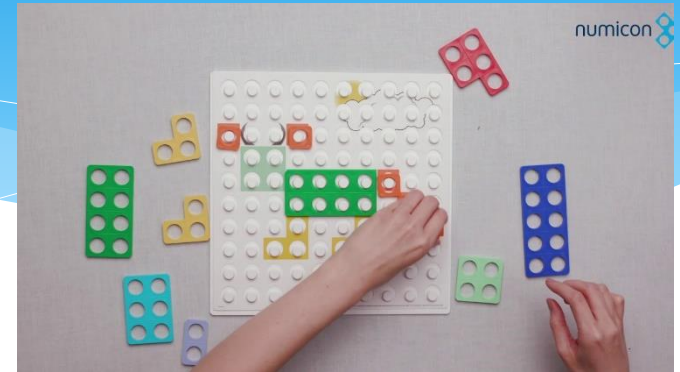


Reception Maths

Today's talk

- What do we do in school?
- What does the curriculum look like?
- Useful resources – physical, books and websites
- How you can help at home



On a scrap piece of paper write your name.

Please be ready for some mental maths!



Maths is like Cabbage.....



You either love or hate it depending on how it was served up to you as a child!



Always give a positive view of Maths to your child.

At The Mead we want your child's experiences of Maths to be.....

exciting

practical

memorable

fun



interesting

The Early Years Foundation Stage curriculum

Development Matters Statements

Mathematics
<ul style="list-style-type: none">• Count objects, actions and sounds.
<ul style="list-style-type: none">• Subitise.
<ul style="list-style-type: none">• Link the number symbol (numeral) with its cardinal number value.
<ul style="list-style-type: none">• Count beyond ten.
<ul style="list-style-type: none">• Compare numbers.
<ul style="list-style-type: none">• Understand the 'one more than/one less than' relationship between consecutive numbers.
<ul style="list-style-type: none">• Explore the composition of numbers to 10.
<ul style="list-style-type: none">• Automatically recall number bonds for numbers 0-5 and some to 10.
<ul style="list-style-type: none">• Select, rotate and manipulate shapes to develop spatial reasoning skills.
<ul style="list-style-type: none">• Compose and decompose shapes so that children recognise a shape can have other shapes <i>within</i> it, just as numbers can.
<ul style="list-style-type: none">• Continue, copy and create repeating patterns.
<ul style="list-style-type: none">• Compare length, weight and capacity.

Early Learning Goal

Mathematics
Number <ul style="list-style-type: none">• 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 <ul style="list-style-type: none">• 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.

White Rose Maths

Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 Week 8 Week 9 Week 10 Week 11 Week 12

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Getting to know you (Take this time to play and get to know the children!) Contains overviews and frequently asked questions VIEW			Just like me! Match and sort Compare amounts Compare size, mass & capacity Exploring pattern VIEW			It's me 1, 2, 3! Representing 1, 2 & 3 Comparing 1, 2 & 3 Composition of 1, 2 & 3 Circles and triangles Positional language VIEW			Light & dark Representing numbers to 5 One more or less Shapes with 4 sides Time VIEW		
Spring term	Alive in 5! Introducing zero Comparing numbers to 5 Composition of 4 & 5 Compare mass (2) Compare capacity (2) VIEW			Growing 6, 7, 8 6, 7 & 8 Combining two amounts Making pairs Length & height Time (2) VIEW			Building 9 & 10 Counting to 9 & 10 Comparing numbers to 10 Bonds to 10 3-D shapes Spatial awareness Patterns VIEW			Consolidation		
Summer term	To 20 and beyond Build numbers beyond 10 Count patterns beyond 10 Spatial reasoning 1 Match, rotate, manipulate VIEW			First, then, now Adding more Taking away Spatial reasoning 2 Compose and decompose VIEW			Find my pattern Doubling Sharing & grouping Even & odd Spatial reasoning 3 Visualise and build VIEW			On the move Deepening understanding Patterns & relationships Spatial mapping (4) Mapping VIEW		

Subitising

“Young children have a remarkable skill: they can recognise numbers of things without counting. This is called subitising, and it develops from a very early age. Very young babies can not only tell the difference between one and two but also between large numbers of dots when there are twice as many in one group, as with 16 and 8 (Sarama and Clements, 2009). Young children also have powerful visual memories and some may find it easier to remember images than words: three-year-olds can recognise three things, although they may not say the word. Subitising can help children to build images for numbers, to visualise and to learn number facts. For instance, most four-year-olds readily learn to recognise five dots on a dice, which helps them to understand the cardinal value or **‘howmanyness’** of five, which they can link to the word and symbol for 5. Structured images like this also help children to begin to see numbers inside numbers, for instance seeing four and one within five.”

