

# PARENT LEARN

*Supporting your child's learning  
in mathematics in Year 2*

**HUNSLEY  
PRIMARY**

inspire · aspire

Mathematical understanding is developed through using concrete, pictorial and abstract representations.

Children only fully master concepts through step-by-step teaching, spending time on achieving 'greater depth'

Mathematics is an interconnected subject, so children develop fluency by making connections

Maths uses precise vocabulary, in rich talk and discussion – terminology is a maths

# Our aim...

To develop fluency (in the fundamentals of maths)

To develop reasoning skills (reason mathematically by following a line of enquiry and developing a proof using mathematical language)

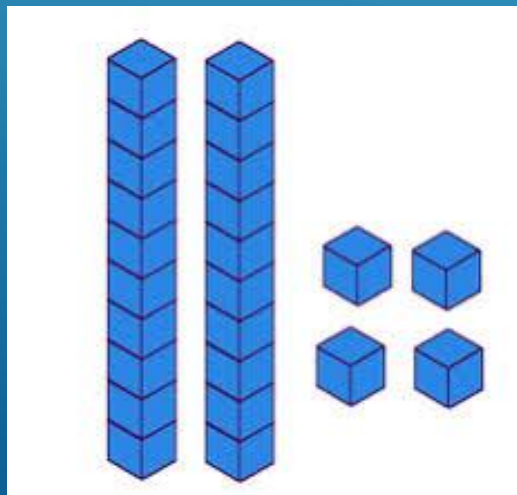
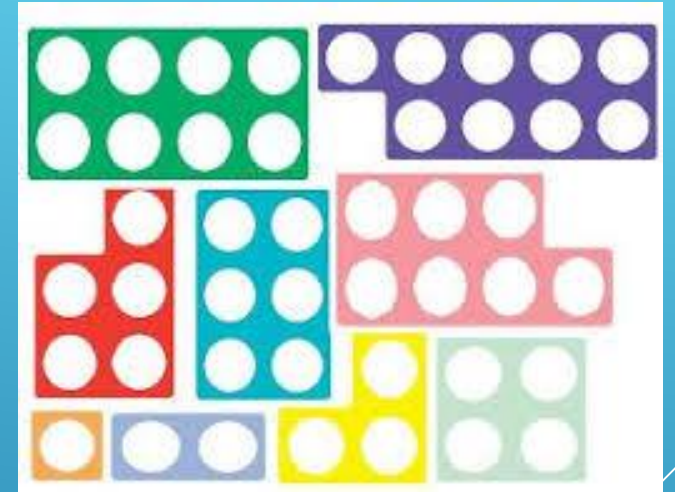
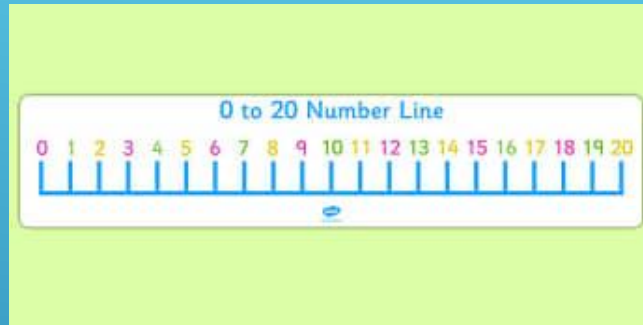
To embed problem solving (can solve problems by applying mathematics to a variety of routine and non-routine problems)

We do this in each lesson through:

- ▶ Concrete – objects, manipulatives, equipment
- ▶ Pictorial – picture representations, simple
- ▶ Abstract – giving values to bars, for example
- ▶ Reasoning and problem solving- manipulate the knowledge they have gained to solve problems

