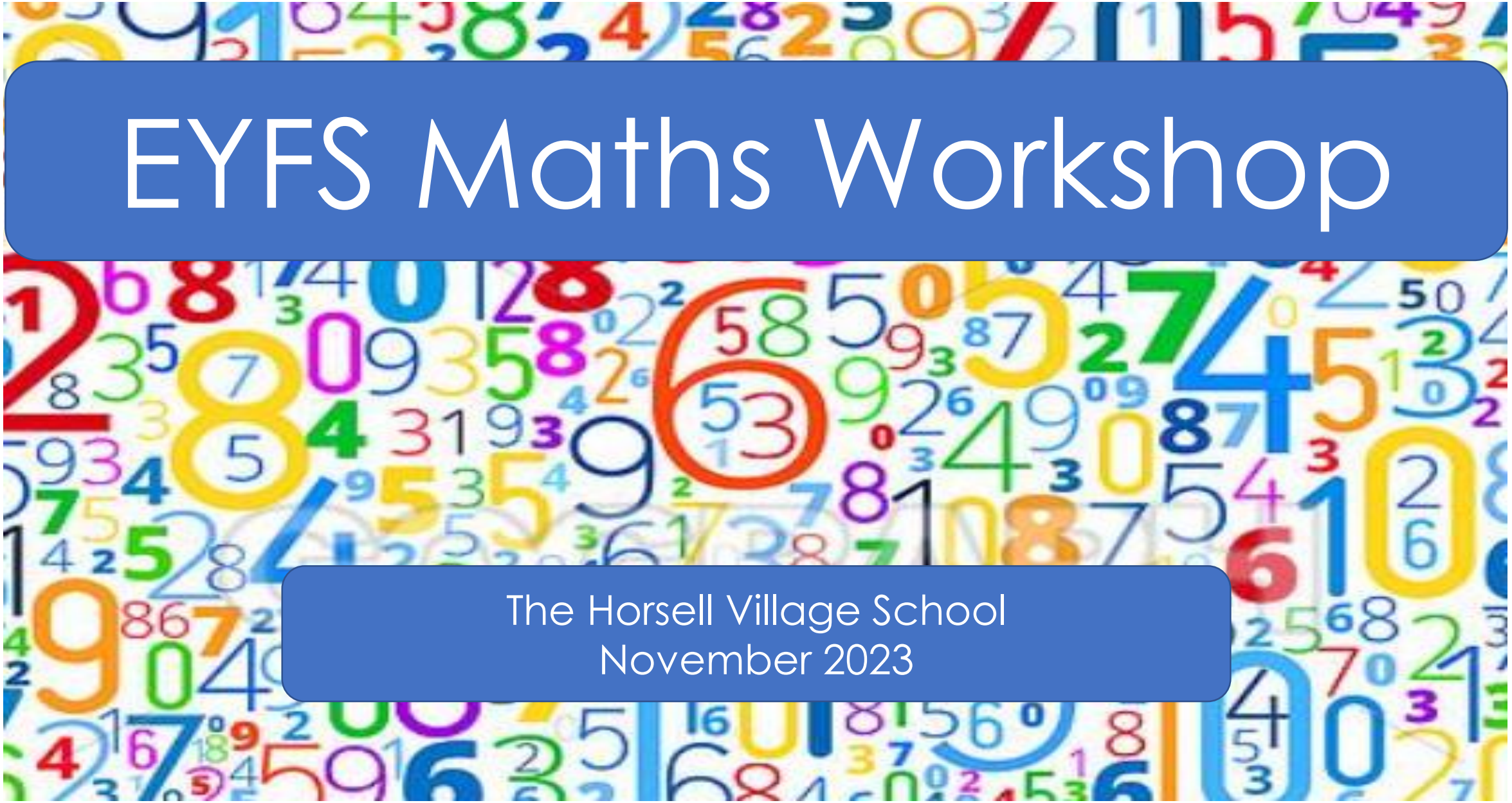
EYFS Maths Workshop



The Horsell Village School
November 2023

The aims of this presentation are to share with you :

- Our Intent.
- The aims of the EYFS Curriculum.
- Developing Number sense.
- Developing other aspects of Maths.

Our Intent:

- We ensure that the curriculum design allows for small secure steps and acknowledges the importance of the children being secure and fluent in a concept before moving on to the next level.