Taken from <https://nrich.maths.org/14004>

Moving from counting to calculating

Counting is not calculating

- **Noticing numbers as digits and quantities**

Noticing how we use number in every day life (clocks, money etc) / noticing numbers without digits (dice patterns etc)

- **Keep on counting (but to explore number order not calculating**

Finding out how many – when items can't be seen as a pattern (e.g. pages in a book)

- **How many? Using noticing, describing and explaining pattern and form (not counting)**



Connected to **subitising** – arranging objects in patterns / grouping / see amounts **as whole and part groups**

- **Comparison: Equal to, more than, less/fewer than**

Noticing when something is more/less or equal to something else – using the language to describe the relationship between quantities

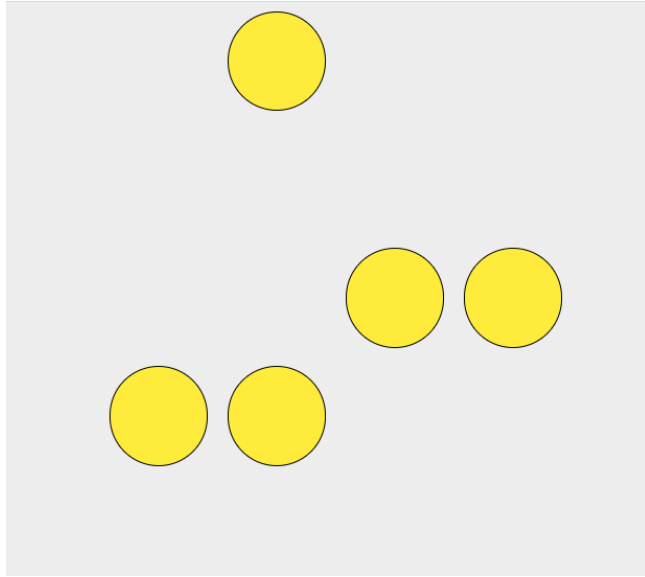
Subitising

Subitising



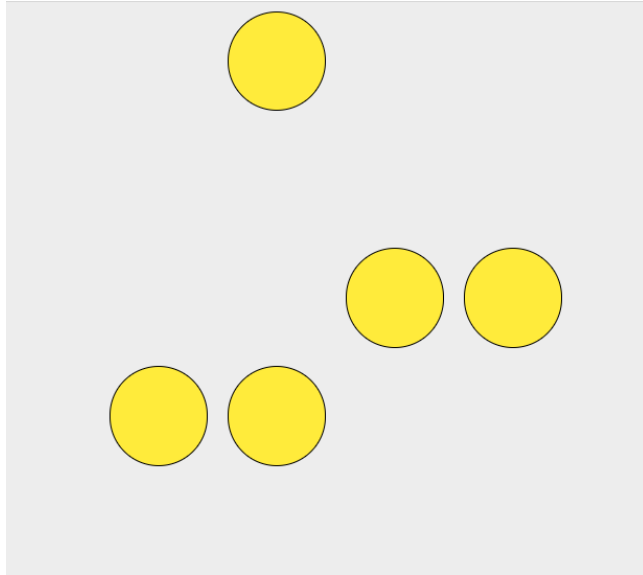
- 1 1 to 5 (Dice)
- 2 1 to 5 (Common)
- 3 1 to 5 (Random)
- 4 1 to 5 (Two colours)
- 5 Five frame

White Rose Maths app available – 1 minute maths games



What questions would you ask your child to support subitising?

What do you notice?



How did you see it?

Look at it in a different way
and describe what you see

Draw how you see it (in the
air / on some paper etc)

Ask someone else how they see it – was it the same way
as you?

Number Talks

Recognising, creating and describing patterns with numbers



Children often enjoy saying how they see something differently from someone else.

Adults could show interesting arrangements of objects and invite children to talk about the numbers they see.

The Activity

Arrange five large magnets on a tin tray and confirm that everyone sees five. Ask, 'What numbers can you see hidden inside five?' Collect different views. Turn the board away to rearrange, show briefly and ask, 'How do you see them now?'

