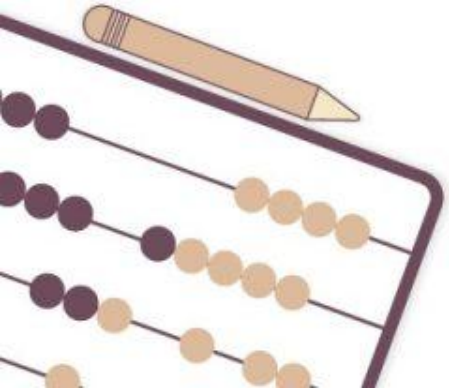
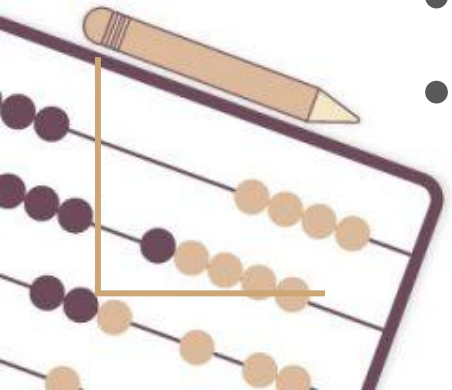
A mathematics overview

Parents workshop 2025-2026



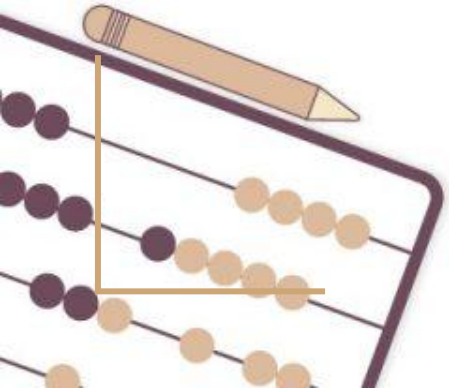
Agenda:

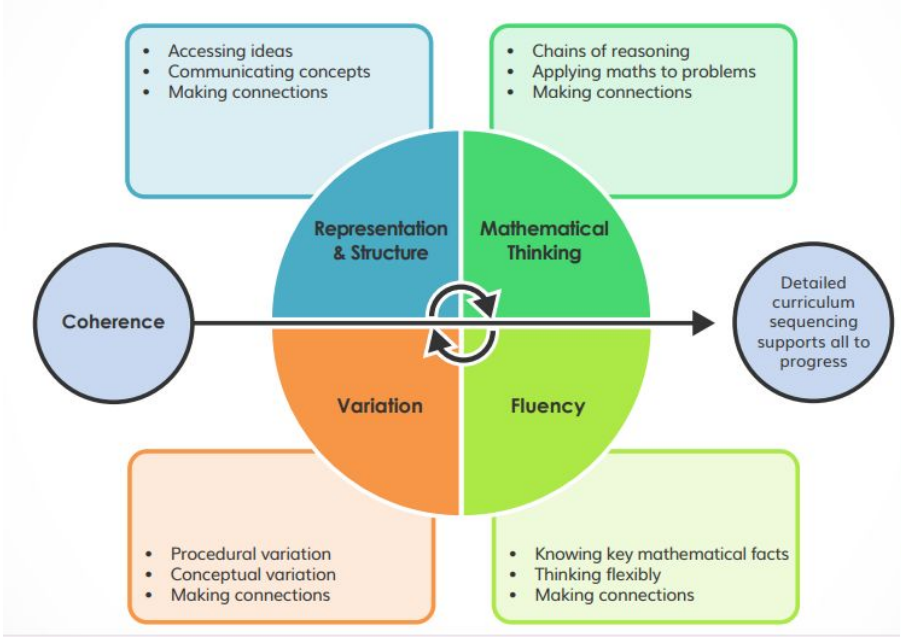
- Mastery approach for teaching maths and schemes we follow.
- Use of concrete, pictorial and abstract representations
- Calculation methods used (addition, subtraction, multiplication and division)
- The importance of timetables and number fluency
- Deeper thinking prompts
- What you can do support maths at home



Teaching for mastery

Mastering maths means pupils of all ages acquiring a deep, long-term, secure and adaptable understanding of the subject.





