

# Early Maths





# Number

## **Expected**

Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.

## **Exceeding**

Children estimate a number of objects and check quantities by counting up to 20. They solve practical problems that involve combining groups of 2, 5 or 10, or sharing into equal groups.



# Shape, Space & Measure

## **Expected**

Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns, They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

## **Exceeding**

Children estimate, measure, weigh and compare and order objects and talk about properties, position and time.



# I will learn maths but first I need to...

## Count

Understanding numbers will help me in all areas of maths



## Sort & Match

Understanding same and different will help me to classify



## Explore

Exploring will help me understand spatial terms like: in front, behind, above, below, left and right



## Measure

Measuring will help me understand the concepts of height, length, weight, time and money



## Pattern

Making and recognising patterns will help me make maths predictions



## Recognise shapes

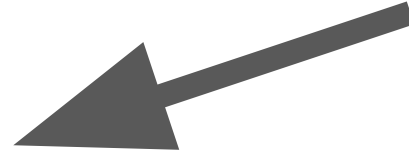
Recognising 2D and 3D shapes will help me in all areas with geometry



# Counting Principles

1

The **one-one principle**. This involves children assigning one number name to each object that is being counted. Children need to ensure that they count each object only once ensuring they have counted every object.



2

The stable-order principle. Children understand when counting, the numbers have to be said in a certain order.

1

3

2

5

4

1

2

3

4

5

3

The **cardinal principle**. Children understand that the number name assigned to the final object in a group is the total number of objects in that group.

In order to grasp this principle, children need to understand the one-one and stable-order principle. From a larger group, children select a given number and count them out. When asked 'how many?', children should be able to recall the final number they said. Children who have not grasped this principle will recount the whole group again.



How



Many?



4

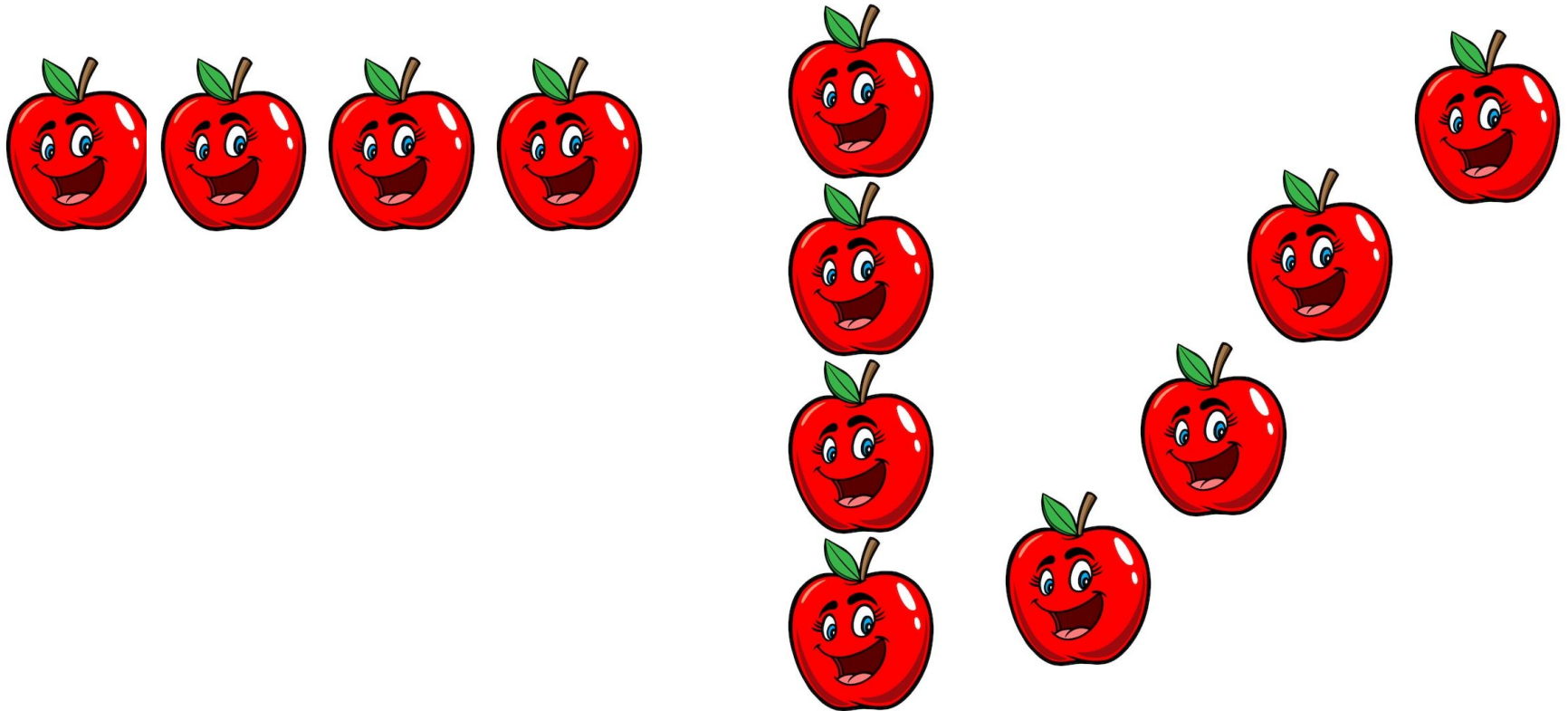
The **abstraction principle**. This involves children understanding that anything can be counted including things that cannot be touched including sounds and movements e.g. jumps.