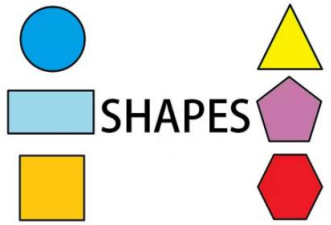
- Pupils are required to explore and investigate Maths in depth, using mathematical vocabulary to reason and explain their workings.

- A wide range of mathematical resources are used in lessons and pupils are taught to show their workings using concrete materials, before establishing ways of pictorially and formally representing their understanding.

- We encourage children to respond positively to challenge, developing resilience in all aspects of maths learning as well as self-reflection in order to identify next steps in their learning.

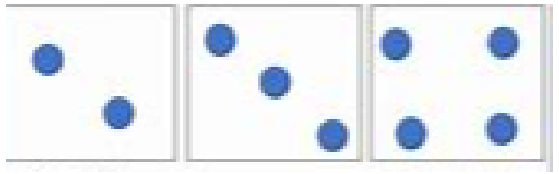
- There is a Number focus in day-to-day teaching and learning as we want pupils to develop confidence and mental fluency with whole numbers, counting and place value.

EYFS Curriculum:



- EYFS Statutory Educational Programme:

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the **numbers to 10**, the relationships between them and the patterns within those numbers.



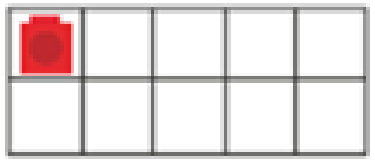
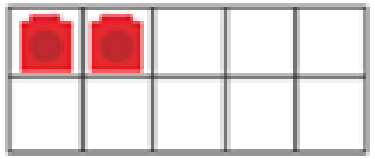
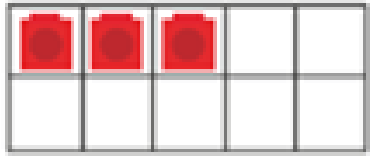
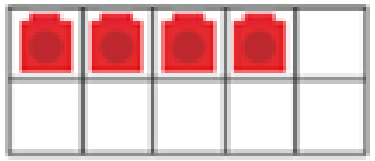
End of Year Expectation:
Number Early Learning Goal
Children at the expected level of development will:
•Have a deep understanding of number to 10, including the composition of each number;
•Subitise (recognise quantities without counting) up to 5;
•Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns Early Learning Goal
Children at the expected level of development will:
•Verbally count beyond 20, recognising the pattern of the counting system;
•Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
•Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

In Reception the children will be learning to:

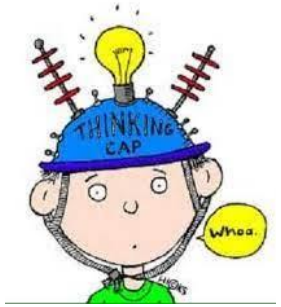
- Count objects, actions and sounds.
- Subitise.
- Link the number symbol (numeral) with its cardinal number value.
- Count beyond ten.
- Compare numbers.
- Understand the 'one more than/one less than' relationship between consecutive numbers.
- Explore the composition of numbers to 10.
- Automatically recall number bonds for numbers 0–5 and some to 10.
- Select, rotate and manipulate shapes to develop spatial reasoning skills.
- Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.
- Copy, continue and create repeating patterns.
- Compare length, weight and capacity.

What do we do to help children?

Concrete (Physical Objects)	Pictorial (Drawings/Models)	Abstract (Using numbers)
		1
		2
		3
		4

Concrete and pictorial representations support children to understand abstract concepts and deepen their knowledge.

What is number sense?



So….. What is number sense and why is it so important?

Number sense refers to a child's fluidity and flexibility with numbers.

It helps children understand what numbers mean, increasing mental mathematics and giving children the tools to look at maths in the outside world and make comparisons.

