

Math in the Home

Your home is full of opportunities to explore math with your child and, at the same time, build his or her self-confidence and understanding of mathematical ideas. This is a chance for you and your child to "talk math" that is, to communicate about math while discovering relationships between numbers. Being able to describe mathematical patterns and relationships, such as those between "addition and subtraction" or "odd and even numbers," is important to later success in math.

The activities in this section are intended to be enjoyable and inviting and use items that can be found in your home. While doing the activities, keep in mind that an understanding of math and a sense that math is enjoyable will help children develop skills that they will need for success their entire lives.*

1. Newspaper Search: This activity helps children see how much math is used in everyday life. It also helps in the variety of ways in which math is used to tell a story, read a timetable or schedule, plan a shopping list, or study the weather. **Grades 3-5**

- *Materials*

Newspaper, calculator, pencil, paper, and graph paper (can be hand-drawn)

- **List it.** Give your child the grocery section of the newspaper in order to make up a list of foods that will feed the family for a week and also meet a budget of a certain amount of money. Have your child make a chart and use mental math or a calculator to figure the cost of a few items. If the total for the groceries is more than you have budgeted for, talk about which items can be eliminated. Could the list be cut down by a few items or by buying less of another item? What will best serve the needs of the family?
- **Shop around.** Have your child search for advertisements in the newspaper for an item they have been wanting, such as a piece of clothing or tennis shoes, in order to find the lowest price for the item. After your child finds the best buy, have him or her compare the best buy to the rest of the advertised prices. Are this store's prices lower for everything or just items in demand?
- **Highs and lows.** Have your child search the newspaper for daily temperatures and create a graph showing weekly trends. Ask your child for the differences in temperature from day to day.

2. Simply Symmetrical: A shape can be symmetrical when two parts of it are exactly alike. This exercise helps young children develop an understanding of symmetry and a sense of geometric patterns. **Grades 1-5**

- *Materials*

Paper, pencil, marker or crayon, magazine pictures, scissors, and glue

- Explore your house for symmetrical designs. See how many your child can find. Look at wallpaper, floor tiles, pictures, bedspreads, and appliances.

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- Cut out a magazine picture that is symmetrical. Cut it along the line of symmetry. Paste one half of the picture on the paper. Have your child draw the missing half.
- Write your child's name in big block letters, then write your name. Which name has more letters with lines of symmetry? How many letters have one line of symmetry? How many of each letter have two? (a B has one line, an H has two). Does anyone have a name with all symmetrical letters? (BOB is one.) Can any letter be turned upside down and still look the same? (Yes H, I, O, S, and X are symmetrical around a center point.) Go through the alphabet, making a list of the letters that look the same on both sides and those that look different.
- Fold a sheet of paper in half lengthwise. Have your child draw half of a circle, heart, or butterfly from top to bottom along the fold on each side of the paper. Help your child cut out the shapes that were drawn. Unfold the paper to see the symmetrical figure. Have your child color and glue the full figure on another sheet of paper to display the design.

3. Tracking Time: Statistics includes collecting information, analyzing it, and describing or presenting the findings in an organized way. **Grades 2-5**

- *Materials*

Clock or watch, newspaper, blank paper, and graph paper (can be hand-drawn)

- Together with your child, keep track of the time he or she spends watching television as well as doing homework. Make a table listing the 7 days of 1 week. Keep two columns, one for television and one for homework. At the end of the week, see if together you can make a graph comparing the two different activity columns.
- While watching television, make a chart showing how much time in every hour is used for commercials compared to how much time is used for the actual show. Do this for every half-hour of television you watch. Then make a bar or pie chart showing the two amounts. Time the minutes carefully.
- Together with your child, keep track of how he or she spends time in one 24-hour period: time spent sleeping, eating, playing, reading, and going to school. Measure a strip of paper that is 24 inches long. Let each inch represent 1 hour. Color in the number of hours for each activity, using a different color for each activity. When finished, make the strip into a circle and place it on a blank piece of paper. Trace around the circle. Then make lines from the center of the circle to the end of each color. Your child has just made a circle (pie) chart of how he or she spends 24 hours. Compare this with how other people in your family spend their time.