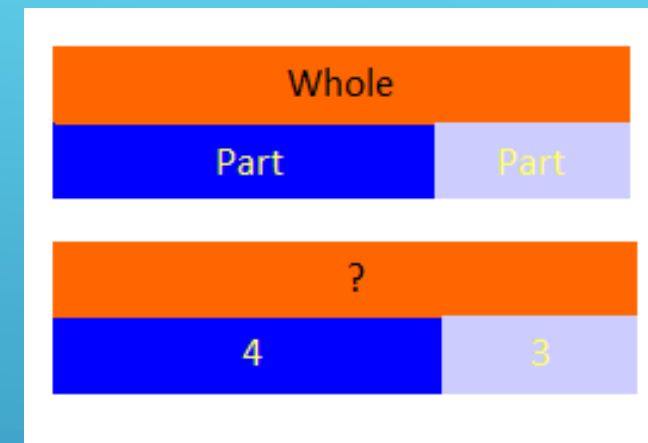
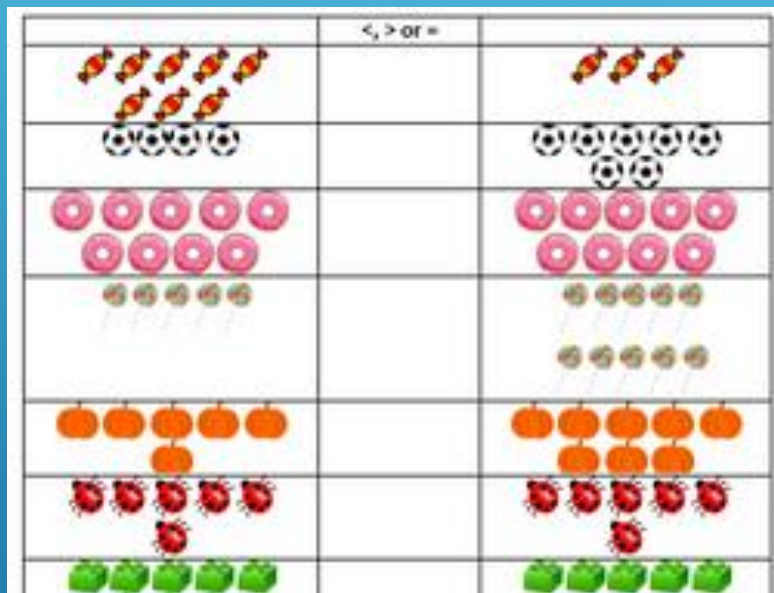
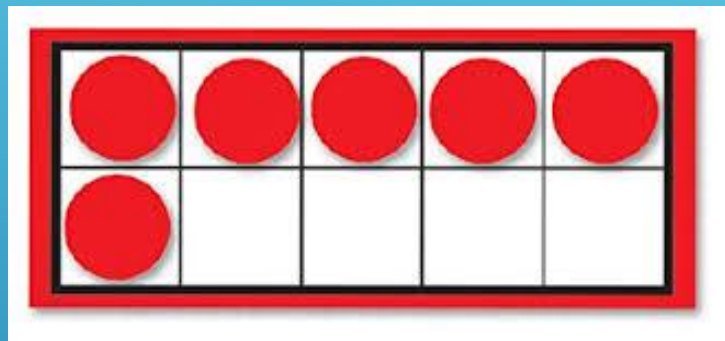
This follows Mastery Curriculum

# Concrete – objects, manipulatives, equipment



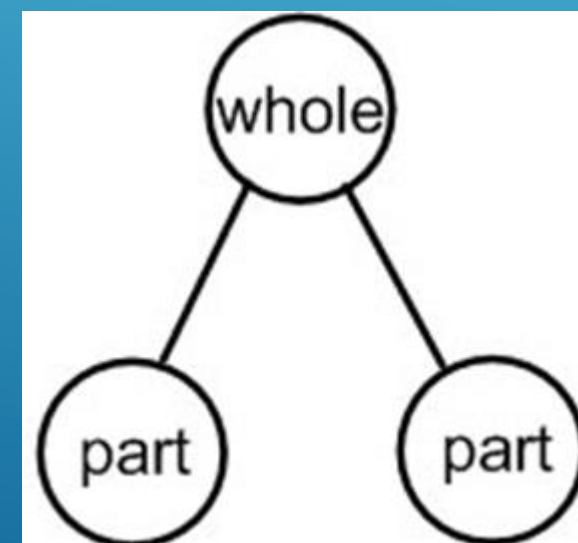


# Pictorial – picture representations



<p>Base 10</p>	<p>Ten Frame</p>				
<p>Straws</p>	<p>Place Value Grid</p> <table border="1"> <tr> <td>Tens</td> <td>Ones</td> </tr> <tr> <td></td> <td></td> </tr> </table>	Tens	Ones		
Tens	Ones				

25



# Abstract – move to numbers and methods

Subtract the ones first then the tens.

