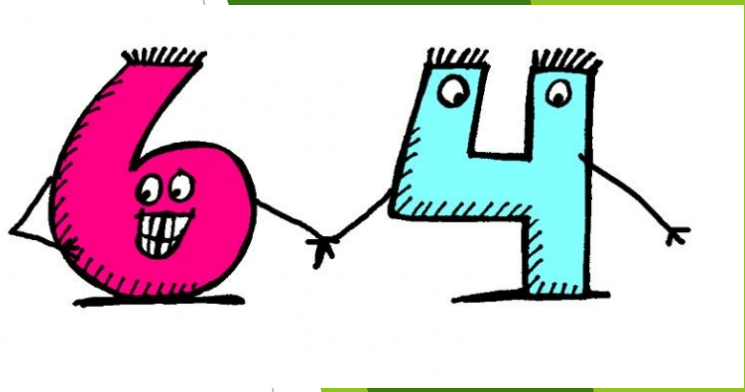
Maths in Elm Class

Teaching Strategies

Reception – Early Years Curriculum

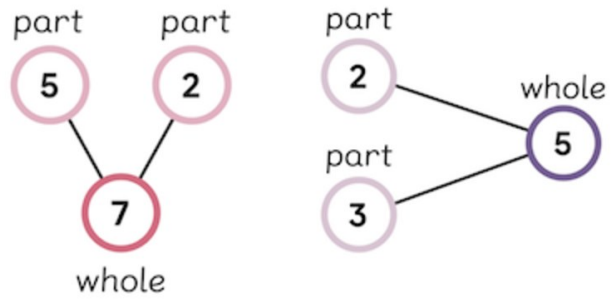
- Reception learning is essentially play based.
- It is a combination of child led, adult supported and adult led learning.
- Teachers provide environments and activities to enable to child to have opportunities to extend learning with desirable outcomes in each area.
- Teachers and assistants support and challenge understanding through narrating children's play, modelling and questioning.
- Maths learning is always underpinned by skilful use of mathematical language and vocabulary in context.

What do we want children to learn?



- To fluently recall mental maths facts, like number bonds to 10.
- To use mathematical language to explain “how” and “why” they found their answer.
- To show their understanding in a range of ways, such as with objects and drawings, as well as number sentences.
- To use what they know to solve problems.

- **10-3 = 7** ***because I know that 7 and 3 make 10.***

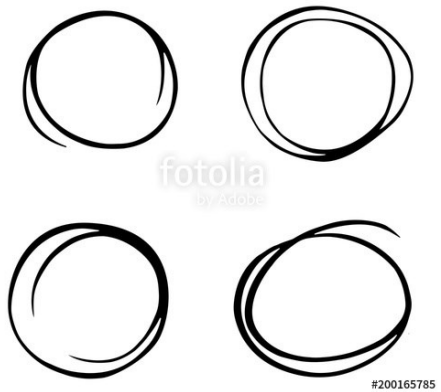


Year 1 and the National Curriculum

- At Broad Oak we teach to **the National Curriculum**, using a range of schemes including "**White Rose**" and drawing on resources from the NCETM (National Centre for Excellence in the Teaching of Mathematics).
- There are clear objectives for each lesson and assess children's understanding through an ongoing process. Within each lesson there are opportunities to secure learning through different strategies, apply problem solving techniques and to challenge learning at greater depth.
- Lessons are structured to support children who learn in different ways. We use visuals, sound and plenty of concrete resources (to touch and explore in a sensory way).
- Maths learning and recording is explored through a combination of concrete(objects), pictorial (drawing) and abstract(number sentences etc).

Maths learning is secured through using CPA.