White Rose Maths

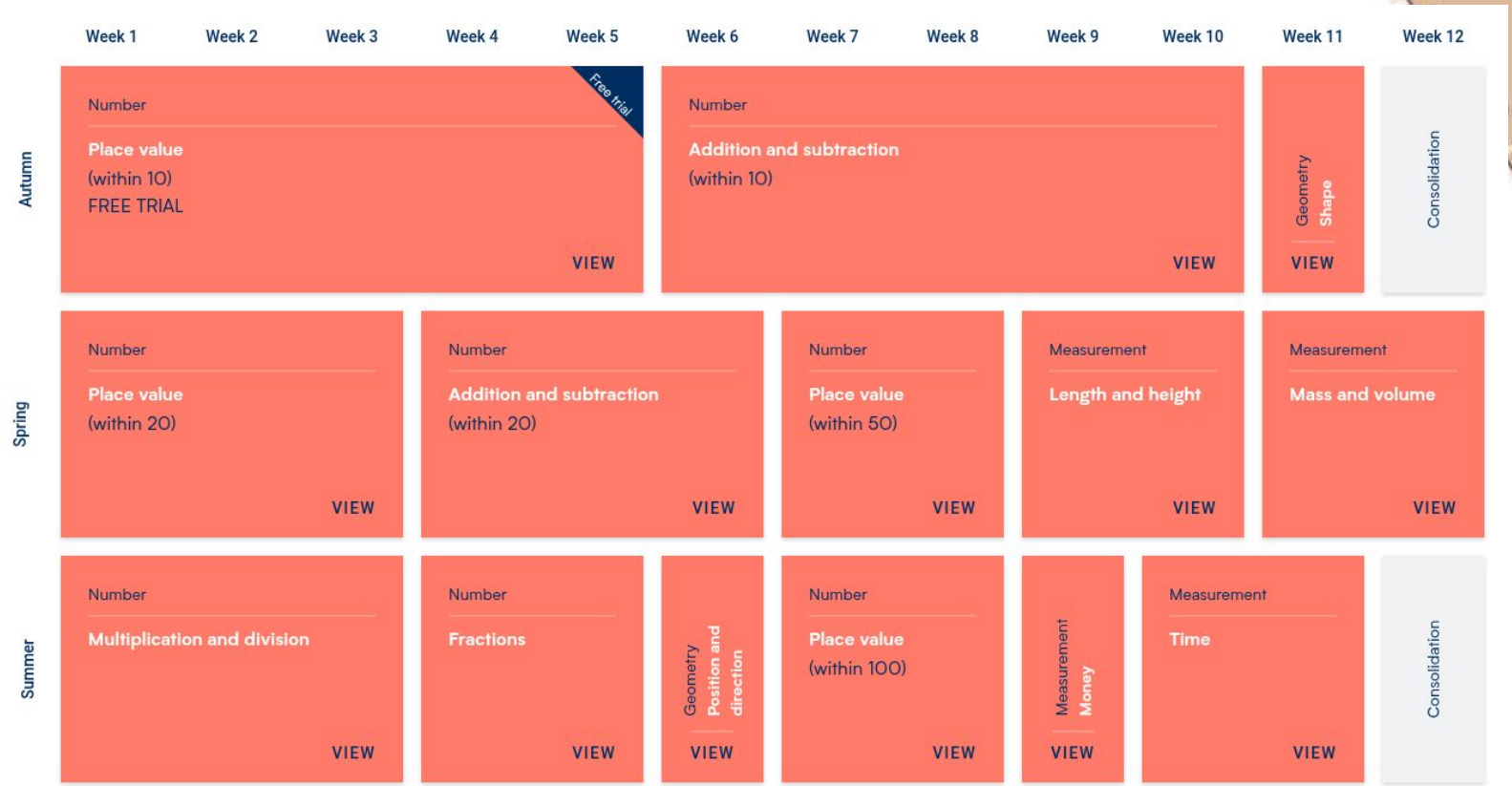
We follow the scheme White Rose which allows children to develop their fluency and deepen their understanding of Maths.

