

# Math with Your Fifth Grader

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As your child finishes elementary school and moves on to middle- and high-school math, you may find it more challenging to help with homework—for example, because you can't remember the math or because it is more difficult for you and your preteen to work together productively. Above all else, you can help your child be successful by communicating that you think math is useful, important, accessible, and interesting.

## Math in Family Life

By the end of fifth grade, children should be able to compute with larger numbers, make good estimates, add and subtract decimals and fractions, and interpret tables and graphs. The examples below might give you some ideas about how to practice these and other important skills with your fifth grader as you go about your daily life.

### At Home

- Cook with your child. Ask him or her to measure ingredients and help you halve or double a recipe. Ask him or her to think about conversions. (*This bottle holds 16.9 fluid ounces of oil and it's about half full. We'll need a cup of oil to make bread and a half-cup for our sauce. Do we have enough oil?*)
- Open a savings account with your child and help him or her think of ways to earn and save money.
- Sewing, building, and other household projects can involve lots of math. For example, ask your child to help calculate how many gallons of paint or yards of fabric are needed for your project.
- Talk about how you and other adults you know use math in your jobs, or talk about how math is involved in jobs your child is interested in.

### At the Store

- With small shopping trips, tell your child how much money you want to spend and then ask him or her to keep track of what you are buying to make sure you stay within budget.
- Ask your child to estimate or calculate the new price for sale items or the amount of money you will save.
- Ask your child to compare different brands. Which one is a better buy?
- Ask your child to figure prices based on cost per pound. (*This meat is \$3.99 per pound. If we get 3 pounds, how much will it cost?*)

### On the Go

- Ask your child to read the schedule to see when the next bus or train should come. Ask other questions about the schedule that involve figuring elapsed time. (*How frequently does this bus come? or Our bus is scheduled to come at 3:17 and to get downtown at 4:08. How long is that bus ride?*)
- Ask your child to calculate with gas prices. (*I only want to spend \$20 on gas today. It's \$3.87 per gallon. About how many gallons will we be able to get?*)

### Math Materials to Have at Home

Keep these items in your home and help your child use them.

- calculator
- ruler
- measuring tape
- clock with hands
- measuring cups
- measuring spoons
- protractor
- drawing compass

### Games That Use Math

Playing games together is a relaxed and effective way to improve students' basic skills. The following board games are appropriate for fifth graders.

- Mancala
- Monopoly
- chess
- Risk
- Senet
- Stratego
- Yahtzee
- Go

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## Helping with Homework

You show your child that math and school are important when you help with homework. You can also see what your child is learning and make sure that your child is mastering the skills you think are important. The following ideas can help make homework time enjoyable and productive for you and your child.

### Attitude

- Approach homework with an open, can-do attitude. Show that math is interesting and do-able.
- Express confidence in your child's and your own ability to do math. Even if you found math frustrating when you were in school, try to avoid saying things like, "Math is so hard." Instead, you could say, "Sometimes I get stuck when I'm doing math, but if I take a break and try again, I might get a new idea."
- Keep interactions about math relaxed and enjoyable. Don't drill your child on facts over dinner.
- Praise persistence and creativity in problem solving, as well as finding the right answer.

### Solving Difficult Problems

- Take time to listen before offering help. You'll need to know what is confusing to your child before you can be helpful, and it is important for your child to learn how to describe what is confusing and why.
- If you both get stumped on a problem, take a break and come back to it in a few minutes.
- If you and your child both get stuck, focus on writing a clear question or explanation of what is confusing. Have your child show it to the teacher to get more help. This helps your child take responsibility for his or her own learning and develop a good relationship with the teacher.
- Consider asking an older brother, sister, cousin, or friend to help with math homework. Even if you are comfortable with the math, your child may be more open to help from someone else.

### Helpful Problem Solving Strategies

- Have your child solve a similar problem with smaller, easier numbers first.
- Have your child use objects like beans, pieces of pasta, or coins to solve a problem.
- Act out the problem or draw a picture of the problem with your child.
- After your child has finished the problem, have him or her check the answer by working the problem backwards. (For example, if she subtracted to find the answer, she would add to check it.) It is important for students to check their own work to be sure their answers make sense and are correct.
- Talk about how you solve problems: your thinking processes and methods may be useful to your child.

### If Your Child Struggles

Talk to your child's teacher if he or she struggles with homework. The teacher can suggest or provide games or worksheets for use at home. Set specific goals with the teacher (e.g., master all the times-12 facts) and keep track of progress toward them so that practice at home is focused and productive.

### If Your Child Excels

Your child's teacher can recommend challenging and engaging games and activities. You might also want to subscribe to a kids' math magazine like *Math* or *Dynamath*. The Web sites below are also good sources of problems, challenges, and real-world math connections.

plus.maths.org                      nrich.maths.org/public/  
www.figurethis.org/challenges/challenge\_index.htm  
www.curiousmath.com

For more information about helping your fifth grader with math, including mathematical background and online practice games, go to [www.mathlearningcenter.org/resources/materials/parents5.asp](http://www.mathlearningcenter.org/resources/materials/parents5.asp).