Year 3 and 4 Maths Parent Workshop

Welcome!

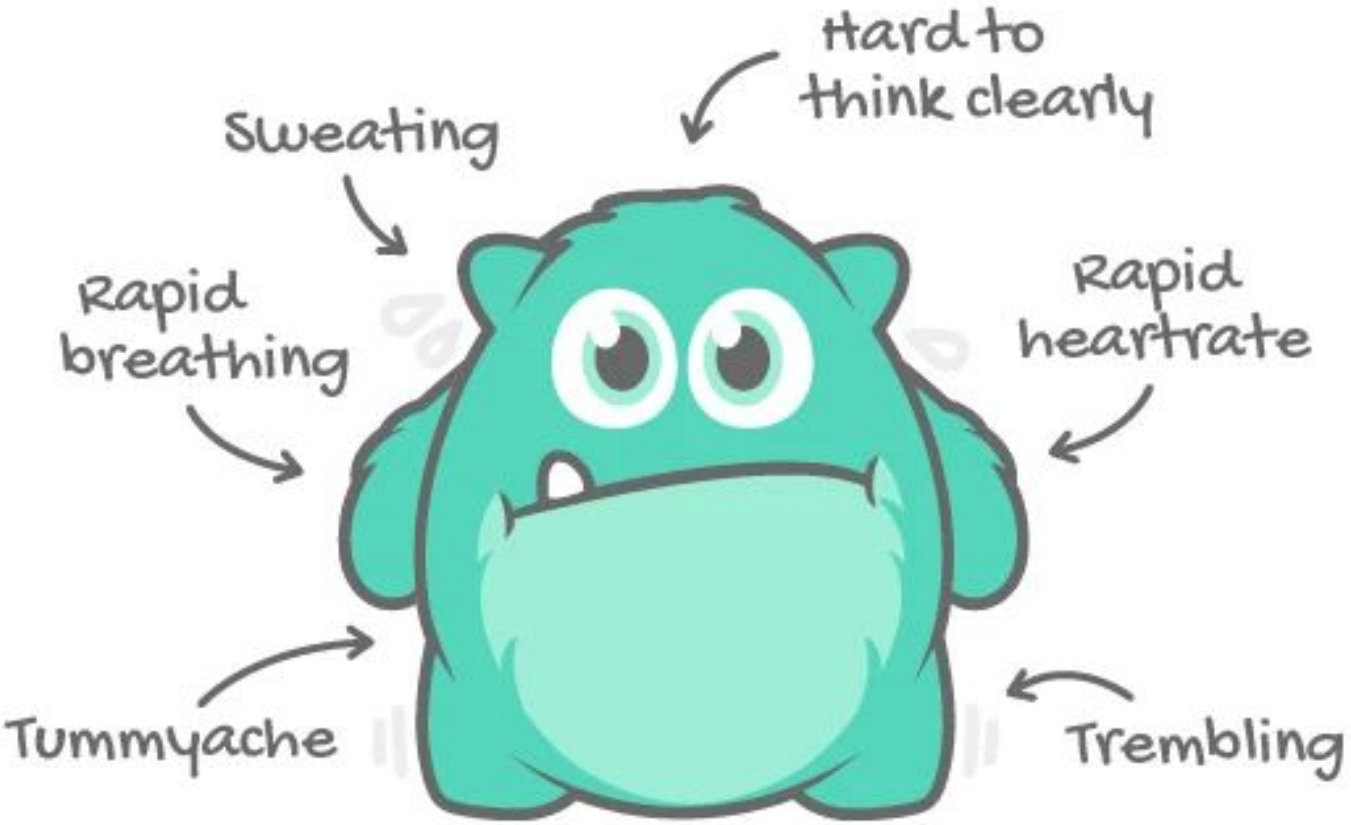
Purpose of meeting

- Share how Maths is taught at Rudston Primary
- Discuss the importance of using manipulatives and representations
- Share ways to support your child with the subitizing and number sense
- Share resources to support your children in Maths

