A Parent's Guide to Supporting Math Learning

This guide will help to foster a persevering attitude and provide discussion questions to support your child's reasoning abilities.

> TIP
>
> **Practice and Discussion** are required to understand mathematics.
> To get off on the right track, often you may only need to ask your child to read the problem out loud and then ask, "*What is the problem asking?*"

A Growth Attitude: "The Growth Mindset"

Research shows that one of the most important aspects to improving in math is the mindset of the student.

Math is inherently difficult and has abstract concepts to grapple with. When understanding doesn't come easily, many students (and parents!) begin to believe that "I'm just not a math person," and that "failure is bad" when this struggle is a natural part of learning something new and difficult. This mindset is counterproductive to learning because it encourages them to give up too early, before they've had a chance to wrestle with these ideas and attempt new ways to think about a math problem.

Instead try to build confidence with your child so that they believe they *can learn math* and that "failure is a normal and expected part of learning in all areas in life. Math is no different. We learn from our mistakes."

All students--with the right instruction and attitude--can 'get math'. Those that don't give up will get much further and build their confidence and motivation along the way.

If your child is struggling with a concept or question, consider the questions below *before* you work through the activity with them.

Questions to ask *before starting the question*

- Ask your child to read the problem out loud to you.
  Then ask, "What is the question asking you to do?"

- Ask them, "How do they think you should solve it?" or "What do they know about these problems?" or "Have you tried a similar problem before? What worked or what did not work?"

- Ask them "What do you think the answer might be? Why?"
  See if their explanation seems to make sense.

Questions to ask *while they are struggling*

- Ask them "Are there easier but similar problems that we could try first?"

- Ask them "Are there any resources we could look at that might help us understand what the problem is asking?" There may be class notes to read, a website to visit, or a friend they could call.

Questions to ask *during the problem*

- What do you think comes next? Why?
- Is this the only possible answer?
- Does this answer seem reasonable?
- Is there any way we could check our work and our answer?

Final Tip

Although there may be a "most efficient" way of getting an answer, often there is more than one way arrive at a correct answer. If your child is getting the right answer but doing so using a method that is different from the way you learned it, ask them to explain their thinking. You both might learn something!

Summary

For your child to be successful in mathematics, they need to develop the ability to reason mathematically. Using these discussion questions is a simple and effective way to help your child connect what they already know to what they are trying to learn. Equally important, using these types of questions will help your child develop their reasoning abilities, a skill that will help them in many other areas in life and learning.