5

The order-irrelevance principle. This involves children understanding that the order we count a group of objects is irrelevant. There will still be the same number.



1. We ALL start the journey TOGETHER

2. Some children will need a little additional support along the way

3. Some children, who feel confident, will be let loose. They'll be able to explore deeper into the woods, before returning to the group to continue on with the journey.

5. Children will not be left behind alone and isolated.

4. Children will not be racing off ahead on a different journey.

An illustration of a family walking through a field. A woman in a pink jacket and white apron walks on the left. A young girl in a blue dress walks next to her. A man in a dark blue jacket carries a young boy in a pink shirt on his shoulders. A young boy in a red shirt and yellow shorts walks on the right, holding a stick. The background shows green trees and a blue sky with clouds.

We're Going on a Maths Hunt

# Number Sense - 'The fiveness of five'!

Mr Hick - I am five.

1,2,3,4,5





Build a tower of 5 cubes

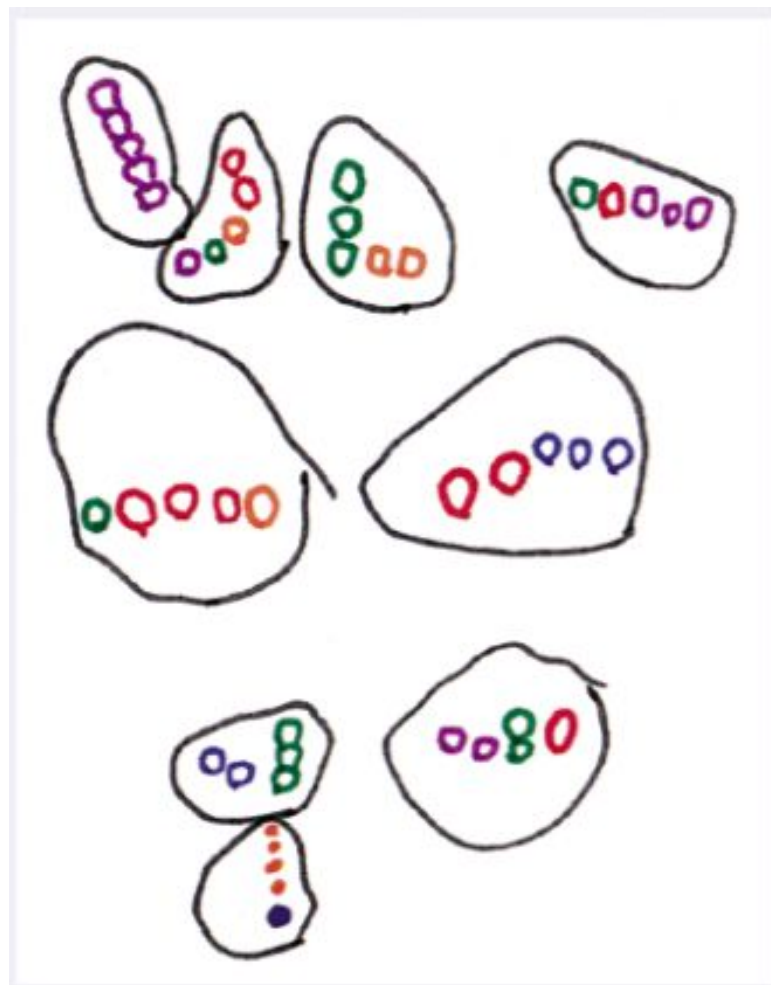
Can you show it in another way?