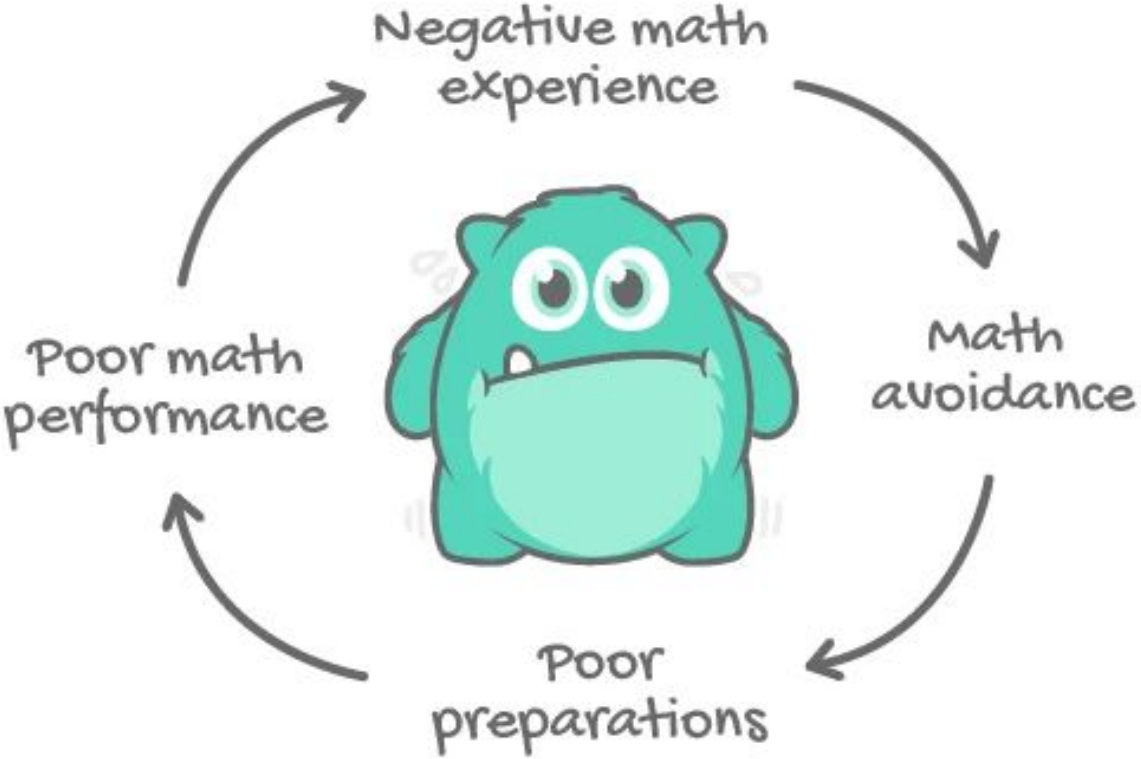
This table shows how many people finished the New York Marathon in each of the first four decades it was held.

New York Marathon	
Decade	**Total number of people who finished**
1st decade	24,863
2nd decade	170,932
3rd decade	282,420
4th decade	350,824

What is the mean number of people who finished the marathon per decade? Round your answer to the **nearest hundred**.


Hard to think clearly
Sweating
Rapid breathing
Rapid heartrate
Tummyache
Trembling

