

KS₁ PARENT AND CAREER WORKSHOP

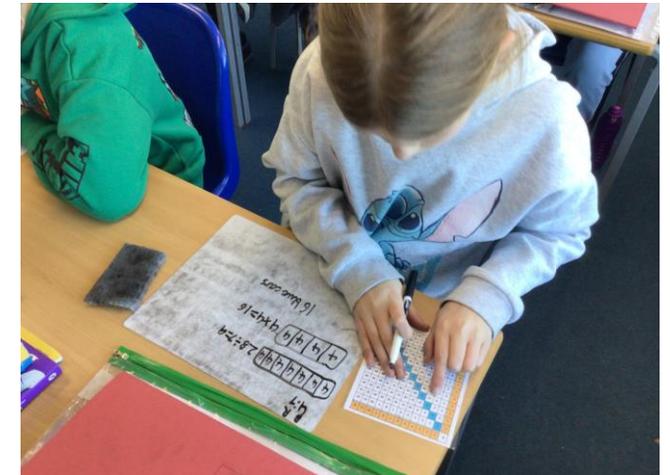
Arbury Primary School

Aims of the session

- What does Maths look like at Arbury Primary School?
- To explain concrete, pictorial and abstract approaches in maths.
- To understand what Mastery Maths is.
- Ways to support at home.

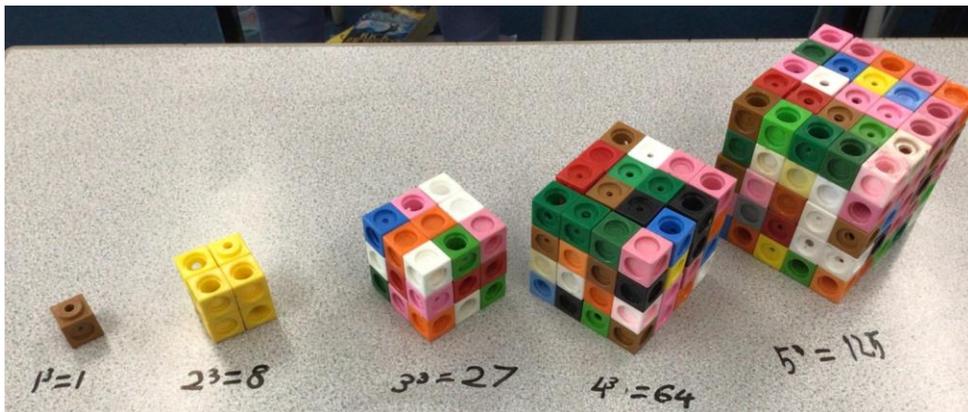
Maths at Arbury Primary School

- At Arbury, we follow the White Rose scheme which recognises that by nurturing positive attitudes and building confidence in mathematics, all children can achieve.
- Concepts are built in small, logical steps and are explored through clear mathematical structures and representations.



Maths at Arbury Primary School

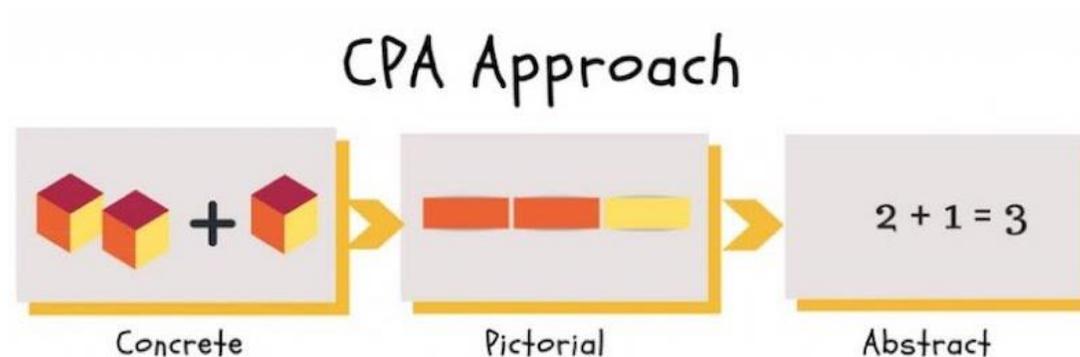
- Children are taught together as a whole class and the focus is on depth - not acceleration - so that all children have a chance to embed learning.
- Children complete regular arithmetic tests, use TT Rockstars and regularly revisit previous learning.