Encouraging mathematical thinking and reasoning:

Describing

Can you tell me how you saw them?
Did anyone see them differently? How did Lucas say he saw them?

Reasoning

How did you know how many there were?
Does this way make it easier to see how many there are? Why did you find it easier?

Opening Out

Has anyone got a quicker way of counting?
Can you arrange your counters so that you can quickly see how many there are?

Recording

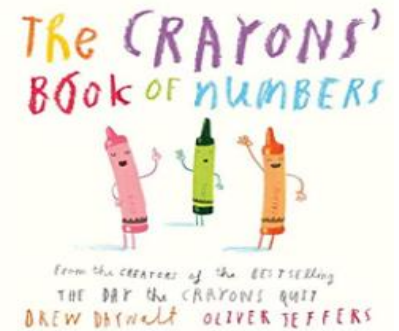
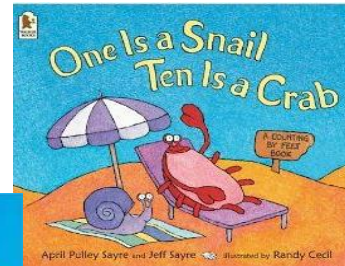
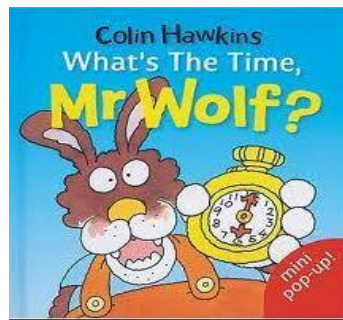
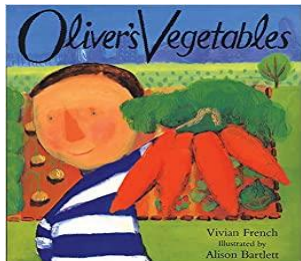
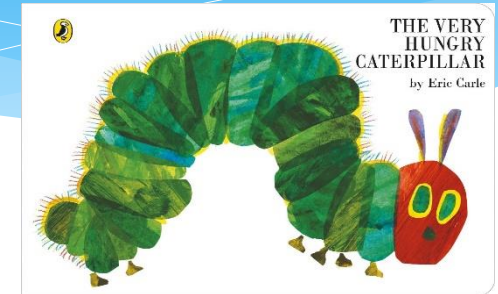
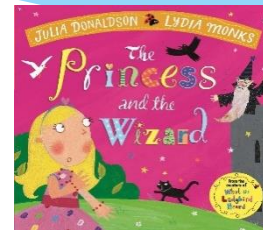
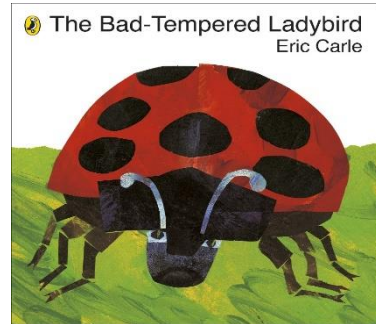
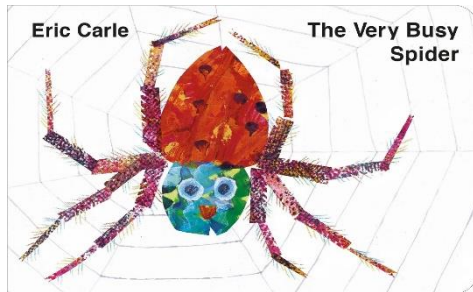
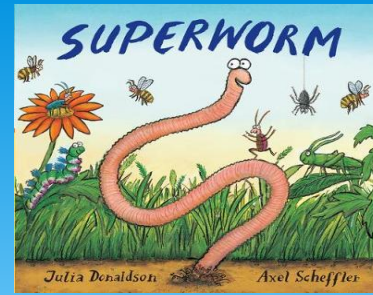
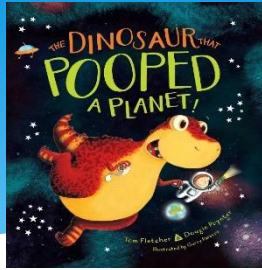
Can you copy this pattern with your counters?
Can you record this by drawing or stamping or with stickers?

5 frames and 10 frames

--	--	--	--	--

We don't want children to count objects in 5 or 10 frame – we want them to use the skill of subitising and noticing patterns

Maths books



Number BLOCKS



CPA

Use at any time
and with any age
to support
understanding

Concrete

Introduces real objects and Maths resources that children can use to 'do' the maths.