Math anxiety cycle of failure



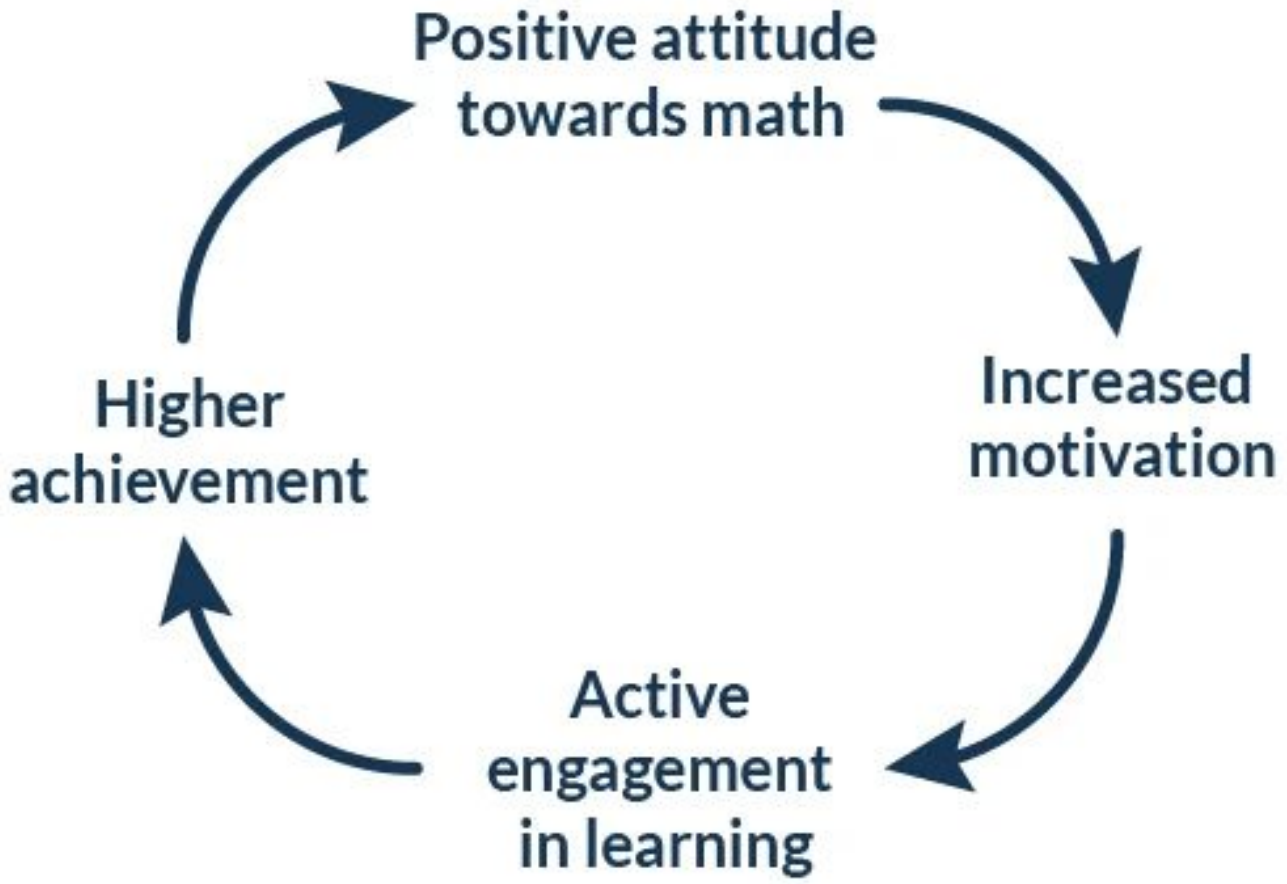
Maths at Rudston

Throughout Rudston, we encourage our children to view mathematics as a related subject that is very relevant to the world around them - not just within a classroom.

We ensure that our children understand the importance of mathematics in their everyday lives and realise the embedded mathematical links present within all other subjects.

Our mathematical curriculum aims to instil a lifelong passion for reasoning and problem-solving in our children.

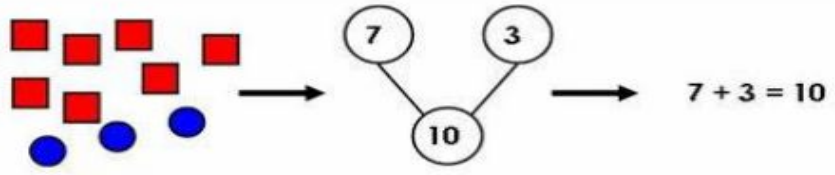
We want pupils at Rudston to enjoy maths. We want pupils at Rudston to see that, if they work hard, they can solve challenging problems, and we want pupils to see the value in everyday mathematics.


Positive attitude towards math
Increased motivation
Active engagement in learning
Higher achievement

Fixed vs Growth Mindset

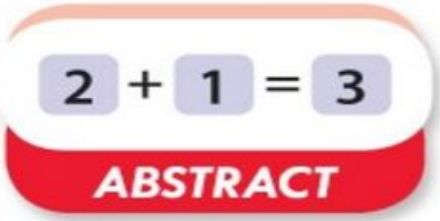
- We believe that everyone can get better at maths...when they put in the effort and work at it.
- Do not praise children for being clever when they succeed at something, but instead should praise them for working hard.
- Children learn to associate achievement with effort (which is something they can influence themselves – by working hard!)
- Not ‘cleverness’ (a trait perceived as absolute and that they cannot change).