The CPA approach

We teach maths using the concrete, pictorial, abstract approach (CPA).

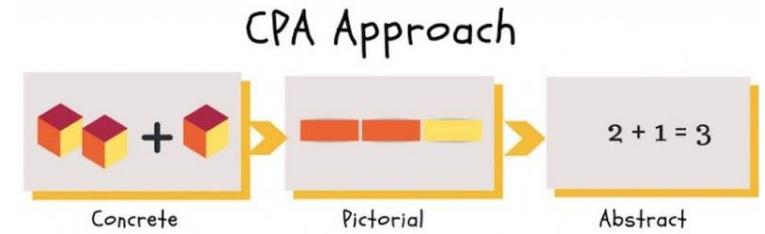
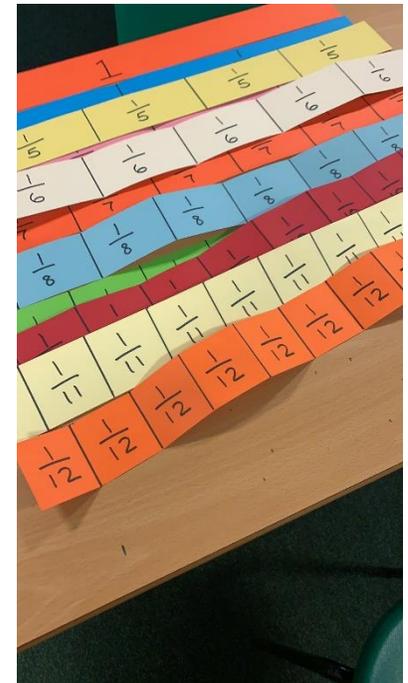
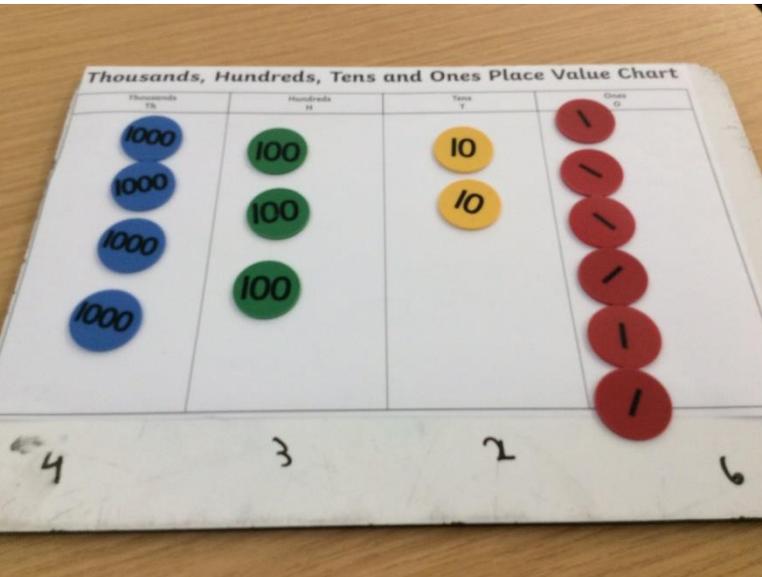
Maths should be practical for all ages and the CPA approach, used at any time and with any age, supports understanding.