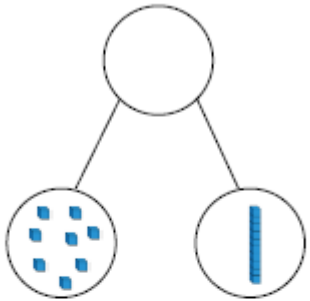
$$63 - 34 = \underline{29}$$



# Reasoning and problem solving

## applying knowledge and explaining

Alex makes a part-whole model.



She says:



There are 8 tens and 1 one.

Explain her mistake.

What is her number?

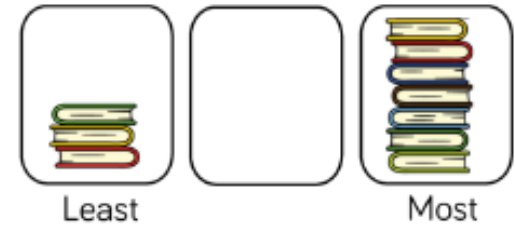
Teddy says,



I can make all the numbers from eleven to twenty using the digits 1 - 9

Do you agree?  
Explain your answer.

How many books can go in the empty box?



Compare with your partners- have you drawn the same amount of books?

How many possibilities are there?

Is it possible to have 3 or 7 books in the middle pile?



# Year 2 Curriculum – White Rose

<https://whiterosemaths.com/resources/schemes-of-learning/primary-sols/>

	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	Number: Place Value			Number: Addition and Subtraction				Measurement: Money		Number: <u>Multiplication and Division</u>		
Spring	Number: <u>Multiplication and Division</u>		Statistics		Geometry: Properties of Shape			Number: Fractions		Measurement: Length and Height	Consolidation	
Summer	Geometry: Position and Direction			Problem solving and efficient methods		Measurement: Time		Measurement: Mass, Capacity and Temperature		Investigations		

# SATS tests - maths

The Key Stage 1 maths test is made up of two papers:

Paper 1: arithmetic, worth 25 marks and taking around 15 minutes.

Paper 2: mathematical fluency, problem-solving and reasoning, worth 35 marks and taking 35 minutes, with a break if necessary. There are a variety of question types: multiple choice, matching, true/false, constrained (e.g. completing a chart or table; drawing a shape) and less constrained (e.g. where children have to show or explain their method).

Children are not allowed to use any tools such as calculators or number lines.

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# Key stage 1

## Mathematics

### Paper 1: arithmetic

First name	
Middle name	
Last name	

Total marks	
-------------	--

3  $10 - \square = 2$

1 MARK

4  $52 + 7 = \square$

1 MARK

11  $63 - 10 - 10 = \square$

1 MARK

12  $8 \times 5 = \square$

1 MARK

## Key stage 1

## Mathematics








## Paper 2: reasoning

First name	
Middle name	
Last name	

Total marks

- 8 Match each coin to the correct box.

One has been done for you.

Less than 		More than 
		
		
		
		
		

1 mark

- 11 There are **20** balloons.  
7 balloons fly away.



How many balloons are left?

1 mark

- 12 Tick the **two** sentences that are correct.

Tick **two**.

A square has sides of equal length.


A square has curved sides.

A square has lines of symmetry.


A square has five sides.

1 mark

# Ways to promote thinking:

- Always, sometimes, never
  - How many ways can you represent .....
  - How many ways can you find.....
  - True or false?
  - If I know this, then I know .....
  - How do you know?
  - Convince me
  - If this is the answer, what's the question
  - Mathematics stories
  - Odd one out
  - What do you notice?
  - What else do we know?
  - What's the same? What's different?
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# Useful websites

- NCETM
  - Maths Hubs
  - Maths Association
  - Education City
  - Purple Mash
  - The full National Curriculum is available to anyone online
  - White Rose Maths
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- A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, located in the lower right quadrant of the slide.



# Practising at home

- Play times tables games and sing songs to embed times tables facts
- Play mental maths games including counting in different amounts, forwards and backwards - in ones or tens from different start points.
- Practise number facts within 10/20/100 - fact families
- Encourage opportunities for telling the time
- Encourage opportunities for counting coins and money e.g. finding amounts or calculating change when shopping
- Identify, weigh or measure quantities and amounts, compare them.
- Encourage children to tell you how they know something is correct, using the inverse
- Online games: Hit the button, Maths is fun, Purple Mash Times tables Rock star