



Teaching Maths in EYFS

at Woodstock CE Primary School

EYFS Maths curriculum

Counting
Ordering
Numeral recognition
Number bonds
More/less
Addition
Subtraction
Doubling
Halving
Sharing

Patterns
Shape
Length
Weight
Capacity



There are two Early Learning Goals for Maths.

This is what children in Reception are expected to be able to do by the end of the year:

Number:

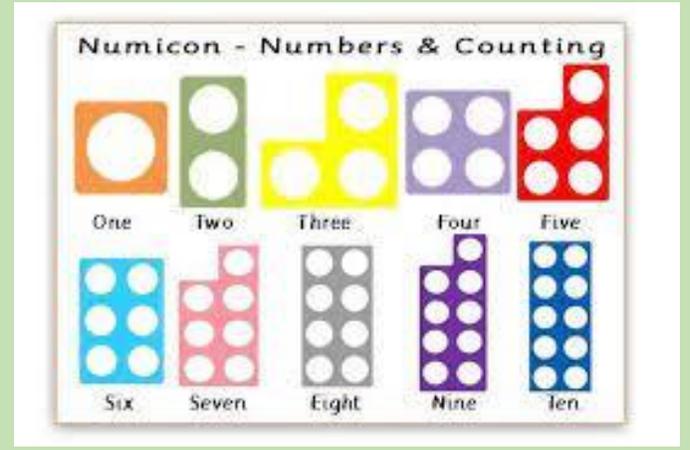
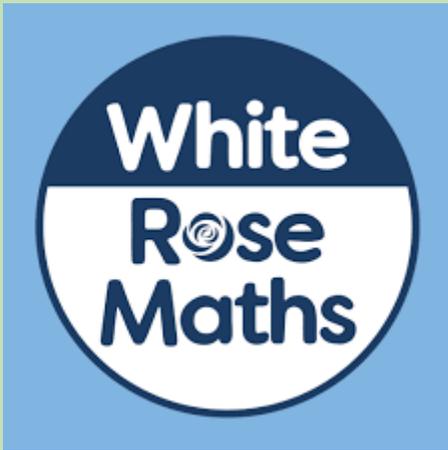
- Have a deep understanding of number to 10, including the composition of each number.
- Subitise (recognise quantities without counting) up to 5.
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts

Numerical Patterns:

- 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

What is Teaching for Mastery?

At Woodstock CE Primary School we see Teaching for Mastery in maths as allowing the pupils to gain a deep understanding of maths, allowing them to acquire a secure and long-term understanding of maths that allows them to make continual progress to move onto more complex topics.

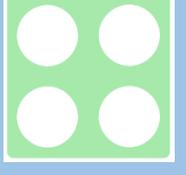
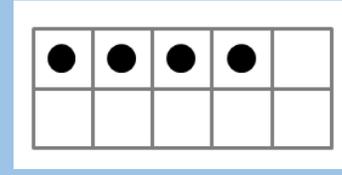
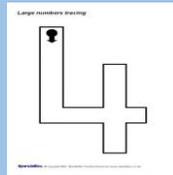


How do we teach for Mastery in Early Years?

Representing Numbers

We want to develop children's number sense so that they understand the number rather than just recognising the numeral.

Children need to understand that numbers can be represented in many ways, not just as a written numeral. We use many different objects and pictures to show that numbers can be represented in lots of ways.



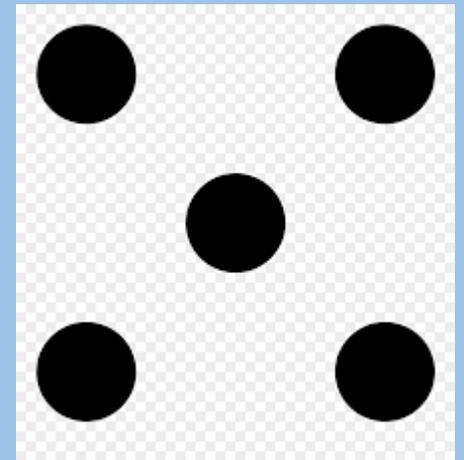
Counting:

When counting, children need to understand these key principles:

- **One-to-one correspondence** - (touch counting) We need to say one number for each object counted.
- **Equality** - 'Seven is the same as four and three'
- **Stable order** - Say the number names in the correct order.
- **Cardinality** - The last number in the count is the total size of the group. The final number we say is how many altogether. Some children continue to count after they have reached the final object as they don't connect the numbers they are saying to the objects in front of them.
- **Order irrelevance** - We can count objects in any order and the total stays the same.