In another way?

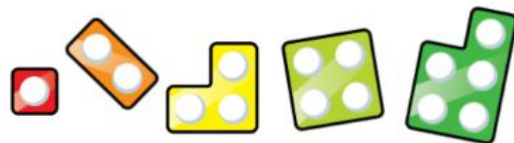
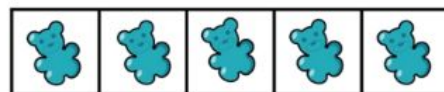
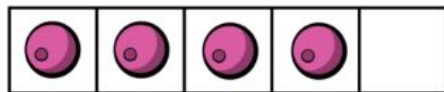
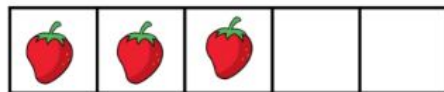
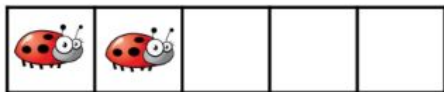
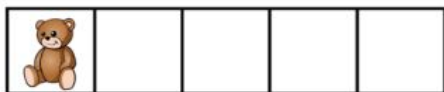
Can you find a way no one else has?

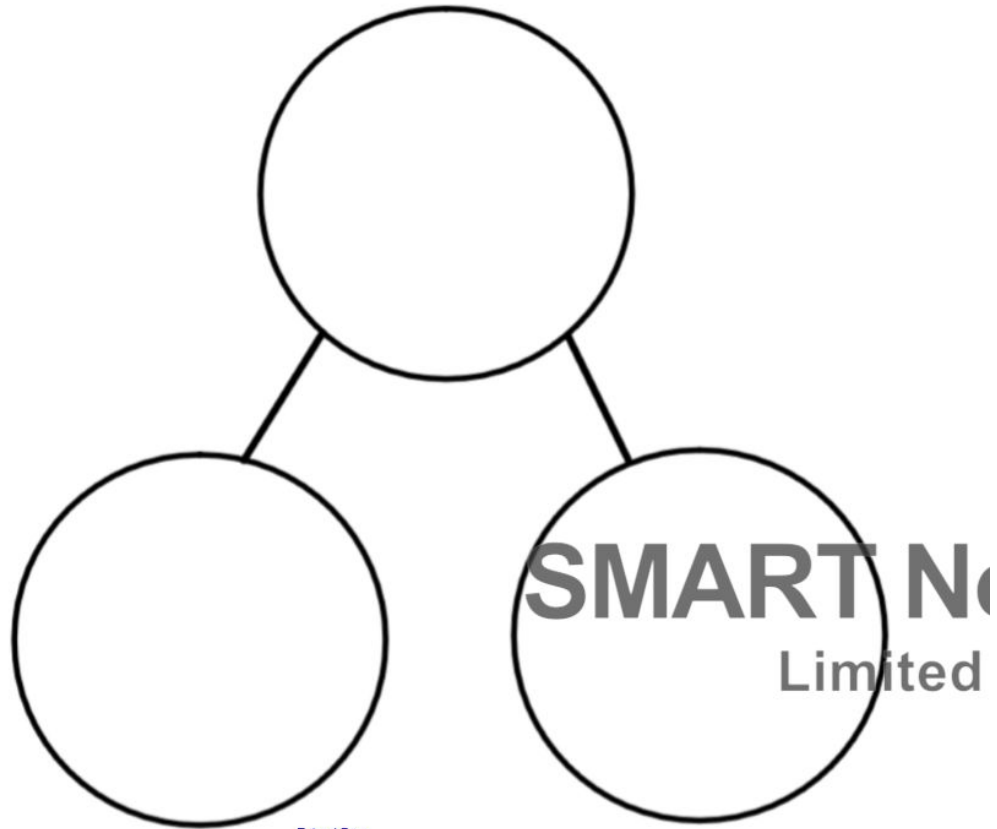
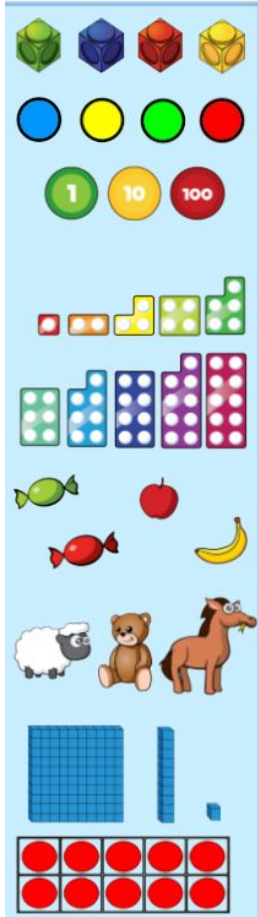
How can you check it is still five?

