

# THE LINE OF 20

*The alternative to coloured rods  
which has revolutionised maths teaching in primary school.*

## WHAT IS IT?

The Line of 20 is a small tool capable of developing the mechanics of calculation by following the same procedure we use with our hands.



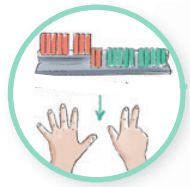
It's like using a tablet: if you give one to children, they would start playing with it using the images



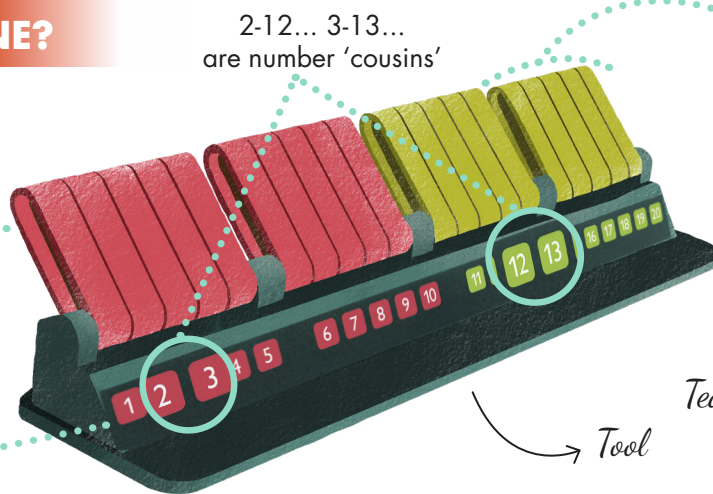
Camillo Bortolato  
**The Line of 20**  
The analogical method for  
learning calculation  
Book+tool

## HOW IS IT DONE?

The 5 pegs remind us of our fingers



Removable number line from 1 to 20



2-12... 3-13...  
are number 'cousins'

The fives are separated because the amount is perceived, through the grouping of the pegs.

Teacher's guide



## HOW DOES IT WORK?

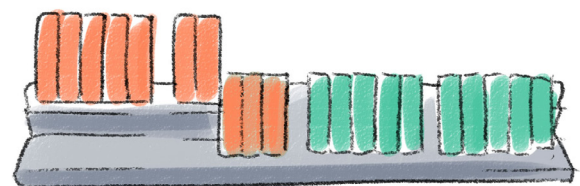
**7+8 using the Line of 20:** the dialogue between the tool and the mind



The mind dictates the idea of the number 7 and composes it on the tool



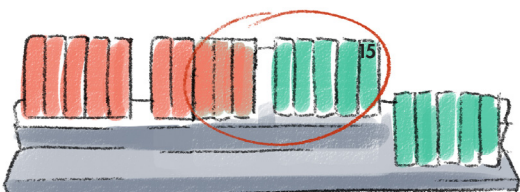
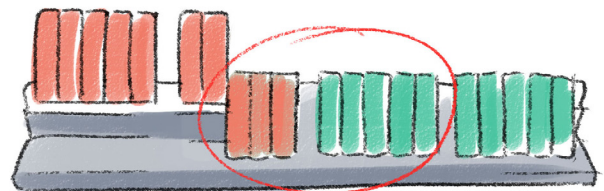
The eyes no longer see the number 7 but  $5 \text{ pegs} + 2$



The mind dictates the idea of the number 8 and composes it on the tool



The eyes no longer see the number 8 but  $5 \text{ pegs} + 3$



The result 15 is read on the tool as the sum of  $10+5$ , without any counting having been performed



**This is the  
analogical  
method!**

# The Analogical Method

*It was conceived by teacher Camillo Bortolato and it is used in thousands of primary schools because of its immediacy and effectiveness*



**Camillo Bortolato**

He has been teaching in primary school for forty years



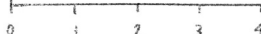
It is an extremely simple, intuitive and scientific-based method for learning maths.

It applies at-a-glance perception, which is the main condition of our way of living, to learning.



In Italy, more than **500,000 pupils** have successfully adopted the Analogical Method.

## WHAT HAPPENS IN MENTAL CALCULATION WHEN USING THE ANALOGICAL METHOD



Digits don't matter

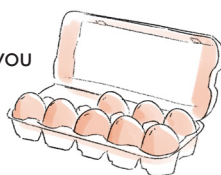


Dots don't matter



It's the space in which we arrange the dots that matters.

**For instance,** just a glance at this egg carton will tell you how many eggs there are and how many are missing



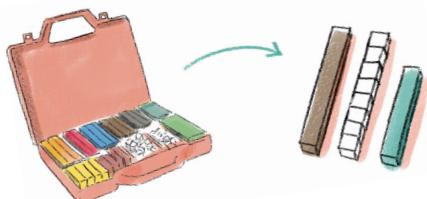
## COLOURED RODS AND LINE OF 20: WHAT'S THE DIFFERENCE?

If you open a box of coloured rods and look for the number 8, it is difficult to find it if you don't know what colour it is if you don't line up the 1 as many times as necessary to count 8.

**Why?**

**Because you only have the cardinal dimension!**

You immediately miss the ordinal number size, which is the position of a number in relation to other numbers.



**With The Line of 20**

Pupils recognize the tool as a representation of their hands.

**The analogy is immediate!**

