22.9.21

WE ❤ MATHEMATICS IN RECEPTION

ATTITUDE IS EVERYTHING

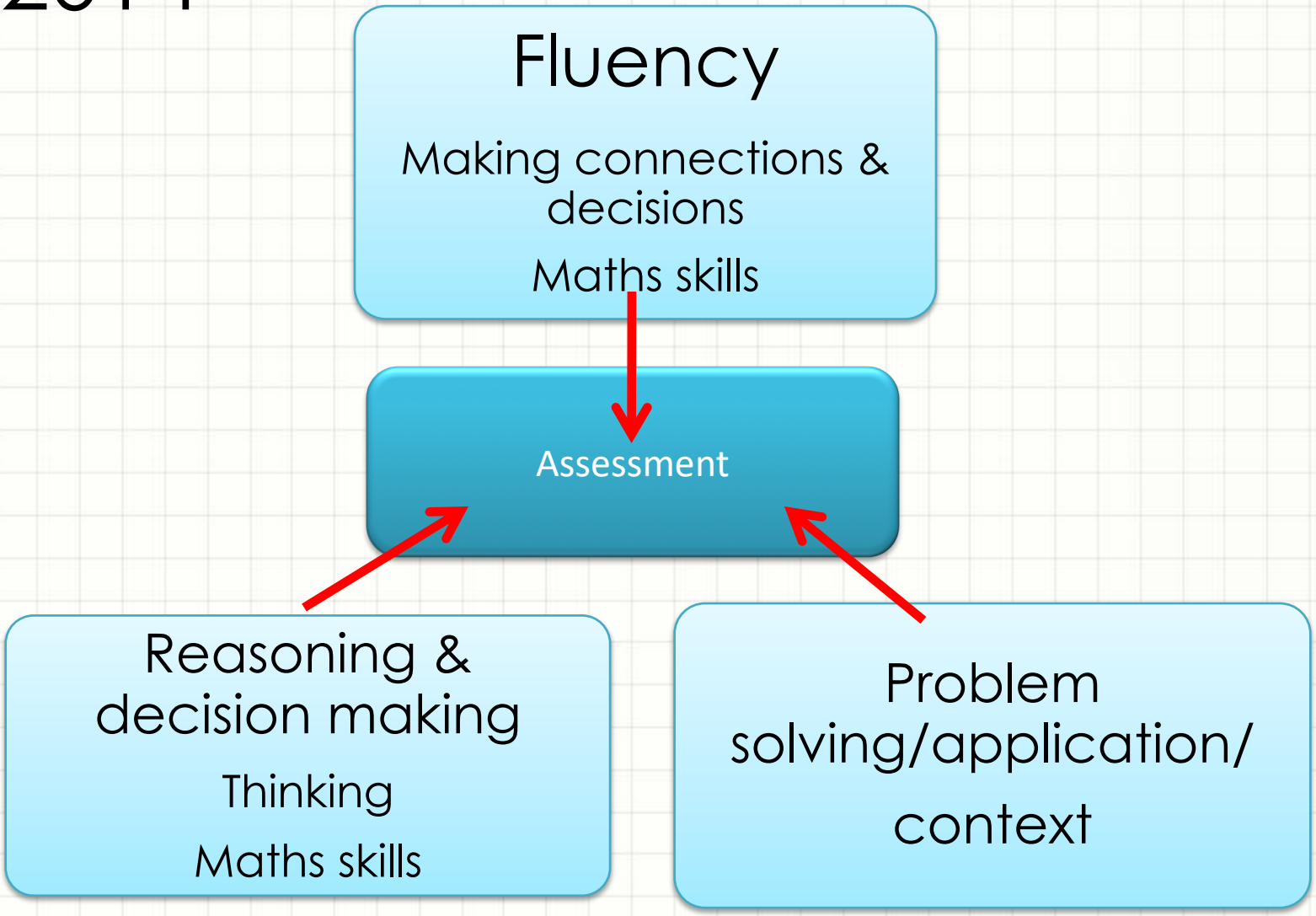
‘I’m not a maths person.’

Instill a Love of Maths

"Math is an intellectual muscle building; it's crucial for fully developing a child's potential,"

Mahoney

Aims of the National Curriculum 2014



What is a 'Mastery' curriculum?

In a nut shell:

Mathematics Mastery curriculum, emphasises depth before breadth and ensures pupils' conceptual understanding of mathematics.