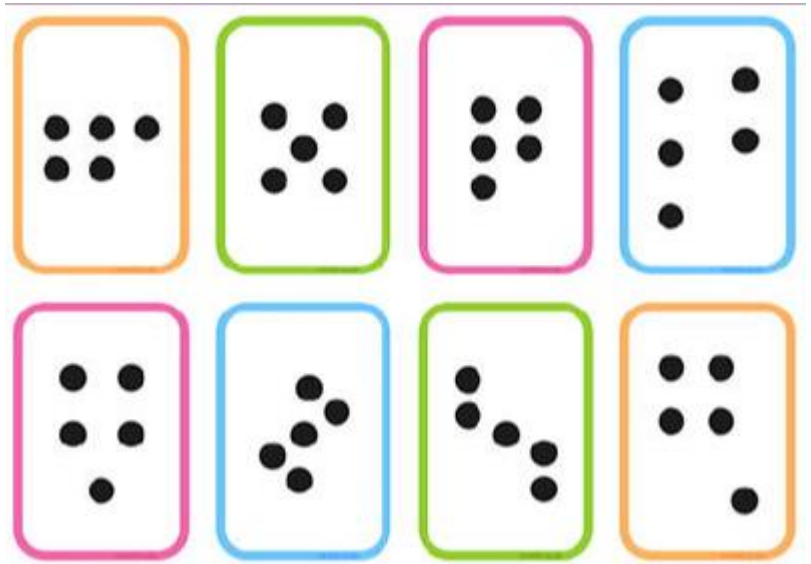
Number sense is the main focus in the Early Years Curriculum and forms an essential part of fluency for all year groups.

How do we help develop Number sense?

Subitising

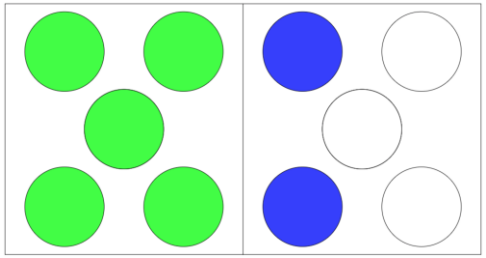
Don't count, say the amount.

Children need a variety of opportunities to see regular amounts of quantities and be encouraged to 'say what they see.'
These regular amounts also need to be shown in irregular ways:



* conceptual subitising
(seeing smaller numbers)

* perceptual subitising
(seeing numbers straight away)



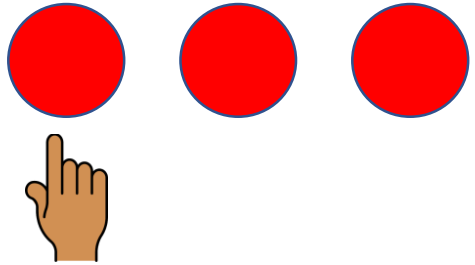
How do we help develop Number sense?

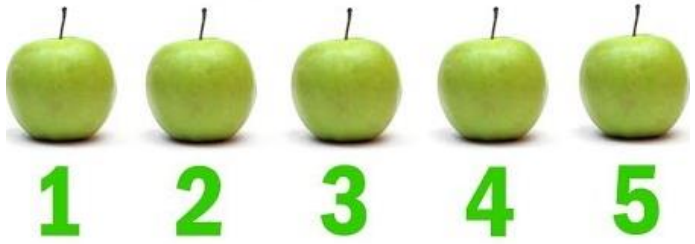
Counting

3 rules of counting

1.Count everything once
2. Say the numbers in the right order
3. The last number you say is how many there are

1:1 correspondence





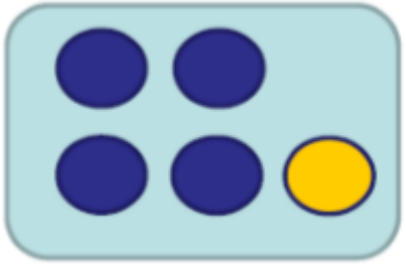
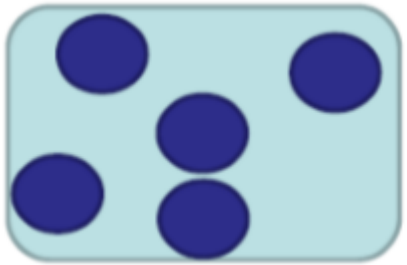
How do we help develop Number sense?

Cardinality

Cardinality means the quantity or total number of items in a set.

This can be determined by subitising or counting.
While subitising allows children to perceive the cardinality of small sets, counting requires them to understand that the last number in the counting sequence represents the quantity of the set. We refer to this as….