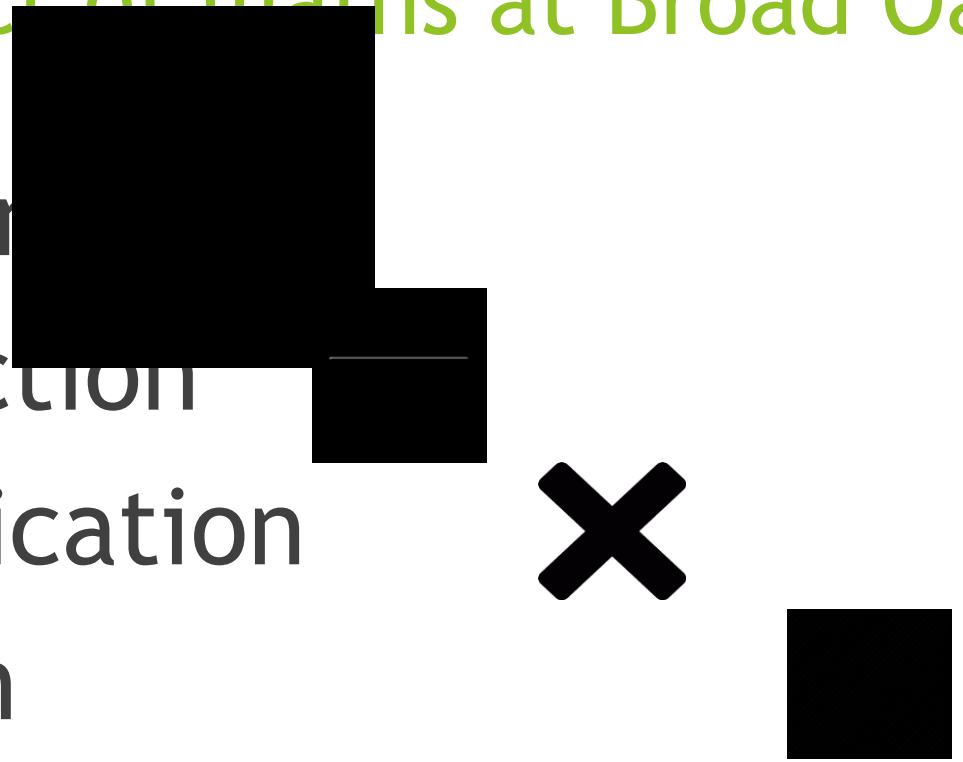
- Concrete
- Pictorial
- Abstract



5

The 4 operations.
One aspect of maths at Broad Oak

- Addition
- Subtraction
- Multiplication
- Division



Additio[redacted]

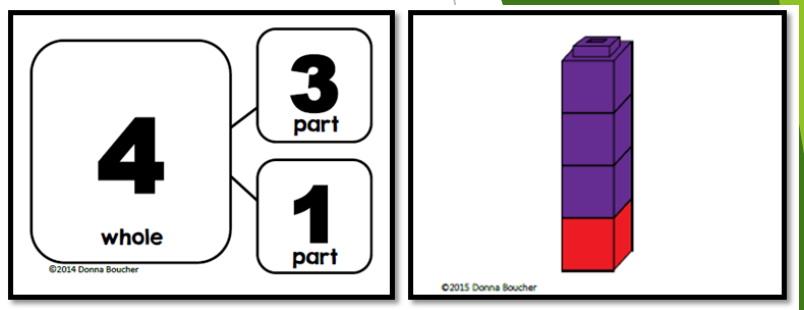
- Children use objects to physically place 2 groups together and find a total. Teaching models counting on from a given number, instead of counting again from 0.

2 + 3

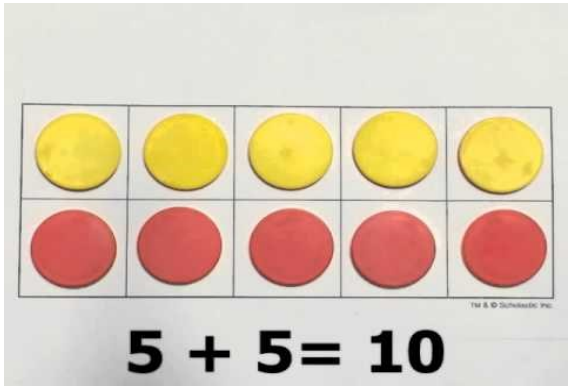
- Language modelled would be

3,4,**5** , always using a finger to point to each object.

Strategies to understand combining groups through addition.

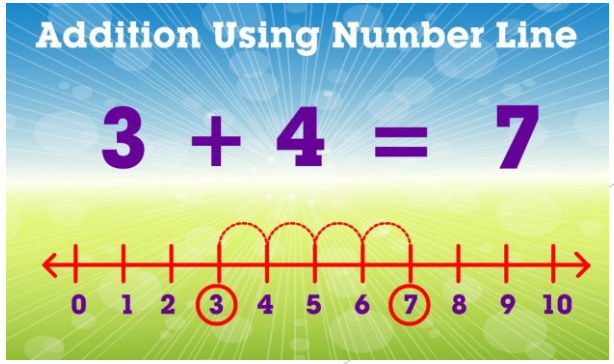


- Teaching includes the part part whole model, either with objects, counters, drawing or abstract numbers.

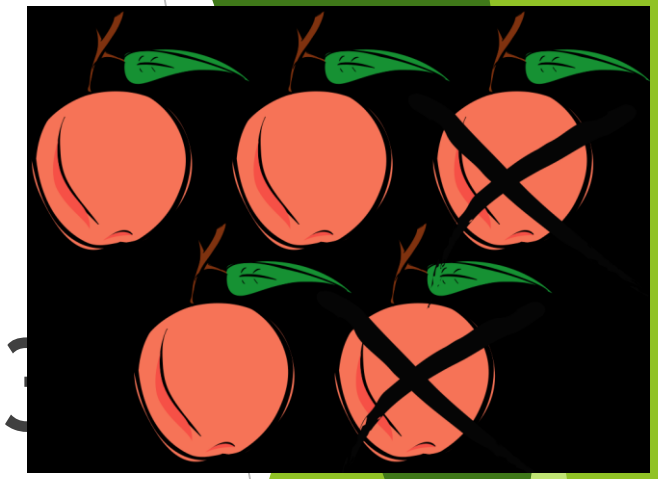


- Tens frames to place objects or draw/colour circles.

