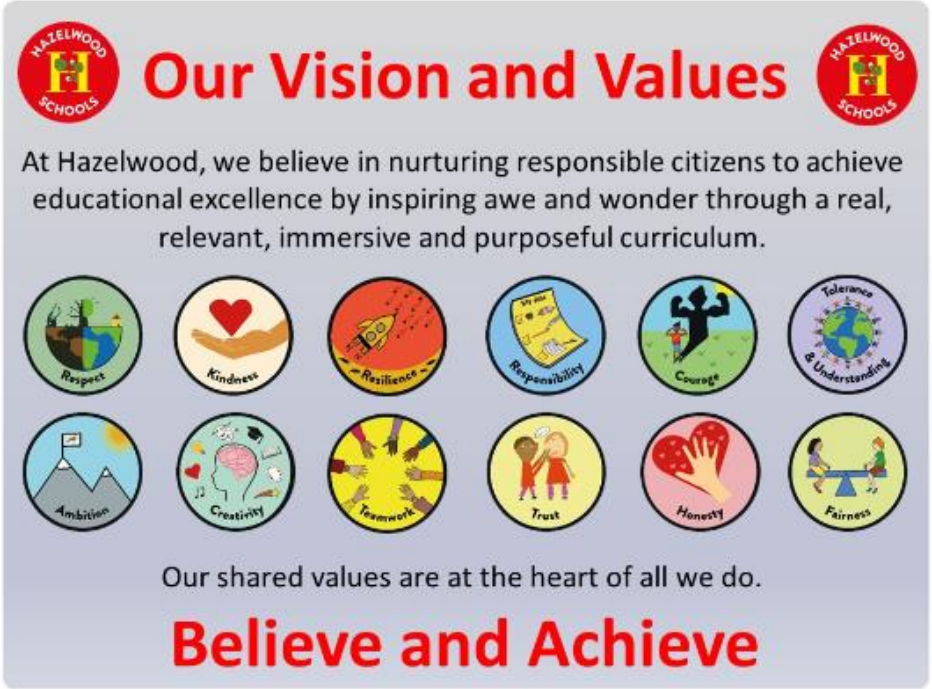
Year 1 & Year 2
Maths Parent Workshop

Monday 22nd January 2023

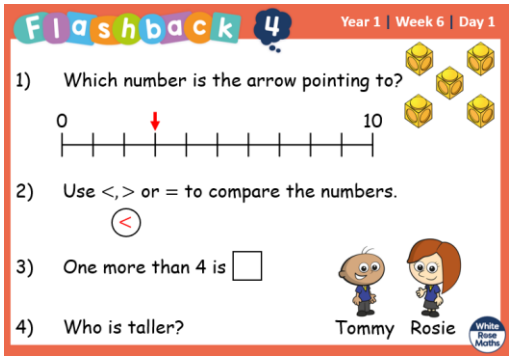
Maths Vision at Hazelwood



AT HAZELWOOD SCHOOLS, 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 KNOWLEDGE TO CREATIVELY SOLVE PROBLEMS.

Maths Vision at Hazelwood

- **Fluent recall** of **mental maths facts. For example,**. times tables, number bonds.
- To **reason** mathematically – children need to be able to **explain** the mathematical concepts with number sense; they must explain **how** they got the answer and **why** they are correct.
- **Problem solving** – applying their skills to real-life contexts.



5 Counting Principles

1. One-to-One Correspondence: Understanding that each object receives one count and only one count.

2. Stable Order: Understanding the verbal sequence of counting; being able to say the number names in sequential order.

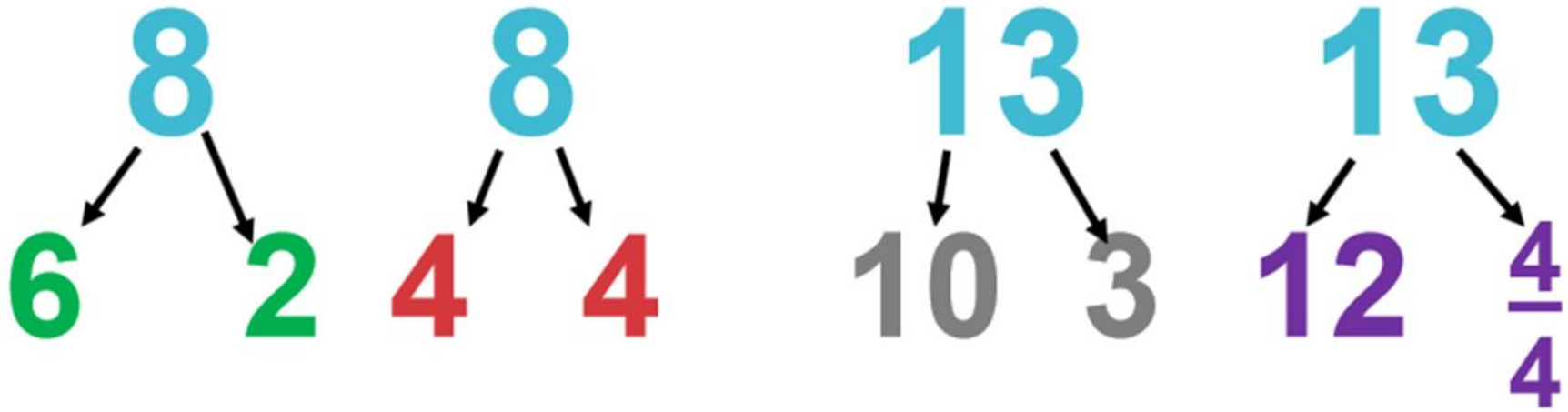
3. Cardinality: Understanding that the last number spoken in a counting sequence names the quantity for that set.

