



The EYFS framework says:

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

Maths in Reception



MASTERING NUMBER AT
RECEPTION & KEY STAGE 1

developed
by the



NCETM
NATIONAL CENTRE FOR EXCELLENCE
IN THE TEACHING OF MATHEMATICS

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



Cardinality and Counting

Understanding that the cardinal value of a number refers to the quantity, or 'howmanyness' of things it represents



Comparison

Understanding that comparing numbers involves knowing which numbers are worth more or less than each other



Composition

Understanding that one number can be made up from (composed from) two or more smaller numbers



Pattern

Looking for and finding patterns helps children notice and understand mathematical relationships



Shape and Space

Understanding what happens when shapes move, or combine with other shapes, helps develop wider mathematical thinking



Measures

Comparing different aspects such as length, weight and volume, as a preliminary to using units to compare later

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.

Subitising actually comes from the Latin word for suddenly; it may not be a word we hear very often but it's actually a crucial skill that many of us use on a daily basis without even realising it.

Subitising helps children to see, solve, and manipulate numbers in their head. This develops their number sense and helps them master key calculation strategies at an early stage.

Often young children learn to count but don't fully understand the relationship between numbers and amounts.

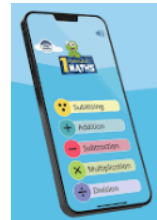
Subitising

Perceptual

This is where children see an amount instantly. Eg, if you were watching two ducks swimming in a pond you would be able to see there were two just by looking at them.



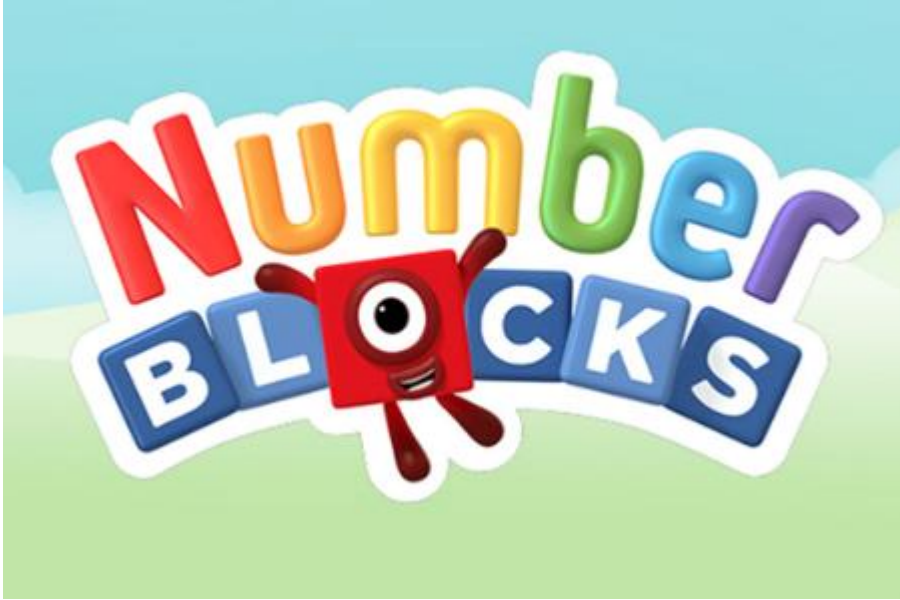
The White Rose 1 minute maths app (free) is brilliant for subitising practise!



Conceptual

This is where children see larger patterns and can break down the amount into smaller groups using mental maths strategies. Eg, if there were 6 ducks swimming, you might subitise by splitting the group up into two smaller groups of 3, or even 3 groups of 2. We recognise a whole quantity by breaking it into groups.

Numberblocks



The NCETM collaborated closely with Blue Zoo Animation Studio to craft *Numberblocks*, ensuring every episode builds foundational early numeracy skills through a carefully mapped curriculum.

<https://www.learningblocks.tv/numberblocks/episodes>

Odd/even numbers

Odd and even numbers (odd blocks/ flat tops)

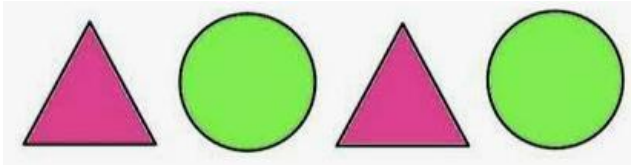
Twos wise										
	1	2	3	4	5	6	7	8	9	10



