EYFS Maths Parent Workshop

28th November 2023

Sara Tilley

Karolina Ubor

Enfield Heights ACADEMY

Enfield Heights ACADEMY

What we will explore today…

- Methods and resources we use at school
- Expectations across the year
- Looking at how maths in Reception prepares children for year 1
- What you can do to help at home

Maths Vision at Enfield Heights Academy

At Enfield Heights Academy, we believe that Maths is an essential part of everyday life.

Learning is, therefore, focused on children securing a strong conceptual understanding of Maths and developing the skills and self confidence required to apply their mathematical thinking to solve problems.

Enfield Heights ACADEMY

Enfield Heights ACADEMY

Early Maths Problems…

Pay close attention to Hazel counting this pile of pennies.

Can you note down what you see Hazel actually doing?

What do you notice? What does Hazel show she understands about counting?

Supporting the Development of Counting

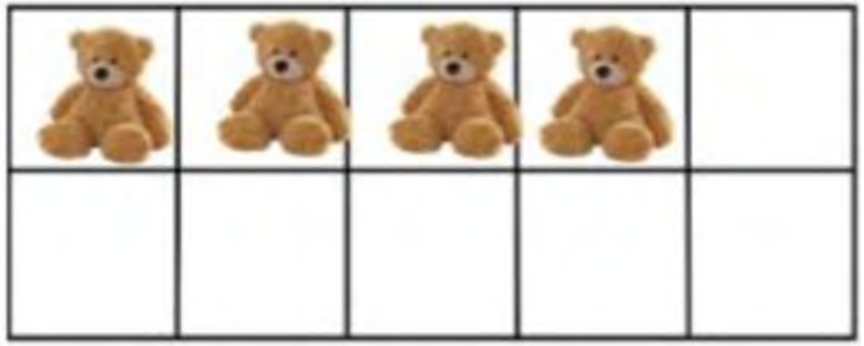
5 Counting Principles

Enfield Heights ACADEMY

1. One-to-One Correspondence Principle

Understanding that each object being counted must be given one count and only one count.

It is useful in the early stages for children to actually tag or move each item as it is counted.



5 Counting Principles

Enfield Heights ACADEMY

2. Stable Order Principle

Understanding that the counting sequence stays consistent.
It is always 1, 2, 3, 4, 5, 6, 7, 8 etc., not 1, 2, 4, 5, 8.

5 Counting Principles

Enfield Heights ACADEMY

3. Cardinality Principle

Understanding that the last count of a group of objects represents how many are in the group.

5 Counting Principles

Enfield Heights ACADEMY

4. Abstract Principle

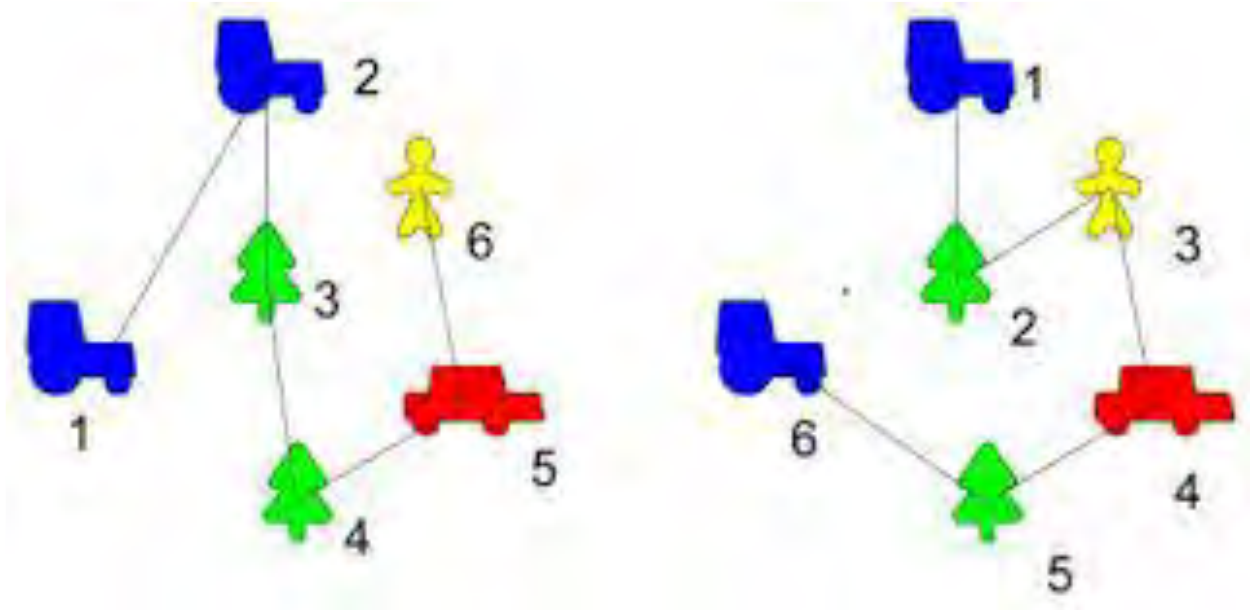
Understanding that it doesn't matter what you count, how we count stays the same. For example, any set of objects can be counted as a set, regardless of whether they are the same colour, shape, size, etc. This can also include non-physical things such as sounds, imaginary objects, etc.