The mastery pedagogy works on the principle that all learners, with effort, will meet expectations. It works on the premise that great teaching, based on formative assessment, particularly great questioning, is key. Precise assessment, teaching that closes any gaps, thinking about ability differently are all part of the mastery pedagogy.

Maths in EYFS @ Halewood CofE

- **Rationale**: To develop a **love** of mathematics and **strong foundations** in number sense and the recall of basic facts. To develop an ability in the children to **express themselves** fluently, to talk about the subject with assurance, using the appropriate mathematical **vocabulary**. To develop the children's ability to independently **apply** their mathematical understanding in their child-initiated learning and to recognise mathematics in real life. To begin to spot patterns, **reason logically** and **solve problems**.

The EYFS Framework 2021

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

It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes."

Programme of study for Mathematics

Mathematics

Early Learning Goal

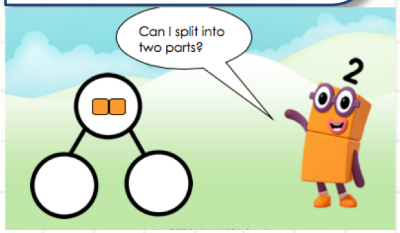
- Numerical Patterns
- Number

Shape, Space & Measure

Working Toward Mastery

Concrete
Practical
equipment

Pictorial



Abstract

10-3=7

Early Learning Goal: 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 does this look like?

- **Saying the number words in sequence – FNWS/ BNWS**

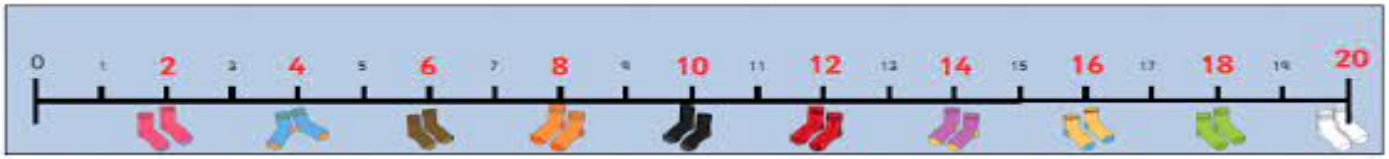
1,2, 3,( ),( ),( ), 7, 8, 9

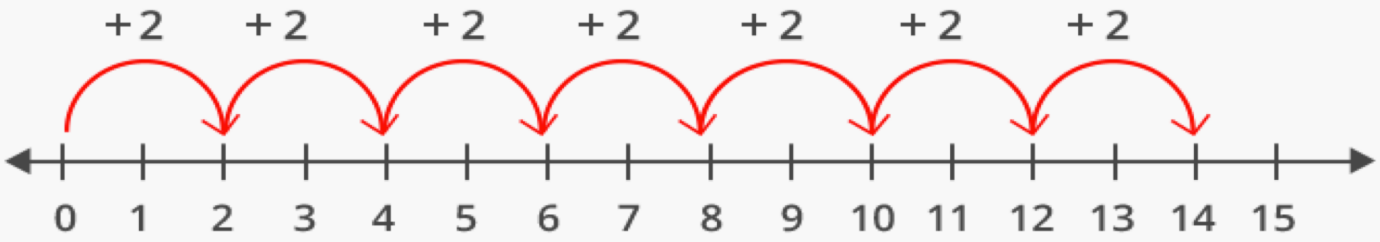
1,2,3,5,6,7,8 – Which number is missing?

6		8	9	10		12

Bridging 10s 19, 20, 21
29, 30, 31

Skip count in 2s (5s & 10s)





Count by	Skip Counting
2s	2 4 6 8 10 12

Number – counting objects

Cardinality & Counting

- Tagging each object with one number word
- Knowing that the last number gives the total so far.
- 1:1 correspondence

Numeral meanings & Conservation

- Recognise numerals (digit, numeral, number)
- *Knowing that the number does not change if things are rearranged (as long none have been removed)* E.g. Stampolines 5

