

Enjoying numbers

Here are some tips for helping your child with numeracy:

- △ Have a number hunt as you drive. Each child looks for numbers on signs and houses and adds them as you travel. The older children add the numbers as they go and try to be the first to reach 100.
- △ Try tipping up a container of toys onto the floor and ask how many there are of certain toys. For example, there might be 6 cars, 4 yellow blocks, 3 red blocks and 1 little bear.
- △ On a calendar, write down the weather for each day. Then talk about how many days in each month are sunny, cloudy, wet, cold or hot. It's fun to compare the months.
- △ If you give your child the laundry peg bag, your child can put them all into separate colours. He or she can then count how many blue ones there are, how many yellow and so on.
- △ You could try asking your child to stack pegs one on top of the other in their colours. How many red ones could you build up until the pile falls over? How many orange ones?
- △ Play games such as Dominoes, Snakes and Ladders, card games or board games involving dice. This will help your child to recognise patterns and to count. To help your child recognise numbers, change the dice to ones showing numbers.
- △ Help your child to remember your phone number and to press the correct buttons on the phone.

For other numeracy ideas, visit: <<http://www.nlnw.nsw.edu.au/parentnb.htm>>

Have you visited the numeracy page of the Curriculum Support website? By scrolling down and clicking the Parents Count Too link, you will find a series of pamphlets which provide practical ideas to support children's mathematical thinking.

These pamphlets are available in files that can be downloaded in 22 community languages at <<http://www.curriculumsupport.education.nsw.gov.au/primary/mathematics/numeracy/parents/index.htm>>

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Thinking about time

As a parent, you can develop understanding about time by:

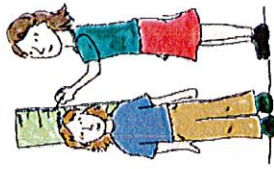
- Looking at parking signs and discussing the time restrictions when parking the car.
- Looking at a calendar together and marking important dates. Talk about how many days until each event.
- Using a watch with a second hand, time your child running, skipping or swimming. Count how many steps, skips or strokes one child does in a minute. Discuss how many steps or skips could happen in three minutes.
- Having your child help set a kitchen timer or an alarm clock.
- Asking your child to make a label with the 'use by' date for meat or cooked foods that are to be frozen.



Measuring and calculating

Here are some ideas about measurement at home:

- If you roll a toy car down a ramp, your child could measure how many car lengths it travelled.
- Record your child's growth on a height chart. Compare the height of family members and talk about who is taller and who is shorter.
- Talk to your child about how much he or she weighed at birth and what other things have the same weight.
- Put a can of food into each of your child's hands. Ask which one is heavier.
- Play using household objects, such as a measuring cup and containers of different sizes and shapes. It's lots of fun doing this at bath time.



Creating with pattern

To encourage your child to understand the meaning of pattern:

- Discuss the numbers on houses in the street and ask your child to describe what is happening to the numbers as you walk along.
- Encourage your child to create simple dances that have repeated steps and movements.



- Have your child use beads, buttons or pegs to make a repeating pattern and then tell you about the pattern. Patterns could be based on colour, size, shape, or items, for example, peg, peg, spoon, peg, peg, spoon. Ask your child to describe the pattern and to tell you how many objects make up each pattern.

- Have your child make wrapping paper that has a repeating pattern stamped onto it.
- Have pattern hunts around the house and in the backyard. Search for patterns in clothes, furniture fabric, bathroom tiles and on book covers. In the yard, hunt for patterns in flowers, bark, the fence and paths. Walk to the park and have a pattern hunt there.

Understanding shape

You can develop your child's understanding about shape by:

- Looking at the shape of objects in the home or in the garden. Look for different sized shapes and shapes in different positions.
- Playing stacking with your child. Stack all sorts of things you find, especially cans, unopened boxes of cereal and toys.
- Reading books with your child and talking about the shapes you can see within the pictures, e.g. The roof on the house is a triangle.
- Drawing shapes in sand, dirt or on paper. Talk to your child about the shapes using words like edge, curved line, straight line, square, corners.



- Drawing dots on a page and asking your child to join them. This can be extra fun if you trace over a shape in a magazine by using dots. For example, you could create the outline of a car or a tree.
- Using a small packet of toothpicks to create shapes and make pictures of objects, such as a house, tent, truck or wheelbarrow.

THE COUNTING GAME: A FUN ANYTIME MATH ACTIVITY

your child to say one number as he or she touches each object. Arrange objects in different ways for counting—for example, in piles, rows, and circles.

- Reinforce your child's counting. When your child finishes counting, you could say, "One, two, three cookies. You counted three cookies!" To correct a mistake, gently count again along with your child, holding a finger and touching each cookie as you say the number.
- Sometimes children forget which objects they've counted. If this happens, have your child move each object into a "counted" pile as he or she counts. If your child gets frustrated or continues repeating the same mistake, be patient. For the moment, you could simply stop counting and try it again another day.
- Don't worry if your child uses his or her fingers for counting. Fingers are the best mathematical tools children have! They're always handy and ready to use. You can also encourage your child to use other objects to keep track of their count: one bean for every letter in their name or one popsicle stick for each door in your home.
- Once your child has mastered basic counting, start practicing how to count by twos, fives, and even tens. This will give your child a great start for learning math in school.

The Counting Game is so simple it can be played by young children, yet so mathematically intriguing it can challenge older children as well. It's a perfect "anywhere, anytime" game. Anyone who can count to 20 can play it. Here's how it goes:

1. Two people take turns counting aloud. The first person starts at ONE and the game is over when the counting reaches TWENTY.
2. Each player counts aloud by saying one, two, or three more numbers *in order* from where the other player stopped counting.
3. Whoever says the number TWENTY, by itself or in a group of numbers, is the winner.