5 Counting Principles

Enfield Heights ACADEMY

5. Order Irrelevance

Knowledge that the order of items are counted in is irrelevant as long as every object in the set is given one count and only one count.



Early Learning Goals

Enfield Heights ACADEMY

By the end of Reception, the children will be assessed on the following goals:

Number

Children at the expected level of development will:

- 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

Children at the expected level of development will:

- 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 Maths looks like in Reception

Enfield Heights ACADEMY

- We have minimum 3 carpet sessions a week where we teach Maths
- These sessions normally last 15-20 minutes
- We endeavor to embed Maths in all the areas – using everyday experiences, i.e. when making playdough, comparing the heights of dinosaurs and counting how many hoops we made in a game of basketball.
- After each carpet session we work with the children we feel need further modelling and try to offer the other children challenges they can complete independently on the focus table.

Maths in Continuous Provision

Enfield Heights ACADEMY

Maths is everywhere

Enfield Heights ACADEMY

We promote awe and wonder and enable the children to explore and learn through a variety of play and resources. You will find the children developing their maths skills independently within the continuous provision. For example:

Role play

- Using ‘real’ items as part of play e.g. balance scales, clocks, egg timers.
- Recognising numerals in context e.g. on a telephone or a calendar.
- Use money in play.

Other ideas from continuous provision

Enfield Heights ACADEMY

Small World

- Using maths story books alongside supporting resources e.g. ‘The very hungry caterpillar’.
- Using a range of creature sets and sorting by species, size, markings/patterns, numbers in a set, etc.
- Using numbers and numerals in context e.g. numbering vehicles and parking areas, creatin tracks and road signs, making maps of zoo and numbering pens etc.

Water

- Sorting, counting and comparing objects e.g. finding items that float or sink.
- Exploring capacity e.g. counting how many pebbles were added to a small bucket of water before it spills out.
- Pouring water into a funnel to fill various containers.

The Role of the Adult

Enfield Heights ACADEMY

What is the role of the adults in the provision?

- Observing children and modelling mathematical language by commenting on and questioning children about how they select and arrange objects.
- Encourage children to describe their choices and explain their reasoning.
- Using prompts and questions to support children in making direct comparisons.
- Exploring different ways of partitioning by encouraging children to try alternative ways of organising small objects or models.
- Drawing children's attention to instances when you record pictures, tallies or numbers to keep track of a count.
- Encouraging children to describe patterns or numbers they have created.
- Using prompts and questions that encourage children to organise, count and compare objects and containers.
- Modelling the language of addition and subtraction and encouraging children to find totals.

Calculation Policy-share resource

Enfield Heights ACADEMY

EYFS - Subtraction

Concrete

- Counting backwards in 1's, 2's and 5s and 10's using stories, rhymes and songs eg. 5 little monkeys
- Squash Numicon into playdough and cut parts off – what's left?

- Numicon and objects – children physically remove 1

- 5 frames: One less
- Progressing to 10 frames

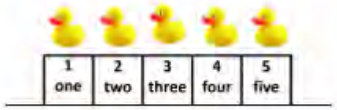
(Both Five-wise and Pair-wise)

Pictorial

- Counting backwards in 1's, 2's and 5s and 10's using stories, rhymes and songs eg. 5 little ducks

Let's sing a subtraction of 1 song.

5 little ducks went swimming one day
Over the hill and far away
Mother duck went 'quack, quack, quack'
and only 4 little ducks came back.



- Children's mark making
- Pictorial representations of real objects for worded questions:

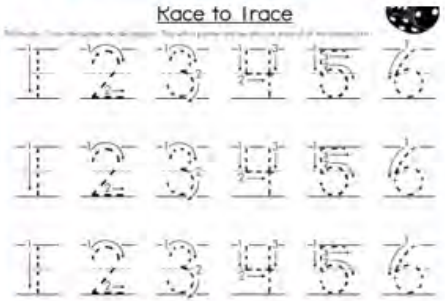
We made 6 cakes. We ate 2 of them.
How many cakes are left?