NCETM
NATIONAL CENTRE FOR EXCELLENCE IN THE TEACHING OF MATHEMATICS

testbase

White Rose Maths

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
Number
Place value
(within 10)
FREE TRIAL
Free trial
VIEW
Number
Addition and subtraction
(within 10)
VIEW
Geometry
Shape
VIEW
Consolidation
Spring
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
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

	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** FREE TRIAL VIEW (Free trial)				Number **Addition and subtraction** VIEW					Geometry **Shape** VIEW		
Spring	Measurement **Money** VIEW				Number **Multiplication and division** VIEW					Measurement **Length and height** VIEW		Measurement **Mass, capacity and temperature** VIEW
Summer	Number **Fractions** VIEW				Measurement **Time** VIEW					**Statistics** VIEW	Geometry **Position and direction** VIEW	Consolidation

Year 3

	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** FREE TRIAL VIEW (Free trial)			Number **Addition and subtraction** VIEW					Number **Multiplication and division A** VIEW			
Spring	Number **Multiplication and division B** VIEW			Measurement **Length and perimeter** VIEW			Number **Fractions A** VIEW		Measurement **Mass and capacity** VIEW			
Summer	Number **Fractions B** VIEW			Measurement **Money** VIEW			Measurement **Time** VIEW		Geometry **Shape** VIEW		Statistics VIEW	

Year 4


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
FREE TRIAL
Free trial
VIEW
Number
Addition and subtraction
VIEW
Measurement
Area
VIEW
Number
Multiplication and division A
VIEW
Consolidation
Spring
Number
Multiplication and division B
VIEW
Measurement
Length and perimeter
VIEW
Number
Fractions
VIEW
Number
Decimals A
VIEW
Summer
Number
Decimals B
VIEW
Measurement
Money
VIEW
Measurement
Time
VIEW
Consolidation
Geometry
Shape
VIEW
Statistics
VIEW
Geometry
Position and direction
VIEW

Year 5

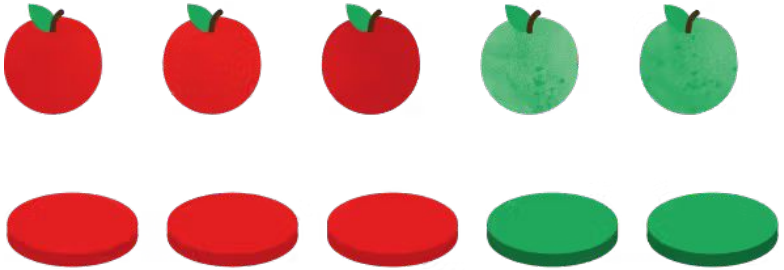

Week 1
Week 2
Week 3
Week 4
Week 5
Week 6
Week 7
Week 8
Week 9
Week 10
Week 11
Week 12
Autumn
Free trial
Number
Place value
FREE TRIAL
VIEW
Number
Addition and subtraction
VIEW
Number
Multiplication and division A
VIEW
Number
Fractions A
VIEW
Spring
Number
Multiplication and division B
VIEW
Number
Fractions B
VIEW
Number
Decimals and percentages
VIEW
Measurement
Perimeter and area
VIEW
Statistics
VIEW
Summer
Geometry
Shape
VIEW
Geometry
Position and direction
VIEW
Number
Decimals
VIEW
Number
Negative numbers
VIEW
Measurement
Converting units
VIEW
Measurement
Volume
VIEW

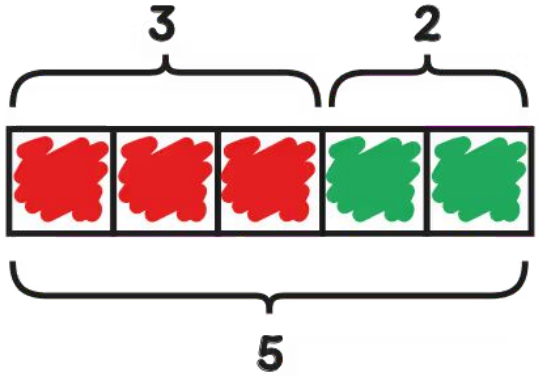
Year 6


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
FREE TRIAL
Free trial
VIEW
Number
Addition, subtraction, multiplication and division
VIEW
Number
Fractions A
VIEW
Number
Fractions B
VIEW
Measurement
Converting units
VIEW
Spring
Number
Ratio
VIEW
Number
Algebra
VIEW
Number
Decimals
VIEW
Number
Fractions, decimals and percentages
VIEW
Measurement
Area, perimeter and volume
VIEW
Statistics
VIEW
Summer
Geometry
Shape
VIEW
Geometry
Position and direction
VIEW
Themed projects, consolidation and problem solving
VIEW