4. Abstraction: Understanding that it doesn’t matter what you count, how we count stays the same. This can also include non-physical things such as sounds.

5. Order Irrelevance: Knowledge that the order that items are counted in is irrelevant—left-to-right, right-to-left, in a random fashion.

Number Sense

Number sense is knowing what numbers mean by themselves and in relation to one another, the ability to partition (break apart numbers) into a variety of ways, and being able to manipulate numbers for different purposes.



Year 1 Curriculum

Year 1

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Number **Place value** (within 10) VIEW					Number **Addition and subtraction** (within 10) VIEW					Geometry **Shape** VIEW	Consolidation
Spring term	Number **Place value** (within 20) VIEW			Number **Addition and subtraction** (within 20) VIEW			Number **Place value** (within 50) VIEW		Measurement **Length and height** VIEW		Measurement **Mass and volume** VIEW	
Summer term	Number **Multiplication and division** VIEW			Number **Fractions** VIEW		Geometry **Position and direction** VIEW	Number **Place value** (within 100) VIEW		Measurement **Money** VIEW	Measurement **Time** VIEW		Consolidation

Year 2 Curriculum

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn term	Number **Place value** FREE TRIAL VIEW				Number **Addition and subtraction** VIEW				Geometry **Shape** VIEW			
Spring term	Measurement **Money** VIEW		Number **Multiplication and division** VIEW				Measurement **Length and height** VIEW		Measurement **Mass, capacity and temperature** VIEW			
Summer term	Number **Fractions** VIEW		Measurement **Time** VIEW		**Statistics** VIEW		Geometry **Position and direction** VIEW		Consolidation			

Maths at Hazelwood

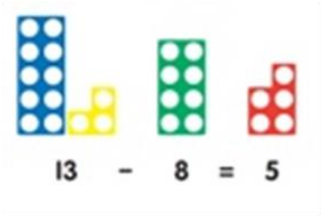
Concrete - Use of manipulatives to understand the concept.

Pictorial - A visual representation which cements understanding from the concrete phase.

Abstract - Written understanding of concepts.

Concrete, Pictorial and Abstract

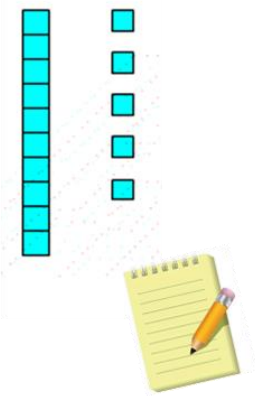
Although we've presented CPA as three distinct stages, it is important to go back and forth between each stage to reinforce concepts.



Active / Concrete

Building visual images

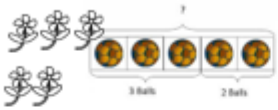
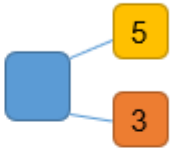
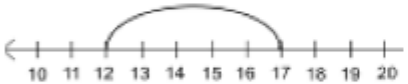
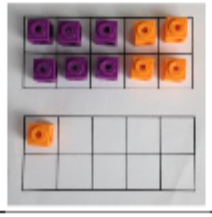
Abstract



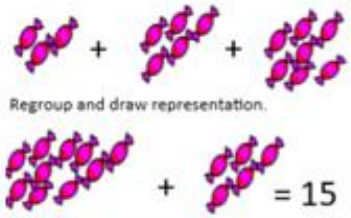
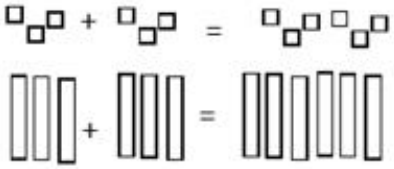
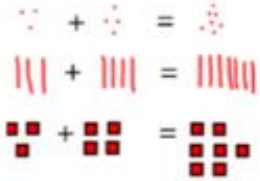
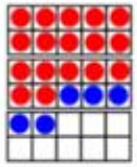
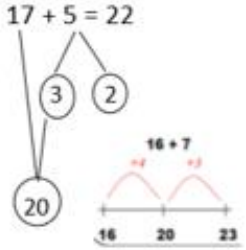
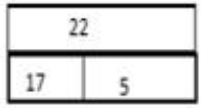
13 - 8

