

## What others are saying about this book:

“I can honestly say that I have never seen such an effective method for teaching multiplication and division. I myself struggled with a learning disability while growing up and I found this method very easy to comprehend. If this had been available to me, my struggles would have been quickly resolved.”

~ Rachel R. Godfrey, parent



“Sticks and Steps® is a concrete, sequential method for teaching students of all ages how to multiply and divide. It is quick and **fun!** Math concepts can seem very abstract, but in just a short time, not only will Sticks and Steps® help students achieve a better understanding of mathematics, it will boost confidence and self esteem as well.” ~ Cheryl Woodwell, Elementary Educator, Gifted Certified



“What a wonderful resource for children who experience problems with multiplying and dividing. It is the easiest and most understandable method I’ve ever used.” ~ Donna Boss, grandmother to 14



“Multiplication was so much easier after learning Sticks and Steps.® I felt so important when my teacher asked me to teach it to others.” ~ Chase Lyttle, student



“Here is a valuable mathematical resource for any parent or teacher trying to instill an ‘I can do this!’ attitude in their child or student. Ms. Stearns is a teacher who has a knack for identifying methods that help students easily succeed. Her Sticks and Steps® method is easy to master and offers a win-win situation for all.” ~ Nancy Ellington, M.A. Ed., National Board Certified Teacher



“As a 15 year teacher working with struggling students, I am always in search of a method that will ‘click’ for children having difficulties with multiplication and division. The Sticks and Steps® strategy has enabled my students to conquer skills they once thought were beyond their reach! Sticks and Steps® is a valuable resource for all educators to carry with them in their bag of tricks.” ~ Theresa Leinbach, Early Intervention Specialist for Exceptional Children

# **Multiply and Divide with Sticks and Steps®**

**Teach this Easy Method in Just 5 Minutes**

**Maureen Stearns**

Exceptional Student Educator, B.A., M.S.



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Summary: Intended for anyone having difficulties learning how to multiply or divide, this clearly illustrated text shows how to teach multiplication and division using a special technique.

1. Multiplication--Study and teaching (Elementary) 2. Division--Study and teaching (Elementary) 3. Arithmetic--Study and teaching (Elementary) I. Title.

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A book holds a house of gold.  
~ Chinese Proverb

## **To Parents:**

*It's you against your kid...*

It's nine o'clock at night. You expect the evening struggle to begin — homework is not done. Your child says, “We’re learning about multiplication in class and *I ... don’t ... understand ... it!*”

Usually about now you both begin to scream or cry in frustration, but this time it's different. The new book you've picked up seems nothing short of spectacular.

If you have knowledge, let others light  
their candles at it.

~ Margaret Fuller (1810–1850)

## **To Teachers:**

The stakes are high. You know your students' mastery of multiplication can make or break your math assessment scores. You've over-drilled their multiplication tables. "*My students just can't seem to learn!*" you hear yourself saying. The next day a note says, "*Billy cried last night — he just doesn't understand multiplication.*" Now it's up to you to find a better way ... students and parents ... are counting on you ...

# **Congratulations!**

You have in your hands an innovative and simple way to teach multiplication and division. Sticks and Steps® is a multi-sensory method that is easy to learn, easy to teach, and easy to remember.

Even though there are many ways you can use Sticks and Steps, the basic method is the core of this book. Best of all, it takes only 5 minutes to teach. Because I wanted to keep information short and simple with respect to your time, I did not make this book thick with work pages that could seem like information overload.

The concepts here can be easily used with any multiplication or division workbook used today.

*Enjoy the book !*

*Maureen*

# **The Beginning of Sticks and Steps®**

My job as an exceptional student educator is to be on the lookout for better ways to help struggling students. Several years ago, I worked with a fifth grade student who could not memorize her multiplication facts, let alone understand the concept of multiplication. She would resort to drawing tallies on paper hoping to get the answer. It was an embarrassment to her, and it was not fail-proof. Often, she counted tallies incorrectly and ended up with too few or too many. Despite her best effort, she was frustrated — and so was I.

My search for a better way began. The goal was to decrease my student's tally counting errors. I also wanted my student to arrive at the answer quickly and not be hampered by her inability to memorize. With the method I developed, my student became very proficient with arriving at the answer quickly and easily. She ended the year with a smile on her face, knowing she mastered a special technique that her peers did not know. I called this method Sticks and Steps and I soon started to teach Sticks and Steps to my other students. I was amazed by how fast they caught on, and so the method was launched. Even my younger students now learn multiplication. If they can count, they can multiply — and get the RIGHT answer every time!

## **Why It Works**

Multiplication can be thought of as layer upon layer of the same amount, added together. In order to master multiplication, it's beneficial for struggling students to find a multiplication strategy that's logical, tactile, and visually understandable. This multi-sensory method does not rely on memorization but rather on the ability to touch and count.

As students gain confidence with multiplication concepts, they will naturally want to jump ahead by skipping step counts they already know. Eventually, they may not need to use this method at all. But whenever answers to multiplication facts slip their minds, they know they can pull Sticks and Steps 'out of their back pockets' to use at any time.

A good teacher is like a candle — it consumes  
itself to light the way for others.

~ Author Unknown

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**Easy to understand ... Simple to remember**

Learning is a treasure that will  
follow its owner everywhere.

~ Chinese Proverb

# Chapter One

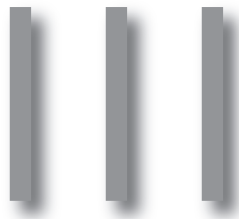
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## The Basic Method

**(No time for tears here!)**

Let's begin.

These vertical lines will be referred to as “sticks.”