CPA

- Concrete (physical manipulatives)
- Pictorial (visuals to aid recognition)
- Abstract (symbolic stage)

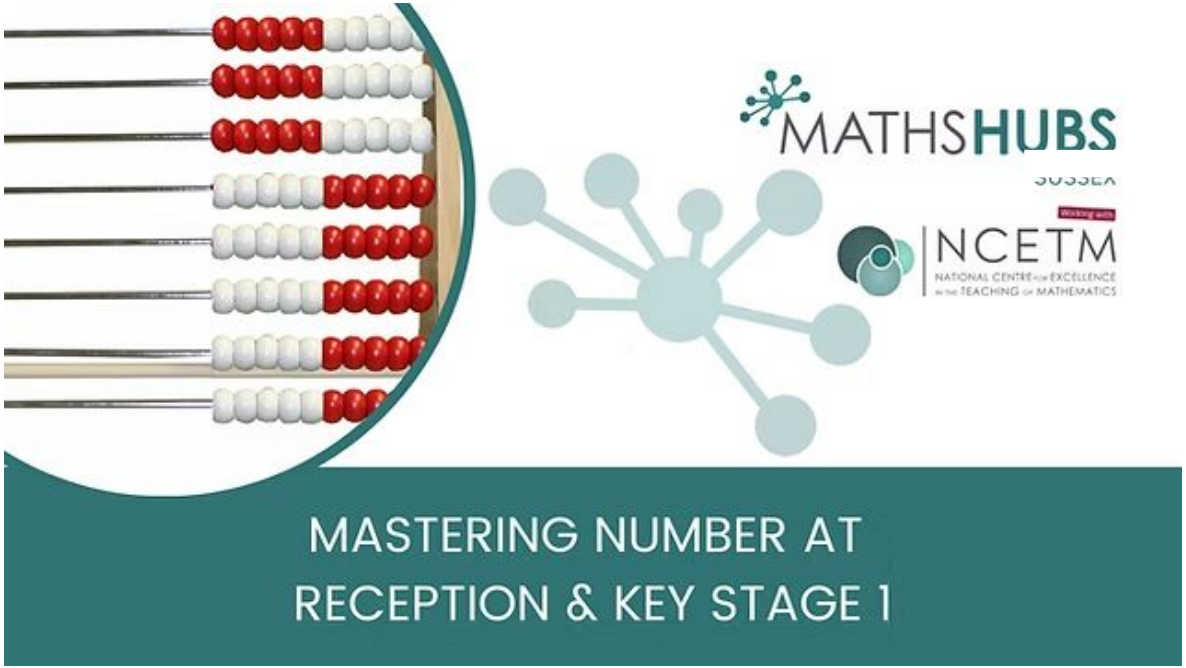




3 + 2 = 5

Mastering Number

Pupils will develop and demonstrate good number sense as well as secure mathematical foundations. This is a way of focusing on developing the fluency in calculator and number for **all** children. This works in tandem with our CPA approach and utilises manipulatives to support children's understanding of mathematical structures.