12 + 19

Calculation Policy - Year 1

Objective and Strategies	Concrete	Pictorial	Abstract
		Addition - Year 1	
Combining two parts to make a whole: part-part, whole model	  	  	4 + 3 = 7 10= 6 + 4 
Starting at the bigger number and counting on	 Start with the larger number on the bead string and then count on to the smaller number 1 by 1 to find the answer.	12 + 5 = 17  Start at the larger number on the number line and count on in ones **or** in one jump to find the answer.	5 + 12 = 17 So 12 + 5 = 17 Place the larger number in your head and count on the smaller number to find your answer.
Regrouping to make 10.	6 + 5 = 11  Start with the bigger number and use the smaller number to make 10.	 Use pictures or a number line. Regroup or partition the smaller number to make 10.	7 + 4= 11 If I am at seven, how many more do I need to make 10. How many more are left to add on now?

Calculation Policy - Year 2

Objective and Strategies	Concrete	Pictorial	Abstract
		Addition - Year 2	
Adding three single digits	 Combine to make 10 first if possible, or bridge 10 then add the third digit.		4 + 7 + 6 = 10 + 7 10 = 17 Combine the two numbers that make 10 and then add on the remainder.
Using known facts	 e.g. doubles	 Children draw representations of H,T and O	3 + 4 = 7 *leads to* 30 + 40 = 70 *leads to* 300 + 400 = 700
Add a two-digit number and ones	 17 + 5 = 22 Use ten frame to make 'magic ten Children explore the pattern. 17 + 5 = 22 27 + 5 = 32	Use part part whole and number line to model. 	Explore related facts 17 + 5 = 22 5 + 17 = 22 22 − 17 = 5 22 − 5 = 17 

Metacognition

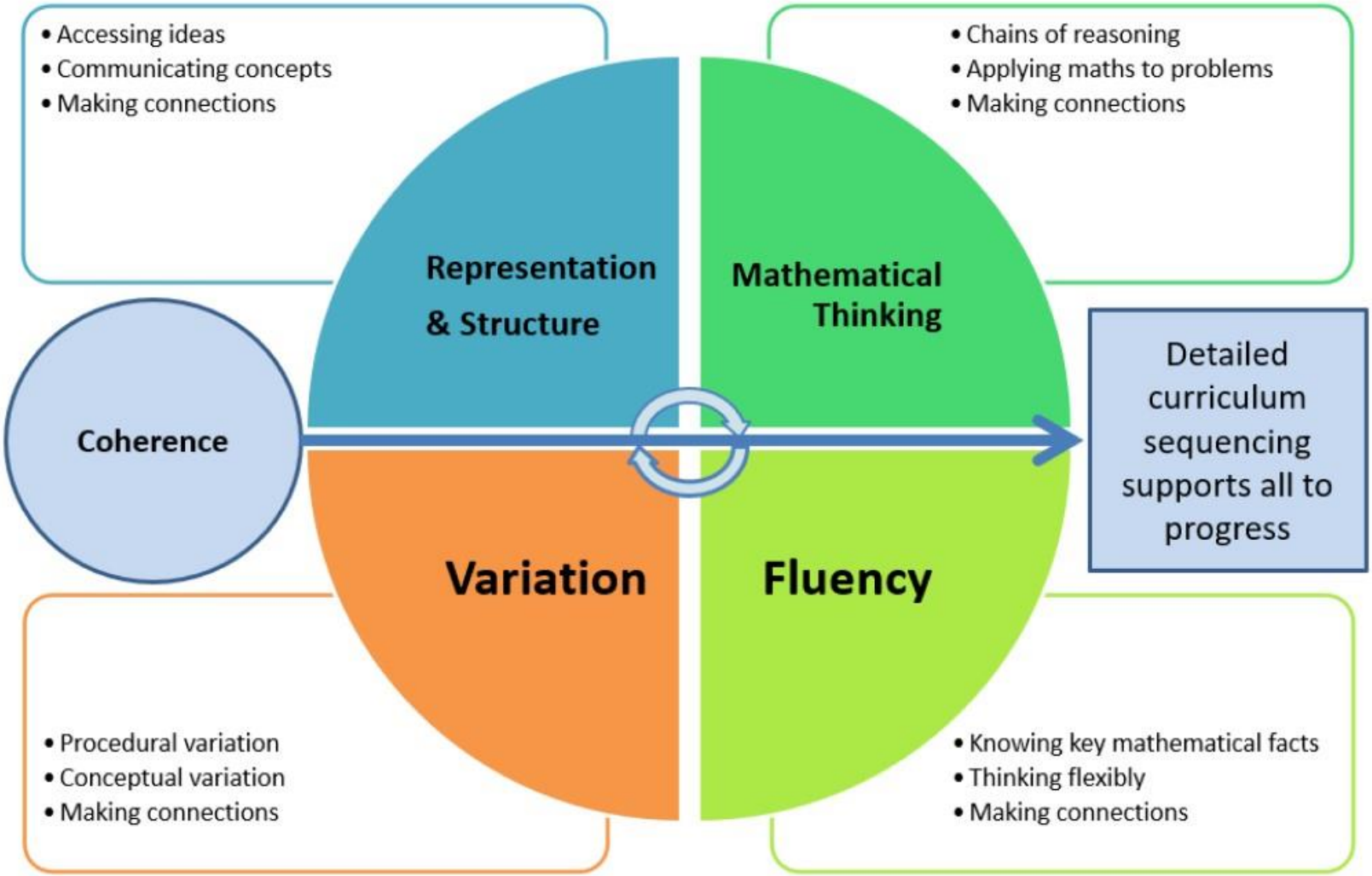
Examples of questions to promote metacognitive thinking include:

- How did you find out?
- Why do you think that?
- How do you know this?
- Can you show me?
- How do you prove this?
- Is there another way to solve this problem?

Metacognition is an important factor of mathematical problem solving. Metacognition is **the ability to monitor and control our own thoughts, how we approach the problem, how we choose the strategies to find a solution, or ask ourselves about the problem.**

Mastery for all

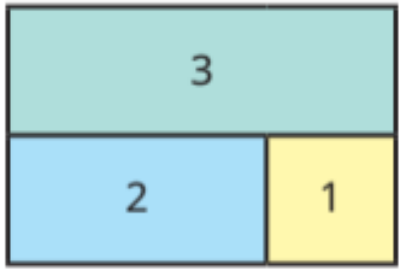
Teaching for Mastery



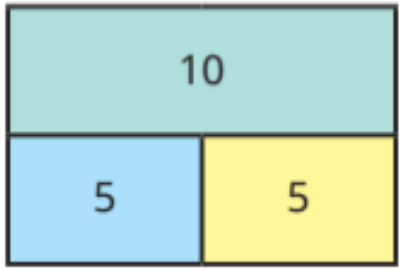
Bar Modelling

2 Write the fact families.

a)

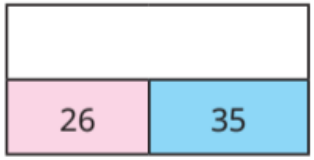


b)

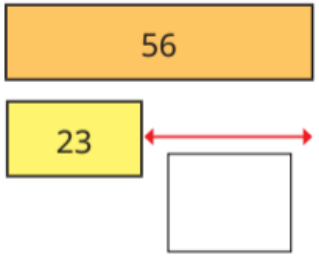


3 Complete the bar models.

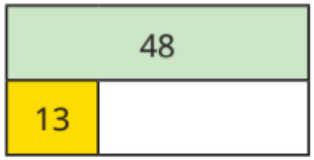
a)



c)



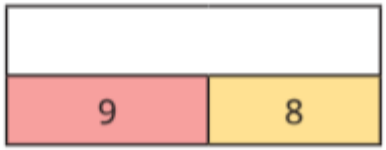
b)



d)

4 There are 9 boys and 8 girls in a class.

Complete the bar model to show this.



Write the fact family for the bar model.

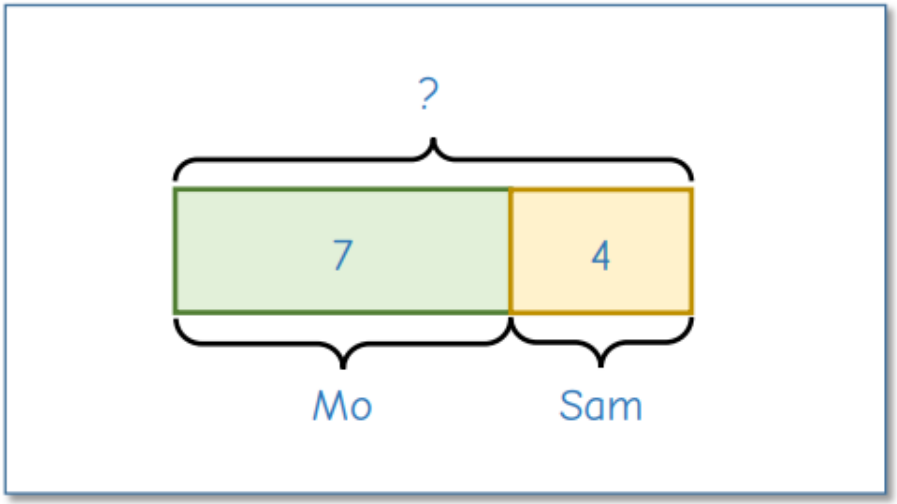
The bar model is used in teaching for mastery to help children to 'see' mathematical structure. It is not a method for solving problems, but a way of revealing the mathematical structure within a problem and gaining insight and clarity to help solve it.

Bar Modelling

1 Mo has 7 coins.

Sam has 4 coins.

How many coins do they have in total?

