Maths in the Early Years

Meeting for Parents 2025

What is the intent of our Mathematics Curriculum across the school?

Our aim at St Alban and St Stephen Primary School is that children will learn to be confident in exploring and using a wide range of maths skills that they can build on in their future learning and use in their adult lives.

The purpose of Maths is the pursuit for truth and the thinking skills developed through the Maths Curriculum should inspire learners to be innovative, creative, critical and analytical learners. Enjoying the beauty of Maths enables learners to engage with the transcendent dimensions of life. It will inspire them to become the pioneers and inventors of today and the future.

Herts for Learning Essential Maths

- This scheme is used across both sites to ensure consistency and progression.
- Scheme uses sequences of lessons for each year group.
- High emphasis on using mathematical equipment for practical learning.
- Problem solving skills embedded throughout.
- Children learn to record using pictorial representations and more abstract recording e.g. number sentences.
- Talk for learning also important – speaking frames support children's use of mathematical language.

Maths in EYFS from Birth to ELG

Birth to Three

- Combine objects like stacking blocks and cups. Put objects inside others and take them out again.
- Take part in finger rhymes with numbers.
- React to changes of amount in a group of up to three items.
- Compare amounts, saying 'lots', 'more' or 'same'.
- Develop counting-like behaviour, such as making sounds, pointing or saying some numbers in sequence.
- Count in everyday contexts, sometimes skipping numbers - '1-2-3-5.'
- Climb and squeeze themselves into different types of spaces.
- Build with a range of resources.
- Complete inset puzzles.
- Compare sizes, weights etc. using gesture and language - 'bigger/little/smaller', 'high/low', 'tall', 'heavy'.
- Notice patterns and arrange things in patterns.

Three and Four-Year-Olds

- Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').
- Recite numbers past 5.
- Say one number for each item in order: 1,2,3,4,5.
- Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').
- Show 'finger numbers' up to 5.
- Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
- Experiment with their own symbols and marks as well as numerals.
- Solve real world mathematical problems with numbers up to 5.
- Compare quantities using language: 'more than', 'fewer than'.
- Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'.
- Understand position through words alone – for example, "The bag is under the table," – with no pointing.
- Describe a familiar route.
- Discuss routes and locations, using words like 'in front of' and 'behind'.
- Make comparisons between objects relating to size, length, weight and capacity.
- Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc.
- Combine shapes to make new ones – an arch, a bigger triangle, etc.
- Talk about and identifies the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc.
- Extend and create ABAB patterns – stick, leaf, stick, leaf.
- Notice and correct an error in a repeating pattern.
- Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'

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 numbers.
- Explore the composition of numbers to 10.
- Automatically recall number bonds for numbers 0–5 and some to 10.
- Select, rotate and manipulate shapes in order to develop spatial reasoning skills.
- Compose and decompose shapes so that children recognise 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 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.

In 2021, the **Early Learning Goals** changed to put greater emphasis on children understanding number and numeracy, with less emphasis on shape, space and measure.

Part 1:

The Principles Of Counting in EYFS

1. One-to-One Correspondence
2. Stable Order
3. Cardinality
4. Abstraction
5. Order Irrelevance

1. One-to-One Correspondence

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

Tens Frames are used throughout the school to support number sense and early Numeracy skills

2. Stable Order

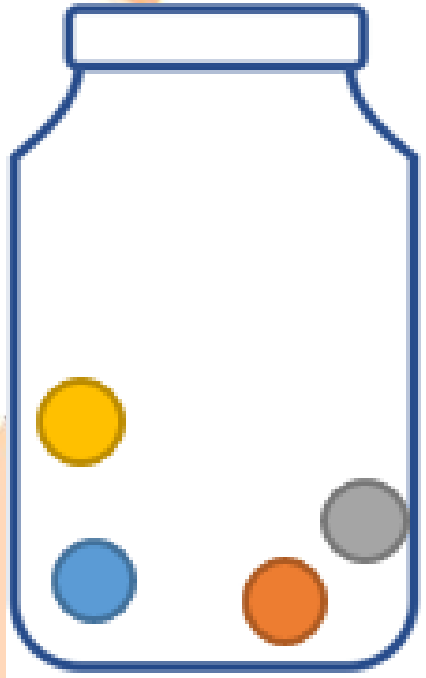
Understanding that the counting sequence stays consistent.

It is always 1, 2, 3, 4, 5 etc. not 1, 2, 4, 5, 8.

Nursery Rhymes are invaluable in the early years to practise counting a variety of different things in different ways.

3. Cardinality

Understanding that the last count of a group of objects represents how many are in the group. Clear modelling is vital for this principle.



For example: “There are 1, 2, 3, 4 marbles in the jar. There are 4 marbles (altogether)”.