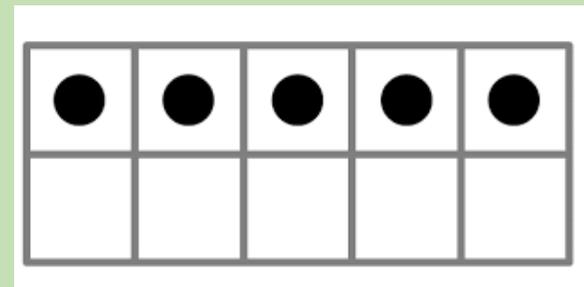
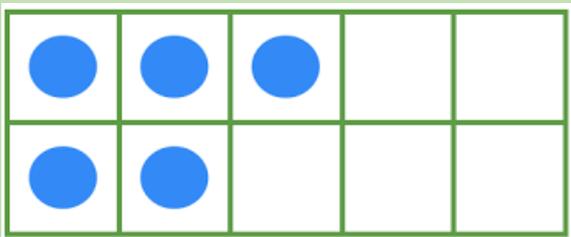
Recognising Amounts - Subitising

Another skill is to develop other mental strategies to identify the number of items in a group without counting them individually e.g. 6 dots on a die: seeing this as two groups of three which we combine to make 6.



Understanding that the total stays the same even when the objects move

When children first start to use numbers, they often do not understand that if we move objects into another arrangement the total stays the same. We practice this with many different types of objects but a useful tool is using a tens frame to be able to move counters around.