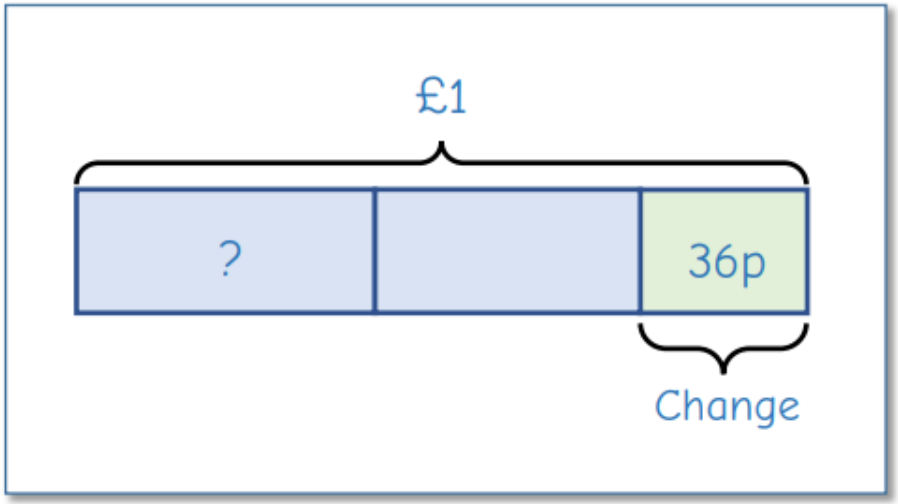


2 Lucy buys 2 rulers.

She pays with a £1 coin.

She gets 36p change.

How much does one ruler cost?



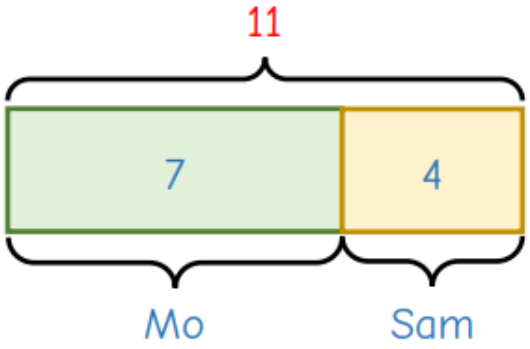
Bar Modelling

1 Mo has 7 coins.

Sam has 4 coins.

How many coins do they have in total? They have 11 coins in total.

$7 + 4 = 11$



2 Lucy buys 2 rulers.

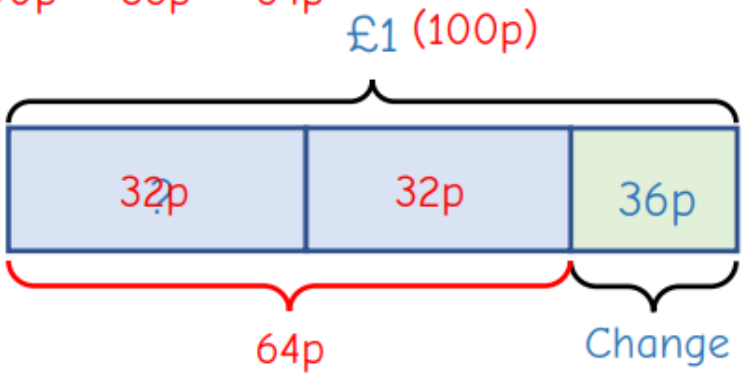
She pays with a £1 coin.

She gets 36p change.

How much does one ruler cost?

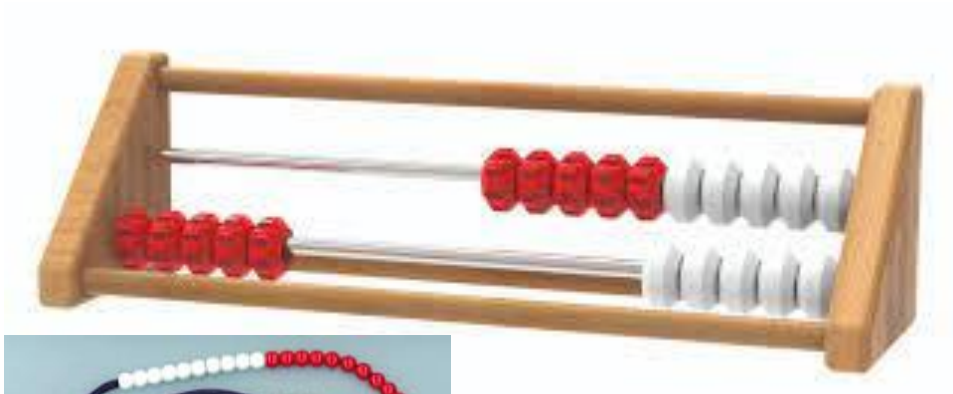
One ruler costs 32p.

$100p - 36p = 64p$



$64p \div 2 = 32p$

Parent Activities



Show Me!

Roll the dice

Show me this number using a resource on your table.