Subitising

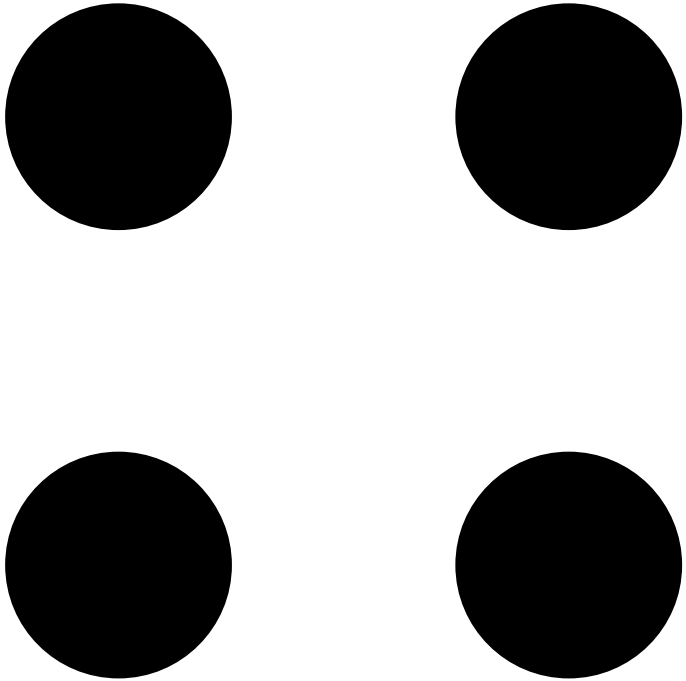
Perceptual - Instant recognition

- This is the ability to instantly see a small number of objects, typically up to five, without counting.
- An example is seeing one duck swimming and knowing there is one, or seeing two ducks and knowing there are two.
- The dots on a die face are a classic example of perceptual subitising

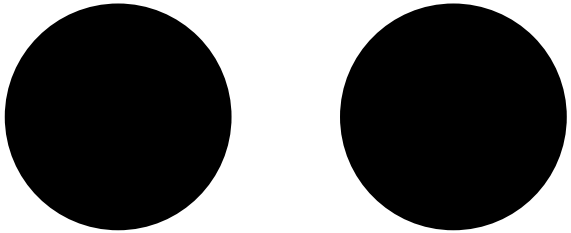
Conceptual - Combining sub-groups

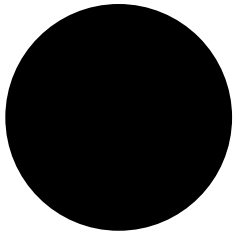
- This involves breaking down larger numbers into smaller, more familiar groups to recognize the total quantity.
- For example, to subitise the number six, you might see the dots on a die as a group of three and another group of three.
- Conceptual subitising is the foundation for understanding number combinations, such as knowing that 5 + 1 = 6.

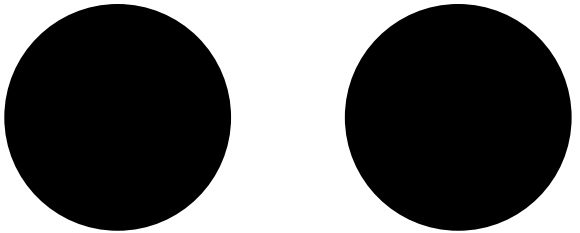
Perceptual - Instant recognition



Conceptual -
Combining sub-groups







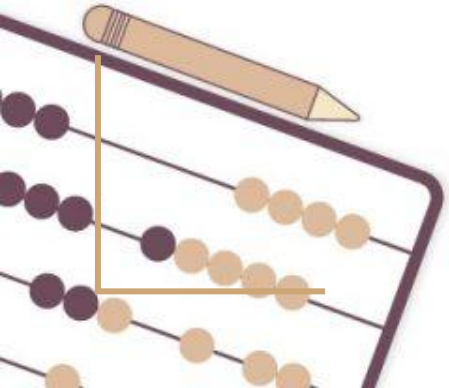
Maths and calculation policy

We use the White Rose Calculation Policy.

Calculation Policy

Progression Document

These policies outline methods used in school, based on year groups.

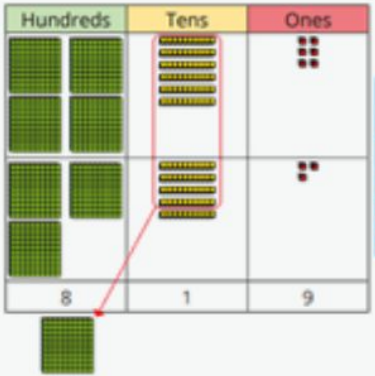


Some key representations
Addition

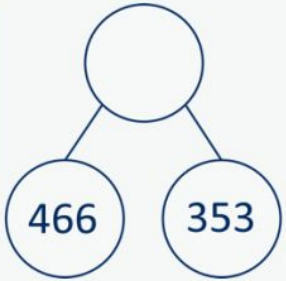
There are … ones, so I do/do not need to make an exchange.
There are … tens, so I do/do not need to make an exchange.
… ones = … ten and … ones.
… tens = … hundred and … tens.

