

Getting started with teaching your child math

TEACHING WITH



**Little Math**™



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## GREETINGS FROM THE FOUNDER OF BRILLKIDS!



Thank you for purchasing the Little Math Learning System.

The decision you have taken to invest in your child's learning is about to change your and your child's lives for the better.

Little Math is designed to give your child a solid foundation in elementary mathematics – and more importantly, a ready ease with this important discipline. Considering how math impacts us all in our daily lives, this ready ease is something sorely lacking in many of us.

### Download fun icon sets!

The most satisfying thing about producing Little Math has been the tremendous feedback we have received from parents. Children who previously would not pay attention to their math lessons have been riveted – in a large part thanks to the plethora of amusing shapes and icons available to all via the BrillKids Forum ([forum.brillkids.com](http://forum.brillkids.com)).

I urge you therefore to make the forum your first port of call. The pool of icons it contains is constantly growing, as parents continue to create personalized icons using images of their children's favorite animals, toys, and cartoon characters. If you decide to make your own icons, remember you can earn loyalty points by sharing them with the community.

Besides making it as fun as possible for young children to learn math, Little Math also makes it as easy as possible for parents to teach math. Thanks to the Little Math curriculum, no preparation is involved in giving lessons – simply sit down at the computer with your child, and press play.

It will not take much time out of your day to teach your child math. In fact, you may be surprised by the brevity of your child's lessons, initially. While early lessons are very short, the length of your child's lessons will grow as the curriculum builds, and math and review lessons are added.

## **Before you start**

We really believe that with Little Math, we have taken all of the hard work out of teaching for you. There are just a couple of things I would urge you to read, before you begin using your Little Math Learning System...

### **Understand the curriculum!**

Why are your Little Math lessons designed the way they are? Find out in Understanding the Little Math Curriculum (see [page 8](#)).

### **Check out the Start Guide!**

Got a question about Little Math? You can find FAQs, video tutorials and helpful tips, all in the program's Start Guide.

Of course, you may have more fundamental questions than this – such as “Why even teach a baby math?” This guide is designed to address all of those questions, or point you in the direction of the answers.

## Last but certainly not least...

The number one rule of teaching is to have fun doing it. Results should never be the focus of lessons. Instead, treat lessons primarily as a time for bonding, and enjoy the learning experience with your child.

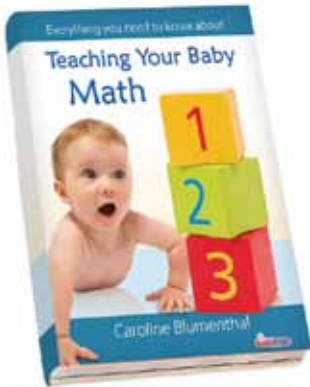
Do remember to share your teaching experiences with us at the BrillKids Forum – the place where you can meet other parents just like you.

A handwritten signature in black ink, consisting of stylized initials 'KL' followed by a long, sweeping horizontal line that extends to the right.

**KL Wong**

Founder, BrillKids Inc.

## NEW TO EARLY MATH? START HERE



If you're new to the topic of teaching babies math, you may want to arm yourself with knowledge on this important subject before beginning to teach your child. For that reason, we've enclosed a special Teaching Your Baby Math booklet, designed to provide all the information you need.

In case you don't have time to read the whole booklet, you may want to dip into the chapters that interest you most.

If you think babies are too young to learn mathematics, or wonder why anyone would teach a baby math, then *Why Teach Math Early?* is for you. Although teaching babies math is fun, that isn't the only reason for doing it. Children who have positive math experiences at a young age are more likely to enjoy mathematics as they get older and have to contend with the subject in school as well as out in the world. Turn to Chapter 2 to read a discussion of what early math lessons could mean for you and your child.

You may be wondering how you are going to teach math to a baby, with his limited powers of reasoning. Arguably, babies and very young children have a head start over the rest of us when it comes to math – due to their ability to understand quantity in a way not open to most older children and adults. For more on this fascinating topic, head to Chapter 3: Perceiving Quantity (Subitizing).

The original way of teaching math to babies and young children is to use flash cards. In the past, most parents teaching this way would follow either the Glenn Doman method, or the Makoto Shichida method. Read about what each of these programs entails, and their advantages and disadvantages, in Chapter 4: Flash Method.

These days, there is an easier way to teach mathematics to young children. When it comes to giving lessons from home, the computer is our best friend for a number of reasons. Some parents use slideshows, while others use computer-based learning systems such as Little Math. Find out more in Chapter 5: Computer-Based Learning.