Maths approaches across the school



Concrete is the 'doing' stage, using concrete objects to solve problems. It brings concepts to life by allowing children to handle physical objects themselves.

Pictorial is the 'seeing' stage, using representations of the objects involved in maths problems. This stage encourages children to make a mental connection between the physical object and abstract levels of understanding, by drawing or looking at pictures, circles, diagrams or models which represent the objects in the problem.



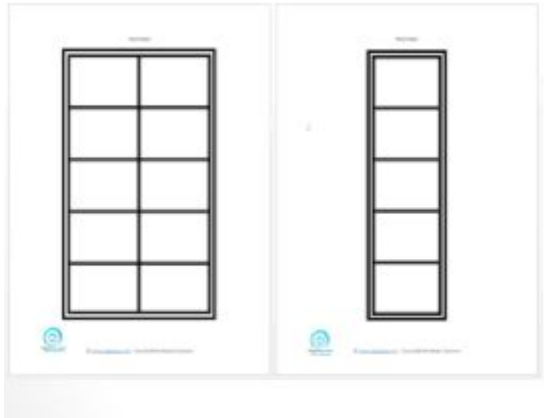
Abstract is the 'symbolic' stage, where children are able to use abstract symbols to model and solve maths problems.

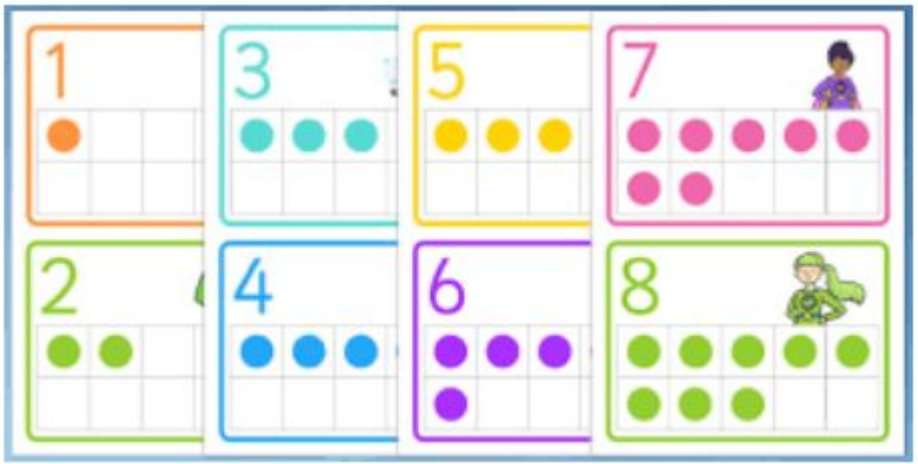
Number Sense

1. An awareness of the relationship between number and quantity
2. An understanding of number symbols, vocabulary, and meaning
3. The ability to engage in systematic counting — including notions of cardinality and ordinality
4. An awareness of magnitude and comparisons between different magnitudes
5. An understanding of different representations of number
6. Competence with simple mathematical operations
7. An awareness of number patterns including recognising missing numbers