	H	T	O
	2	5	5
+		5	4

?	
255	54



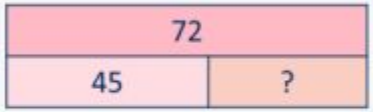
	H	T	O
	4	6	6
+	3	5	3
	8	1	9

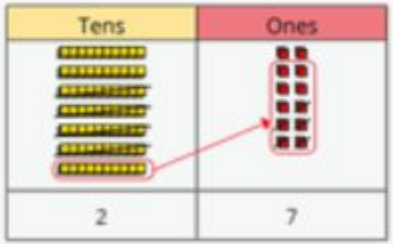


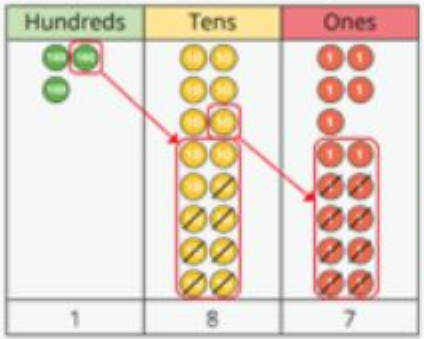
	H	T	O
	3	6	7
+	1	6	4
	5	3	1

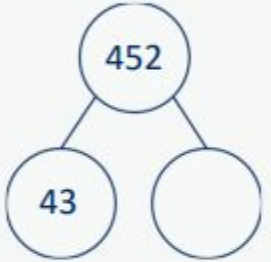
Some key representations
Subtraction

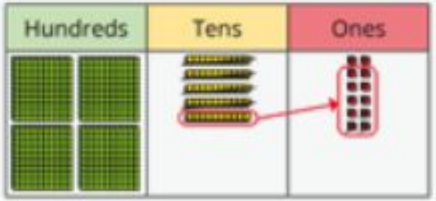
I need to subtract … ones. I do/do not need to make an exchange.
I need to subtract … tens. I do/do not need to make an exchange.
I can exchange 1 … for 10 …







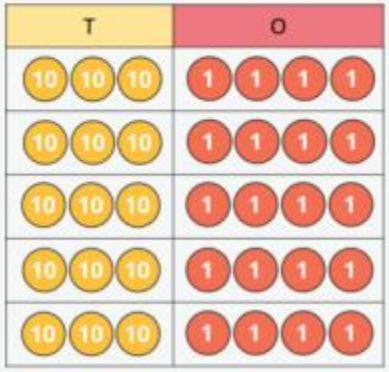




Some key representations
Multiplication

To multiply a 2-digit number by … , I multiply the ones by … and the tens by …

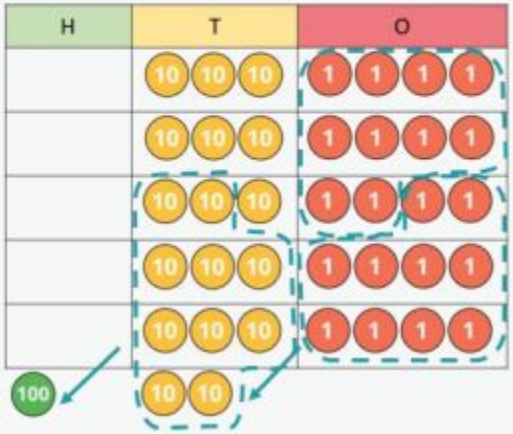
To multiply a 3-digit number by … , I multiply the ones by … , the tens by … and the hundreds by …



	H	T	O
		3	4
×			5
		2	0
	1	5	0
	1	7	0

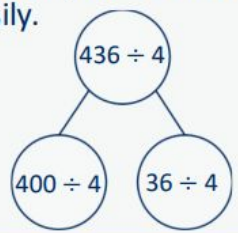
(4 × 5)
(30 × 5)

	H	T	O
		3	4
×			5
	1	7	0
	1	2	

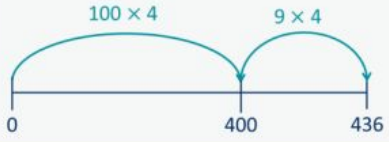


Some key representations
Division

I can partition … into … and … to help me to divide more easily.



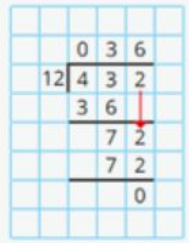
I can show groups of … on a number line.

