



HELPING YOUR
CHILDREN
LEARN AND ENJOY
MATHEMATICS

FINDING MATHEMATICS EVERYWHERE

Mathematics is important! If your children discover mathematics at a very early age, they will learn that mathematics has a purpose and that it's not just a subject people study in school. For young children, math is about shape, color, size, order, pattern, and the number of objects. You can help introduce your children to some basic math concepts inside and outside your home and everywhere you go. By understanding and pointing out the math in things and situations that are important to children, you will help them become comfortable with math ideas and concepts long before they go to school. Start the math learning early in your family!

Here are some BIG math ideas that you can help your young children discover. You don't have to be a teacher or math expert to share them with your children; they are simple early concepts that are easy for you and your children to do, and they will provide you with wonderful opportunities to have a good time doing math together.

■ SORT ALL SORTS OF THINGS

Sorting may not seem like math at all—numbers are hardly involved—but sorting objects that are similar but slightly different into groups has a lot to do with seeing differences and similarities and how things are related and not related, and these are powerful links to understanding a great deal of mathematics. Sorting is about carefully observing things and helps young children learn to compare and classify. As a parent, encourage your children to sort all sorts of things in all sorts of ways. Your home is a sorting playground!

The best place to start is with two piles: a pile with objects that have some characteristic in common and another pile with objects that don't have that same characteristic. You and your children can sort toys with wheels and toys without wheels; stuffed animals you have seen in a zoo and those you have never seen in a zoo; blue toys and toys that aren't blue; shoes with laces and shoes without laces; toys they want to keep and toys to give to Goodwill. At first you can suggest things and ways to sort them. Once your children understand the concept, have them make up their own ways to sort objects. Listen carefully; sometimes they will come up with ideas you would never think of. Together with your children, look all over your house for things to sort. The more you look, the more things you will find that are perfect for sorting!



Photo by Nikki Easterday

■ ARRANGING THINGS IN ORDER

Understanding order is very important to young children. We make sense of our world when we put things in order and many basic mathematics concepts depend on order. You can order things by size: largest to smallest; by time: which came first to which came last; by preference: your favorite things versus those things you don't like as much; and by many other qualities.

Lucky for you, your home is full of interesting things to put in order and you can help your children learn how to learn this concept! Your children can put a set of blocks in order from largest to smallest and then do the same with all the different sized bottle tops you can find. Have your children put their toys in order from favorite to least favorite. In the kitchen, let them put cans of food in order from heaviest to lightest. Have them put your family pictures in order from oldest to newest. Be creative! Look around with your children and together you will find lots of things to put in order in lots of different ways.

■ DISCOVER SHAPES EVERYWHERE

Shape is the foundation for the study of geometry. You don't need to wait until your children start school to study geometry; all sorts of shapes are all around us in our world. You and your children can have fun looking for them together. Start by pointing out familiar shapes—such as a round plate, a square napkin, or a triangle half-sandwich—by name—circles, squares, triangles, and more—wherever you see them. When you point out the shapes, always say their geometric names, then ask your children if they can find a similar shape and tell you the shape's geometry name as well.

“Look. I see a clock; it's a circle. Can you find something else that's a circle?”

Geometric shapes are everywhere: search your home, go to the store, take a walk. You will find all sorts of triangles, squares, circles, rectangles, and even a rhombus, if you look for them!

Your children's world is a math gold mine. To help your children see math everywhere, you must first be able to find it yourself. Think “math” as you look around your home and wherever you go. The more things to sort, count, and order that you and your children discover, the more they will begin to see math everywhere on their own.

FINDING MATH IN YOUR HOME

IN A PLAY AREA, YOUR CHILDREN CAN:

- Count blocks as they build a tower.
- Sort buttons by size, number of holes, or color.
- Put dolls, cars, balls, or blocks in order from largest to smallest.
- Find different ways to sort all the shoes.
- Make a Geometry Picture Book by drawing and coloring objects with math shapes that they find around the house or outside.

IN THE KITCHEN, YOUR CHILDREN CAN:

- Name familiar shapes—circles, squares, triangles—such as a round plate or square napkin.
- Put cans of food in order by size or type.
- Sort silverware from the dishwasher to the silverware drawer.
- Count plates, utensils, cups, or even olives.
- Divide a plate of cookies evenly so that each family member gets an equal share.
- Find how many glasses of milk are in a full milk carton (you can always pour it back).
- With your help, double a favorite recipe.

AROUND THE HOUSE, YOUR CHILDREN CAN:

- Count the days on a calendar until a special event, such as a birthday or holiday.
- Find the length and width of a room by counting foot steps, one in front of the other.
- Draw a “map” picture of where things are located in their bedroom.

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