4. Abstraction

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. Order Irrelevance

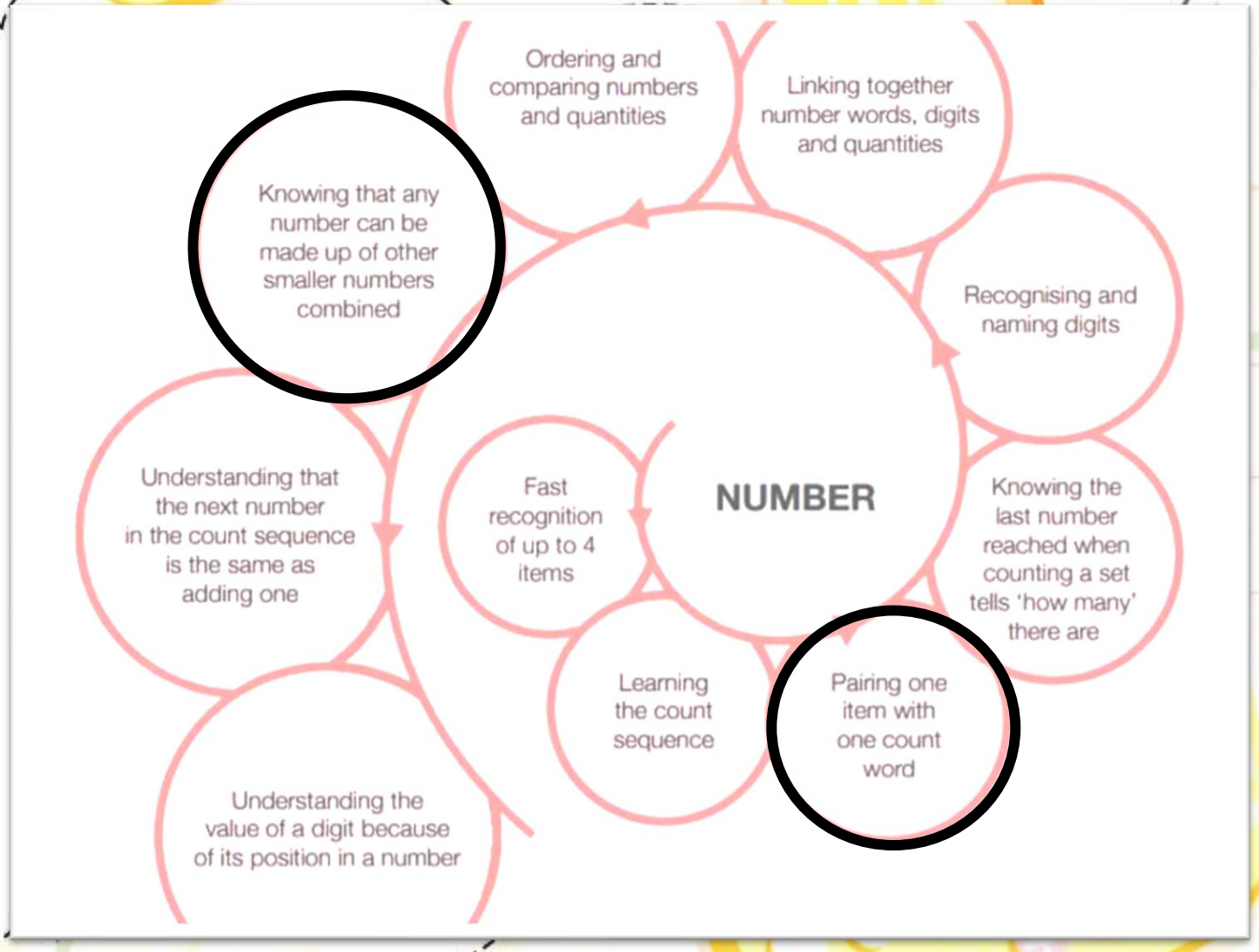
Knowledge that the order that items are counted in is irrelevant as long as every object in the set is given on count and only one count.

"How will you count the objects?" (left-to-right, top-to-bottom, in a random order).

Re-count the objects starting from a different position to check.

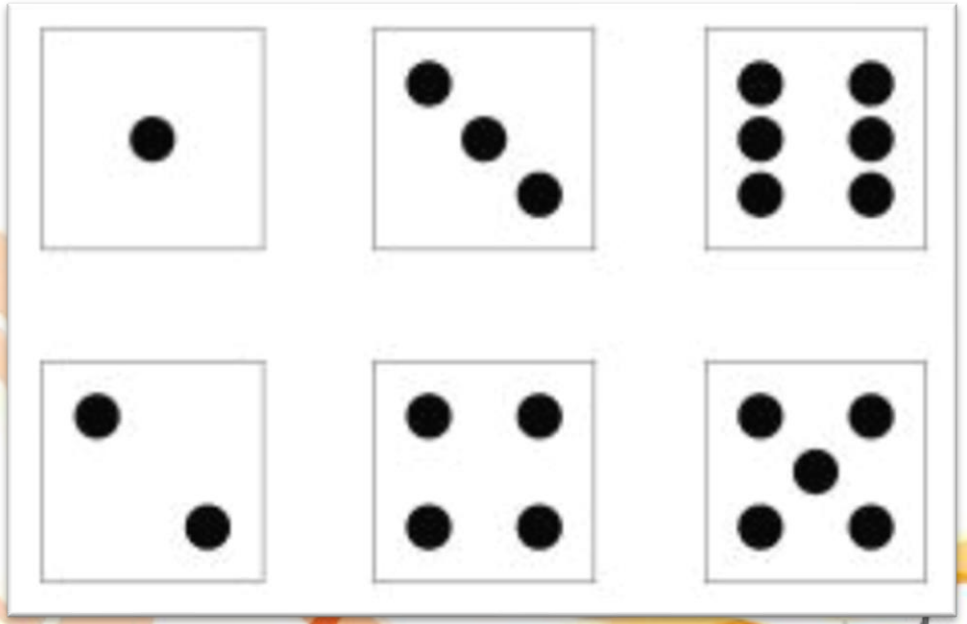
Part 2:

Number Composition



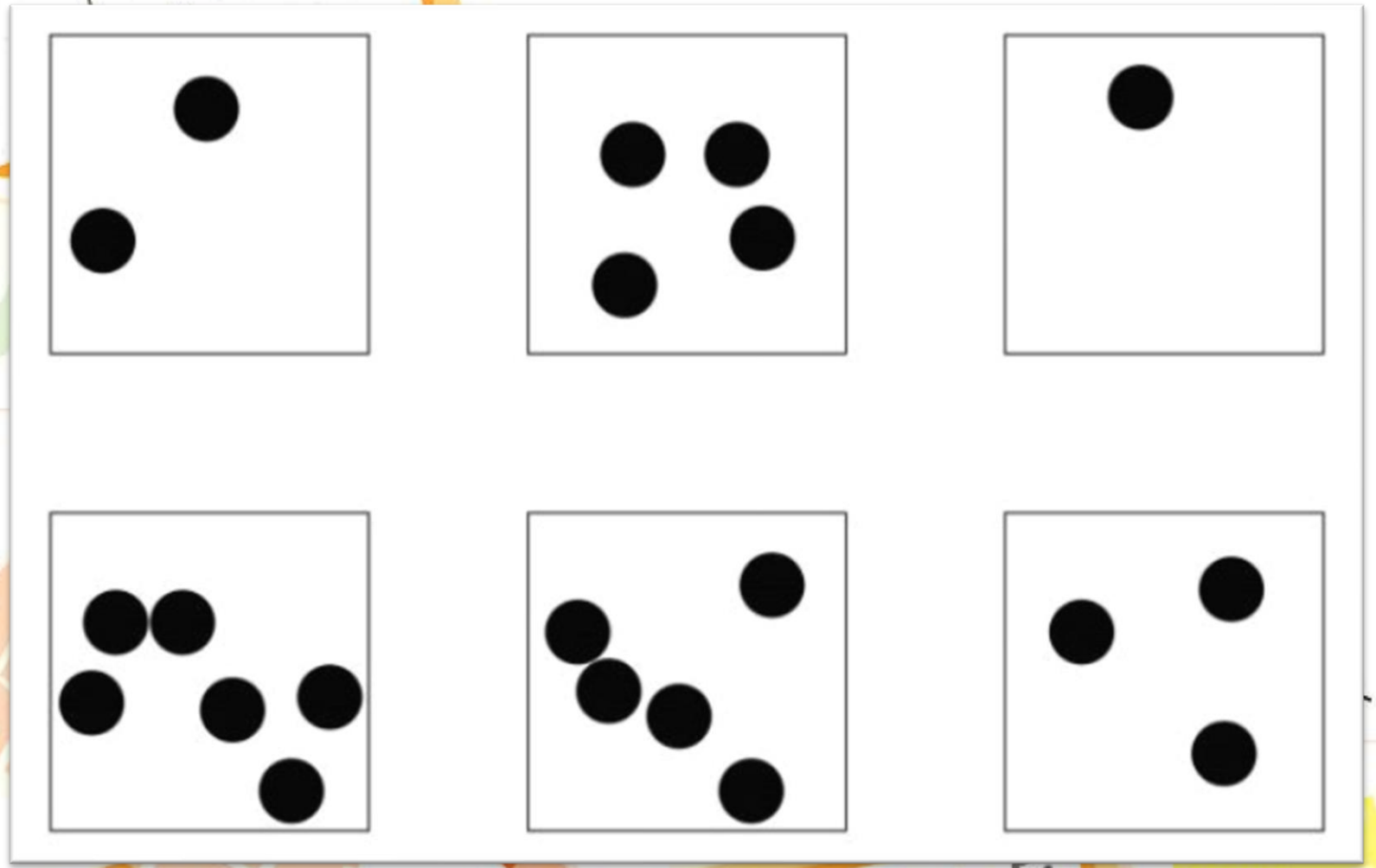
Subitising

- The ability to quickly recognise how many objects are in a group without actually counting.
- Reinforces principles of counting and beyond.



What numbers are being represented here?