These horizontal lines will be referred to as “steps.”  
(one below the other)



**The number of sticks and the number of steps will vary depending on your multiplication factors.**

**A.**

Let's find the answer to:

$$3 \times 4$$

Draw 3 sticks, then 4 steps.

3 sticks



The first number is a 3. This means you will draw 3 sticks.

The second number is a 4. This means you will draw 4 steps right next to the 3 sticks.



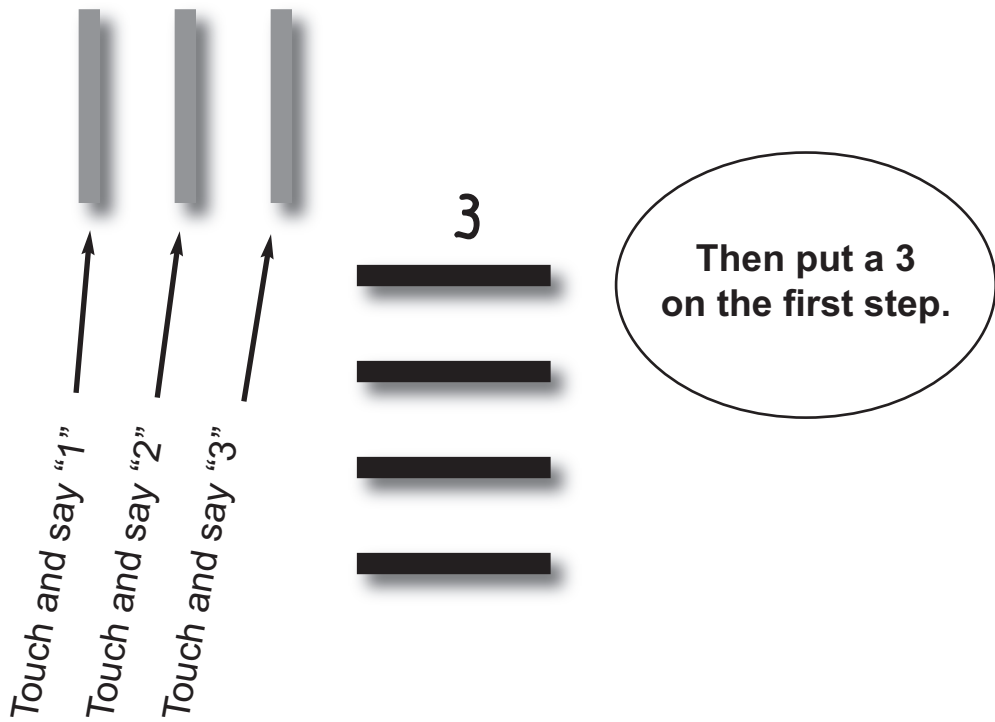
4 steps

## B.

### Solving $3 \times 4$

Using the tip of your pencil, touch and count each stick (start at the left).

Begin here:

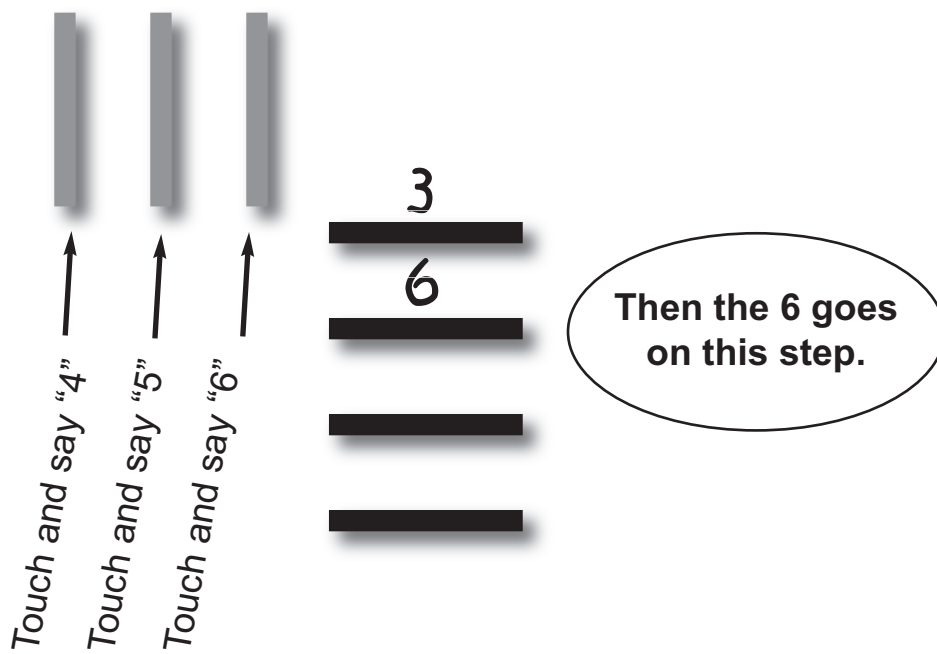


When you teach your son,  
you teach your son's son.  
~ The Talmud

**C.**

**Solving 3 x 4**

Say "3," then touch each stick and count again.



# D.

## Solving $3 \times 4$

Say "6," then again touch and count through the sticks.

Touch and say "7"

Touch and say "8"

Touch and say "9"

3

6

9

Then the 9 goes on this step.

# E.

## Solving 3 x 4

Say "9," then touch and count the sticks once more.

Touch and say "10"

Touch and say "11"

Touch and say "12"

3

6

9

12

Then 12 goes on this step, and this last step... always has your answer!

$$3 \times 4 = \boxed{12}$$

*If you can count, you can multiply and get the right answer every time!*