- Games – "One fewer" with die game

Abstract

- Counting backwards in 1's, 2's and 5s and 10's using stories, rhymes and songs eg. 5 little ducks
- Begin to recognise numerals up to 5.

Race to Trace



Oracy Sentence Stems:

I start with ____ and takeaway ____ there is ____ left.

There are ____ fewer items.

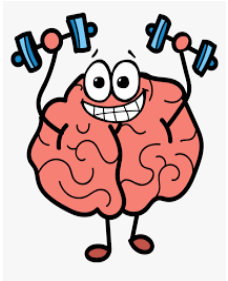
Guidance

Digit dog challenges

"Fewer" to be used when the items are countable

Use fairy tales to look at counting

Everyone Can!



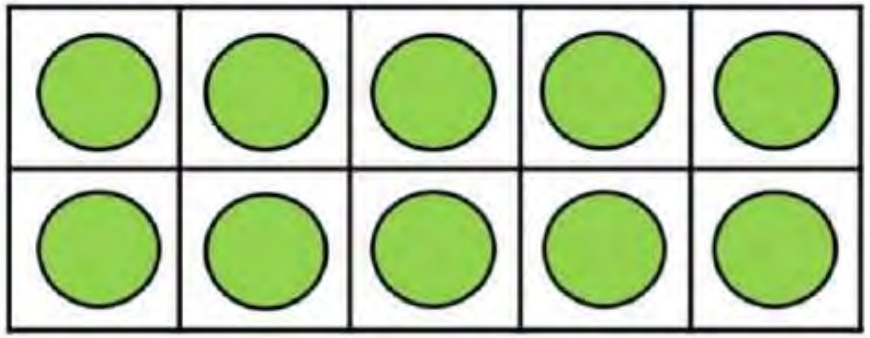
Enfield Heights ACADEMY

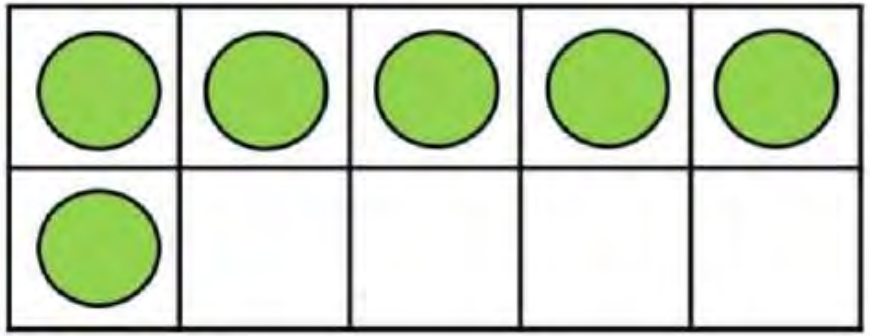
At Enfield Heights we encourage children to develop a **growth mindset** by using these strategies:

- **It's ok to get it wrong-** mistakes are valuable opportunities to re think and understand more deeply.
- **Praising hard work-** is a great motivator by focusing on effort rather than success. Children will be more willing to try harder and take risks.
- **Mind your language-** the language we (teachers and parents/carers) use around learners has a profound effect on their mindsets. Make a habit of using growth phrases like 'everyone can', 'mistakes can help you learn', 'just try for a little longer' and the key of them all- 'yet'. 'I just cannot solve this yet!'