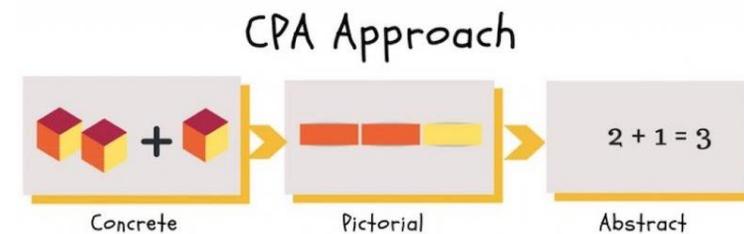
Concrete

Using physical objects to solve maths problems.

Introducing real objects that can be manipulated to bring the problem to life. E.g. money, counters, fractions wall etc.



Pictorial

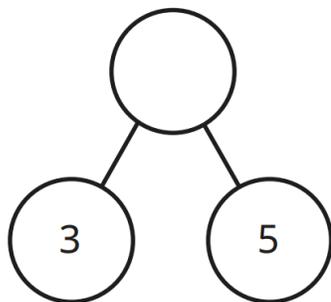


Using drawings to solve maths problems.

Once children are comfortable with solving problems with concrete materials, they are given problems with pictures – usually pictorial representations of the concrete objects they were using.

3 Complete the part-whole models and sentences.

a)



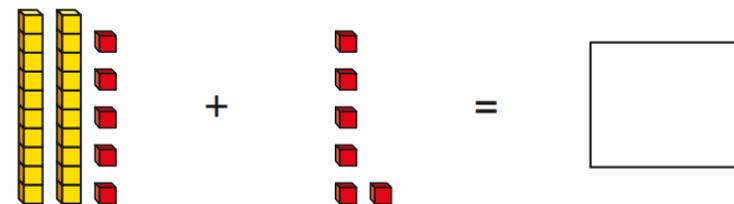
is a part.

is a part.

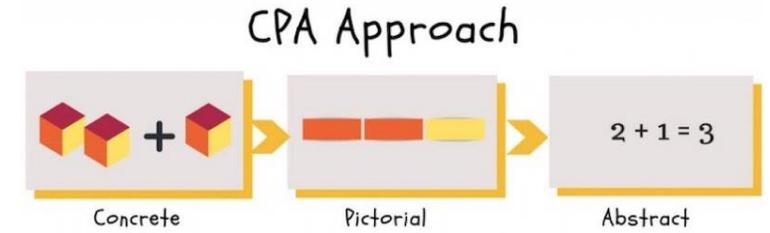
is the whole.

5 Complete the additions.

a)



Abstract



Using numbers to solve maths problems.

The final stage is for children to understand abstract mathematical concepts, signs and notation. When a child demonstrates with concrete models and pictorial representations that they have grasped a concept, we can be confident that they are ready to explore the abstract.

3 Complete the subtractions.

a) $8 - 1 =$

$18 - 1 =$

b) $6 - 4 =$

$16 - 4 =$

4 Complete the sentences.

a) 10 more than 13 is

b) 10 less than 81 is

What is mastery?

Maths mastery is a teaching and learning approach that aims for pupils to develop deep understanding of maths rather than being able to memorise key procedures or resort to rote learning.

There are 4 main aspects of mastery.

