

Helping Your Child Learn Math at Home

All children are natural problem solvers. Below are a few suggestions to help you work with your child at home.

Three Things to Consider

1. Let your child do the thinking and the talking.

One of the most important things you can do is *listen*. Your role as a listener is crucial to assisting your child's development. Invite your child to share his or her strategy for solving problems and be patient while they try to explain. As you know, trying to explain something that you are still learning can be difficult and uncomfortable. You can help your child to learn by being a patient listener and providing opportunities for them to try to explain multiple times in different ways.

2. Everyday items in your household can be math tools.

Regardless of the problem's context, many household items can help your child solve problems. Cheerios, pennies, rocks, dry beans, toys, and so much more can be used by your child to solve problems. Before your child starts working, gather a set of items to have within reach for your child to use while solving problems.

3. Focus more on the process and less on the answer.

Compliment your child's effort, sense making, and attempts to express their ideas in words and in writing. While we ultimately want children to arrive at a correct answer, the real learning and thinking happens while they are solving the problem. Celebrate the process.

Three Questions to Ask

1. "How did you get [your answer]?"

Avoid asking "what is your answer" and instead ask your child to explain his or her thinking. Children sometimes arrive at an incorrect answer, but when given the opportunity to explain their solution, they identify and correct their own mistakes.

2. "How did you know to do that?"

Children often think if you ask them a question about how they solve a problem, it indicates their answer is wrong. Asking, "How did you know to do that?" encourages children to share their reasoning and thinking. Get in the habit of asking questions often so your child knows that explaining themselves is just a part of doing math.

3. "Can you explain how you did that?"

Children memorize math facts, which is good, but we can learn about the depth of their understanding when we ask children to demonstrate on paper or with math tools what their thinking looks like in a concrete form. Answers like, "I am smart" or "I just knew that" do not show a depth of knowledge. However, when asked to demonstrate their thinking in concrete ways or through verbal explanations, you'll have a better understanding of their child's mathematics knowledge.

Three Things to Try (When Your Child Seems Stuck)

1. Focus on what your child *does* know and understand.

Does your child understand the problem? Instead of showing them how to solve, ask them to explain what they know about the problem. If it is a story problem, ask your child to picture the story in their mind or draw a picture of what is happening.

2. Invite your child to draw a picture of the problem or act it out with objects.

By creating a concrete representation, the problem can become less abstract and children are better able to access what the problem is asking and find possible solutions.

3. Don't be afraid to leave a problem.

Ask your child, "Would you like to continue with this problem, or would you like to come back to it later?" Giving your child the permission to choose whether to continue or not is empowering. Being a part of the decision-making process may empower your child and help them to grow as a person. Of course, if it is a mandatory homework assignment, it will need to be revisited in the allotted time (if the choice was to come back later), and the child will need to consider that too.