Subitising



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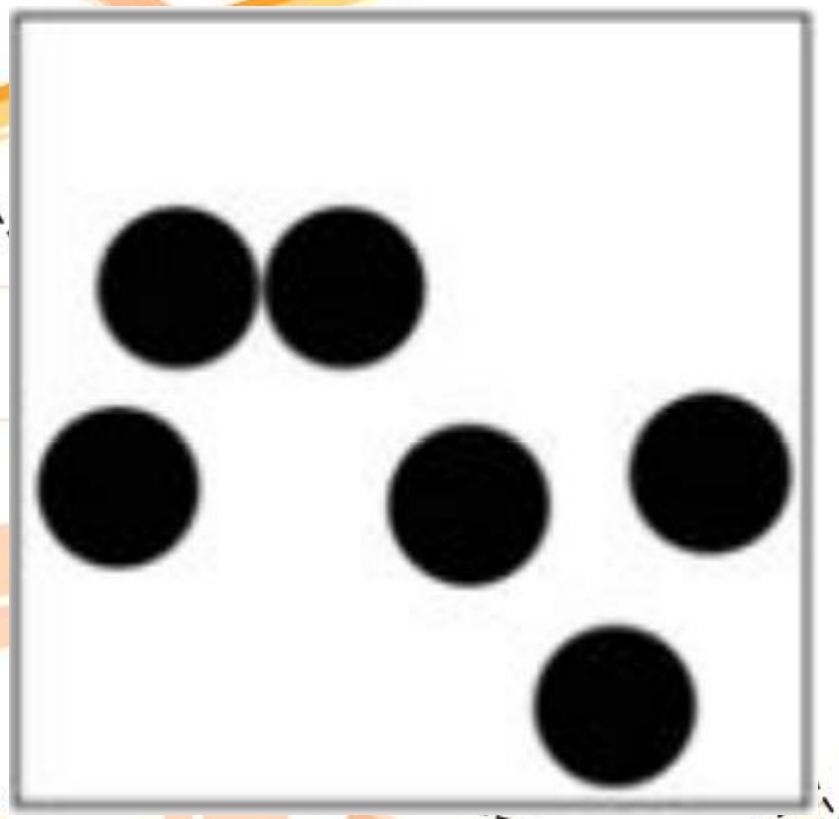
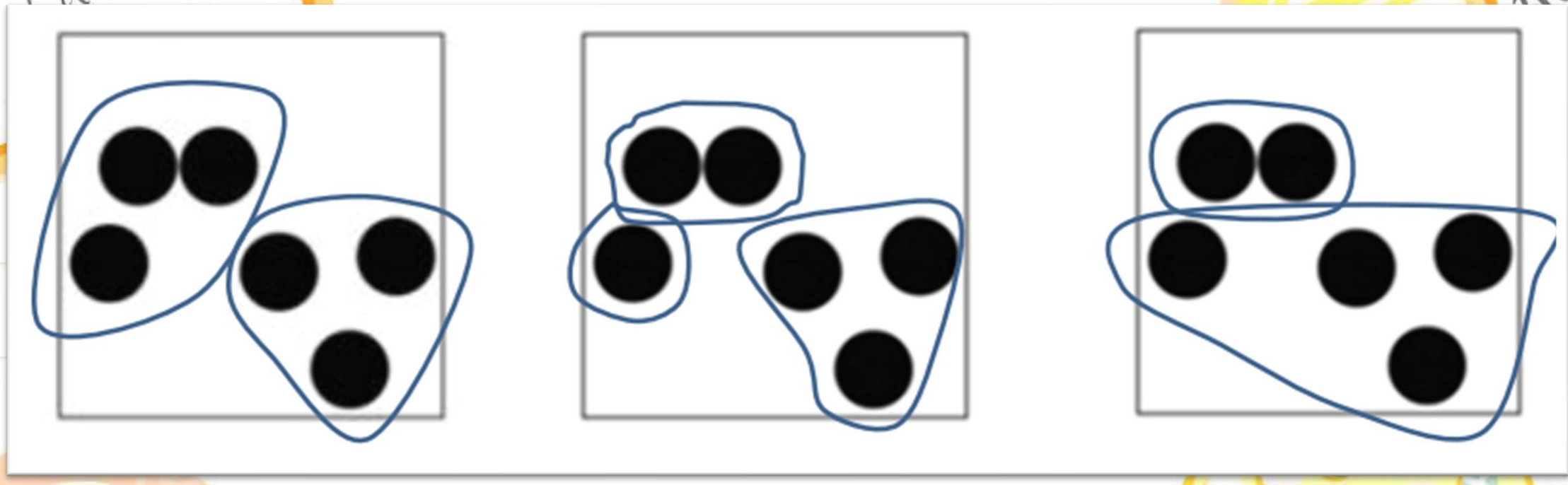


How did you see the number?

What numbers can you see within the group?

Subitising



"3 and 3"