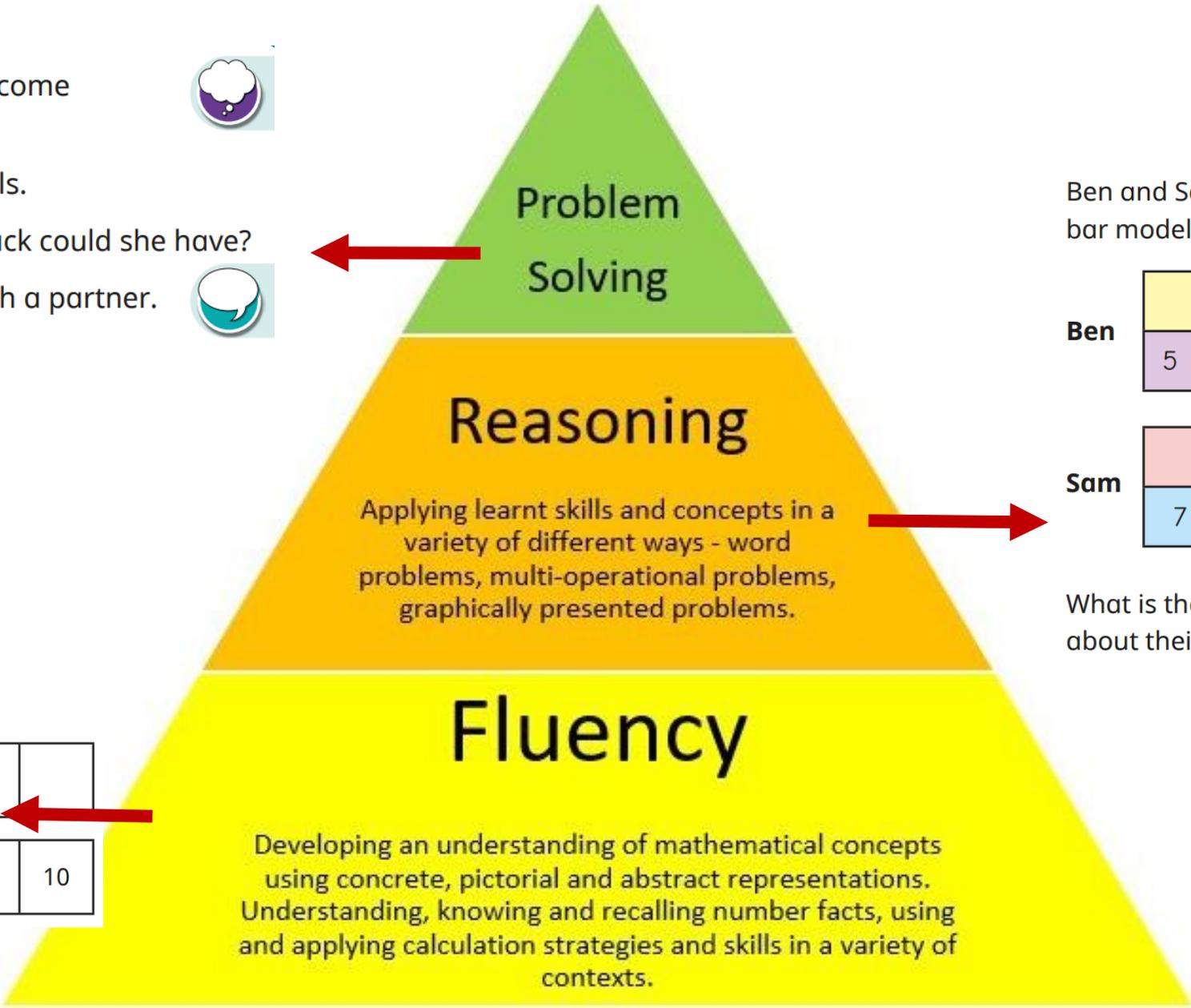
- A mastery approach
- A mastery curriculum
- Teaching for mastery
- Achieving mastery

Tubes of tennis balls come in packs of 2 and 5

Fay has 22 tennis balls.

How many of each pack could she have?

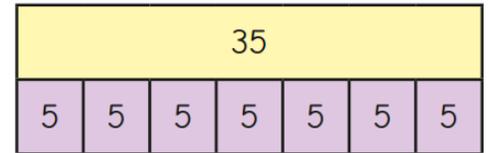
Compare answers with a partner.