Reasoning

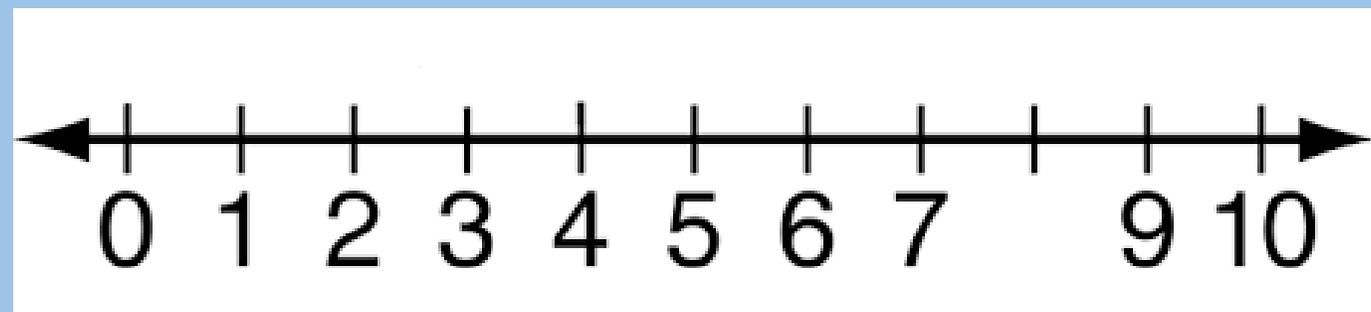
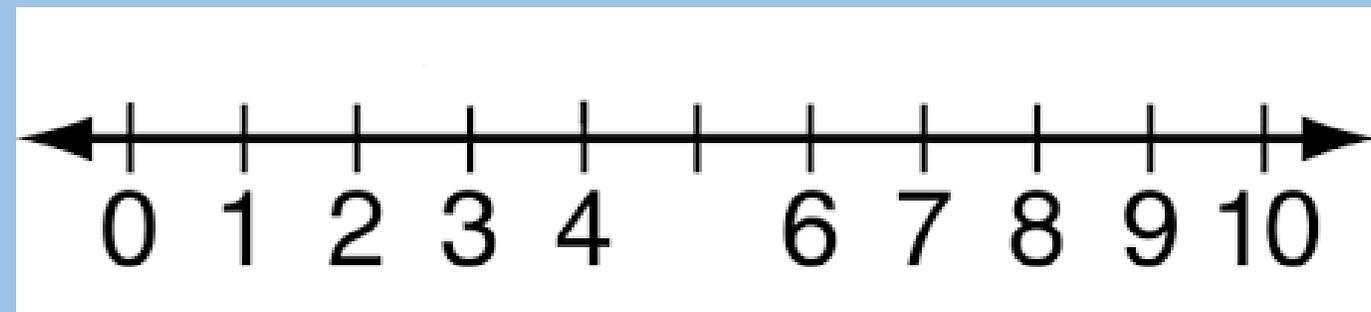
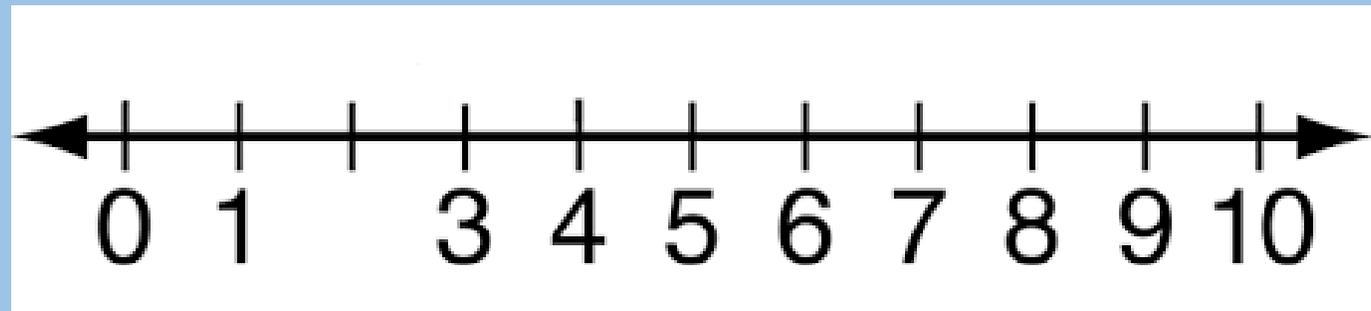
Reasoning in maths helps children to be able to explain their thinking, therefore making it easier for them to understand what is happening in the maths they are doing.

In Reception and Nursery, some examples of reasoning are:

- True and false statements e.g. adding one to a number always makes it smaller
- Spotting incorrect maths e.g. 1, 2, 3, 4, 6, 5, 7, 8, 9, 10
- Explaining how we know something or how we worked it out - "prove it".



Which cookie
is the odd one
out?
Why?