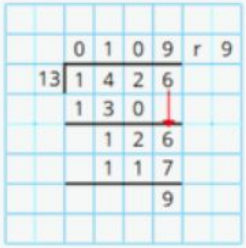


To divide by …, I can divide by … and then divide the result by …

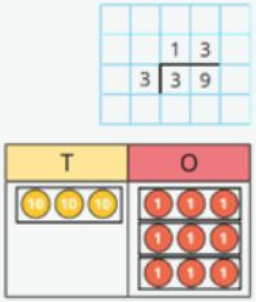
$436 \div 4 = 436 \div 2 \div 2$

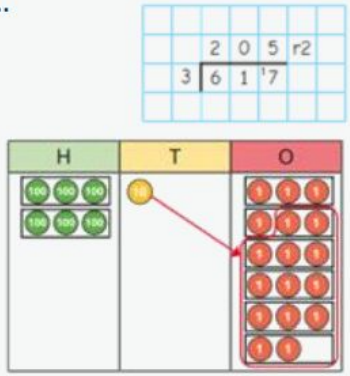
$436 \div 2 = 218$
$218 \div 2 = 109$

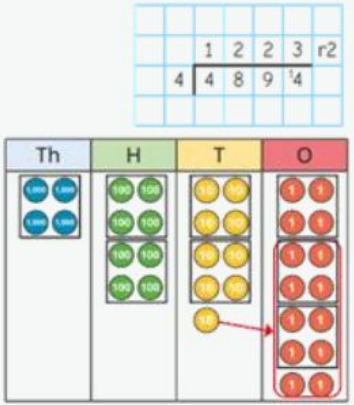




There are … groups of … hundreds/tens/ones/ in …
I can exchange 1 … for 10 …







Numbots

All children have access to Numbots.

This supports their basic number fluency.

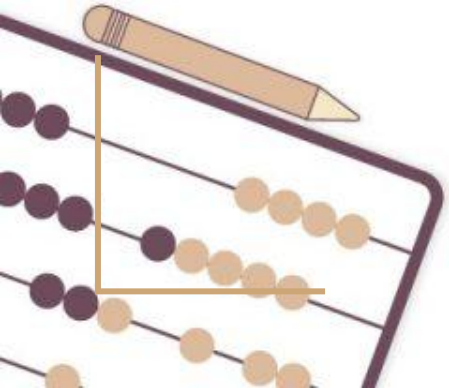
Parent guide

Times tables - (Year 2 from the end of Spring 1)

Children in year 2 need to know their 2, 5 and 10 times tables

All children should be able to fluently recall times tables by the end of year 4.

Fluency in times tables is essential to support many aspects of learning in year 3-6.



Times Table Rockstars (TTRS)

All children have access to TTRS.

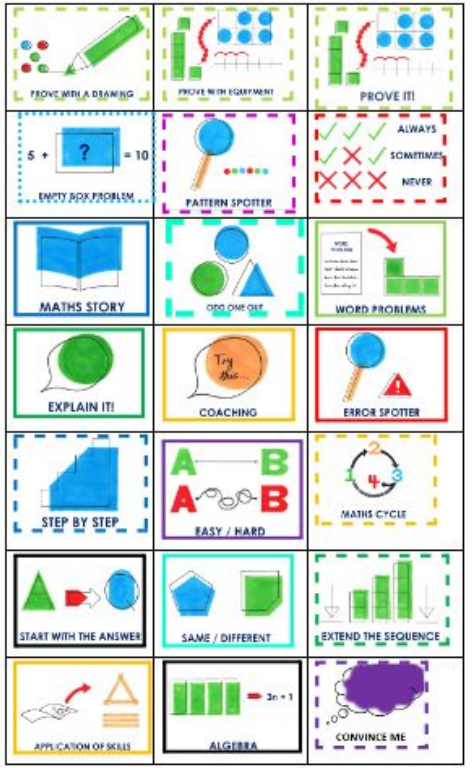
Children should spend at least 5 minutes a day on the program.

You can see your child's heat map under the garage tab

Parent guide

Deeper thinking prompts

Children use deeper thinking prompts to support their explanations and reasoning skills.



What can you do at home?

- Ensure your child plays TTRS/ Numbots for at least 5 minutes a day.
- Refer to elements of maths in everyday life (the time, when cooking, weights of items you buy at the shops, shapes).
- Ask your child about their maths and to show you the methods they have learnt.
- Engage with maths element on the homework menu.
- Play board games.
- Play games with maths.
- Spot patterns.