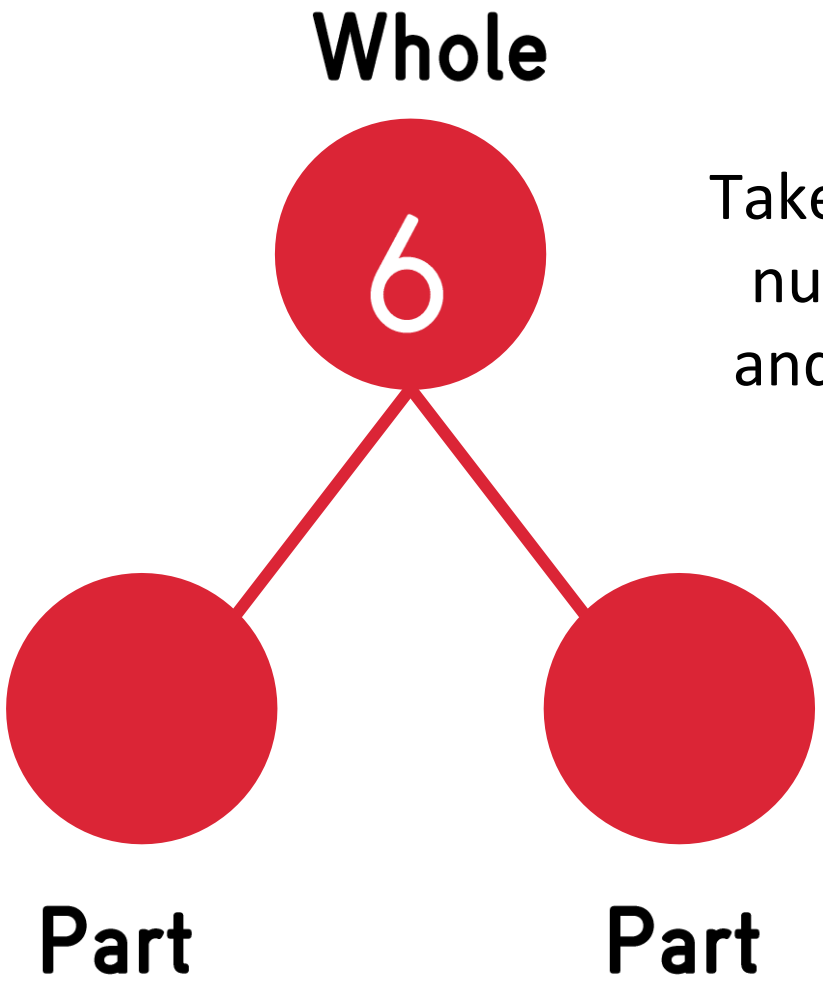
Now show me one more?

One less?

Say it in full sentence each time.

“One more than 8 is 9”

Parent Activities



Part-Part-Whole

Take 6 coloured counters (or any other number). Throw them on your table and create as many different number bond diagrams as you can.

Challenge: put counters in the part – part sections and see if someone else can work out the whole!

Parent Activities

Matching Numbers

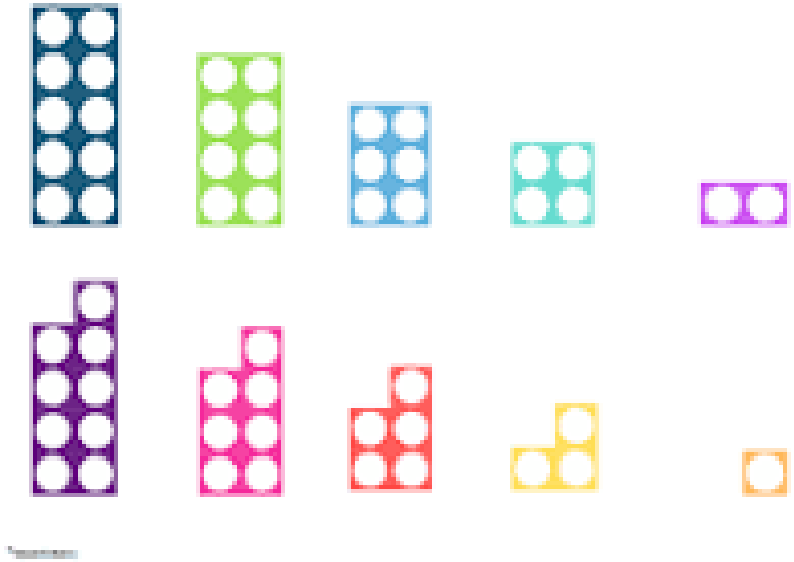
Place the cards face down in three separate areas (words, picture and numerals). Each player takes it in turns to turn over two cards from each area. If the cards match, that player keeps the cards. The player with the most cards at the end, wins.