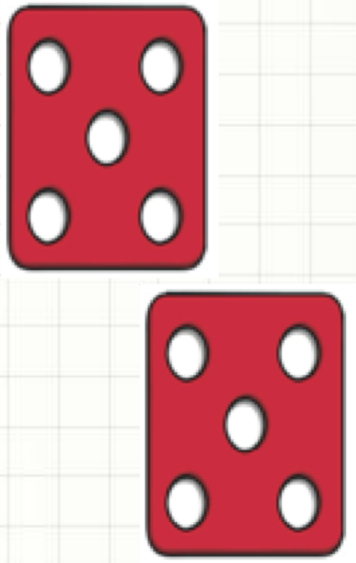
Compare

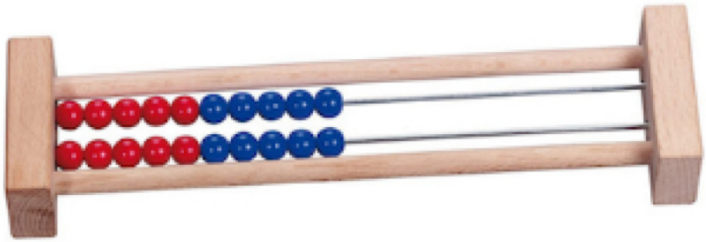
- Objects of the same size and shape
- Objects of different shapes
- Objects of different sizes

- More/ less than
- fewer/ greater than
- equal to/ same as

Spotting patterns

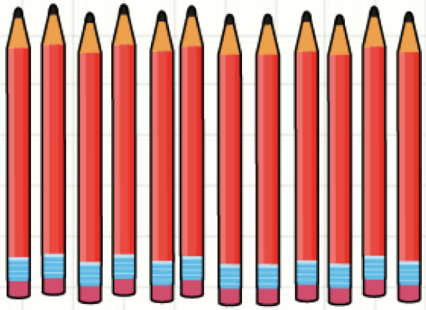
- Doubles

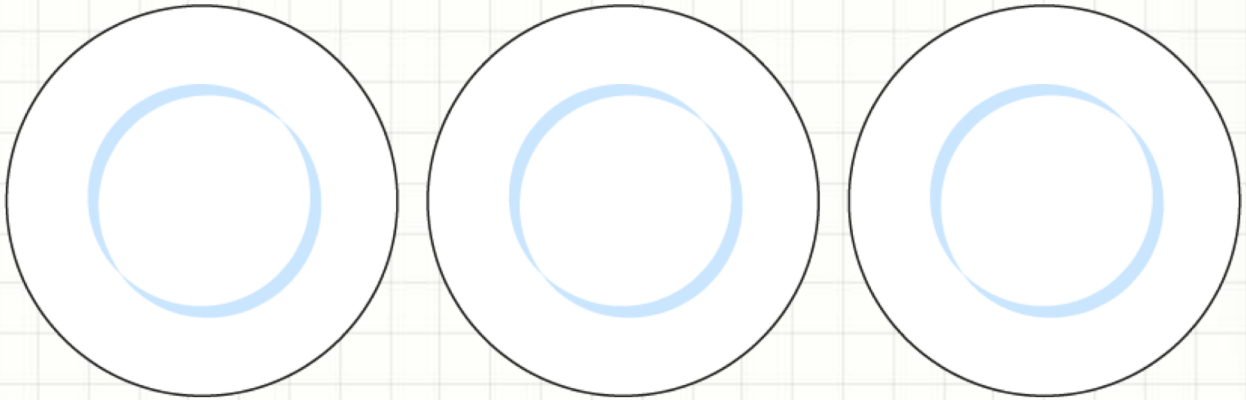




Is this fair?