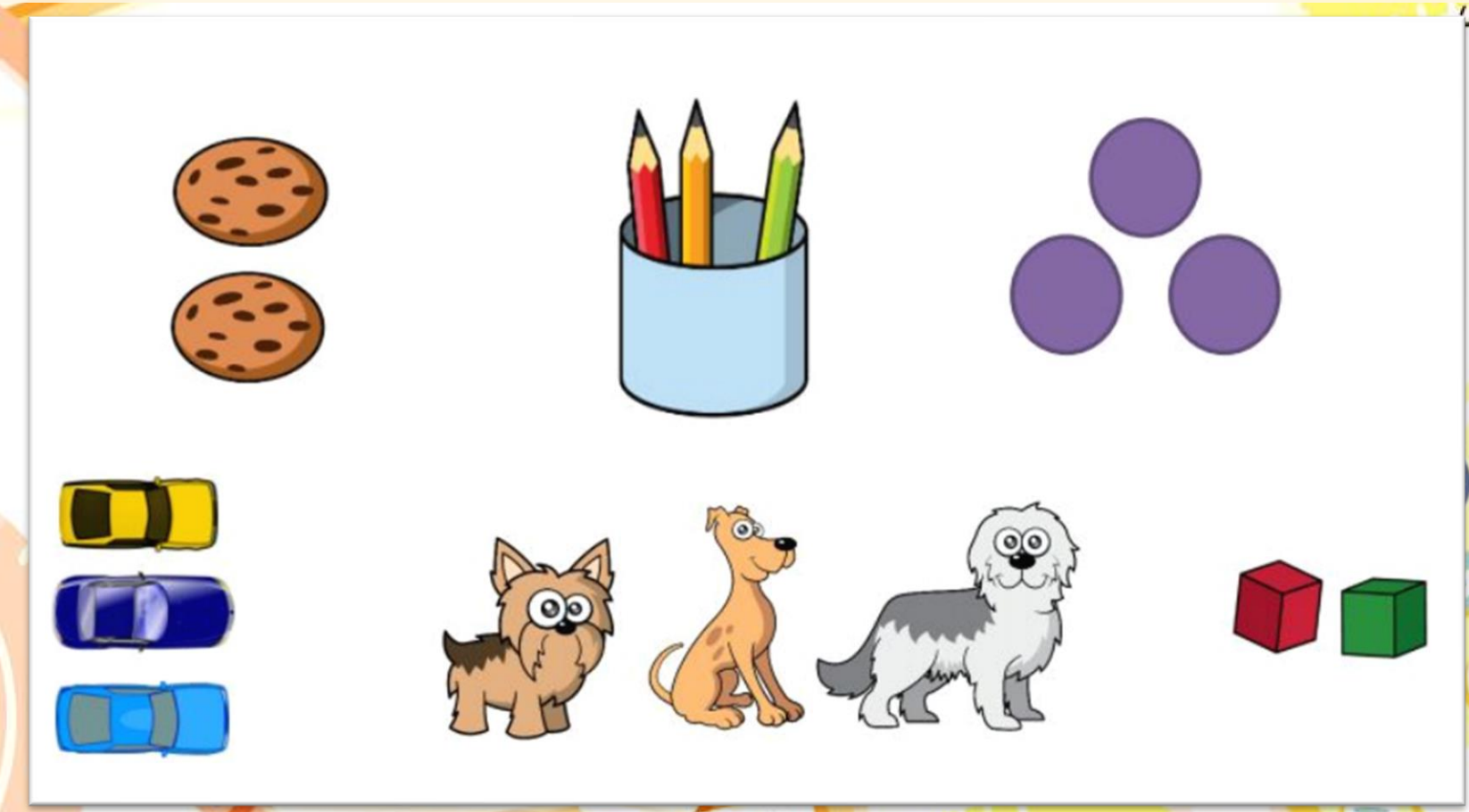
"2 and 1 and 3"

"2 and 4"

There are many ways to recognise 6. By asking children to investigate images and talk about what they can see helps to develop their understanding of different numbers.

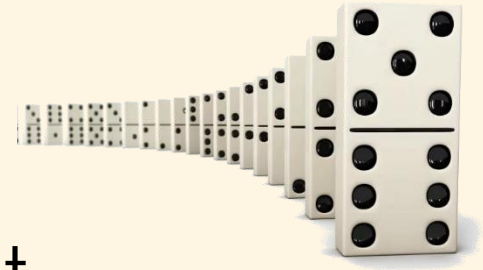
Subitising

Subitising is not just dots.



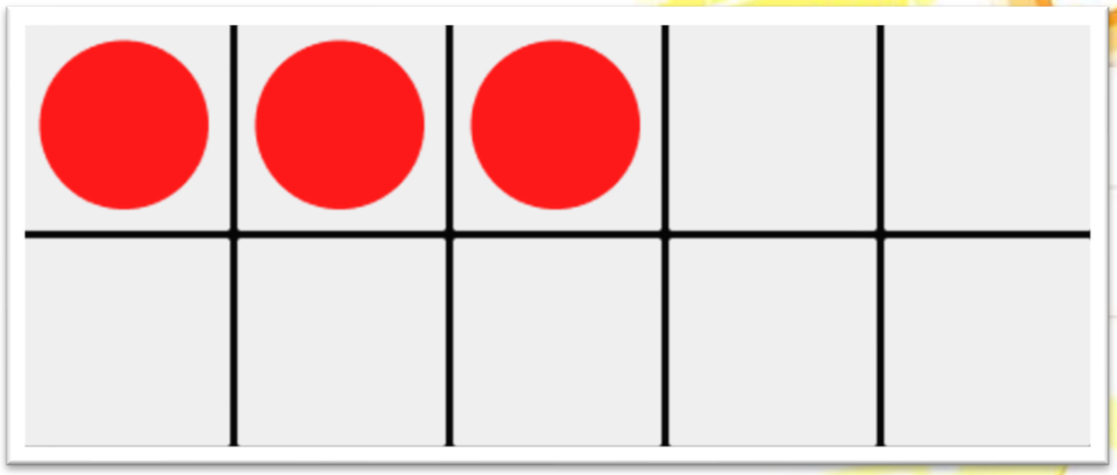
Ways to support **subitising** in class/at home.

- Number pairs.
- Quick flashcards.
- Bingo.
- Number treasure hunt.
- Find a number the same as, more than, less than mine.
- Dice games.
- Track games.
- Domino games.
- Resources: Egg boxes, muffin trays etc…



What resources do we use in Maths?

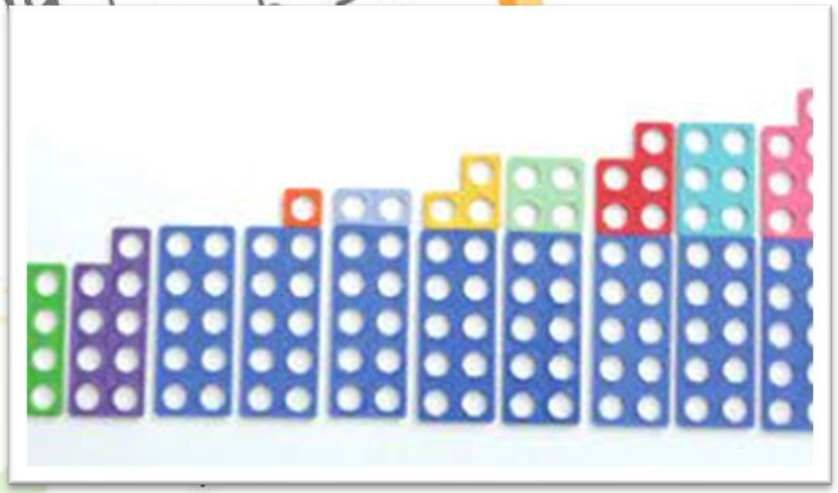
Interlocking Cubes - What can you build with 10 cubes?