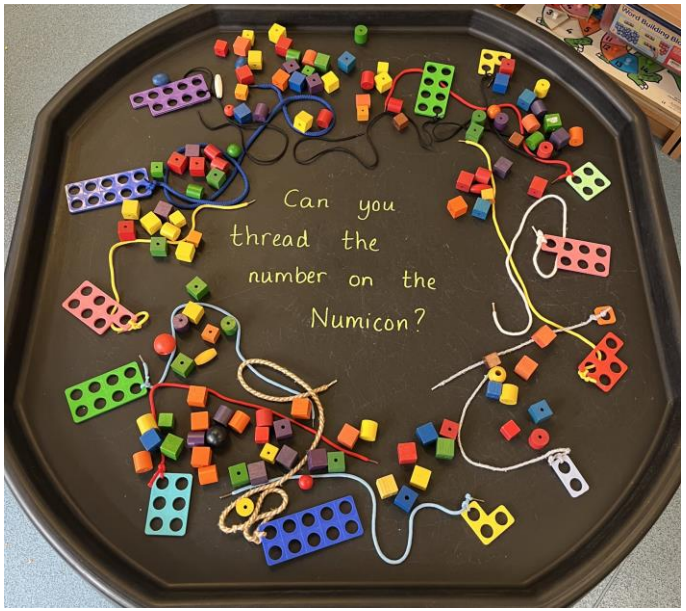
Parent Activities

Numicon Threading

Choose a Numicon piece that is attached to a shoe lace.

What is that piece worth? Can you thread on that many beads.





Parent Activities

Coin & Note Bingo!

Choose a card, **say the name of the coin/note.** If anyone playing has it on their card, they cover that box up. This could be done with a feely bag and real coins too.

First one to a full house is the winner.

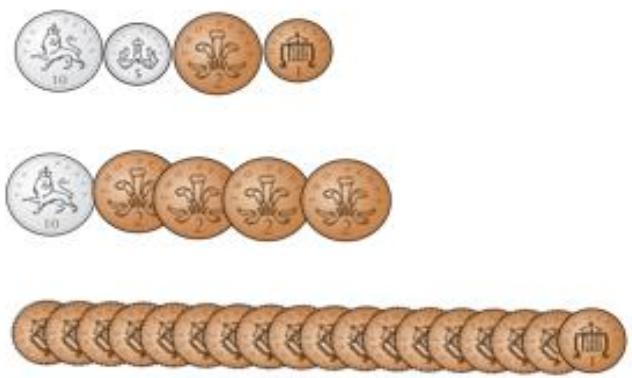
Parent Activities

Making Specific Amounts of Money

Use coins to represent the amount needed to buy various products on the table. Demonstrate how many different ways you are able to pay each time.

How much money do I need to buy the apple?

What combination of coins could I use?



18p

Challenge: Can you do this using the fewest coins possible?

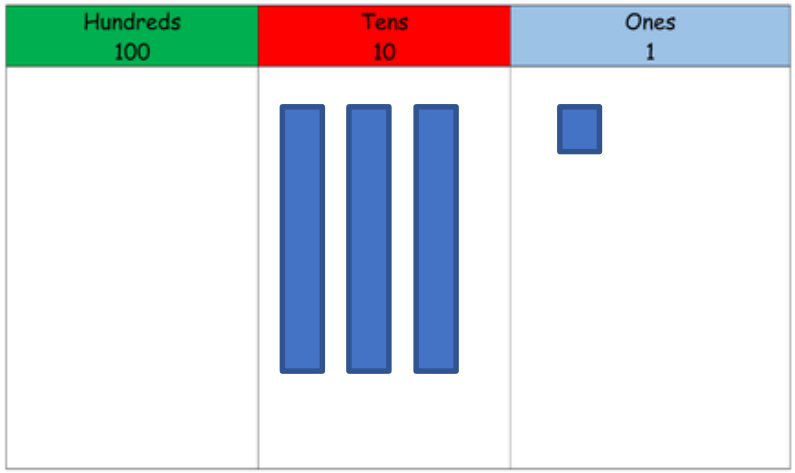
Parent Activities

Recognising Number with Base 10

Making different numbers representations using the Base 10.

31

thirty one



Challenge:

Throw the die, take the corresponding number of one blocks and place on the table.

When you have ten, exchange for a ten block. The first person to exchange ten ten blocks for a hundred block is the winner.

Parent Activities

More or Less

Choose 2 number cards. Can you compare the numbers you chose using <, > or =

Challenge: Can you write your own like the examples below where the numbers are presented in different ways.

