

# Understanding Early Years number development



## Counting

When first learning to count, a child counts by rote memorization. This means he will likely be able to say the names of the numbers from 1 through 10 simply because he has memorized the order of the words, “one, two three ... ten.” However, he likely does not yet understand that 5 is 2 more than 3, for example.

## One-To-One Correspondence

When counting, the concept of “one-to-one correspondence” is the understanding that each object being counted represents “one more.”



**One-to-one correspondence** is an early learning math skill that involves the act of **counting each** object in a set once, and only once with **one** touch per object.

## Counting On

“Counting on” allows a child to continue counting objects added to a previously counted group without recounting the entire group. For example, give your child two apples and ask him to count them. Then, give your child three more apples. Counting on would involve your child applying one-to-one correspondence to the additional three apples by counting “three, four, five” instead of restarting at one and recounting all five apples.



## Cardinal and Ordinal Numbers

In mathematics, numbers are classified into two categories: **Cardinal** and **Ordinal** Numbers. It is important for early years practitioners to understand the differences between these two concepts.

### Cardinal Numbers:

These are numbers that represent quantity. When we say, there are five apples in the basket, the number 5 represents the quantity of apples in the basket. If we ask the child to count the number of balls that he has, we are asking the child to represent the quantity of balls that he has, using a number.



### Ordinal Numbers:

Ordinal Numbers represent position. They do not represent Quantity. In an elevator, when we press 3 to get to Elephants, the number 3 represents the position of the desired. When a child tells you that he is first in the line for the garden, she again is telling you about her position in the queue with reference to other children, using the number 1.





<u>CARDINAL NUMBERS</u>	<u>ORDINAL NUMBERS</u>
One	First
Two	Second
Three	Third
Four	Fourth
Five	Fifth
Six	Sixth
Seven	Seventh
Eight	Eighth
Nine	Ninth
Ten	Tenth
Eleven	Eleventh
Twelve	Twelvth
Thirteen	Thirteenth
Fourteen	Fourteenth
Fifteen	Fifteenth
Sixteen	Sixteenth
Seventeen	Seventeenth
Eighteen	Eighteenth
Nineteen	Nineteenth
Twenty	Twentieth



## 2 Top tips

Incorporate lots of spontaneous opportunities during the day to include practicing counting, and using numbers. For example at the art table, ask; "Cut out five circles," or in the garden or at activity time; "Pick three friends," or "Ask one question". Let the children hear you counting aloud often, and also counting on "I have 5 plates already, thank you Sivan for bringing me 3 more, now I have 6, 7, 8 plates, ahhhh enough for the table."

Number rhymes and songs as part of every day routines and at ad-hoc moments, and incorporating props to practice one to **one correspondence** are a great way of supporting early mathematical development in the gan. Inside and in the garden!