Let’s try together now

Enfield Heights ACADEMY

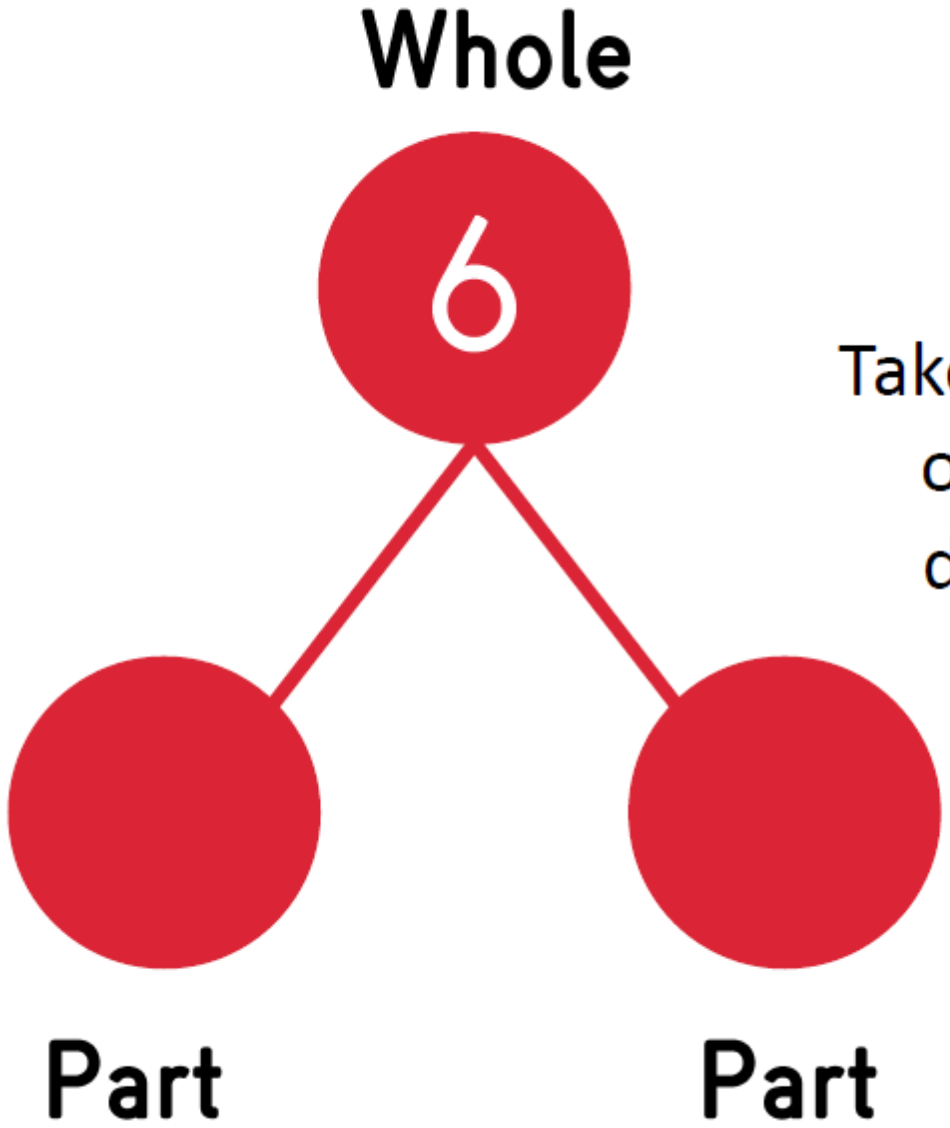




Counting On

Using a dice and two tens frames, take it in turns to roll and place that many counters in your tens frame. The first to fill up their tens frame wins.

Enfield Heights ACADEMY



Part-Part-Whole

Take 6 coloured counters. Throw them on your table and create as many different number bond diagrams.

Making Repeating Patterns

Can you make a repeating pattern using the shapes or beads?

Which colours have you used?

Which shapes have you used?

What do you think will come next in my pattern?

Enfield Heights ACADEMY

Enfield Heights ACADEMY

Place one card down, the next player guesses if the next card will be higher or lower than the previous card.

Enfield Heights ACADEMY

Teddy Bear Picnic

Give each toy a number of biscuits. Discuss with your child who has more or less.

Do they have the same?

How can you tell?

Enfield Heights ACADEMY

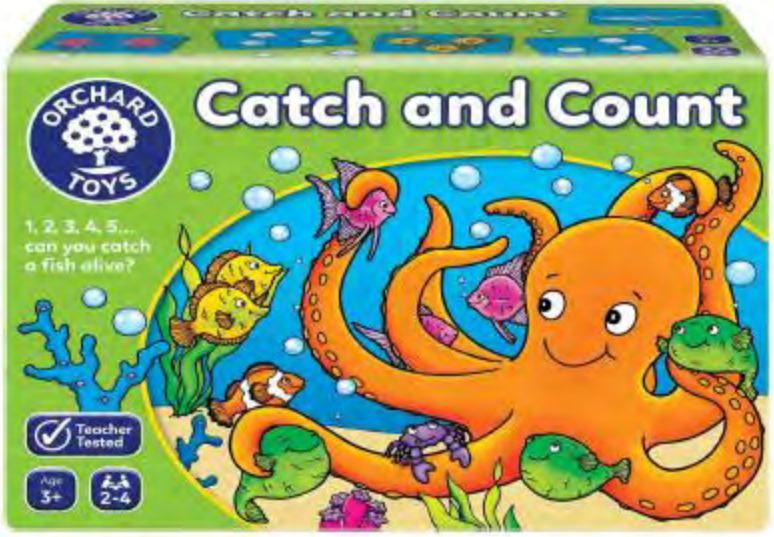
Board Games

Snakes and Ladders -

Players take it in turns to roll the dice and move their counters the matching number of places. The first player to reach the end wins.

