

## Counting and Young Children

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Counting seems so simple; as adults, we hardly give it any thought. However counting is the most basic and essential mathematics process and the foundation for many sophisticated mathematics concepts and procedures. The desire to “count” things is natural in children’s exploration of their world, but it also presents a wonderful opportunity for parents to help their young children learn, practice, and master this important idea. Children with a firm grasp of the many aspects of counting definitely have an advantage when they begin to study mathematics in school—and parents and teachers can help!

### Counting Fingers

Parents can try counting with children as young as one; children this young often want to count without encouragement. Parents will know right away if their children are not ready for counting; the children simply will not be interested. If a young child is not interested in counting, parents should not worry but wait a month and then try again. When children do show interest, the first things to count are those that come into their vision naturally and frequently—their fingers. All humans, from the moment they are born, have an interest in their body. This fact makes children’s fingers natural objects to count, and great “objects” with which to begin counting. This is also why children who struggle with computation later in life often return to counting on their fingers—they are handy.

The first counting parents do with their children should be like playing a game. They should forget about “teaching” a child to count and, instead, enjoy this early counting. They should have the child hold up one hand, with fingers spread. As they slowly count “one, two, three, . . .” they fold down one finger on the child’s hand one by one, until they count to five and all five fingers are folded down.

They will know they are making progress

when they count a number, touch a finger, and the child folds that finger down on his/her own. They will see more progress when the child folds a finger as they count, without the parents touching their fingers at all.

Eventually—days or months—the child will also want to say the numbers as the parents count out loud, “one, two, three, . . .” At first the child can simply repeat after the parent, but at some point, as the parent touches each of the child’s fingers, the child may be able to say each number without help. Parents should not push; the child may or may not start saying the numbers. If the child does not start saying the numbers, parents should not worry; children develop at their own pace and they will count when they are ready.

Remember, by making counting fun, adults are sending a simple but important message to children that mathematics is fun! When a child loses interest in counting, it is time to stop playing the game; if we pressure children, they may stop playing the game all together!

Of course, the natural extension of this early counting game is to move to counting all ten fingers. Parents can wait until their child is saying the numbers one through five; however if they are not, parents can still move on to counting all ten fingers. Humans are indeed fortunate to have ten fingers, since ten is the basis of our number system and tied very closely to computation in mathematics, from addition and subtraction to multiplication and division. While parents are counting fingers, the child is hearing these ten numbers over and over, numbers they will use throughout their life. A parent can be the first to share these ten very important numbers and the concept of counting with his/her child.

### Counting One Number for One Object

When children learn to count one number for one finger, they are learning a concept called One-to-One Correspondence. This means that, for counting to be useful, you must only count

ONE number for ONE object. It is important to count “one” for the first object, “two” for the second object, “three” for the third object, and so on, so that when you get to the fifth object, you are saying “five,” and not some other number. This seems natural to adults, but most young counters struggle with One-to-One Correspondence at first. In the beginning, counting sounds like a song to a young child, the same way saying the alphabet becomes a song. There is nothing wrong with a child saying the alphabet quickly, but with numbers you have to count one number for one object; otherwise the number you end up with does not match the number of objects, and that makes counting meaningless.

## Counting Other Things

Counting fingers is a good start, but to teach children more about counting, they need to count a lot of other objects. Separate objects that children can manipulate, sometimes called manipulatives, are the next step. Favorite early manipulatives are small cookies, animal crackers, or fish crackers—mathematics you can eat!

To begin, take five small cookies of the same kind and put them in a line with a bit of space between each. Before beginning to count the cookies with children, first help them form a “pointer,” a fist with one finger pointing out. This is their “counting finger.” Holding the child’s hand gently, counting finger outstretched, touch the first cookie in the row and count out-loud together, “one.” With the finger still touching the cookie, move it away from the line of cookies so that cookie does not get counted a second time, a mistake young counters often make. Now count “two” while the counting finger moves to touch and move the second cookie. Continue until you have counted the last cookie, “five,” and moved it into the pile of already-counted cookies. You have counted the cookies—and now the fun part—eat the cookies!

## Count Many Objects

Of course you do not have to stop at five. Count as many objects as you can if the child is interested and able. There is no rule for how high a child should be able to count at any given age. If a child can count ten objects

correctly, great; if he or she can count 30, even better. Do not push children too hard; when it is not fun, it is time to stop. Counting with a parent can help a child prepare for pre-school and kindergarten, and should be enjoyable for both parent and child.

## What to Count?

Count everything! Anything can be counted! Parents can make a game of finding all sorts of things to count. Counting a range of different objects is important because numbers by themselves are abstract and mean little until we apply them to particular sets of objects. When counting spoons, it is “five spoons,” which is quite different from five elephants. Count things that are the same; do not mix different objects— five apples plus four oranges is neither nine apples nor nine oranges. Here are some suggestions of what to count with young children:

- Count stairs as you go up or down
- Count the glasses of milk in a milk carton (you can always pour it back)
- Count how many times you can hop on one foot
- Count eggs in the carton
- Count commercials on TV using tally marks
- Count shoes, then count pairs of shoes
- Count spoons, knives, and forks
- Count the petals on different flowers
- Count blue cars on the freeway



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