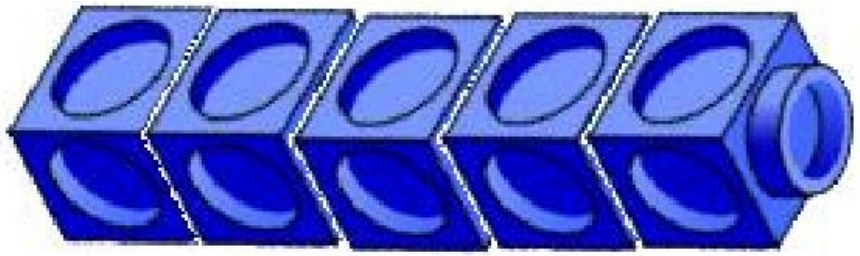
‘The 5-ness of 5’

Familiar dot patterns	Structured dot patterns	Unstructured dot patterns
		

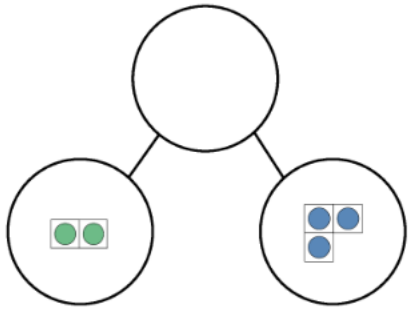
How do we help develop Number sense?

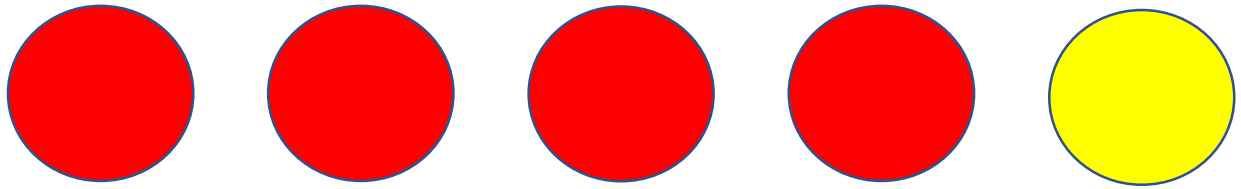
Composition

Composition refers to knowing numbers are made up of two or more smaller numbers.
For example



5 is the whole
2 is a part and 3 is a part





4 is a part and 1 is a part
5 is the whole

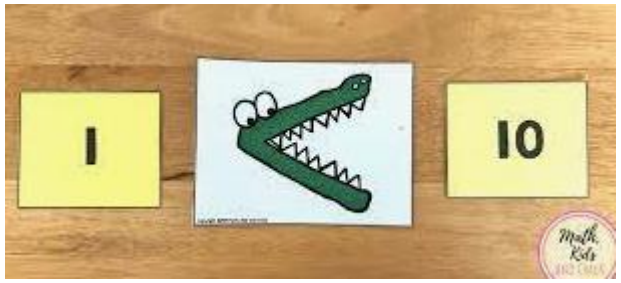
The program 'Number blocks' focuses on the concept of Composition.

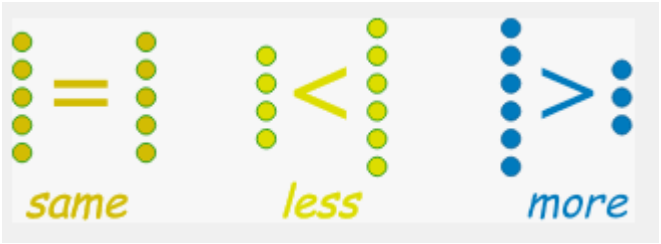
Being able to see numbers within numbers helps to develop efficient calculating skils.

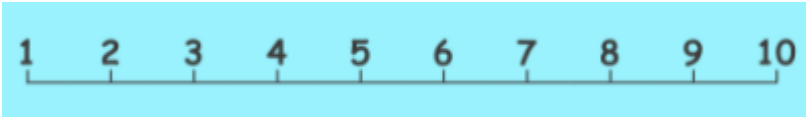
How do we help develop Number sense?

Comparison

When we ask children to compare numbers we are asking them to examine the difference, to decide if one number is greater than, smaller than or equal to another number. This understanding underpins the mental number line which children will develop later. E.g. How much bigger or smaller they are than each other.