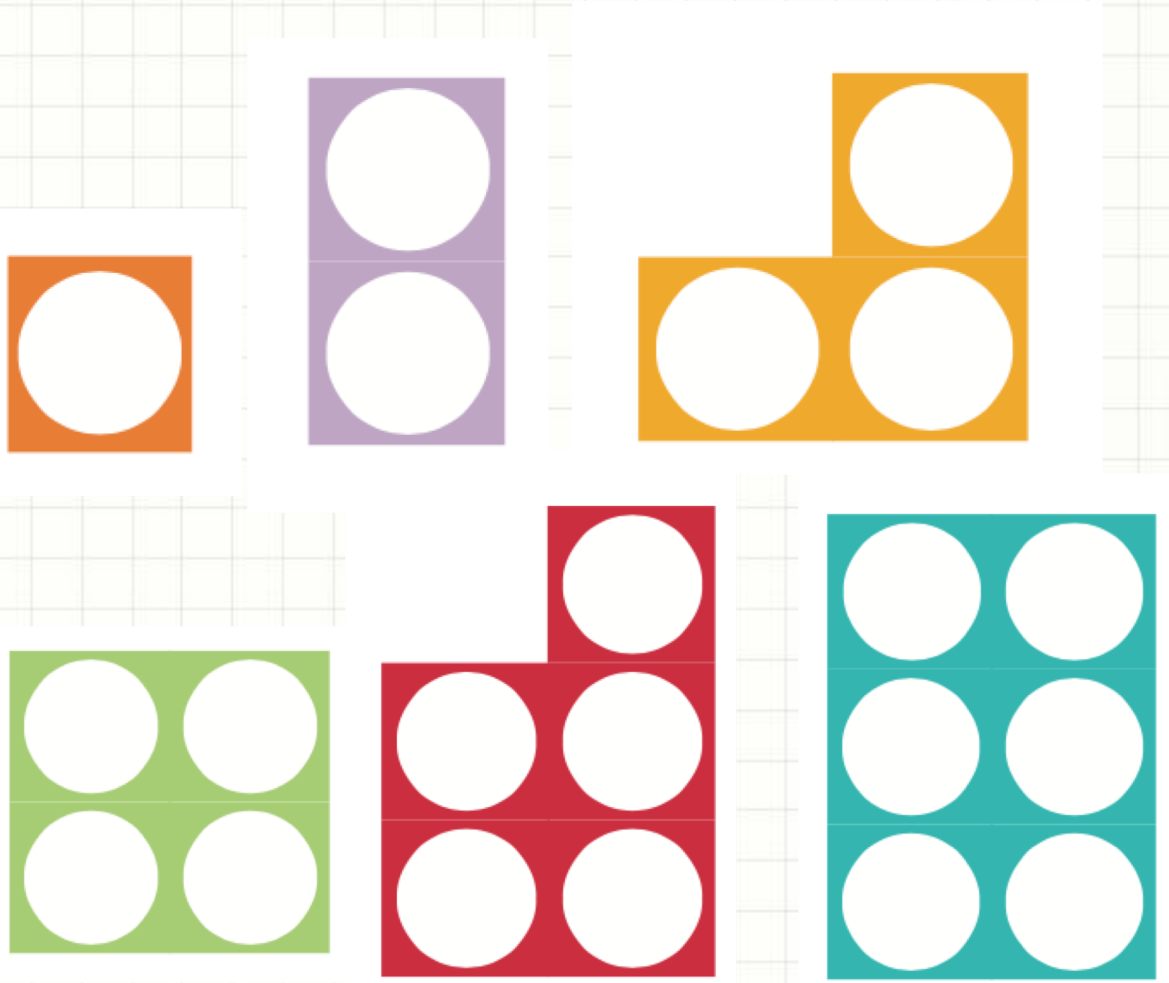
Equal groups





Odd and even Numicon

What happens if we add 1 to odd?
Add one to even?



Counting

- 1:1 correspondence (not just by rote) static, moving objects – regular and irregular patterns
- Fingers, sounds, objects
- Jar of junk – Can you **estimate** how many? Can you sort them? How many of each colour/shape?
- Set the table
- Count stairs up and down to bed

Number Manipulation

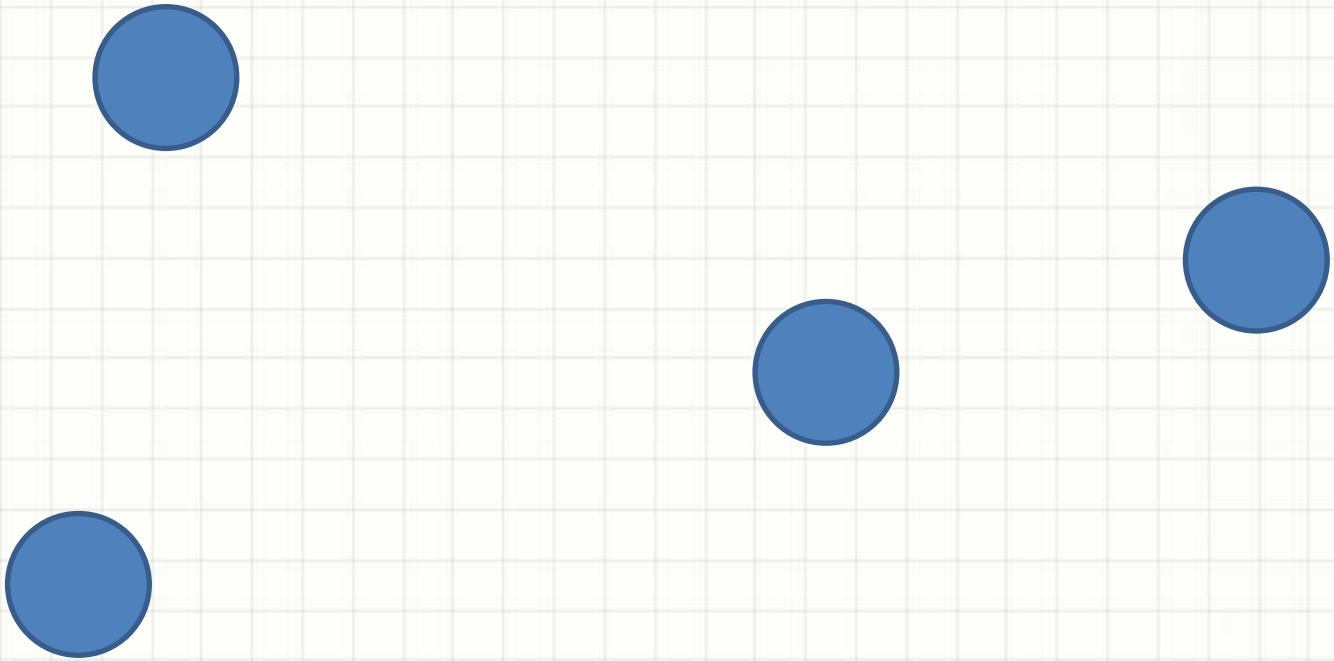
- 1 more/1 less- Ping-Pong
- Who has more?
- Play Your Cards Right-higher/lower
- "I'm thinking of a number...1 more than 7"
- Missing numbers on a number track

