

# Keys to Success in Math

## The Power of a Safe Environment

Create an environment where it is ok to make mistakes. An environment where everyone is given the opportunity to realize his mistake and try again. The activities in *Incite Wonder* are designed to be self-correcting. Given time, and a gentle question if needed, your child will be able to discover the answer by himself. With great joy he will have mastered a challenge within his reach (inspired by a quote from Maria Montessori).

## The Power of Understanding that Math is a Way of Thinking

Math is not computational skills. It is a way of thinking; it is the process of recognizing patterns, analyzing information and manipulating numerical data to come up with solutions that can be proven by mathematical reasoning.

## The Power of Recognizing Patterns

“The key element in learning mathematics is logical thinking, which, in turn, involves the ability to recognize patterns.” (Mary and Bob Baratta-Lorton, Co-founders of the Center for Innovation in Education).

## The Power of Fostering Strong Number Sense

If your child does not develop Number Sense, he/she will always struggle with math. (Dr. Kevin Delvin, Stanford University Mathematics Professor).

As math educator Marilyn Burns observed in her 2007 book *About Teaching Mathematics*, “Students come to understand that numbers are meaningful, and outcomes are sensible and expected.”

**One-to-one correspondence (1-1 correspondence)** is a foundational “number sense” concept; one object is represented by one number. For example, there are five members in your family. There are five cookies on the plate. As your preschooler gives one cookie to each family member, she experiences 1-1 correspondence. This critical concept can take a preschooler up to a year to internalize. Because it is so critical, it should not be rushed. Therefore, *Incite Wonder* gives you a multitude of materials and ideas on how to facilitate 1-1 experiences both during structured educational play time and through-out the day as you go about your busy lives. In your “Everything in One Place Math Discovery Kit” you will find several items that you can use to help your preschooler discover 1-1 correspondence.

## The Power of Concrete Experiences

“ Computational skills are more easily learned when drawn from concrete experience”. (Baratta-Lorton). Mathematical Notation (4 or ////) should “record” concrete operations AFTER your child has had many opportunities to touch four items.