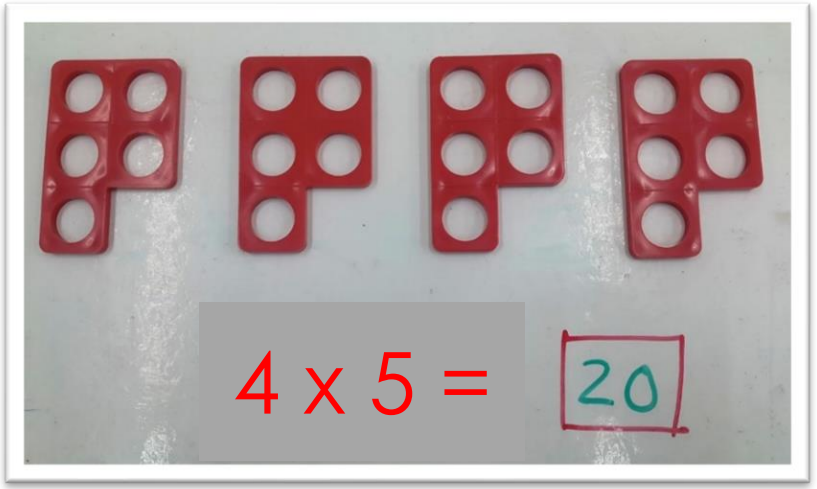
Tens Frames - How can you place 3 counters on the tens frame? What hidden numbers can you see?

What resources do we use in Maths?