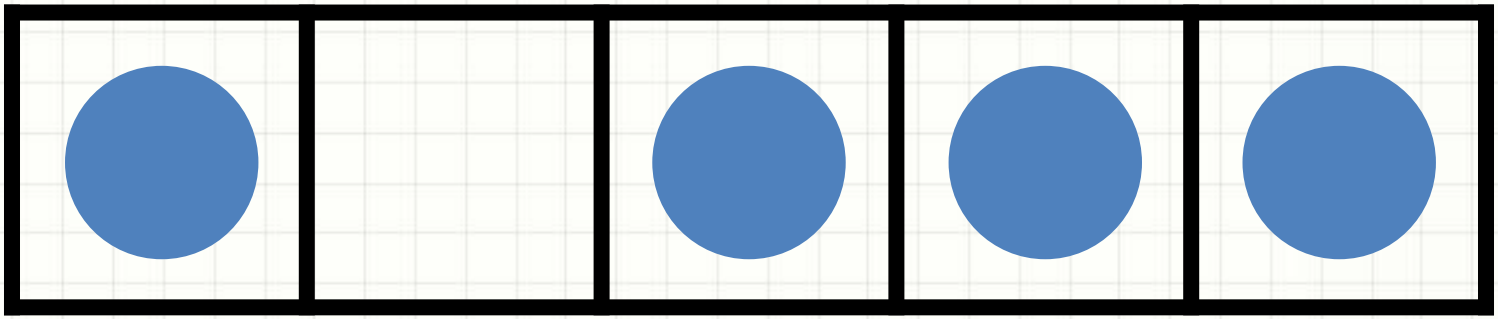
Early Learning Goal: Number

Children at the expected level of development will:

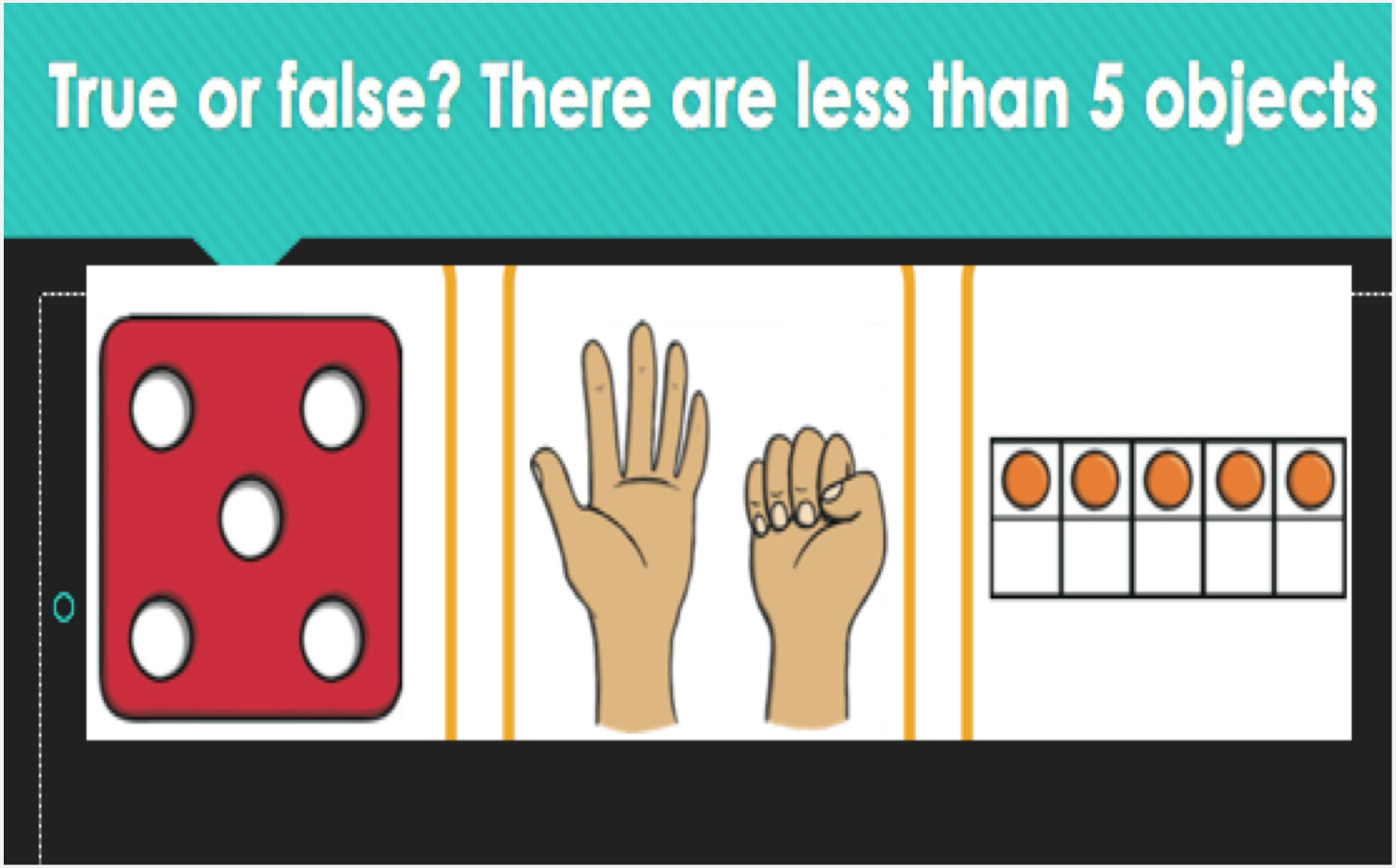
- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Subitising





Can you prove it to me?



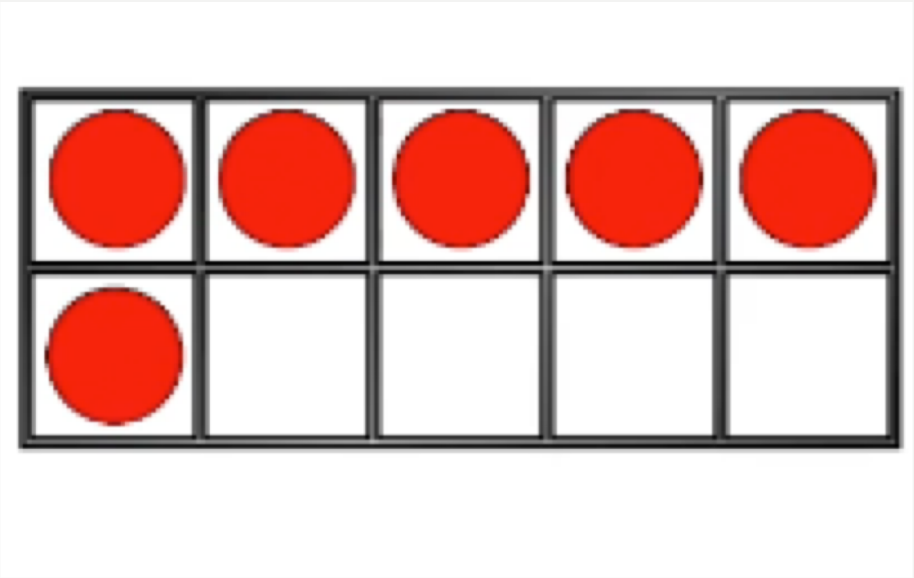
Reasoning – breadth and depth

Tens frame

How many can you see?