The Teaching Your Baby Math booklet is about early math in general rather than the Little Math Learning System. If a detailed explanation of Little Math and/or the Little Math curriculum is what you are after, then keep reading!

If you have another question about teaching your child, be sure to visit us in the BrillKids Forum ([forum.brillkids.com](http://forum.brillkids.com)), where you can meet other parents who are teaching their children mathematics.

## 2

# GETTING STARTED WITH LITTLE MATH

Your Little Math Learning System comes with an inbuilt curriculum, making it as easy as can be to begin teaching your child immediately.

To get started with Little Math, please refer to the enclosed Quick Start Guide.

There is also a Start Guide accessible from within Little Math. To access it, simply click on the Start Guide button at the bottom left of the main panel...



For more detailed information about your learning system, please refer to the Little Math manual. You can access the manual from your CD-ROM or from within Little Math.



You can seek technical support through the forum:

[Forum.BrillKids.com](#) > [BrillKids Software](#) > [Little Math](#)

– [General Discussions](#)

If you have another question or concern, please email us through our website:

[www.BrillKids.com](#) > [Teach Baby Math](#) > [We're Here To Help](#)

> [Contact Us](#)

# 3

## UNDERSTANDING THE LITTLE MATH CURRICULUM



The BrillKids Little Math curriculum provides you with everything you need for one-click learning – just sit down with your child and press play!

Please read the following overview carefully. It is designed to help you maximize your child's learning and fun with the Little Math curriculum.

### What are lessons in quantity?

The concept of quantity lessons is a new one for many parents. These highly important lessons, which use icons to illustrate real quantities, form the foundation of the math lessons to follow.

The reason for teaching quantity is that quantities represent the true meaning of numbers. The normal way of teaching children numbers is to teach them to associate two types of symbol. Children learn, for example, that the sound “eighty-eight” means the same as the written numeral “88.” Both are symbols that stand for 88 of something. Children learn to associate the written and spoken symbols, but this does not teach them the true meaning of 88 (88 of something). Quantity lessons do.

## Right-brain learning

Very young children can appreciate quantity in a way most adults cannot. For example, what appears to the adult as a screen full of stars (or triangles, or butterflies) will appear to the child, precisely, as 88 stars (or triangles, or butterflies). This is how we can teach quantities right up to 100.

The reason very young children can do this is because it is a function of the right hemisphere of the brain, and the right brain develops and matures before the left. Dominancy shifts gradually from right to left hemisphere during early childhood, and children gradually lose the ability to perceive quantity. In general, it is advisable to begin quantity lessons before the age of two and a half. (For more on this, go to Chapter 3 of *Teaching Your Baby Math*.)

## Equations

Having taught quantities up to 100, we can move on to using these quantities to teach equations. By using real quantities in equations, we can make addition, subtraction, multiplication and division instantly comprehensible, even to very young children. Appearing as they really are – as quantities – the numbers engage the child’s logical thinking. This is very different to teaching equations with symbols (numerals) – an approach that risks engaging the child’s memory rather than his understanding.

## Numerals

Of course, children need to learn numerals, too. Numerals are introduced once the foundation in quantity, and equations that use quantity, has been established. A week after your child begins learning numerals, equations will begin using numerals as well as quantities. Now, when a symbol (numeral) is shown, your child will readily associate it with the reality – the quantity.

## Session frequency

We recommend that you give your child his math lessons twice per day. However, the curriculum is also suitable for use once per day, in case that is all a parent can manage. Session 2 is designed to reinforce Session 1, and is optional.

The curriculum is designed to be shown on weekdays, in case it is not convenient to teach on weekends. You can continue to teach on weekend days, should you wish. Weekends are also a good time to catch up on any lessons missed during the week.

## Review days

Every Friday – of fifth day of the course – is a Review Day. Lesson materials are randomized, drawing from any of the numbers previously learned, and any of the equations learned over the previous four days.

## Icon selection

Using personalized icons makes learning math extra fun for your child. Before beginning the curriculum, it is a good idea to customize your Number Library with icons from the BrillKids Forum ([forum.brillkids.com](http://forum.brillkids.com)) – simply select and download those that you think will most appeal to your child. You can also make your own personalized icons easily, by creating a new icon set and uploading the photo you want to use from your computer.

We suggest using random icon setting for Session 1, and your favorite (or random) icons for Session 2.

