

Doing Mathematics Together— Everyday Situations

Mathematics is all around us! The following activities represent just a sampling of the many everyday situations that involve mathematics and ways you can nurture your child's mathematical development during these activities.

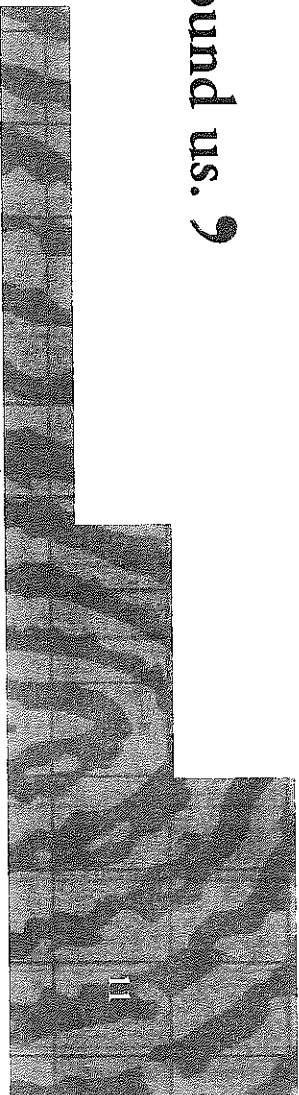
Elementary school years

- Count, count, and count! Young children love to count and will count everything and anything. Encourage your child to count out loud the number of blocks she has, steps climbed, or crackers on her plate.
- Practice classifying by separating toys into sets, such as cars, blocks, or dolls. Ask questions related to size or quantity: Which is larger? Which is largest? Which is smaller? Which is smallest? Do you have more dolls or more bears? Are there fewer dolls or fewer bears?
- Find two and three-dimensional geometric shapes, such as circles and spheres.
- Let your child help set the table. Fold napkins as rectangles one day, then as triangles the next. Find the number of chairs needed to match the places set. Determine the number of knives, forks, and spoons needed.
- Let your child sort the laundry. Before washing, have your child sort the piles by colors or by family members.
- Practice counting and making change. Ask your child to help you

figure out how much money you have in your pocket. Let your child pick out the paper currency and change needed when making a purchase, and have your child tell you how much change you should get back.

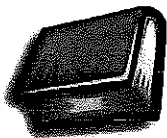
- Use sharing to reinforce division concepts and fraction skills. How many cookies will each child get if three children need to share nine cookies? What if one cookie is left over and three children want to share it? How can we cut the birthday cake so we can feed at least twenty people?
- Incorporate measuring during everyday activities, such as cooking, gardening, crafts, or home-improvement projects. Practice measuring things with a ruler, yardstick, tape measure, measuring cup, and scale.
- Use the kitchen to reinforce mathematics concepts and skills. Your child can practice sorting by helping put the groceries away and can practice measuring ingredients by helping cook meals. Older children can determine how to adjust the ingredients to halve or double the recipe. After meals, your child can practice spatial reasoning skills by determining the appropriate size of containers to use for leftovers.
- Numbers are all around us! Look for numbers in the environment (e.g., addresses, sports statistics, weather forecasts, license plates, prices), and talk about what they mean and how they are used.
- Keep charts or graphs to help your child organize information and keep track of data. A child who is saving his allowance to buy an item might create a chart or graph to show how much he can save

6 Mathematics is all around us. ”



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- over a certain amount of time. Ask such questions as, How much money do you have now? How much more do you need to save? How long will it take you to save the money?
- Have your child tell you the prices of items while grocery shopping. Older children can help you decide on items that are the better buy or estimate the total bill before paying.
- Set up a play store, or actually sell some products at a garage sale or lemonade stand. Make change, and calculate profit or loss.
- Practice estimation. Adults use estimation rather than find an exact answer as much as 80 percent of the time. Talk to your child about situations in which you use estimation. Ask your child to come up with an estimate, and discuss his strategy. Share your own estimate and strategy. Compare your estimates with the actual answer to determine whether your estimates were reasonable.

Middle and high school years

- Read schedules, such as the television guide and bus transportation schedules, for information.
- Discuss charts, tables, and graphs from the newspaper and magazines. Ask your child to explain what the data show. In a graph that



shows what children like to do before bedtime (watch television, play games on the computer, read, etc.), you might ask such questions as "More than half of children like to do what activity before bedtime?"

- Look at a map with your child to figure out how long a trip will take and what time you should leave in order to arrive on time. Calculate the gasoline mileage, and estimate the total cost of gasoline for long trips.
- Give your child a budget and the responsibility for purchasing clothing or other items. Encourage your child to compare prices and note the savings for items that are on sale. For example, how much would be saved by purchasing the shoes that are 30 percent off?

NCTM Publications

Beyond the Classroom: Linking Mathematics Learning with Parents, Communities, and Business and Industry. Teaching Children Mathematics
Focus Issue. February 1998.
80 pp., Stock #674

Elementary School Mathematics: What Parents Should Know about Problem Solving/Estimation
by Barbara J. Reys.
20 pp., 1999, Stock #701