more** and **less**—basic math concepts—are obvious, even to very young children.

Did you know that **you can easily help your little one learn math skills?** Yes, you can! Children are interested in math and love thinking about it.

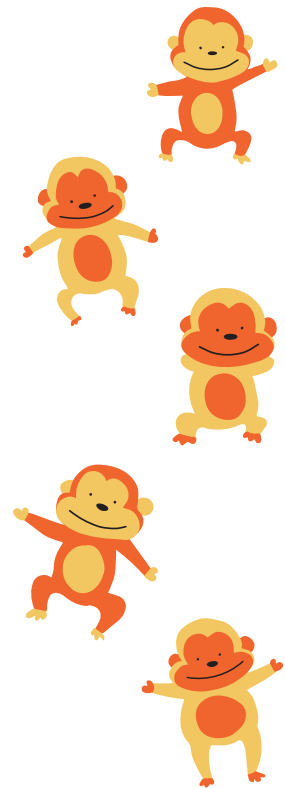
In fact, scientists have found that children's brains are ready to understand number concepts from a very early age. And a recent study found that if you **use math words in everyday conversations** with your toddlers and preschoolers, they'll do better in math and reading when they reach elementary school.

You can help your child by simply **talking about numbers, counting out loud, and using other math words as you go about your day**—and this book is full of ideas to get you started! To make it easy to find **math words and concepts** to say out loud with your children, we've highlighted them throughout this guide. We hope you have fun talking **math** with your children.



In this book, you'll find fun and easy math activities that you and your child can do anywhere.

- **When riding the bus or driving in your car**, count the traffic lights or signs you see along the way.
- **While doing laundry**, give your child the job of finding the matching pairs of socks.
- **At the grocery store**, count the number of cans you place in your cart. In the produce section, ask your child to count the number of apples you place in the bag.
- **While setting the table**, have your child tell you how many forks you need for everyone to have one, and then count them out.



Inside This Book

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Count by Numbers

Your child is beginning to develop an understanding of math—even before she can say number words out loud. Once she can begin to say number words, she can begin to match the words to set size and then count the set (for example, “Look at

the spoons. There are three! 1, 2, 3.”). You can help her do this by providing this kind of talk.

You can help her understand that a number word represents a specific amount. When waiting in line, say, “Let’s count the people in front of us. 1, 2, 3. There are three people in front of us. Then it’s our turn. How many people are behind us?” If your child answers incorrectly, instead of supplying the correct answer, say, “How did you get your answer? Let’s check if that’s right. Can you think of another way to solve that problem? Let’s count together.” Below, find other simple ways to talk math with your children when you’re in town.



Out and About

- **Count** the number of traffic lights you pass along the way and emphasize the total. “We’re passing 1, 2, 3, 4, 5. That’s five traffic lights we just passed.” Next time, count the number of stop signs.
- Explain that **numbers** identify buildings (“See the house numbers we’re passing?”) and businesses (“We’re looking for our dentist’s office at 129 Autumn Road”). Ask, “What numbers do you see?”

When Riding the Bus or Driving in Your Car

- Say to your children, “Let’s **count** how many cars pass by while we wait for

the light to turn green.” Another time, count trucks or buses.

- Talk about vehicles with different **numbers** of wheels. **How many** wheels does a car have? How many wheels does a bicycle have? A tricycle? A scooter?

When Parking Your Car

- When parking in a lot, **count** the cars between your car and the store: “1, 2, 3, 4. There are **four** cars between our car and the store.”
- If parking on the street, **count** the cars between your car and the crosswalk: “1, 2, 3. There are **three** cars between our car and the crosswalk.”

Around Town

How many cars do you see?

How many doors do you see?

How many white dogs do you see?

How many brown dogs?

How many dogs are there all together?

What else will you count?



What's Big, What's Small?

Have you ever thought about how often you **count, measure, estimate, and compare** when you're cooking? Measuring one cup of this and $\frac{1}{2}$ cup of that teaches your child how to compare the relationship of parts to wholes. Your kitchen is rich with fun and yummy ways your child can learn the basics, and here are some easy ways to start.