## Icon placement

Lessons involving quantity are shown with icons either in random formation or grid formation. The random placement setting is intended mainly for children under the age of two and a half, who have the ability to perceive quantity.

Grid placement setting is intended for children of all ages. Viewing icons on this setting, the older child will quickly learn to skip count (appraise quantities of items by viewing the items in blocks). This enables the older child to gain a good appreciation of quantity, too.

Since the ability to perceive quantity fades gradually, it is impossible to give the precise age at which a child will no longer benefit from seeing quantities on random placement setting. If your child is over two and half but under three, the chances are good that she will still be able to perceive quantity, particularly with the lower numbers – and it will certainly do no harm to try.

If your child is over three, you may wish to switch to grid placement setting for all your lessons. This is very easy to do – simply click Settings on the Display panel, and choose Grid under Icon Placement.

## What's in a session

Little Math sessions are divided into the following types of preset:

- Quantity lesson
- Math lesson
- Multiples lesson
- Numeral lesson
- Quantity review
- Math review
- Multiples lesson (review)

The Little Math curriculum is designed so that each new topic builds on a previous set of learning. From understanding quantity, your child will progress to seeing quantities used in equations, and from there, to learning the correspondences between quantities and numerals. Math lessons will progress from two-step equations that introduce the low numbers one by one, right up to mixed, five-step equations using numbers up to 100.

Your child does not need to complete one type of learning before moving on to the next. Rather, different types of lessons will overlap. Different types of lesson may work to reinforce knowledge by introducing the same topic simultaneously. For example, skip counting in two's is timed to coincide with the two times table (Day 106).

### Same number – different ways

In the beginning, sessions comprise quantity lessons involving low numbers. These simple lessons provide an opportunity to teach children that the type and size of the items in a set have no bearing on the quantity. In these early sessions, math lesson 3 is used to reinforce this concept (Days 1-29).

### **Magic number zero**

The number zero is fascinating to many young children. To introduce this concept, numbers are presented in backward sequence (Day 3 onwards).

### **Reviewing quantities**

It is particularly important for children to grasp the concept of quantity as it relates to the lower numbers. Quantities for numbers 0 to 30 are therefore reviewed (Day 31 onwards).

### **Time for math!**

Quantity lessons make up your child's sessions for the first month and a half. Thereafter, math lessons are introduced, beginning with addition (Day 46 onwards).

### **Skip counting**

This useful skill reinforces knowledge of multiplication tables, and helps older children to appraise quantities faster. Lessons appear two months into your child's sessions (Day 56 onwards).

### **Next operation!**

After seven weeks of addition, it's time for subtraction (Day 81 onwards).

### **Learning numerals**

Three months into the curriculum, and your child is ready to begin relating real quantities to the symbols we use to represent them. Children learn numerals extremely quickly, so much less time is spent on teaching numerals than quantities (Day 96 onwards).

### **Reviewing equations**

A week into numeral lessons, we review our early math lessons – but add a preset using numerals instead of quantities (Day 101 onwards).

### **Time to times**

Since subtraction is the opposite of addition, children require less time to grasp the second operation after having learned the first. With four and a half weeks of subtraction completed, we move on to multiplication (Day 103 onwards).

### **Reviewing skip counting**

Your child has by now learned numerals up to 20. We will now review skip counting (with a difference!). Skip counting in two's will be taught alongside the two times table, skip counting in three's alongside the three times table, and so on. Since your child has been learning numerals, an additional preset will use numerals instead of quantities (Day 106 onwards).

## FREQUENTLY ASKED QUESTIONS



Some of the most frequently asked questions on our site are:

- *How do I show the lessons to my child?*
- *What are the advantages of Little Math over other methods of teaching babies math?*

### How do I show the lessons to my child?

Here are some tips on making your child comfortable, and maximizing learning – and fun!

- Seat your child on your lap or next to you. Make sure the screen is at least 24 inches (60 centimeters) away and at your child's eye level.
- Prepare the learning environment by clearing away all potential distractions – TV, radio, or phone. If your child tends to grab at things, clear away the keyboard and use a wireless mouse (which since you only need to click, can be used like a TV remote control).
- Make sure that the learning area has sufficient lighting.
- Give the lesson when your child is in a receptive mood. Never attempt a lesson when your child is tired, sick, or disinterested.
- Be lively and have fun during lessons!