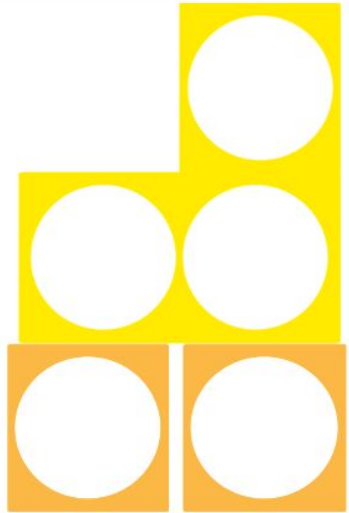
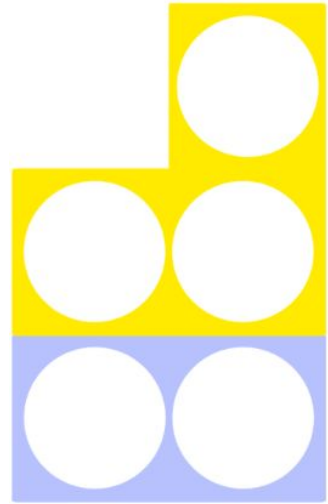
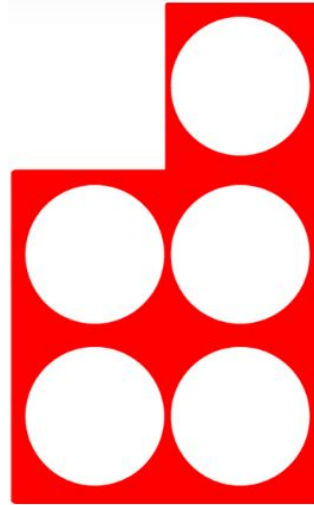
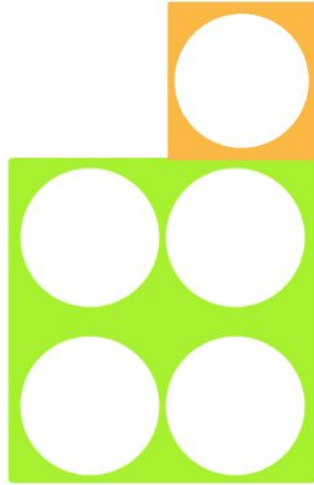
What if I give you another cube?



