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## Chapter **1**

# Unleashing Your Inner Math Teacher

**P**eople buy books to help their kids with homework for many reasons. Some want to give their child an advantage, some are tired of the daily homework struggles, and many, who didn't even want to remember "old math," find "new math" unrecognizable. Whatever your reason for buying this book, relax! If you fall into this last category, then this book is your guide. In it, I sometimes tell you what to say, not just to teach your child "new math," but also to build their confidence along the way!

People often say they don't like math because they have never really understood it, but you don't need to be a math scholar to teach your child kindergarten through fifth-grade math. Perhaps Albert Einstein said it best:

*Do not worry too much about your difficulties in mathematics. I can assure you that mine are still greater.*

# I'm Not Sure I Remember "Old Math," and Now There Is "New Math"

If you are like most people, you use the calculator app on your phone to add, subtract, multiply, and divide, and it's been a while since you had to perform long division or reduce fractions. Don't worry. In this book, I walk you through each process so you can present and teach it to your child with confidence. You'll probably amaze your friends and family with your newfound expertise, and you may even surprise yourself!

If you were born before 2010, you learned to add numbers by carrying, subtract numbers by borrowing, and multiply numbers without the use of boxes. Here's an example of old-school multiplication:

$$\begin{array}{r} 2 \\ 37 \\ \times 23 \\ \hline 111 \\ 740 \\ \hline 851 \end{array}$$

You've likely used these techniques successfully throughout your adult life — that is, until your child asked you for help with their homework! Carrying and borrowing aren't how your child adds and subtracts. Instead, they use approaches that may seem more confusing than a foreign language. Here's the same multiplication problem solved with "new math" boxes:

$$\begin{array}{r} 37 \\ \times 23 \\ \hline \end{array}$$

|    |     |     |
|----|-----|-----|
|    | 30  | 7   |
| 20 | 600 | 140 |
| 3  | 90  | 21  |

$$\begin{array}{r} 1 \\ 600 \\ +140 \\ +90 \\ +21 \\ \hline 851 \end{array}$$

Take a deep breath! I like old-school math, and it has worked well for me. But, unlike an old dog, I am willing to learn new tricks, and I must admit that the “new math” techniques are easy, accurate, and fast! In this book, I present you with how to teach your child not only the old-school techniques, but also how to master the new math as well.



TIP

Traditions die slowly. That said, you need to be open to the new ways of learning — especially if you want to help your child master math. My goal with the techniques in this book is to make it enjoyable for your child to learn new math with you. The bond you will create with your child is possibly more important than establishing their math foundation for future success.

## Old Math, New Math, Common Core Math

Years ago, smart people in each state would get together and establish the state’s learning curriculum — the things teachers in that state would teach. The problem was that each state’s curriculum was different. What a first-grader learned in California might be different from what a first-grader learned in Alaska or Wyoming. Simultaneously, math scores within the United States were falling. In fact, as of 2015, math scores in the United States had fallen from first to thirty-fifth in the world!

In 2009, the National Governors Association and the Council of Chief State School Officers got together to create the Common Core State Standards Association. From that group, Common Core Math was born.

If you ask a roomful of educators to comment on Common Core, you will hear a wide range of opinions. Some love it! They want to see standards across grade levels and across the country. Others hate it. They want the government to leave curriculum decisions to the individual states. This book does not debate for either side. Instead, I simply present the math skills these groups identified as important for your child to know and for teachers to teach.

## It’s Not Too Late to Get Started

It’s great that you’ve picked this book. If your child is struggling with math or you are struggling to help them, this book can help solve the problem. If your goal is to help your child get ahead, you can help them master the skills for their current grade level and then move on.



TIP

If your child is struggling today, it's likely because they didn't master the skills in a previous grade level. That problem is easy to solve. This book starts with kindergarten math. You may want to start there regardless of your child's current grade level. Depending on your child's age and current skills, you may move through that content quickly. The successes your child will experience will give them greater confidence in their knowledge, and you may find that you're able to fill in a few key gaps.

In any case, if your child is having trouble at their current grade level, you can simply turn back a few pages to a previous grade level and lay a better foundation. Remember, you paid for the entire book. Use it!



REMEMBER

You may be worried that you are too busy to help your child with math or that you can't learn new math. Relax. You have the right book. Raising kids can be hard. The good news is that teaching math is not. You can do this!

## Your Return on Investment

Kids who do well in math tend to do well in school. Conversely, kids who struggle in math often struggle in school. Math is important. That's why schools teach math every day and in every grade.



REMEMBER

Students who do well in school tend to go to college, and college graduates tend to earn more than \$1 million more in their lifetimes than workers without a college degree. The time investment to work through this book is about 15 minutes per day. With the potential for an extra \$1 million at stake, that's a great return on the investment of your time!

## Establish Your Routine

A key to your success in teaching your child math is to establish a daily routine that works for both of you. You might, for example, practice flash cards before breakfast and work on other math problems before dinner.



TIP

By establishing a routine, you will find that you can make time and that your child has the expectation that you will be working together. Knowing that you care about their success is important to your child.

# Keep a Positive Attitude

Mathematical problems have a right and wrong answer, and your child will sometimes make math errors. The key is how you respond in such situations. Be positive about the problems your child gets right, and remain positive about what they can learn from the problems they get wrong. You will find that a positive attitude about math is contagious, and being positive will help your child succeed.



REMEMBER

Have fun! You are setting out on an adventure that will forever change your child's life.

