Doing More Math<br>at Home

In helping your child learn, one goal is to assist them in figuring out as much as they can for themselves. Good questions and good listening will help make sense of mathematics, build self-confidence, and encourage mathematical thinking and communication. Here are some questions you can use to guide your child's thinking:

## Getting Started

- What do you need to find out?
-What do you need to know?
- What terms do you understand or not understand?
- Have you solved similar problems that would help? Let's look at your notebook.


## Working on the Problem

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- How can you organize the information?
- Do you see any patterns or relationships that will help solve this?
- Can you describe a strategy you can use to solve this?
- Can you make a drawing to explain your thinking?
- What would happen if...?


## Reflecting On a Solution

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- Has the question been answered?
- How do you know your solution is reasonable?
- How can you convince me your answer makes sense?
- What mathematical skills and ideas did you use to solve the problem?
- What did you try that did not work?


## Clarifying and Extending Thinking

- Help me understand this part. . .
- Can you explain it in a different way?
- Is there another possibility or strategy that would work?
- How is this connected to other ideas that you have learned?

Find a Study Place If possible, arrange for a quiet area. Have available materials such as graph paper, notebook paper, a ruler with both metric and standard units, a calculator (graphing for 7th-12th grade), and a dictionary.

Develop a System Help your child develop a system for writing down assignments and keeping track of progress. Check to make sure your child does so consistently.

Develop Note Taking Skills Help your child develop a system for taking meaningful notes. Frequently, note taking is taught during class, so it may just be a matter of seeing if your child is properly taking notes.

Organize Your Notebook Many children need assistance in organizing and maintaining a notebook. Routinely check to see if your child is correctly following the program's guidelines for keeping notebooks.

Foster Time Management Skills Encourage and expect your child to get work done on time, to stay caught up, to get help in a timely manner, and to correct errors in work. You may want to help your child go over incorrect or incomplete work and talk about how the work could be improved.

Master the Needed Skills It is generally expected that middle school students know whole number addition, subtraction, multiplication, and division. If your child is not proficient with these basic skills, help them master the needed skills.

Find Study Buddies Encourage your child to identify study buddies or another student they can call to work with on assignments, get clarification, or find out about makeup work.

Two important goals for all students are that they learn to value mathematics and become confident in their ability to do mathematics. Parents can help them develop a "can do" disposition toward math, by nurturing their curiosity and providing support and encouragement.

Point Out Real-World Mathematics Mathematics is everywhere, yet many children don't see it. Point out and reinforce mathematics skills at home. For example:

- Talk about how you use math at work or home.
- Involve your child in tasks that require computing, measuring, estimating, building, problem solving, and reasoning.
- Look for activities that require your child to use their mathematical skills such as building scale models, cooking, planning trips, and playing logic games.

Have Your Child Explain What They Learned Invite your child to explain what was learned in class. It gives them an opportunity to clarify their thinking, to practice new skills, and to communicate mathematically.

Look for Games Using games and activities is an another way of teaching and/or reinforcing mathematics skills and thinking.

Look for Articles Many articles have data that might interest your child (e.g., sports statistics, data on teenage smoking, facts about natural disasters). Share them and talk about what the numbers mean.

Share Strategies Have your child share their strategies for problem solving, mental computation, and estimation. Share your strategies with them.

Look for Software If your child has access to a computer, look for software that reinforces and teaches mathematical concepts.