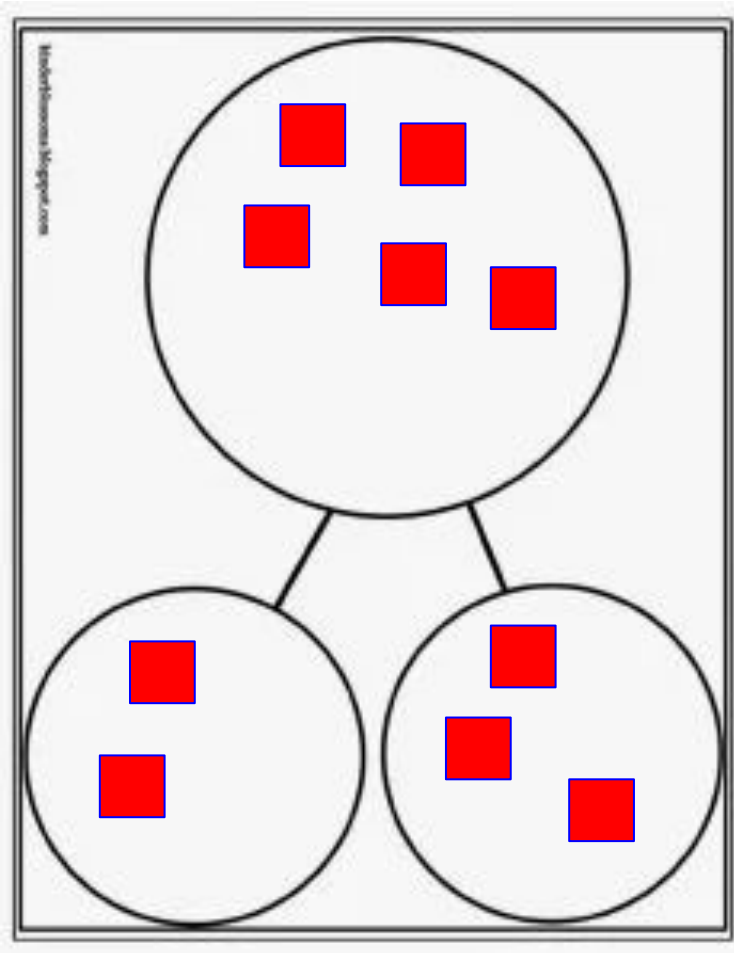
# Key Representations











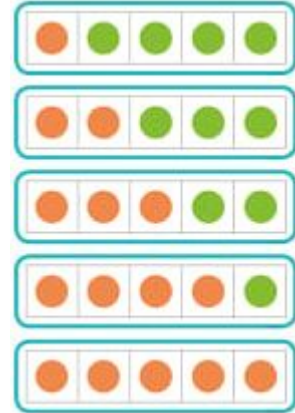
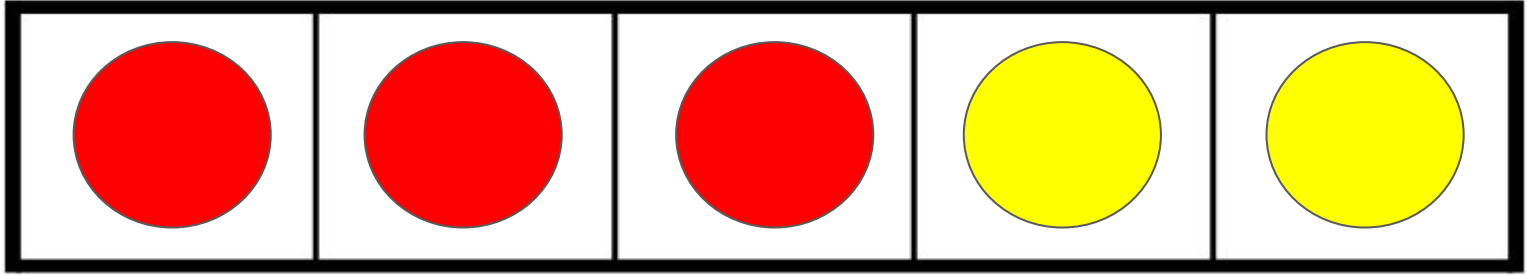
## Part-Part-Whole

