

Tips for Teaching Math to Elementary Students

BY GARY SCARPELLO

Since most elementary school teachers do not hold a degree in mathematics, teaching math may be a daunting task for some. Following are a few techniques to help make teaching and learning math easier and less stressful.

First, know that math is a difficult subject to teach—even for math teachers. The subject matter itself is challenging. Second, unlike other curricula, math has a built-in fear factor known as “math anxiety,” which can start as early as fourth grade. Research shows that students and elementary school teachers alike have some level of math anxiety. At the root of this anxiety is a lack of confidence in one’s ability to do the math. Developing this confidence is an important part of teaching and learning math.

Skills Needed

To build your confidence, take the time to understand the underlying math concepts you will be teaching. Find a math teacher

in your school or in the middle or high school and go over the curriculum. Ask your mentor for techniques in delivering those concepts. To do well in math you must practice—a lot. Review all the problems your students will be working on so that you know how to do them. You will discover that there are a number of different ways to solve problems. Studying these various methods allows you to understand your students’ thinking and to find common student errors (they may be yours as well!).

Some students may be apprehensive about math and will not be receptive to your lessons. Teaching them will be difficult. But students will pick up what you project. If you feel confident, they will too. Instilling the confidence in your students that they can learn math is the first hurdle in successfully delivering math. The goal is to lower students’ apprehension and help them feel comfortable, confident, and capable. Help them realize that they have the ability to understand the concepts. Do this by showing students how they may

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already be using math in their everyday life. For example, they may have counted their Bob the Builder trucks and ordered them from most favorite to least favorite.

Teaching Tips

1. Use pre-assessment to identify students who lack the background necessary to understand the math lesson.

2. Review prior math concepts needed to do the current lesson.

3. Overlook nothing. Every step or concept—even the most insignificant—is important. What you take for granted may be a stumbling block for students.

4. Review often basic math concepts in the context of students' daily lives to provide greater understanding.

5. Honor students for bringing their questions to class. Use students' lack of understanding as a jumping off point to re-teach a skill to the entire class.

6. Listen to students' responses to your questions. Analyze their answers and try to understand their reference points. For example, you ask Tom to measure a length of string and to reduce his answer to its lowest terms. Tom's answer is $4/8$ " rather than $1/2$." Tom understood the concept and knew the correct length, but his answer was not presented in the correct form. Clearly explain to Tom that his logic was sound and his thinking on was target, but that his

answer was technically incorrect.

7. Walk students through every step of each problem or process while also checking for comprehension, thus eliminating any confusion.

8. Remind students that math is hard work and that learning math is a workout for the mind much as sports is a workout for the body.

9. To succeed in math, students need to practice, just as athletes must practice to master their sport.

10. When a student just can't solve a math problem, have him or her get up and walk away from it. While their attention is diverted, their mind is still working on the problem in the background, making connections, perhaps in creative ways. Often, when the student returns to the problem, the solution is right in front of them. If they still cannot solve the problem, they should ask for help.

The Value of Math

Students will ask, "Why do I have to learn this stuff? I'll never use it!" Students may not use every problem or equation they are taught, but the one thing they will receive from learning math is the ability to think. Math is difficult, but if students stick with it, they will eventually be able to comprehend the concept being taught and will begin to realize that they are far more capable than they once thought. ■

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