Catch and Count -

Players take it in turns to spin the octopus spinner to see how many fish they can catch. The player at the end with the most fish wins.



How Can You Support at Home

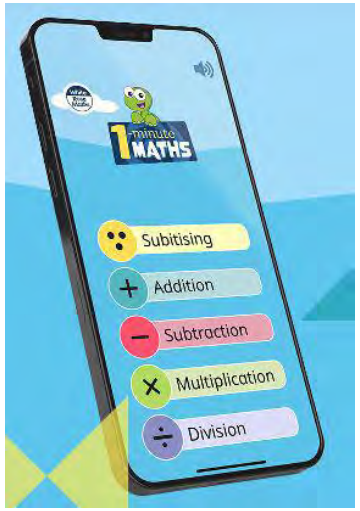
Enfield Heights ACADEMY

Numberblocks (https://www.bbc.co.uk/cbeebies/shows/numberblocks)

Numberblocks is a pre-school BBC television series aimed at introducing children to early number and can really help support early mathematical learning.

1-Minute White Rose App (https://whiterosemaths.com/1-minute-maths)

1-Minute Maths is a free app aimed at EYFS and KS1 children to help build greater confidence with their number and fluency skills. The app aims to support children in recognising a small number of items without counting them (subitising) and the four calculations of addition, subtraction, multiplication and division.



How Can You Support at Home

Enfield Heights ACADEMY

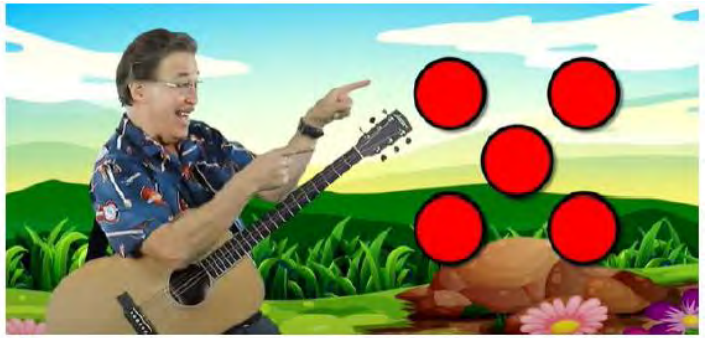
Subitising is when you are able to look at a group of objects and realise how many there are without counting.

Jack Hartman videos and

https://www.youtube.com/watch?v=dAgeKohw3XI

songs to support understanding on Youtube.

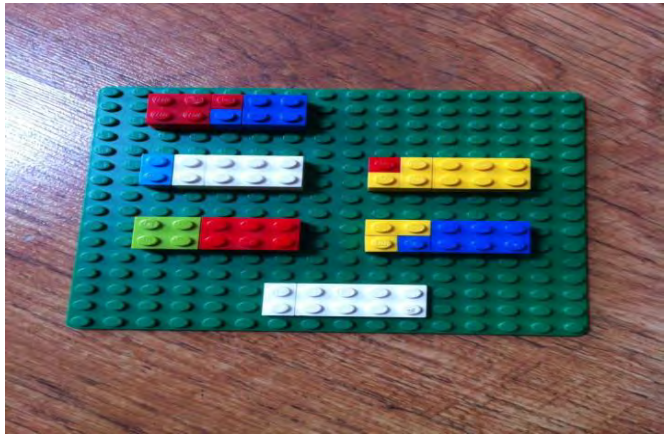
Activities and videos to support fluency when subitizing.



https://www.youtube.com/watch?v=PSIA-u_ABmU&t=1s

Practical activities at home

Enfield Heights ACADEMY



Enfield Heights ACADEMY

Counting songs:

BBC Website:
https://www.bbc.co.uk/teach/school-radio/nursery-rhymes-counting-songs/zn67kmn

5 currant buns:
https://www.bbc.co.uk/teach/school-radio/nursery-rhymes-five-currant-buns/zm4nmfr

5 little Men
https://www.bbc.co.uk/teach/school-radio/nursery-rhymes-five-little-men-in-a-flying-saucer/z6qgscw

One Man went to Mow
https://www.bbc.co.uk/teach/school-radio/nursery-rhymes-one-man-went-to-mow/zjgnmfr

Ten Green bottles:
https://www.bbc.co.uk/teach/school-radio/nursery-rhymes-ten-green-bottles/zncyt39

Five Little Specked Frogs
https://www.youtube.com/watch?v=XaJSlYMFHyQ

Enfield Heights ACADEMY

Any questions?