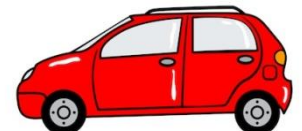
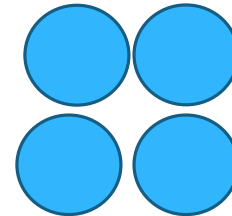
Pictorial

This stage uses pictorial representations of objects to let children 'see' what a maths problem looks like.



Abstract

This stage uses numerals and symbols. It is imperative that children are not moved to this stage too quickly!



Concrete





Make it practical and fun!



How you can help at home

0 1 2 3 4 5 6 7 8 9 10

Number formation

- Model number writing and reading in different ways: Lists, tracing, birthday cards, buses, front doors, recipes, in books, phones
- Number hunts
- Write in sand, with your finger on the carpet, paint, make numbers with play dough, on a whiteboard, on paper, post it notes, on a tablet

How you can help at home?

Counting

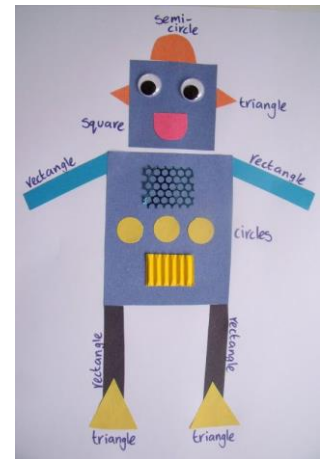
- Counting – in everyday conversation, in play, steps, brushing teeth, toys in the bath, tidying toys
- Subitising – with teddies, spoons, socks
- Ordering numbers – flashcards, post it notes, lining up toys
- Number bonds – in the car, with teddies/toys
- Addition and subtraction – include it in everyday conversation, cooking



How you can help at home?

Shape and measure

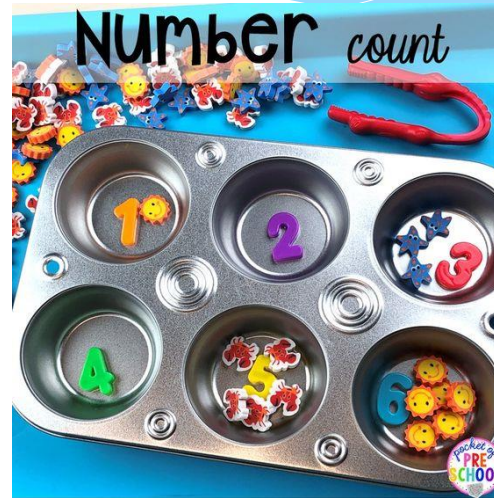
- 2D and 3D shapes – in everyday conversation, shape hunts, shape pictures
- Patterns – ordering objects and toys, clapping/body percussion
- Weight, length, capacity, time – language focus whilst cooking, in the bath, in the sandpit, pouring drinks, talking about routines



How you can help at home?

Games

- Snakes and ladders
- Board games
- Card games – snap, pairs
- Number hunts
- Hide and seek
- Bingo
- Link it to fine motor activities
- Counting songs



How you can help at home?

Link to school

Evidence me

Tell us about any maths activities your child has done at home

Coming up next week....

- Tells you what we are doing in maths that week
- Homework – from the Spring Term

Useful websites

<https://www.topmarks.co.uk/maths-games/3-5-years/counting> - Maths games

<https://www.mathsisfun.com/> - A range of maths games.

<https://www.bbc.co.uk/cbeebies/games> - The games cover the whole curriculum and are tablet friendly.

<http://www.crickweb.co.uk/> - Activities focusing on Maths and Literacy. Free to use

<https://www.pinterest.co.uk/> - While Pinterest isn't a learning website as such, it is nonetheless an absolute treasure trove of resources if you would like an activity for your child that isn't screen based. Pinterest has so many investigative activities that you can make at home, some beautiful art activities and fine motor activities. Type 'eyfs' or 'for kids' after your search. For example 'numbers to 10 for kids' or 'shape patterns for kids'

<https://www.youtubekids.com/> You can search for a wide range of videos on number bonds, shapes, counting, phonics, Alphablocks, Number Jacks etc. 'Art for Kids' and 'Cosmic Yoga Kids'.



Any questions?

