

Building A Home Mathematics Tool-Kit

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All parents know what a struggle homework time can be. Anything you can do to smooth and speed the process for your child to start and finish homework can save both of you time and even aggravation. I have my own homework story. My son, whom I truly love, used to take TONS of time just getting ready to do his homework. First, he would look all over the house for a pencil, then go searching all over again for a pencil sharpener, and then go on and on with numerous searches for items he needed BEFORE he could even begin his homework. All the while I would get frustrated just watching these time-consuming treasure hunts. My wife finally suggested that we put together a tool-kit with everything my son could possibly need! It worked for us, and it will probably work for you as well. Support your son or daughter at home by building a “mathematics tool-kit.” Everything you’ll need inside a mathematics tool-kit is readily available and can be purchased cheaply at discount or drug stores. The best way to build a mathematics tool-kit is to involve your child; take him/her to the store to help find and pick out the following tools.

- **A box.** A box about half the size of a shoebox will hold all the tool-kit items nicely. Any sort of box—from cardboard to plastic—will do. The largest item tends to be the ruler, so choose a box (or a ruler) that will fit. It’s best if the box has a lid that closes up tight.
- **Pencils.** Pencils are the tools of choice for doing mathematics. They automatically teach a child that if you make a mistake, you have the OTHER end to fix it. Mistakes are part of the learning process. And since one pencil never seems to be enough, get at least two!
- **A pencil-sharpener.** Of course, no matter how many pencils you have, you’re eventually going to need a pencil

sharpener. There is no need to get up (and lose time) if there is a small plastic pencil sharpener right in the box.

- **A large eraser.** The small eraser on the end of a pencil just doesn’t last very long in the hands of a child. Large pink erasers are cheap and can prevent that famous “hole-in-the-homework-paper.”
- **Small pad of paper.** Most people, including adults, like to scribble or “scratch” on paper when solving problems. This is helpful for figuring things out, drawing diagrams, and writing down calculations that don’t need to go on the homework paper (and you don’t have to erase).
- **Plastic or wooden ruler.** Make sure to get a ruler that’s marked in BOTH inches and centimeters. The most useful will be a 12-inch (30.6 cm) ruler with easily readable marks and numbers.
- **Scissors.** Scissors made for a child’s hand are probably the best choice. They usually have plastic handles and metal blades. Some have points and some do not.
- **A glue stick.** You’ll be surprised how often your child uses this for mathematics projects.
- **Counters.** These are useful, especially for younger children, who can count objects while they’re figuring out a problem. You don’t have to buy counters; they can be buttons, pennies, lima beans, or any other small objects.

And for older students, you might want to add the following mathematics tools:

A compass. This is a tool for drawing circles and is important for use in geometry and measurement. You want to find either a plastic or metal compass that holds the pencil firmly and does not easily change the radius of the circle WHILE drawing!

- **A protractor.** This is another geometry tool that is used to measure angles. You can find it in either plastic or metal.
- **A calculator.** A calculator is useful for doing • complex calculations and for checking that answers are correct. The best calculator for a tool-kit is a simple one that adds, subtracts, multiplies and divides—most students won't need much more. Save yourself money and trouble by buying a solar-powered calculator (no batteries needed).

Now, when it's time for mathematics homework, the first task will be to get out the tool-kit—and everything your child needs will be close at hand. Save yourself (and your child) a little more trouble with this simple rule: when homework is finished,

the last thing that's ALWAYS done is to put everything back into the tool-kit and put it away in the SAME place. That way your child will be able to find it the next night!

For parent and teacher leaders: If you like this idea and think it may help your parents and their children, I've included an overhead master that can be used as a transparency to use at parent meetings and events as you talk about the tools.

For more information on *Mathematics at Home*, go to the CMC web site at:

<http://www.cmc-math.org/family/main.html>



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Building a Math Tool-Kit

Begin with a cardboard or plastic box and add . . .

- ✓ A few sharpened pencils
- ✓ Small plastic pencil-sharpener
- ✓ One large pink eraser
- ✓ Small pad of scratch paper
- ✓ Plastic or wooden ruler
- ✓ Pair of child-size scissors
- ✓ Glue stick
- ✓ About 20 “counters”
- ✓ Compass for drawing circles
- ✓ Plastic or metal protractor
- ✓ Solar-powered pocket calculator