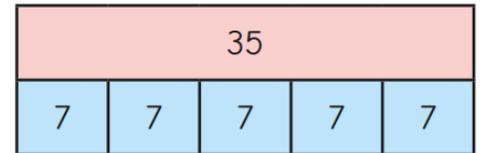
Ben and Sam both draw bar models to show 7×5



Ben

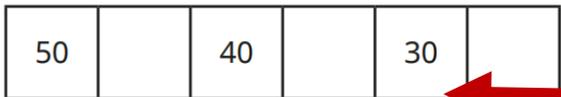


Sam



What is the same and what is different about their bar models?

Complete the number tracks.



Ways to support at home

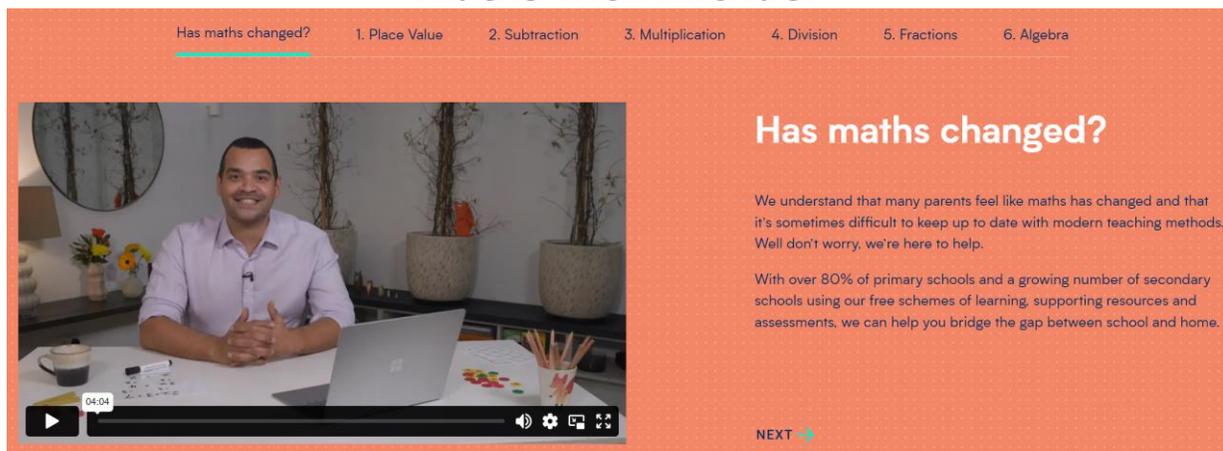
White Rose (Parent resources section)



A navigation bar for White Rose Parent Resources. It features six tabs for Year 1 through Year 6. The Year 3 tab is highlighted with a green underline. Below each tab is a thumbnail image of a resource cover and a label for the block. The labels are: Autumn Block 1 Place value, Autumn Block 2 Addition and subtraction, Autumn Block 3 Multiplication and division, Spring Block 1 Multiplication and division, and Spring Block 2 Money.

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn Block 1 Place value	Autumn Block 2 Addition and subtraction	Autumn Block 3 Multiplication and division	Spring Block 1 Multiplication and division	Spring Block 1 Multiplication and division	Spring Block 2 Money

Maths with Michael



A video player interface for 'Maths with Michael'. The video title is 'Has maths changed?'. The video is currently playing at 04:04. The navigation menu includes: Has maths changed? (selected), 1. Place Value, 2. Subtraction, 3. Multiplication, 4. Division, 5. Fractions, and 6. Algebra. The video content shows a man sitting at a desk with a laptop, talking to the camera. The text on the right side of the video player reads: 'Has maths changed? We understand that many parents feel like maths has changed and that it's sometimes difficult to keep up to date with modern teaching methods. Well don't worry, we're here to help. With over 80% of primary schools and a growing number of secondary schools using our free schemes of learning, supporting resources and assessments, we can help you bridge the gap between school and home.' A 'NEXT' button with a right arrow is visible at the bottom right.



BBC Bitesize