$$2 + 3 = 5$$

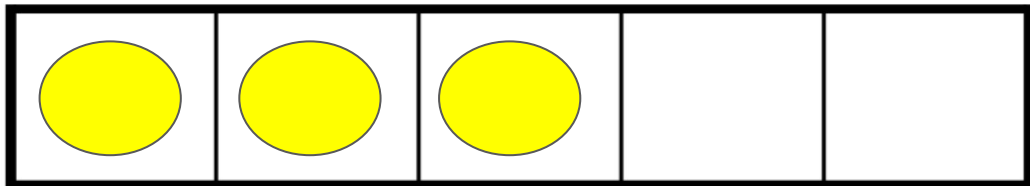
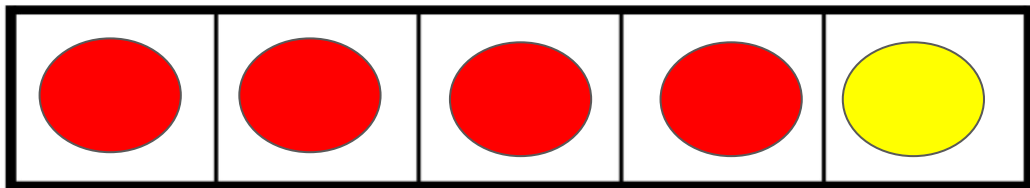
$$3 + 2 = 5$$

$$5 = 2 + 3$$

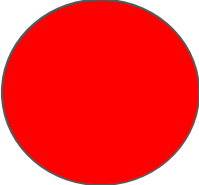
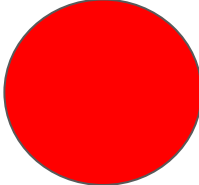
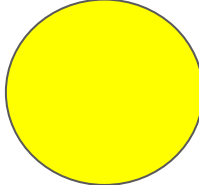
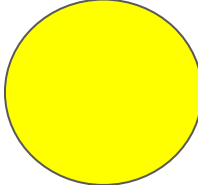
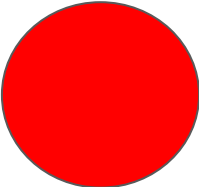
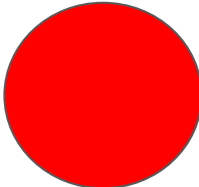
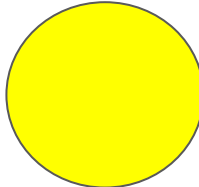
$$5 = 3 + 2$$

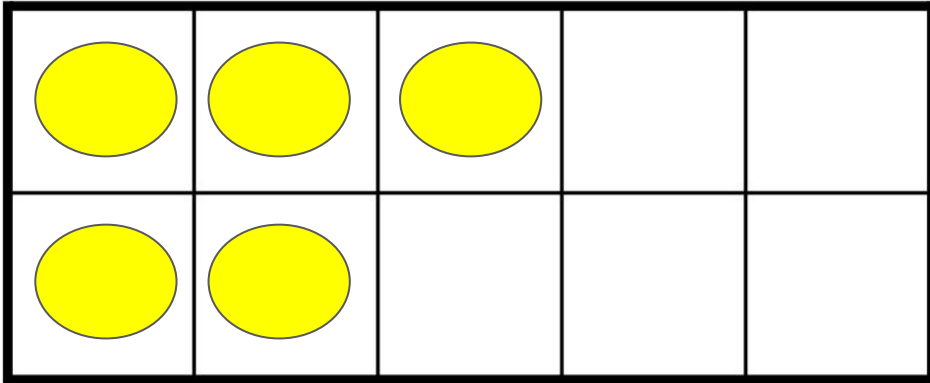
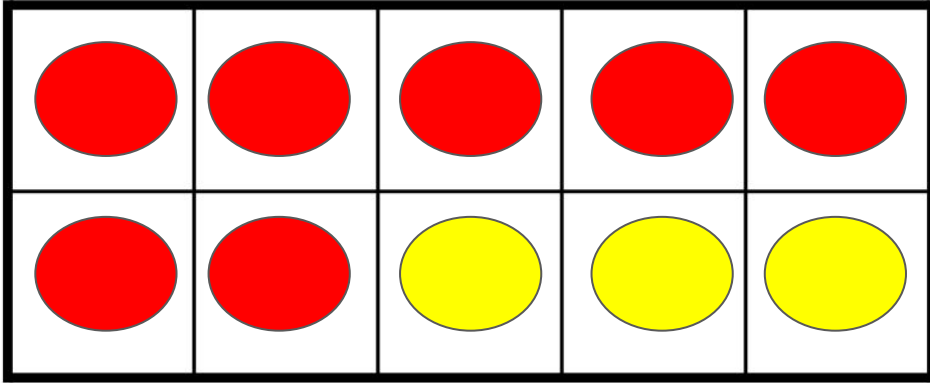