- Using numberlines to understand concept of counting on from a given number.



Subtraction



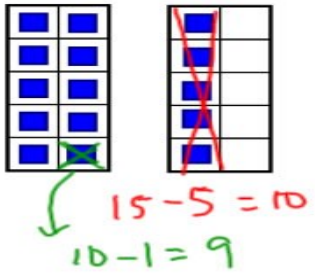
- Objects are physically removed from a group to understand concept of subtraction. Pictorially, this can be shown by crossing out images.

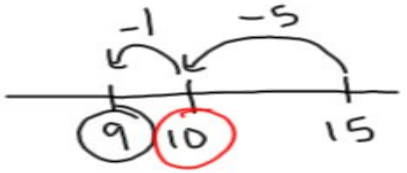
5 - 2 = 3

- Counting back on numberlines and finding the "other part" of the whole, also secures understanding of the relationship between addition and subtraction.
- **Tens frames** support subtraction

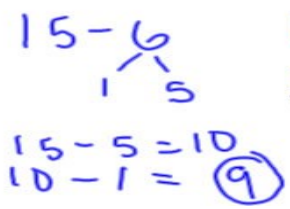
when crossing 10, applying knowledge

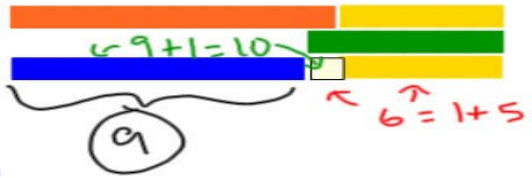
of number bonds.





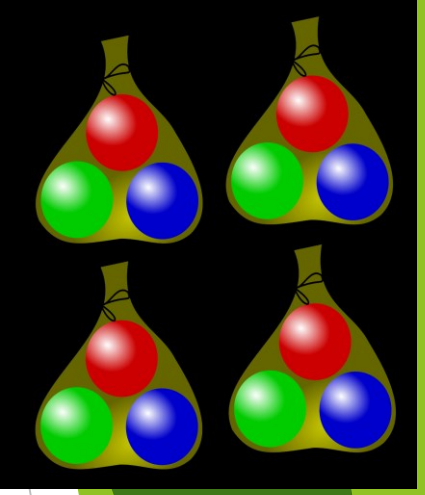
So, 15 – 6.....





Multiplication ×

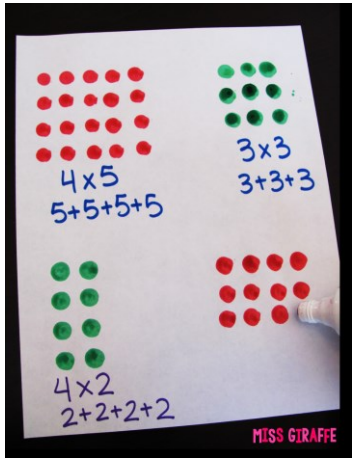
Concept of repeated addition



- Physical making of repeated groups of same value.



- Drawing repeated groups (arrays).



- Numberlines to show repeated addition. Extended part part whole. Coloured counters on tens frames.

Division

Concept of repeated subtraction

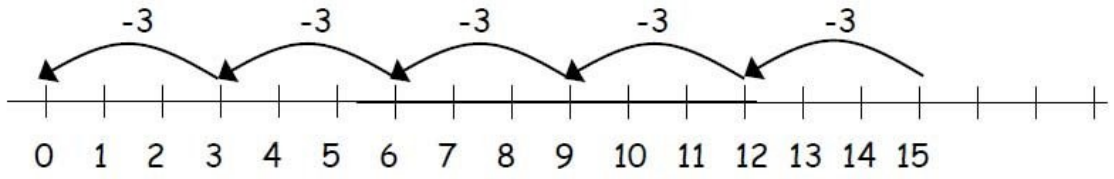
- Concept of sharing a whole into equal sized groups.
- Repeated subtraction of physical groups of same value from the whole. Problem solving very effective, such as sharing food!

How many sweets each could 3 friends have if they divide the total fairly?

- Using a numberline to visualise the repeated subtraction.

How many 3's in 15? How many jumps of 3 in 15?

or



Remember!

- Use real things to bring maths to life.
- Play with numbers, objects, counters and shapes to find patterns and relationships.
- Always talk about what is happening to understand how and why.
- Mathematical language is vital.
- **Maths is fun!**