Preparing Food

- Ask your child to compare the sizes of measuring spoons. Use words like **smallest, small, medium, big, bigger,** and **biggest** to describe each spoon.
- **Line up** the fruits you'll use for fruit salad from **smallest to largest**. (Try starting with a blueberry and ending with a watermelon.)

Setting the Table

- Think about plate sizes. Ask, "Do we need **big** plates or **small** plates for this meal?"
- Put your spoons down on the table and ask, "Who has a **long** spoon? Who has a **longer** spoon? Who has the **longest** spoon?"

At Mealtime

- Show your child a **whole** piece of toast and cut it in **half**. Then say, "These two pieces are the **same size**. They're called '**halves**.'" Cut each piece in half again. After your child counts, "1, 2, 3, 4 pieces," say, "These four pieces are called **fourths**. Fourths are **smaller** than halves."
- At snacktime, say, "We have an orange and an apple for a snack. Which one is **wider**?"
- Have your child hold two different pieces of fruit in her hands and ask, "Which one is **heavier**? Which one is **lighter**?"
- At dinner, compare the size of your food portions. Say, "You have **more** carrots than I do. I have **fewer** carrots than you."



In the Kitchen

Which plant is the tallest?

Which bowl is the widest?

Which drawer is the narrowest?

What else is large? What else is small?



Sorting Shapes



Your young child has a natural ability to understand shapes—but needs your help to learn what each one is called. So talk it up! Describe the shapes of objects and what makes each one different. For example, you might say, “A **circle** is **round with no corners**. A **triangle** has **three straight sides** and **three angles**.” Children learn best by touching objects of different shapes. There are plenty of shapes at home, but a trip to the grocery store offers some fun ways to find all sorts of shapes!



Look Around

Look around—you’ll find shapes everywhere.

- **Circles** are round with no corners. Look for circles printed on billboards and road signs. Encourage your child to use a finger to trace around the edges of plates and cups.
- **Rectangles** have four straight sides and four corners. The sides across from each other are the same length. Look for windows, doors, and flags. Trace the edges of envelopes and sheets of paper.
- **Squares** are a special type of **rectangle**—all four straight sides are the **same length**. Look for windows and signs that appear to be square. Help your child trace the edges of square floor tiles or square picture frames and **count** each side.
- **Triangles** have three straight sides and three **angles**. Look for them printed on billboards and yield signs. Cut used envelopes or cards from one corner to the opposite corner to make

two triangles. **Count** the sides as your child traces the edges of each one.

- **Spheres** are round, three-dimensional shapes. Find some balls and explore what happens when you drop something that doesn’t have straight sides—it rolls! Look for spheres in the produce aisle of your grocery store.

At the Store

- Have your child trace the edges of a box of cereal or crackers and **count** the sides. Say, “The top of the box is a **rectangle**” (or **square** if all four sides are the same length).
- Point out the express sign that says “10 items or fewer.” Ask, “Is this sign a **square** or a **rectangle**? How do you know?”
- When paying for your groceries, **point out the different shapes of money**. Say, “This dollar bill is a rectangle. What shape is the quarter? Are all my coins the same shape? Are they the same **size**?”

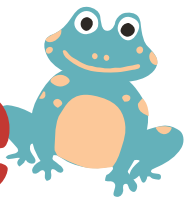


At the Grocery Store

What's happening in this store?
What shapes do you see?
What will you count?



Find the Pattern



Patterns are everywhere, and you can give your child opportunities to create and play with them. After all, a pattern is as easy as **something that repeats more than once**—like red, blue, red, blue, red, blue. Thinking about patterns helps children make sense of math; it helps them predict what will happen. After just a bit of practice, you'll be amazed at how often your child will find patterns that you don't even see!

In the Bedroom

- When folding laundry with your child, make a pattern with socks. Line them up like this: **big, small, big, small, big, small**. Then, have fun matching the **pairs** of socks together.
- Help your child lay out a **pattern** with her toys—a book, stuffed animal, block, book, stuffed animal, block, etc. Then **count** the number of toys all together and repeat the last number as you say, "So we have (total number of) toys on the floor."

Getting Dressed

- When you help your child get dressed, help him **count** the items of clothing he is putting on (one shirt, two socks, etc.). Do any of them have a pattern?