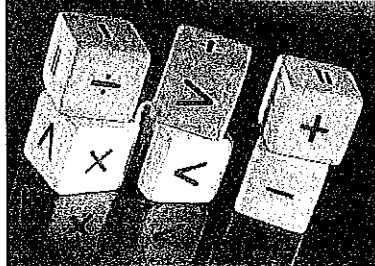
For example: *Player One* *Player Two*

1, 2, 3	4
5, 6	7, 8
9, 10, 11	12
13, 14	15, 16
17	18, 19, 20!

At first glance, the game seems like a simple way for young counters to practice—but there's actually more to it than that. If you play this game with an older child, you'll both start to see number patterns and discover that there's a strategy for winning. (Hint: it has to do with the multiples of 4.)

You can play four or five rounds of the Counting Game quickly—so play it often to give your child a chance to figure out the winning strategy. Later on, try modifying the rules of the game by having a different winning number, such as TWENTY-ONE, and see what happens.

MATH *at* HOME



HELPING
YOUR CHILDREN
LEARN AND ENJOY
MATHEMATICS

DISCOVERING THE MATH IN YOUR HOME

Math is everywhere! It's in the world that surrounds us, it's in nature, and it's in your home, both inside and out. By pointing out the math in everyday life, you can help your young child learn some basic concepts and understand why math is so important.

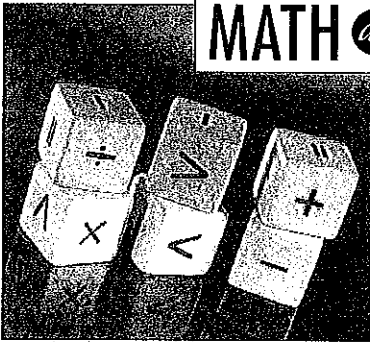
If your child is in kindergarten or one of the early grades, you can really reinforce the math they're being taught in school with practice at home. Math at home doesn't have to happen sitting at a desk. During playtime, on a walk, while you're fixing dinner, or when your child is just looking for something to do—these are all great opportunities to suggest a math activity. Here are a few ideas that will help your children discover—and use—the math around them.

IN A PLAY AREA, YOUR CHILD CAN:

- Count blocks as he or she builds a tower.
- Sort toys by size, kind, or color.
- Put dolls, cars, or blocks in order from largest to smallest.
- Play “What am I thinking of?” by describing a toy's size and shape.
- Play make-believe “store” with toys and play money.

IN THE KITCHEN, YOUR CHILD CAN:

- Look for familiar two-dimensional shapes—circles, squares, triangles, etc.—like a round plate or square napkin.
- Put cans of food in order by size or type.
- Sort silverware from the dishwasher to the drawer.
- Count plates, utensils, cups, or even olives.
- Divide a plate of cookies evenly so that each family member gets an equal share and decide what to do if there are some left over.
- Find how many glasses of milk are in a full milk carton.
- Help you double a recipe, or cut one in half.



HELPING
YOUR CHILDREN
LEARN AND ENJOY
MATHEMATICS

CONNECTING MATH AND READING

All parents understand the importance of reading, but have you ever combined math and reading at the same time? It's possible to put math and reading together in a meaningful way and have fun doing it. Reading books with math themes will enhance your children's enjoyment and pique their interest of both subjects simultaneously.

Reading a math-focused children's book is especially effective when you take the time to encourage your child to think about the math in the story. This means you may need to modify your approach to reading together when you choose a book with a math theme.

For example, *The Doorbell Rang* by Pat Hutchins is a delightful story about sharing cookies. You and your child will enjoy reading it from cover to cover, but you can also use it as an opportunity to do mathematics together in a comfortable, relaxed setting. Take advantage of the math situations embedded in the story by following these suggestions.

- Before beginning the book, it might be fun to bake some cookies or have a plate of store-bought cookies nearby to help your child visualize the math problems you'll be reading about—just don't eat them until the end of the story!
- Read a few pages, then pause when you come to the first math situation in the book. Ask a math-related question that anticipates what happens next. For example, "How many children have to share the cookies now?"
- Once your child solves the problem, continue reading. Stop and ask other math-related questions as long as your child stays interested. (Don't stop too often or your child may lose the story line.)
- Sometimes it's wise to skip over information that's in the book. For instance, the first math situation in *The Doorbell Rang* occurs when two children must share 12 cookies. The book reads, "That's six each" Instead of immediately reading this line, you might say, "If there are 12 cookies to begin with, how many cookies will each child get?"
- Let your child do the math (or sort the cookies you have on hand) and answer the question. Be patient and allow time to solve the problem before continuing to read. "You're right! That's six each"

This is just one example of how to combine math and reading. Children's books with math themes will give you many opportunities to stop and do math.

AROUND THE HOUSE, YOUR CHILD CAN:

- Count the days on a calendar until a special event.
- Find the length and width of a room by pacing it off.
- Draw a diagram of how to rearrange furniture in a room.
- Make a “map” of the whole house.
- Create a family TV schedule and track the amount of time watched.

OUTSIDE THE HOUSE, YOUR CHILD CAN:

- Set up and operate a lemonade stand.
- Plant a garden with rows and columns of seeds.
- Count the petals on different flowers.
- Measure a sunflower or bean plant daily, keeping track of how it grows.
- Count how many times he or she can jump rope or shoot baskets in a row.
- Keep a daily chart of the temperature.
- Find triangles, squares, circles, and rectangles around the neighborhood.

