## How we teach Maths and Enquiry

 in Reception

## The EYFS framework says:

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically.

## A developmental journey from birth to the end of Reception...

EYFS Development Matters 2020 Statements and ELGs Mathematics



| Children in Reception |
| :--- |
| - 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 rumbers. |
| - Explore the composition of numbers to 10. |
| - Autornatically recall number bonds for numbers $0-5$ and some to 10. |
| - Select, rotate and manipulate shapes in order to develop spatial |
| reasoring skills. |
| - Compose and decompose shapes so that children recogrise a shape |
| can have other shapes within it just as numbers can. |
| - Continue, copy and create repeating patterns. |
| - Compare length, weight and capacity. |

## Early Learning Goals

## Number

- Have a doep understanding of number to 10 , including the composition of each number.
Subitise (recognise quantities without counting) up to 5
Automatically recall (without reference to itymess, counting or other aids) mumber bonds up to 5 (including subtra
number bonds to 10 , including docuble facts.


## Numerical Pattern:

Verbaly court beyond 20, recognising the pattern of the counting system.
Compare quarntities up to 10 in different contexts, recognising when one quantity is greater than, ess than or the same as the other quantity and odds, double facts and how quantities can be distributed equally.

How do we help the children to gain a deep understanding of quantities and numbers to 10 ?

## Five frames



The five frame highlights number combinations to five and helps students in visualising numbers to develop number sense.


## Ten frames



- 2 five frames
- Five-and-a bit numbers
- 5 and 1 more

- Number bonds to 10 ( $\mathbf{6}$ spots and 4 gaps)


## Ten frames




Part whole model

## Subitising

Subitising is when you are able to look at a group of objects and realise how many there are without counting. This only works with small groups of numbers, as we can only subitise up to 5 things. It was first introduced by a Swiss psychologist called Piaget.




## Measures

## short <br> 


heavy
light
shorter

tallest


Lots of hands on exploratory activities with a big emphasis on vocabulary

## Repeating patterns



ABB pattern

## Numberblocks



The Numberblocks episodes are carefully planned to be progressive and build up children's awareness and knowledge. We watch every episode, in the order they were written to help provide a progressive journey through mathematics. The episodes we watch correspond to the learning focus in lessons.

# Our aim is for all Reception children to meet the Early Learning Goal in Number and Numerical Patterns at the end of the year. 

|  | NUMBER | NUMERICAL PATTERNS |
| :---: | :---: | :---: |
| ELG | - Have a deep understanding of number to 10 , including the composition of each number. <br> - Subitise (recognise quantities without counting) up to 5 . <br> - 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. | -Verbally count beyond 20, recognising the pattern of the counting system. <br> - Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. <br> - Explore and represent patterns within numbers up to 10 , including evens and odds, double facts and how quantities can be distributed equally |

## Enquiries in Reception

Each term, we ask the children at least one big question that is too big to answer in one go but not too big that they don't understand.
We guide learners through 'being' something to answer the big question...

The states of being


## Enquiries

## Term 1 - Who are we? What is darkness?

Term 2 - What stories do we know?
Term 3 - What is a celebration?

Term 4 - What is growing?
Term 5 - How do we care for pets?
Term 6 - Who helps us?

## Enquiries

Each enquiry starts with an 'engage' activity which may include asking for something from home ();

Each enquiry ends with a 'challenge'. We will invite you to join us for the challenges where possible.

Keep an eye of Facebook for photos!