Non-number lessons

- Pattern
- Measure
- Shape
- Spatial awareness

Repeating patterns



AB pattern



ABB pattern

Continue

Copy

Create

Spot the mistake

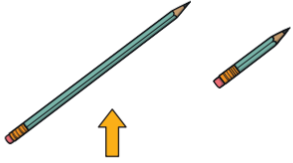


ABC pattern



ABBC pattern

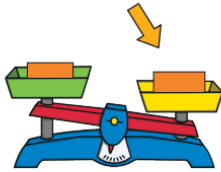
long



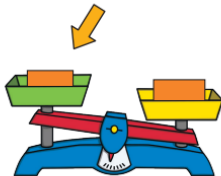
short



heavy

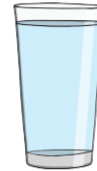


light



Measures

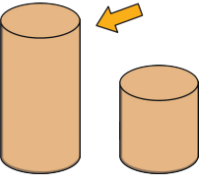
full



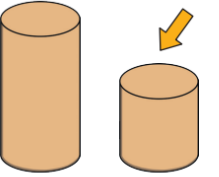
empty



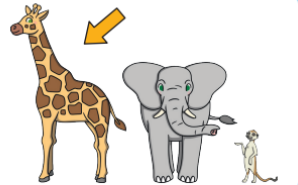
taller



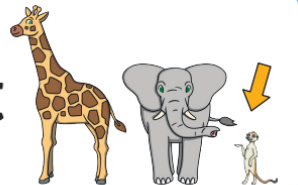
shorter



tallest



shortest



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

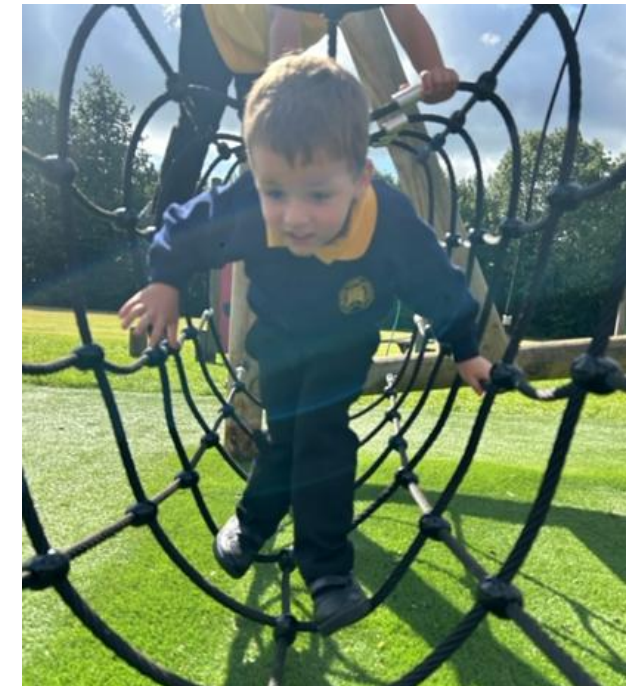
Shape, spatial reasoning, positional language...



Teddy is on the table.



Teddy is under the table.





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' a state of being to answer the big question...

The states of being



artist



athlete



author



philosopher



geographer



historian



mathematician



musician



philosopher



reader



scientist

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!

Enquiries

Term 1 – Who are we?

Term 2 – What is darkness?

Term 3 – What is a celebration?

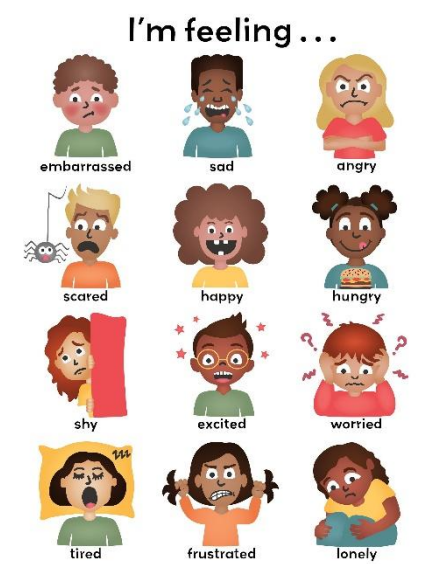
Term 4 – What is growing?

Term 5 – How do we care for pets?

Term 6 – Who helps us?

Look out for enquiry webs on our website and attached to emails. We are always keen to hear from parents/carers who might be able to come in and contribute to our enquiry learning!

Emotional Literacy



What is Emotional Literacy?

Emotional literacy is the ability to recognise, understand, name and manage our own emotions while empathetically reading and responding to the feelings of others.

‘The understanding and management of emotions are increasingly being seen as central to the whole process of growth and development into adulthood’

Faupel et al (ed 2003)



‘The Colour Monster’ helps the children identify their feelings as they experience them.



angry



scared/ worried



sad



happy



mixed-up

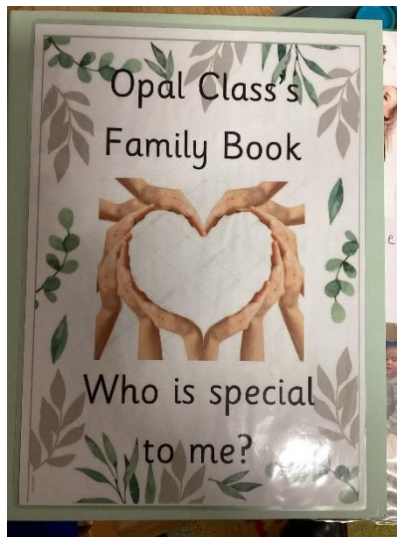


loved



calm

We want our children to feel calm when they are at school. They can do their best learning when they are calm.



Look at the
special people
book



Cuddle a colour monster



calm tent



cuddle



Find a friend



Smell the flower,
blow out the candle