Problem Solving

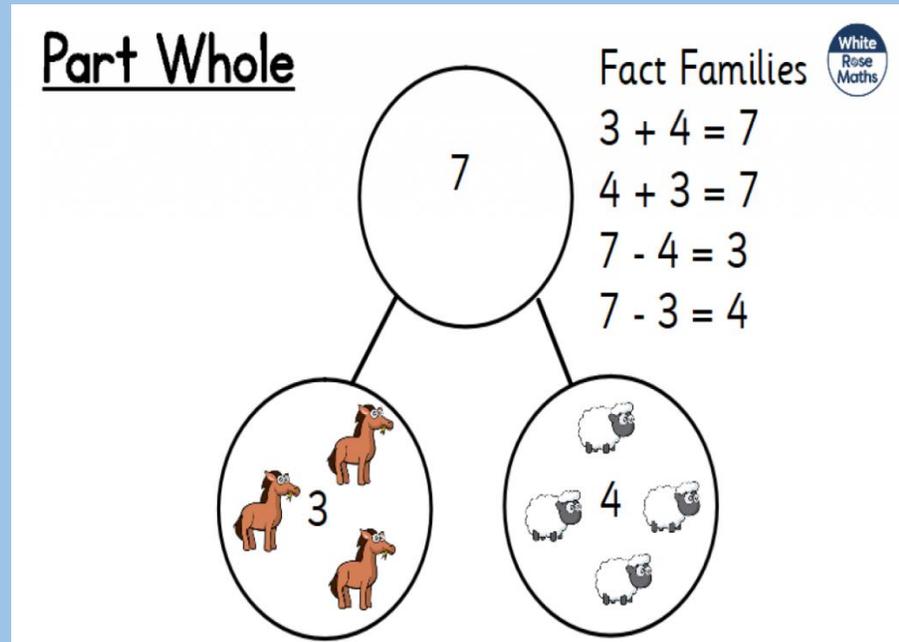
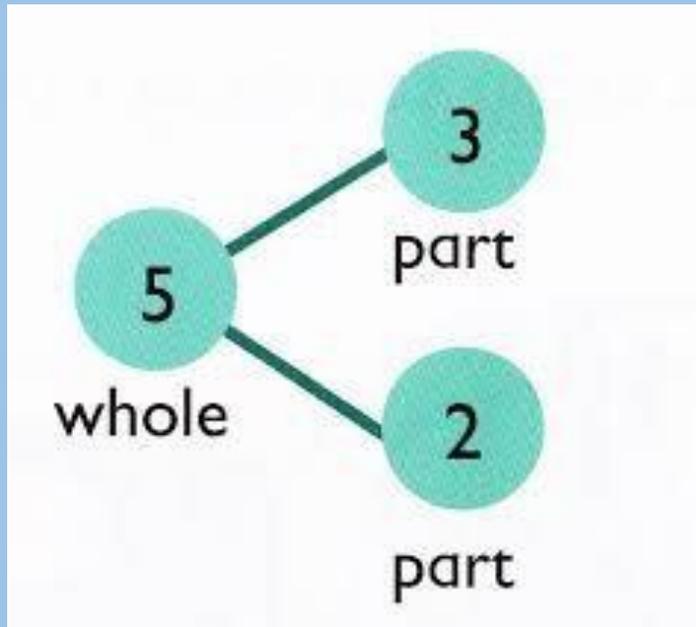
Problem solving in maths allows children to use their maths skills in lots of contexts and in situations that are new to them.

In Reception, problem solving might include:

- Spotting, following and creating patterns
- Estimating amounts of objects
- Predicting how many times they can do something in a minute
- Sharing objects between different groups - particularly when the amount of groups change and the amount of objects stays the same
- finding different ways to partition numbers e.g. 5 could be $5+0$, $4+1$, etc.

What is Part-Part Whole?

The Part-Part Whole model is the concept of how numbers can be split into parts. Children using this model will see the relationship between the whole number and the component parts, this helps learners make the connections between addition and subtraction.



How can I help at home?

- Count - steps up the stairs, money into a money box etc.
- Ask children to say how many without counting (5 or fewer)
- Play games using dice/dominoes and encourage child to say how many spots without counting.
- Ask children to set the table with enough knives, forks and plates for everyone.
- Spot numbers in the environment - on phones, microwaves, clocks, registration plates, doors.
- Ask children to think of their own representations for numbers e.g. one of them, two hands, three bears, four wheels on a car, five toes, six sides on a dice, seven dwarves, eight legs on an octopus etc.
- Deliberately make mistakes. Children need to understand mistakes are normal and everyone makes them e.g. get mixed up when counting.

- Watch Numberblocks on Cbeebies. This programme is written by maths specialists to model maths concepts and represents number brilliantly.
- Hide numbers around the house or garden for children to find.
- Play outdoor maths games like hopscotch and skittles. Even better, let children make up their own games and decide how to score points.
- Read books with maths concepts eg The Very Hungry Caterpillar, One is a snail, ten is a crab, What's the time, Mr Wolf? The doorbell rang.
- Draw attention to more and less.
- Try some activities from the NRIC website for EYFS to encourage depth - www.nrich.maths.org
- Ask questions such as "How many more?", "How many altogether?", "How many would I have if..."

