

How to Help Your Children Do Math

- First, become involved in your children's learning. Since all teachers are interested in extending children's school knowledge to the home, don't hesitate to ask questions, perhaps for an example to illustrate a mathematical concept. Be sure to understand what the curriculum goals are, and keep abreast of classroom activities. Doing so will help you feel like much more than a homework supervisor.
- Children need to see that math can be both interesting and fun. Small games, such as Snakes and Ladders, Bingo, I Spy, and Pick-up Sticks, everyday questions, and helping-out-around-the-house activities can all promote math learning and also provide great opportunities to make it fun.
- Numeracy is the ability to express mathematical concepts and mathematical reasoning. It involves applying numerical symbols in ways that help us quantify our world and experiences. Model numeracy, drawing on aspects of your environment. Children need to see you use math in a practical sense: "Let's see. There are five people eating supper tonight. How many forks, spoons, and knives do we need?"
- Share opportunities to meet mathematical objectives with your children: "How many houses are between us and the Stop sign? Let's count."
- Counting or 1-2-3 books can help children gain an understanding of numbers. They can learn to count the number of objects on a page and group according to characteristics (e.g., size and color). Find examples from your family life to help children connect to the learning from the book.
- Make use of nursery rhymes and poems. Many of these use numbers, as in "One, two, buckle my shoe" or "Five little ducks went swimming one day."
- Choose magazines that feature brightly colored pictures to encourage counting and the basics of addition and subtraction.
- Make math a part of your everyday chores — the idea is to develop mathematical ideas through language. As you or your child tidy up, count the items. Use the toys in the toy box in a number of ways, perhaps asking, "How many pieces of puzzle are you holding? How many do I have in my hand? Let's see how many blue toys are in the toy box. Which toy is closest to the television? the door? How do you know? Can you show me how?"
- Use language to develop children's mathematical concepts about counting and comparing. Examples: how many, more or less, greater or smaller, longer or shorter, higher or lower, and heavier or lighter.
- You can also encourage understanding of direction and position. Work such phrases as these into your conversation: in front or behind, up and down, top or bottom, next to or beside, before or after, inside or outside, over, under, and below.
- Keep any negative attitudes about mathematics to yourself — children are very sensitive to the ideas of their parents. Be positive and so will they.

Home Foundations for Numeracy

The key to building a numeracy foundation at home is to make math and numbers part of the everyday routine of chores, play, meals, and other household activities. You needn't turn your house into a quiz corner, but you can take advantage of the numeracy already part of your family's life and make a moderate effort to bring your children into it.

Getting Dressed: Ask young children to count everything they will be putting on. Play a timing game, counting the seconds as they get dressed. When they are putting clothes away, ask them to make patterns of socks and other garments in a drawer.

Measuring Height: Make a height chart, perhaps on a door, and get the children to measure themselves against it once a month.

Meal Time: Ask questions like "How many spoons are on the table?" Ask for help setting a table. "There are four of us eating. Can you find a fork for each of us?" Reverse the questions to encourage the child to think: "How many of us will eat tonight? How many glasses should I put out?"

Snack Time: Count snacks: "I think you have three carrots left. Is that right?" For the picky eater, you could divide a piece of hard fruit, perhaps an apple, into different shapes: "Can you eat a round piece now? How about a piece shaped like a triangle?"

Around the Home: Children at this age will probably not understand a real clock, but digital clocks allow you to show the use of numbers in a home. Many children enjoy simple counting games involving household geography: "How many steps to the washroom?" "Let's count the stairs while we walk down them." Sorting out cupboards and drawers, a lot of fun for many children, can provide a good opportunity to play with measurement and patterns. Ask the children to put the pots in a row, from biggest to smallest. Perhaps they could figure out which pot would make the most soup. Have the children use a ruler to measure household objects: "What's the tallest thing in the house? How wide is the door? Whose shoes are bigger — Mom's or Dad's?"

Play Time: You don't need expensive technology to make numeracy-enhancing games part of a child's playtime. Matching games using simple cards, either store bought or hand made, fascinate some children and provide a great example of patterning and prediction. Stacking cups are cheap and easy to find, and for the very young child will provide great patterning and comparison games. Numbered blocks will do the same; for example, ask the child to make a tower of three or four blocks, starting at one and going up. If your child has a playmate, ask them to play a guessing game: "How many beads do I have in this box?" Hide and Seek requires counting, as do simple board games. Crafting will be a good activity for play-based numeracy — Popsicle sticks and pipe cleaners can be made into many things, but also can be counted, compared, and categorized. While coloring might not hold children's attention, sorting crayons by size or color might.

Bath Time: For many children, bath time is the highlight of their day, a chance to have the undivided attention of an adult and also play around with soap and water. A few cheap plastic cups of different sizes will create many opportunities to explore measurement.

Singing: All children love to sing, whether with a parent or other children. Many songs can be adapted to include a numeracy component or turned into a counting game. Familiar songs, like *This Old Man* and *Old MacDonal*d, are ready examples, but a simple Internet search will provide many more.

Outside the Home: Shapes can be sought and discussed on a walk or drive: "What shape is that sign?" "Do you see anything round right now?" Counting can also be part of a walk: "How many steps is it to the sidewalk?" The park will provide a good place to play: "Let's pick up five pine cones — which one is the smallest? Which one is in the middle?" "Who is swinging higher — you or me?" "Let's hop to the slide. Who can hop the most? Let's count."