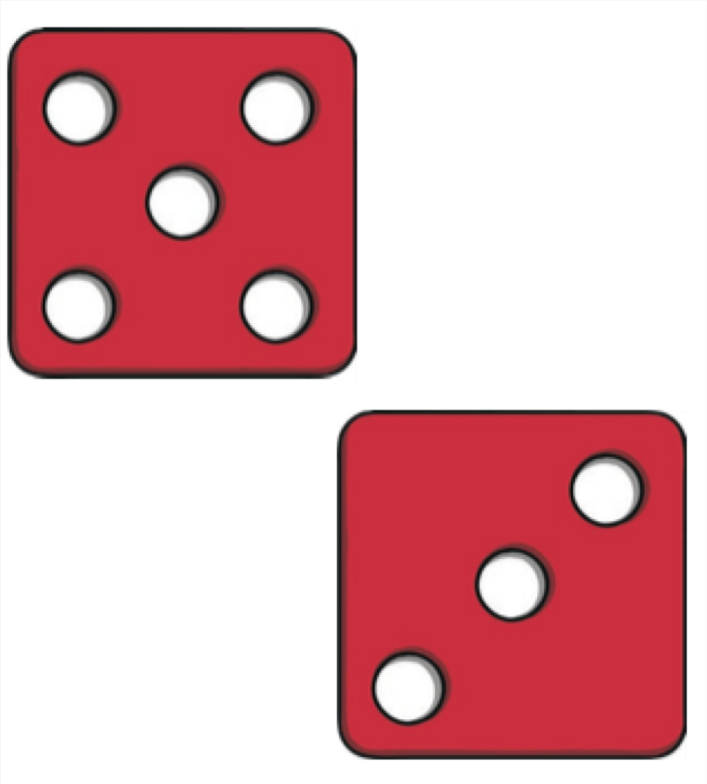
How many more to make 10?

Count on from or drop back to 1?