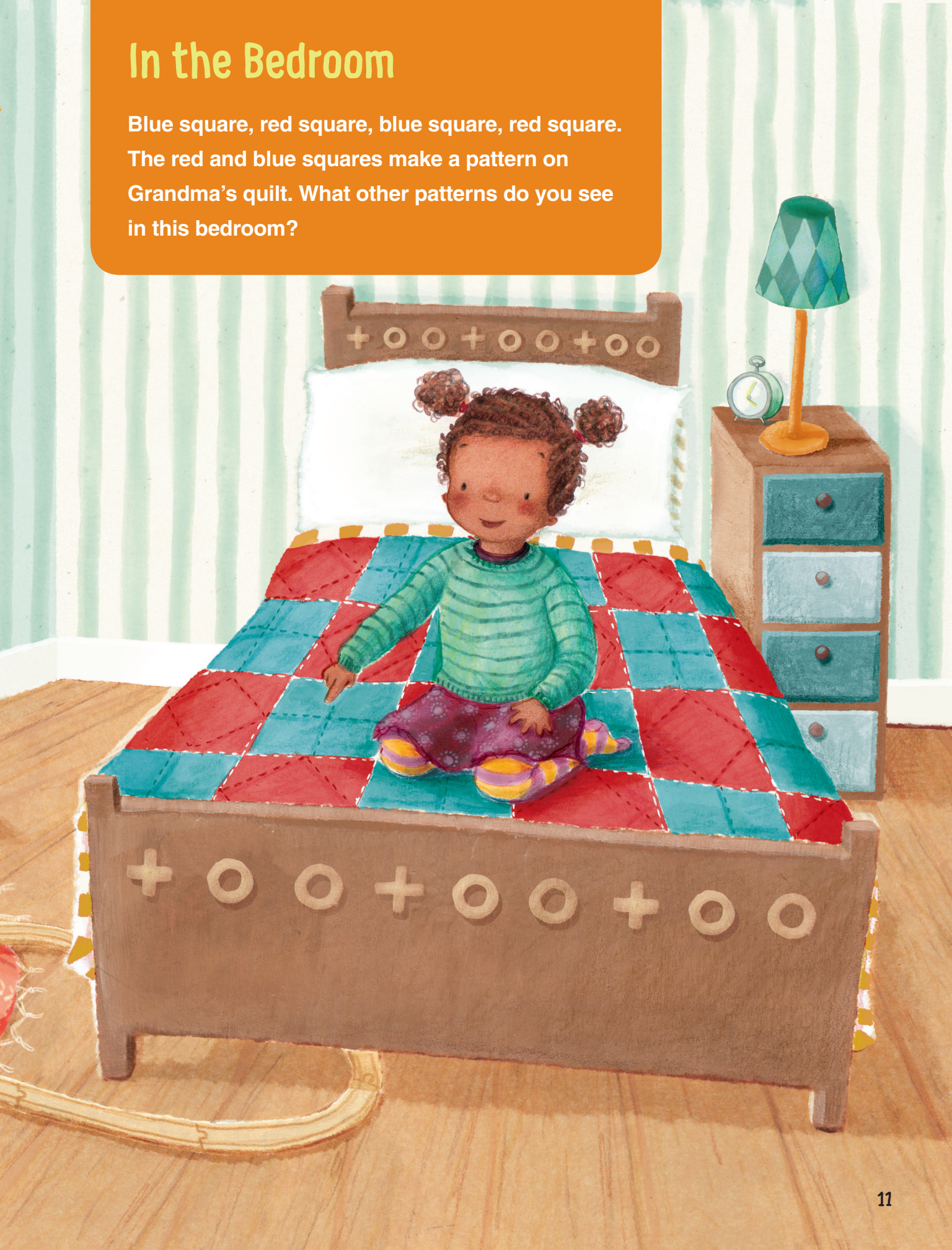
At Playtime

- Help your child make a **pattern** with his crayons. Place one pointing up, the next pointing down, etc. As you make the pattern, ask, "**What comes next?**"
- String pieces of macaroni into a beautiful patterned necklace. Place a **big** piece, another **big** piece, and then a **small** piece on the string. Repeat with more **big, big, small** pieces to create a pattern. When the necklace is complete, **count** the number of "beads" on the necklace.
- **Grow a pattern!** Put **one** object on the table. Below that object, put **another** object on the table and have your child place **one** object next to it. Below that row, put **two** objects in a row, then ask your child to **add one more** to the row. Below that row, put **three** objects in a row, then have your child **add one more**. Ask, "How many do you think will be in the next row? Let's find out!"