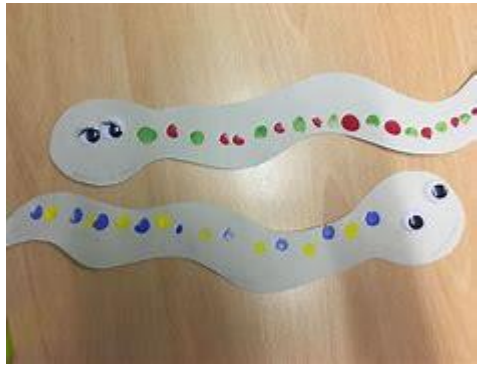


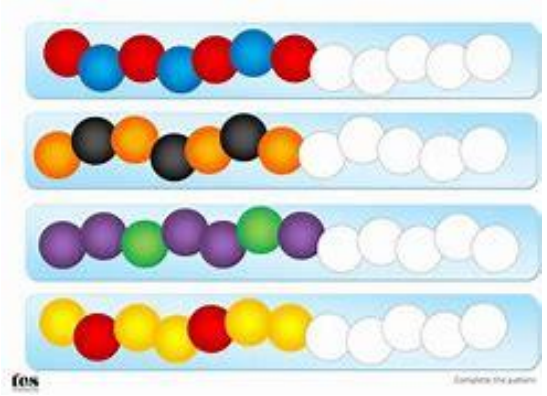
What else do we cover in EYFS?

Pattern

Developing an awareness of pattern helps young children to notice and understand mathematical relationships.

We begin by continuing an AB pattern, copying an AB pattern and then developing our own AB patterns. We can then progress into ABB ABC ABBC patterns.





Shape and Space

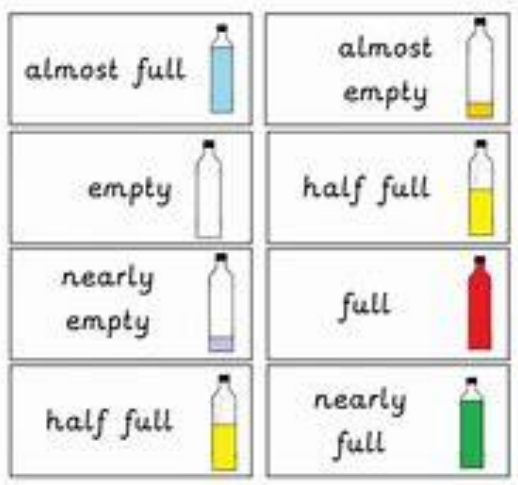
Shape and space in EYFS is about developing visualising skills - understanding what happens when shapes move or combine with other shapes.

Measures

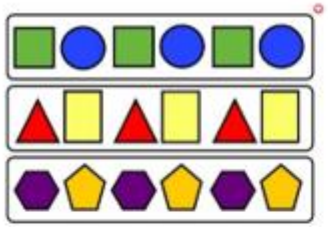
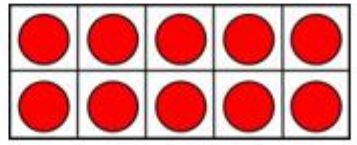
First we need to decide which attribute is being measured - length, capacity, weight.

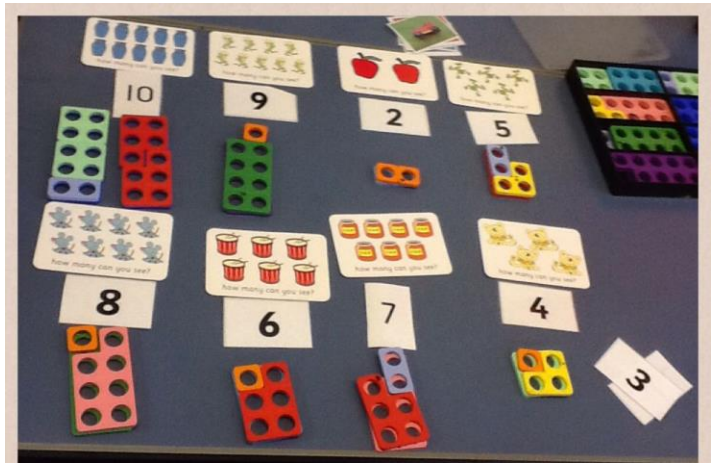
Can children find something that is longer/shorter or heavier/lighter than a given item?

After lots of practical experience with comparing items, children can then begin to estimate and predict.



What can you do at home?

Create a pattern using a variety of shapes and numbers. 	Use play-doh to create as many numbers as you can. 	Find as many different examples of numbers and shapes around your house. 	
How many people are in your house? How many hands? How many eyes? Etc. 		Collect loose items from your garden or house. Count and sort them. 	Practise counting forwards and backwards. Also say the number before and the number after. 
Measure different items in your house using your hands. E.g. how many hands long is your table? 	Draw/paint a picture which has shapes and numbers in it. 	Practise your number bonds to 10. Use objects to help you. 	Play snap with number cards. 



Thank you for your time.

We hope you found this presentation helpful.