[Link](#)



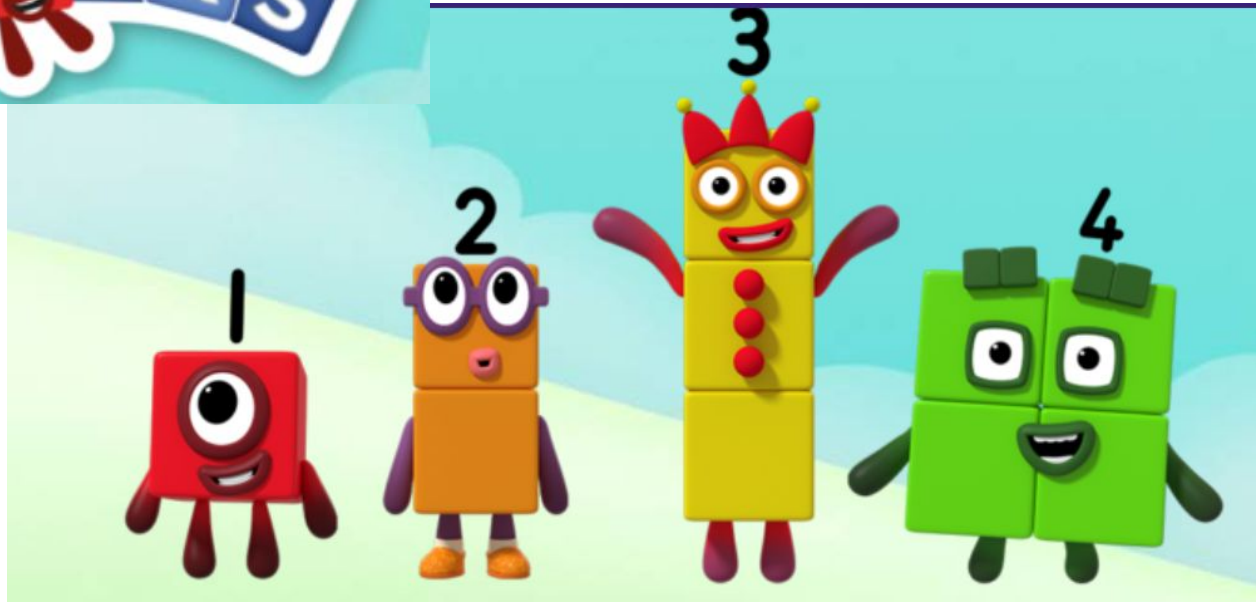
$$4 + 3 = 7$$



$$7 + 5 = 12$$

# Number BLOCKS



# BUNNY EARS!

[Ideas for at home](#)





**Jigsaw play:** understanding relationships, visualisation, language



**Construction, rotation, using barriers:** visualisation, spatial representations, language

## KEY EXPERIENCES

<https://earlymath.erikson.edu>



**Combining and positioning shapes:** Understanding relationships, visualisation



**Mapping:** instructions, remembering & creating routes, spatial representations, visualisation, language



**Memory games:** Spatial memory, visualisation, language



# BARRIER GAMES

Make it the same