In the Bedroom

Blue square, red square, blue square, red square.
The red and blue squares make a pattern on
Grandma's quilt. What other patterns do you see
in this bedroom?



Add It Up



Here's an easy way to think about introducing addition: **group like things together, then add them up.** (Say, "Let's put all your red blocks in one pile and your blue ones in another. Now, let's count how many blocks there are **all together.**") Be sure to **use easy concepts and small numbers**, and whenever possible, **use familiar objects as examples** rather than numbers. The playground is a perfect place to practice addition with these tips below.



At the Playground

From the number of things to play on to the number of children playing, there are many ways to **use math words when visiting the playground.** Get started with these, then make up your own.

- **Count** how many big-kid swings you see, and how many little-kid swings. Then count the two groups of swings **all together.**
- If there are children on the swings, say, "There are five swings all together. And there are three children on the swings. **How many** swings don't have children on them?"
- If you see people walking dogs, ask, "Are there **more** people or dogs?" After your child answers, ask, "**How do you know?**" "Yes, we can **count to find out!**"
- **Count** your steps as you walk from the bench to the swings. Then count your steps as you walk to something else. Which took **more** steps? Which distance is **farther**?

Playing Outside

Use lots of number words as you walk along.

- Have your child run to, **touch**, and **count** a few trees. Ask, "**How many** trees did you touch?" Have her run, touch, and count a few more. Then hold up your fingers to show each number. Help her **add** the numbers to find out **how many** trees she touched.
- Find a picnic table and take a rest. Ask, "Are there **more** benches or tables? So there are **fewer** tables than benches. Fewer is the opposite of **more.**"
- Say, "We each brought a water bottle, so we had **four.** I recycled mine. **How many** do we have now? **How do you know?**"
- On the way home, play a game. Say, "Let's pretend I have some stars. If I gave you **two** and I kept **three**, how many stars did I have before I gave you some?" (Fingers can be useful tools for this game.) Repeat using other objects and numbers.



At the Playground

How many children are on the slide?
How many are on the climbing dome?
How many are riding a bike?
How many children are at the playground
all together?

Developed by:



Devoted to Fun with a Purpose®, global family media brand Highlights for Children, Inc. has helped children become their best selves for generations. In addition to *Highlights*®, the flagship magazine for children ages 6 to 12, the company's other offerings include *High Five*®, a magazine for preschoolers; *High Five Bilingüe*™, a magazine for preschoolers in English and Spanish; and *Highlights Hello*™, a magazine for infants and toddlers. The company also has a children's book division (Boyd's Mills Press and Highlights Press), puzzle book clubs, and a variety of digital products.

Highlights early childhood publications encourage quality time between caregivers and young children. By supporting early language development and a love of reading, Highlights products help to fulfill our mission of helping to raise curious, caring, confident, and creative kids.



For more information and tips on reading to little ones, visit www.highlights.com or connect with us on Facebook, Twitter, Pinterest, and Instagram.

Produced in partnership with:



Too Small to Fail, a joint initiative of the Clinton Foundation and Next Generation, aims to help parents, communities and businesses take meaningful actions to improve the health and well-being of children ages zero to five, so that more of America's children are prepared to succeed in the 21st century.

Too Small to Fail is focusing its work on closing the "word gap." Studies have found that by age four, children in middle and upper income families hear 30 million more words than their lower-income peers. This disparity in hearing words from parents and caregivers translates directly into a disparity in learning words. And that puts our children born with the fewest advantages even further behind. Among those born in 2001, only 48 percent of poor children started school ready to learn, compared to 75 percent of children from middle-income families.

The "word gap" is a significant but solvable challenge. Too Small to Fail is about parents, caregivers, other concerned individuals, and the private sector coming together to take small, research-based actions with big impacts.

Learn more at www.toosmall.org and on Twitter @2SmalltoFail.

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