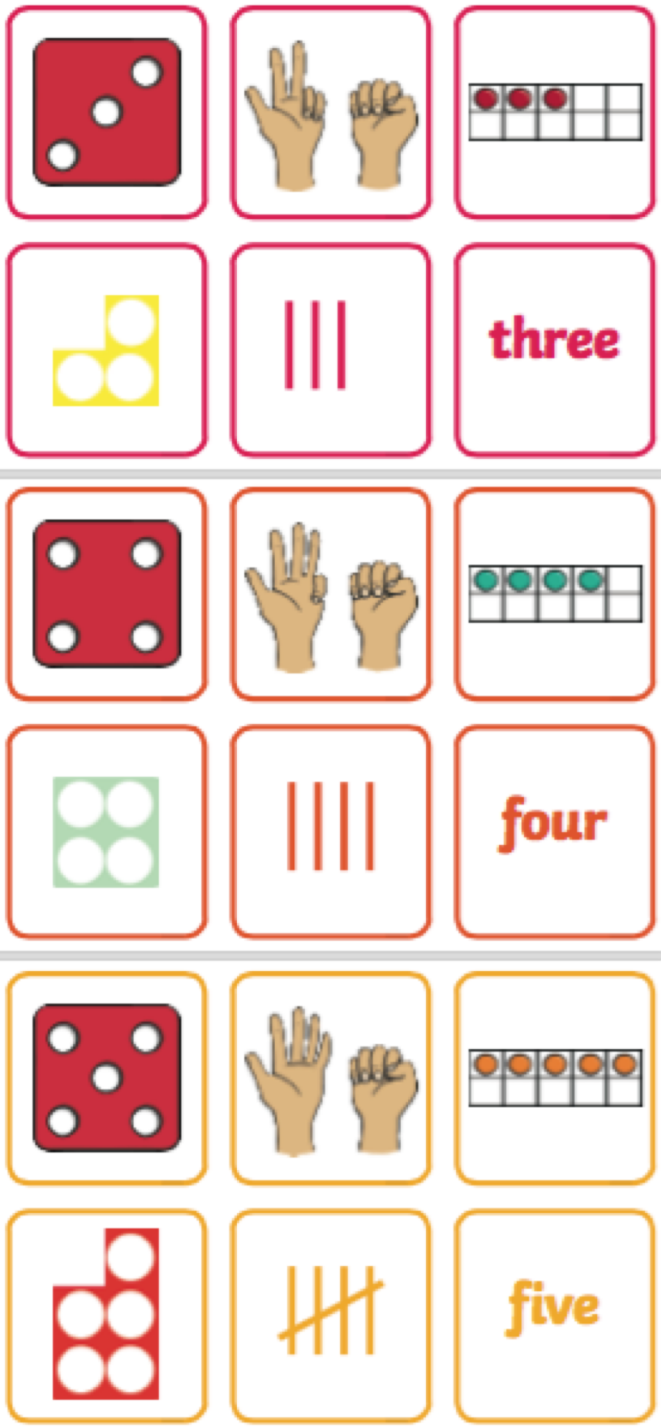
Dice patterns

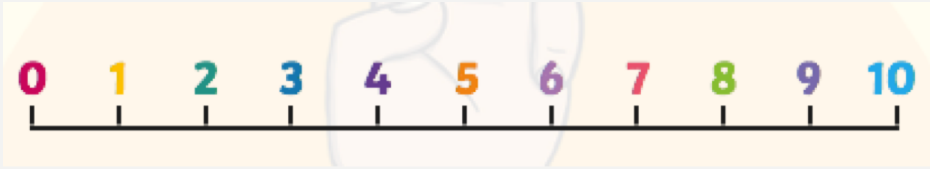
How many can you see?
How many more to make 10?

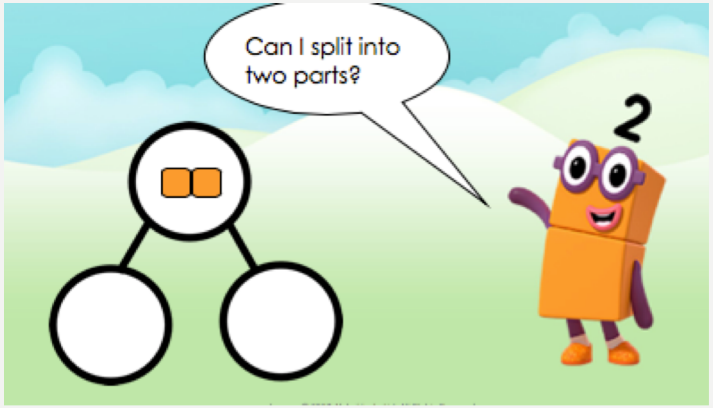


To add and subtract single digit numbers

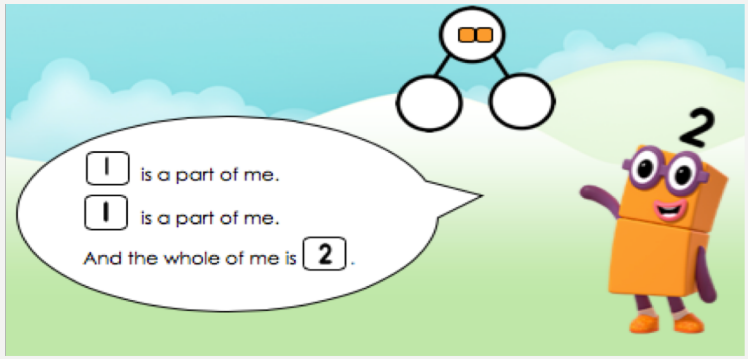
- **Language** – plus, add, altogether, minus, difference, subtract, take away
- Nursery Rhymes- props, fingers
- Objects - **CONCRETE**
- Verbal questions " If Mr. Smith..."
- Images – **PICTORIAL – children draw to demonstrate their understanding**





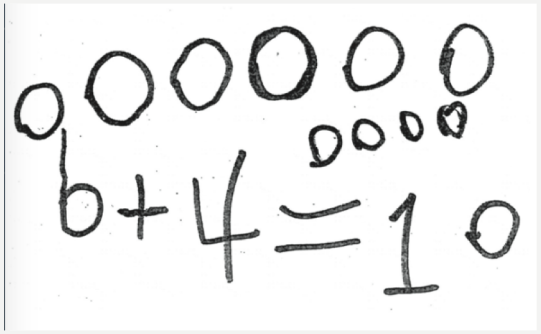


Part-whole model



Independent recording

- Written number sentences – **ABSTRACT**



7+1=8

10-4=6 5 + [ ] = 10

4+6 = 10 so 14+6=20 3+3=5+?

To solve problems involving doubling, halving and sharing.

- Play dough, pastry
- Sharing sweets
- Setting the table, serving food
- Cooking- doubling up recipes
- Verbal discussions

"If we've got 6 sausages,
how many will..."

THANK YOU FOR COMING TO OUR PARENTS' WORKSHOP.