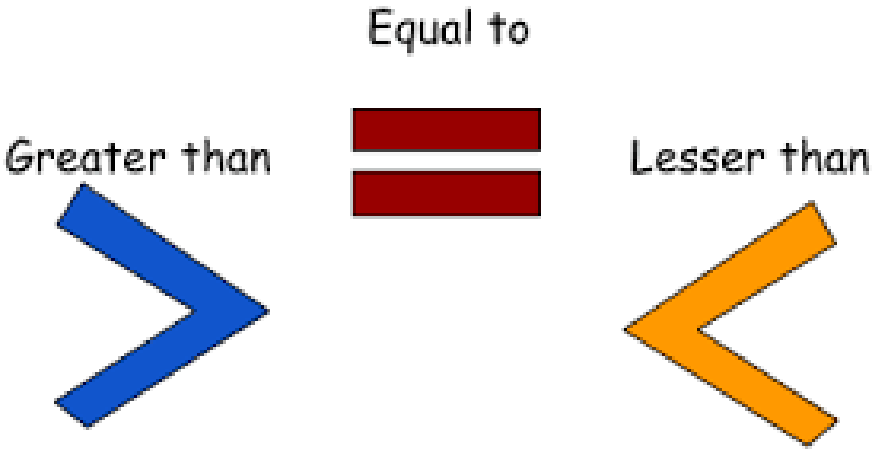
Write <, > or = to compare the numbers.

a) 50 ◯ 50 + 7

b) 10 + 20 ◯ 10 + 16

c) 50 ◯ 40 + 17

d) 30 ones ◯ 10 + 19



Parent Activities

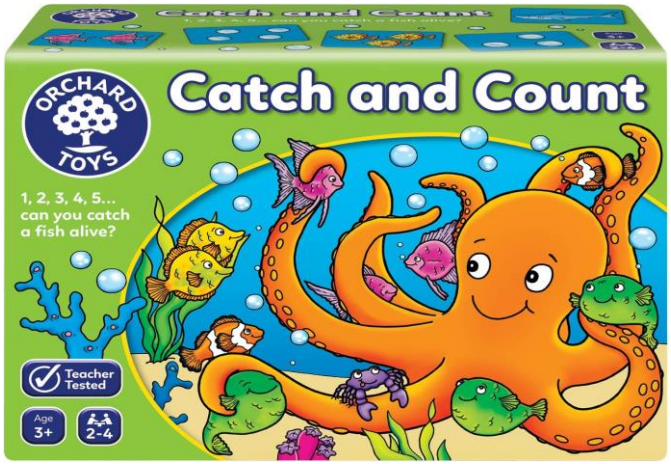
Board Games

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.



Parent Activities

Times Table Rock Stars

This programme supports times table recall speeds.

Incorrect answers are always immediately corrected in front of the pupil so that they start to associate the correct answer to every question and TTRS works out which times tables facts each pupil is consistently taking longer to answer and gradually starts to present these facts more frequently until pupils have mastered them.

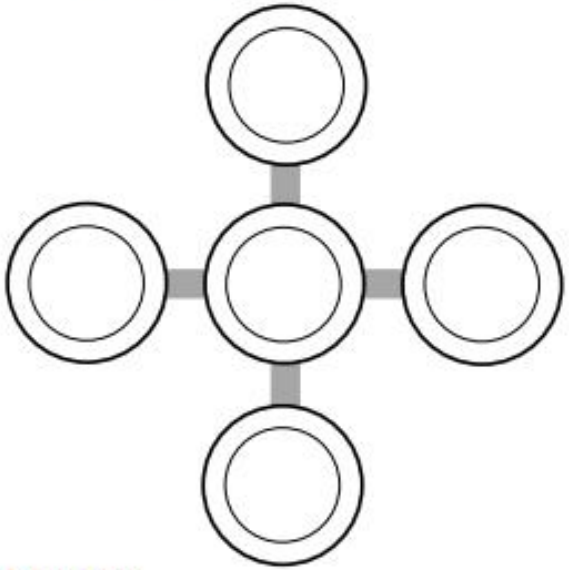
It will also ask related division questions 20% of the time in order to reinforce division facts.

Please use the following login details:

Parent Activities - Challenge!

Cross-road

You need 5 paper plates and 15 counters.
Put the plates in a cross.

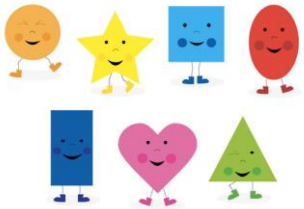


Use all 15 counters.
Put a different number on each plate.
Make each line add up to 10.

Do it again.
This time make each line add up to 8.

Additional Maths Activities

- Talk about time. For example, get your child to work out what time you need to leave the house to get to school on time.
- Talk about the shape and size of objects. Look online for interesting facts, like tallest and shortest people, or biggest and smallest buildings etc.
- Collect information and create a tally chart – for example to find out the family's favourite animal or fruit etc.



Additional Maths Activities

- Cooking. Measure ingredients and set the timer together.
- When you are sharing food like pizza or cake, ask your child to help you share it equally between the number of people eating
- Go on a shape hunt. How many circles, squares, rectangles or triangles can your child find?
- Talk about the items you buy. Ask your child which are more expensive, which are cheaper, which are heavier, which are lighter etc.

How Can You Support at Home

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

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

Times tables can be practised in a variety of ways at home

Jack Hartman's videos and songs can develop understanding on Youtube.

Times tables on a broomstick can help develop fluency when skip counting.

Thank you very much for listening!