

Mathematics in Nursery and Reception at St. Mark's ...

Development Matters in Nursery:

- Say one number for each item
- Develop counting- like behaviour
- React to changes of amount in a group of up to three items
- Count objects
- Comparing objects using language
- Link numerals and amounts,
- Develop fast recognition of up to 3 objects

...and shape, space and measure!

Nursery - Songs & Choral Counting

- Weekly counting song focus-
to Support children with
understanding the sequential order
of numbers.
- Daily opportunities for choral counting
- to support children gaining
understanding of the cardinality of
numbers.

Nursery - Numerals

Children will be exposed to numbers within the environment.

Over the year the children will begin to learn how to represent numbers up to 5 with objects.

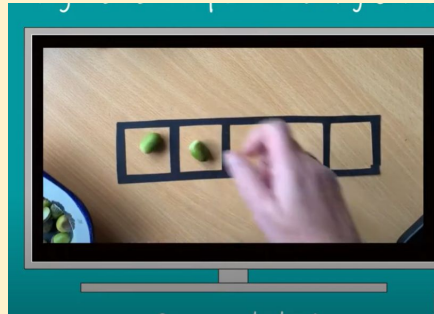
Then match the representations to the correct amount.

The children focus on securing 0-3 building up to 5.

Nursery - Subitising

Subitising involves children saying what they see. It is a quick way for children to identify the amount in a set of objects. Without counting! What can you see?

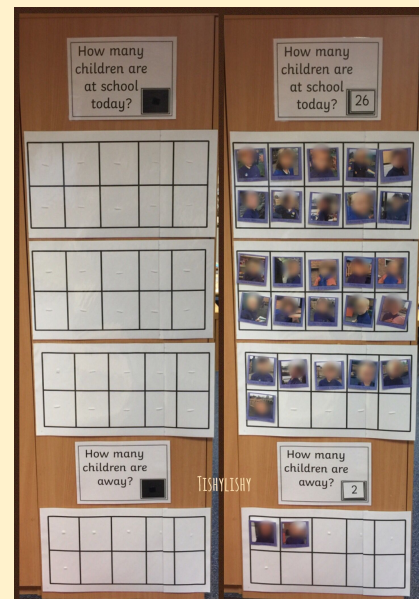
<https://www.youtube.com/watch?v=zhHUj4yhkLc> (1min in)



Maths in the classroom supporting routines



Include photographs of the manipulatives as well as pictorial representations on each slide



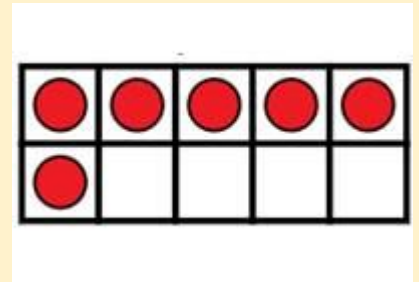
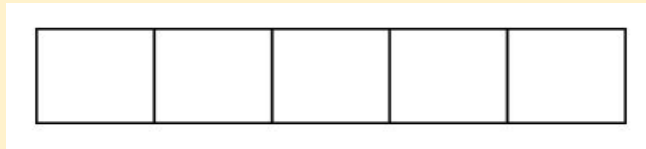
Number in Reception

- Development Matters
- Subitise
- Count beyond 10
- Compare numbers
- Understand one more than/less than
- Explore composition of numbers to 10
- Automatic recall of number bonds to 10

Subitising in Reception

In Reception children build on their subitising knowledge from nursery and focus on subitizing numbers up to 10 and begin to introduce on familiar patterns.

Children will use 5 and 10 Frames



Counting

- Counting Songs
- Choral counting opportunities
- Counting forwards and backwards up to 10 building up to 20.
- Introducing number lines.
- Ordering numbers up to 10 then up to 20.
- Children begin to develop their understanding of odd and even numbers.

Matching Numerals to amounts

- Children focus on representing numbers.
- Building up their understanding the value
- They build up their knowledge of the composition of building first up to 10 then building beyond 10.

Finding one more and one less

- Finding One More and One Less
- Using manipulatives children begin to build up their fluency knowing one more or less than a given number up to 10.
- Children have this concept modelled through objects, pictures of representations.
- Children are able to confidently recall one more and one less to 10.

Finding a Total / Number Bonds

- Children use manipulatives to explore adding numbers together.
- Children begin by focusing on making 5 building up finding ways to make 10.
- We focus on children embedding the knowledge before moving on.

Doubling

- Children continue to develop their understanding of number patterns.
- Using manipulatives children explore doubling
- They learn that to double is to add the same number to itself.

Teaching Mathematics

- Whole class inputs
- Small group work
- Continuous provision



Key vocabulary:



By the end of RECEPTION, we support children to meet their Early Learning goal (ELG) in mathematics ...

Early Learning Goals
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.

Playing Games great way to teach and encourage mathematical thinking





Maths at home

- Singing number songs,
- Spotting numbers within the environment/ Number Hunt - doors, buses, road signs etc
- Estimating activities -
- Sharing - handing out biscuits is it fair is it equal?
- Routines - laying the table for 2/3/4 people
- Helping cooking - reading scales, comparing quantities
- Counting opportunities
- Website - Top Marks
- Dice Games
- Timing games- how many toys can you tidy away in 1 minute?



MATHS at home

- To promote maths skills in children, encourage them to play maths puzzles and games.
- Teach them to have a positive attitude and believe they can improve with effort rather than focus on speed and involve them in everyday activities involving numbers and measurements, such as shopping and cooking.
- Here are some good websites to help families learn maths together:
- Top Marks - <https://www.topmarks.co.uk>
- Busy things -
- <https://www.busythings.co.uk/schools>
- Number Blocks <https://www.youtube.com/watch?v=QEidB45W610>
- <https://www.nationalnumeracy.org.uk/helping-children-maths>