## What are the advantages of Little Math?

Like many parents, you may be interested to know what makes the Little Math Learning System special. Here are the main advantages of Little Math compared with three popular alternative tools for teaching babies math: flash cards, PowerPoint slideshows, and DVDs.

***Teach math using personalized icons of your baby's favorite cartoon character, toy – or her smiling face!*** No other program we know allows you to create your own icons for displaying quantities. Little Math makes it easy to upload any image you choose for your baby's lessons.

***Automatically show a different icon every time a lesson is played.*** A DVD is always the same. With PowerPoint, you would have to manually rotate media before each lesson. With Little Math, you can choose to have your icons shuffled automatically.

***Expand your icon and lesson library effortlessly.*** The BrillKids Forum contains unlimited lesson materials as well as fun icons created by BrillKids and other parents.

***Switch instantly between random icon placement and grid placement.*** Each type of display has its advantages. Little Math enables you to take advantage of both.

***Flash cards as rapidly as you can click your mouse – or sit back as quantities and equations flash by automatically.*** No more fumbling with cards – Little Math makes it as easy as can be to flash lesson materials.

***Switch between or shuffle word colors and fonts, and background colors.*** Manual changes are time consuming in PowerPoint; not so with Little Math.

## TESTIMONIALS – EXCERPTS

For the full text, visit the Testimonials page:

[www.BrillKids.com](http://www.BrillKids.com) > [Teach Baby Math](#) > [Parent Testimonials](#)



### **VIJA (Fruk)**

Latvia

LM is much, much better than showing just the red dots. Mothers often stop the red dots because they are not entertaining enough. LM has various types of icons, which my child likes. After watching numbers with bananas she asked to go to kitchen to eat a banana!



### **MARTINA (pupisek)**

Devoted mother and volunteer English teacher | Czech Republic

Little Math is an unbeatable tool for teaching babies and kids math – not only to perceive and identify quantities, but also learn to use numbers in equations. The preinstalled equations save me so much time. The support and shared experiences of all the BrillKids forum members are also priceless.



**(Hsmummy)**

West Sussex, England

My husband used it for the first time with our daughter and was full of praise – he couldn't believe that the icons were different each time he played it – and was also so excited by her reactions to watching the numbers.



**(shy001)**

The Netherlands

My son hated the dots: he did not want to look at my cards or play math games. Now he loves math – the transport icons are his favorite. I get frustrated after lessons because he always wants to see more!



**(greyballine)**

Virginia, U.S.A.

Very pleased. Had attempted some dot cards in the past – DD didn't care for them. I was worried that I started too late because she is over two, but after using Little Math, she says “Do math! Do math!”



### **TEO (nteoyp)**

Japan

My daughter is beginning to show more enthusiasm for math. I had been trying to teach her with PowerPoint flash cards. It took up a lot of my time preparing them. I also had a phobia: was the number of dots correct? Had I accidentally deleted a dot? With Little Math, things are much, much easier. I do not have to think of equations. All I have to do is adjust the presets. I can change the icons. I also love the sound sets.



### **LAURA (LongTailDrink)**

Proud mother of Marina | Canada

I believe LM is going to make the difference for my daughter between a life of mathematical regrets (mine), and a life of mathematical adventure!



### **(davinci)**

Jakarta, Indonesia

It's a great piece of software that is easy to use. It cuts down the material preparation time. My son loves it, especially the personalized icons using his photo. He wants "more, more" at the end of each session.



**(patience)**

California, U.S.A.

My experience has been great with Little Math. My son gets excited any time I say “It’s Math time,” and begins clapping his hands.



**(heath)**

Mother of 2 boys | California, U.S.A.

My two-and-a-half-year-old was not at all interested in seeing dots. I have been trying to teach him since he was 19 months old. He didn’t learn a thing. All he is interested in is trucks. So, Little Math was my dream in action. I was able to create different icons of trucks and he is very excited and has been learning very quickly.



**(kath)**

Trinidad

My son is 10 months old and he loves Little Math: as soon as I turn on my laptop he jumps around with excitement and awaits his lesson. His attention span is amazing throughout.

# Eager to teach with Little Math but don't know where to start?

We understand how overwhelming the process of starting to teach your child math can be – that's why we created this short introduction to teaching with Little Math.

The guide provides all the information you need, including such chapters as:

- **Getting Started With Little Math**
- **Understanding the Little Math Curriculum**
- **Frequently Asked Questions**

Get started with Little Math today, and discover how teaching math can be as easy as 1, 2, 3!