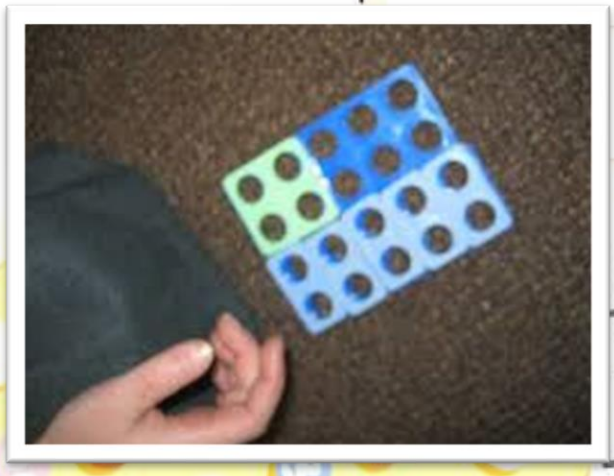
Numicon



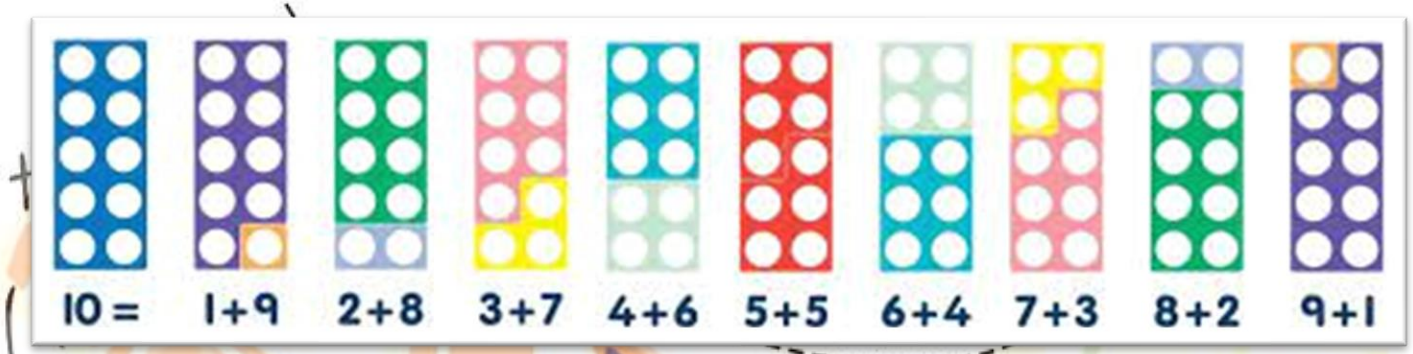
Odd and Even Numbers / Beyond 10



Multiplication

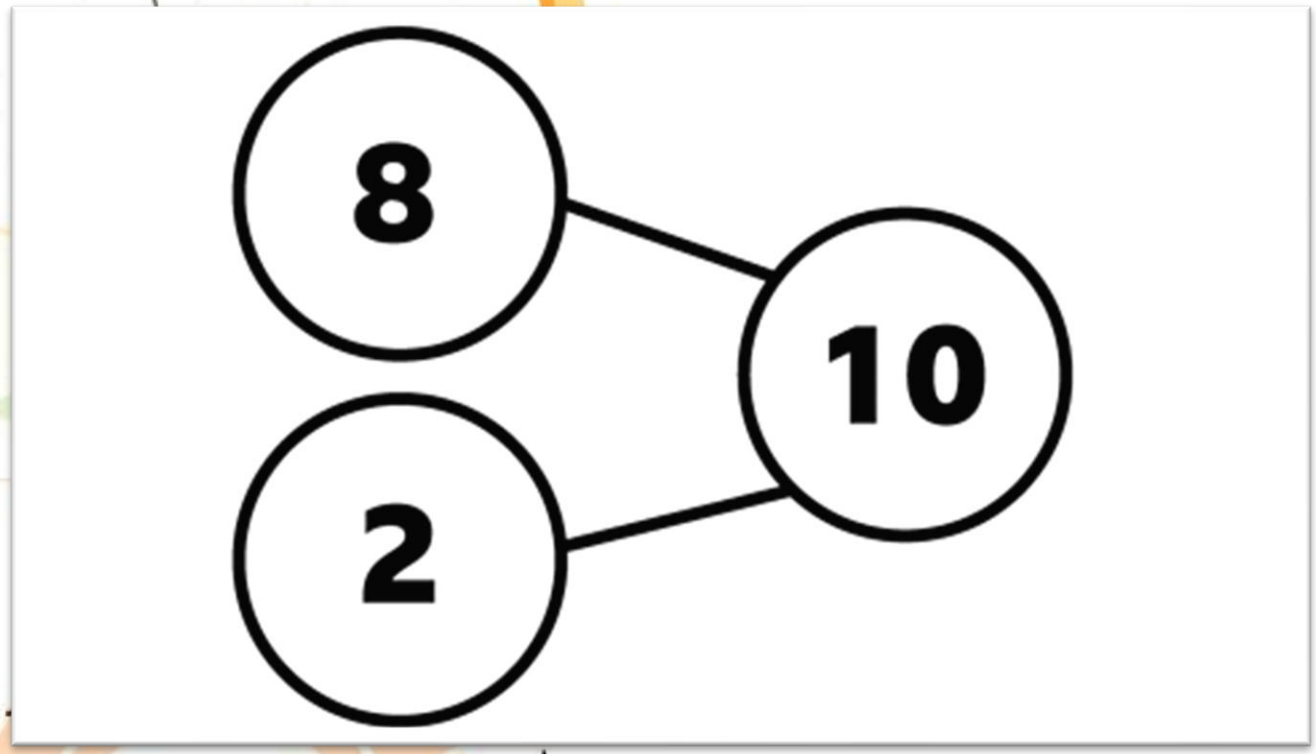


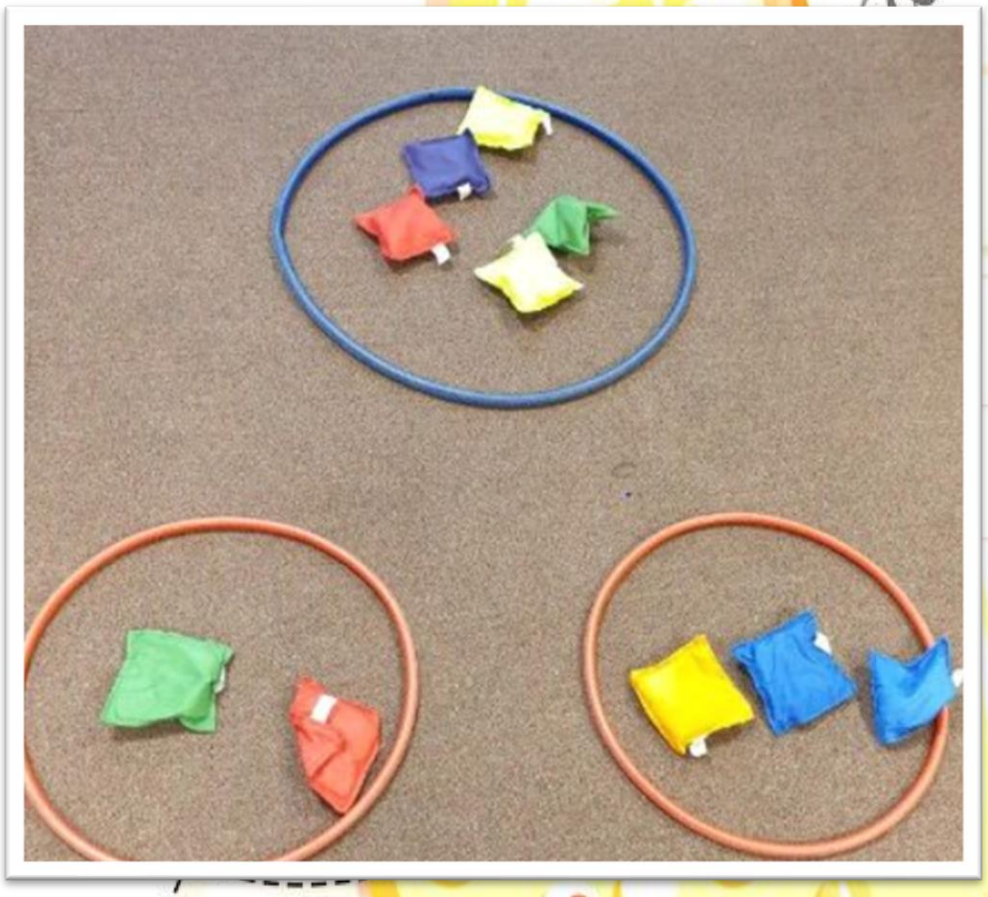
Equivalence



Number bonds to 10

What resources do we use in Maths?





Part-Whole Models (Cherry Models) for sharing, addition and subtraction.

What resources do we use in Maths?

Key Takeaway – **Maths is EVERYWHERE!**

"I have built a house!"

How would you describe the height?

"The house is bigger than me"

How many blocks did you use?

"I have used 15 blocks"

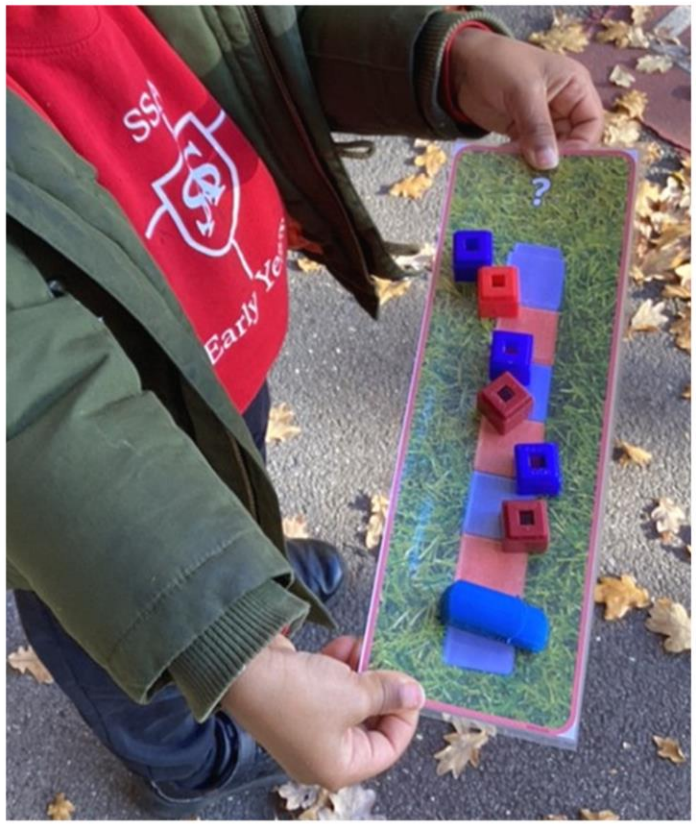
"I've ordered them… big to little and in colours"

How would you describe the orange ones?

"In between the blue and green … the yellow and the red are next to each other"

(Positional language)

Key Takeaway – **Maths is EVERYWHERE!**



"I made a repeating pattern!"

"We put the houses in order"

What number would come next?

"Thirteen"

I can make shapes using toilet rolls and paint.

Key Takeaway – **Maths is EVERYWHERE!**

I can subitise and match numerals to the dots.

Let's build a tractor – How many wheels do we need? What shapes can we see?

Further ways to support Maths at home…

- **Cooking** – uses a variety of Maths skills in real life contexts – such as weighing, reading a scale and telling the time.
- **Board Games –** Dice reinforce subitising skills, moving counters 1:1 correspondence, snakes and ladders develops number recognition, addition and subtraction.
- **Card games and Dominoes.**
- **Looking at clocks at home –** analogue and digital, noticing sequencing of events (i.e. what time is dinner, what comes next?)
- **Money –** playing shopping games and giving children opportunities to use money in real life situations.

Useful Websites…

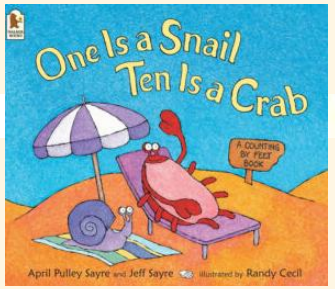
Topmarks

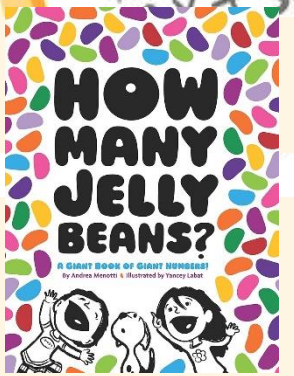
BITESIZE

Number Blocks

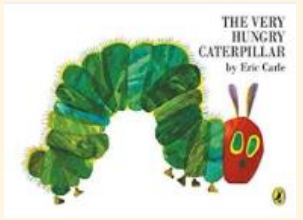
Oxford Owl

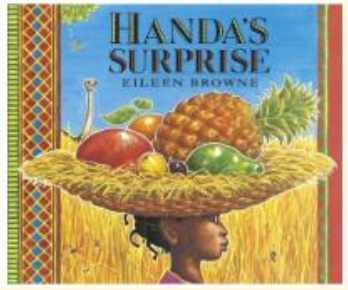
Make Maths Fun!

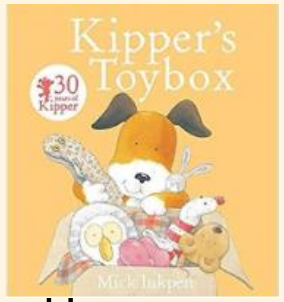




- **NSPCC Number Day 2024 –** 7th February 2025
  Children dress up with numbers or patterns.







- **Read Maths Stories**
- **Art activities with a Maths theme** – pictures made with shapes, patterns.

- **Lots of outdoor learning!**
- **Opportunities for real life, hands-on experiences.**

Thank you for listening.

We are happy to answer any questions that you may have…