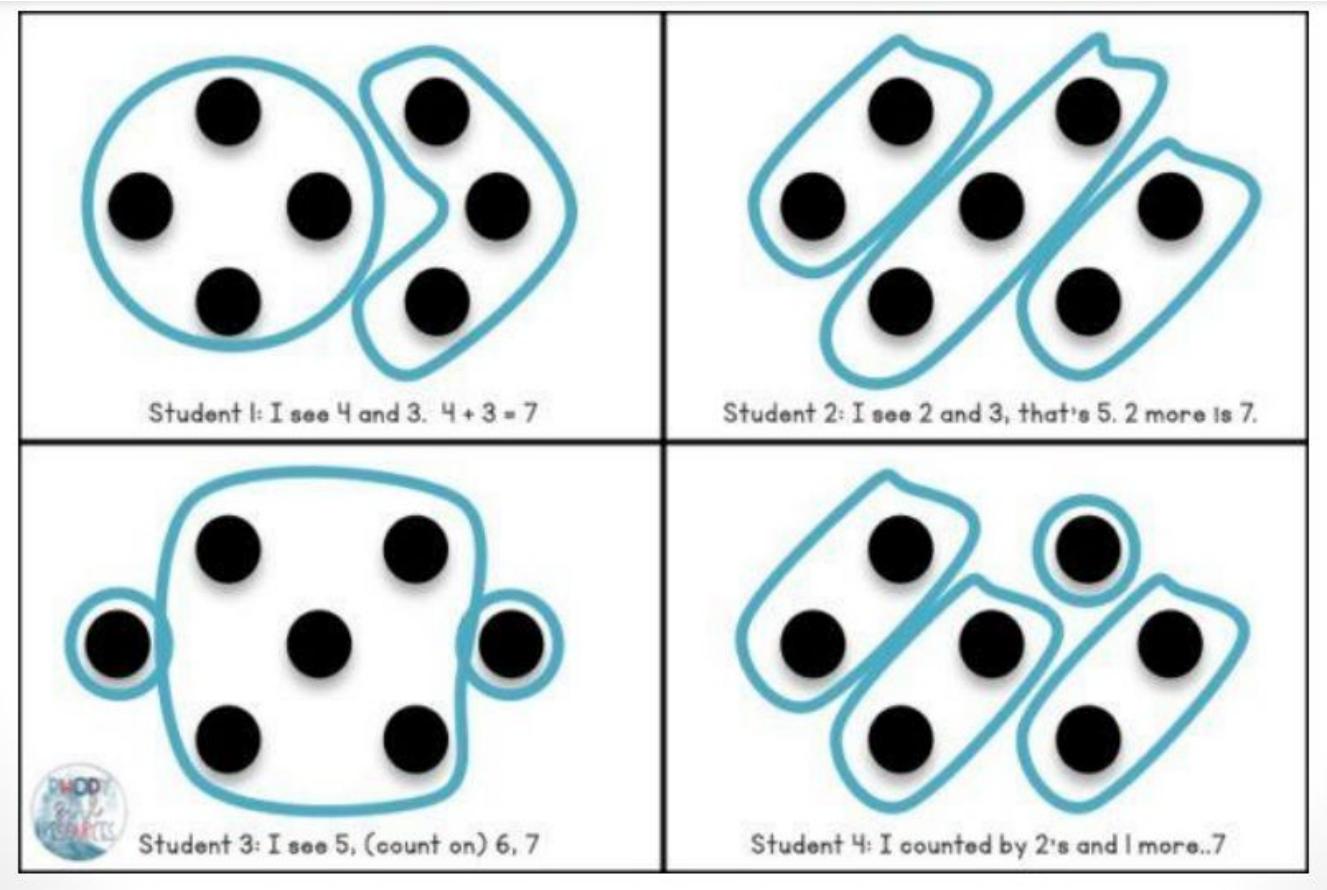
Number Sense

5 frames and 10 frames are excellent ways to help your children build their number sense. By placing numbers in a 5 or 10 frame they can start to see what numbers look like. They start to understand that when I place 3 teddies on the 5 frame there are 2 spaces missing. That then helps children to make the connection that 3+2=5 and 5-2=3.





Subitizing


Student 1: I see 4 and 3. 4 + 3 = 7
Student 2: I see 2 and 3, that's 5. 2 more is 7.
Student 3: I see 5, (count on) 6, 7
Student 4: I counted by 2's and 1 more..7

What does this look like through the year?

Daily Maths Basic Skills Practice

Minimum of four Maths lessons per week - Maths No Problem

Minimum of one cross curricular Maths lesson per half term

Themed days - NSPCC number day

Children move together i.e. same objective from National Curriculum.

Differentiation through scaffolding/resources used.

Visiting previous year topic for consolidation.

Basic Skills

Basic Skill and Arithmetic learning is a daily essential for all of our learners.

We have totally revamped our teaching approaches last year and this year to ensure consistency across the school and Key Stages for Maths.

We look at using 5 key questions and will be developing the idea of pace and application of knowledge over the weeks and terms.

This is where you can help us the most! All maths is good maths, taking 15-20 minutes will suffice!

Example

One

Share these counters into two groups.

How many in each group?

Two

There are _____ equal groups of _____ . There are _____ altogether.

Three

Use counters to show…

3 groups of 4

5 groups of 6

2 groups of 7

Four

Jane is filling bags with sweets. She has 36 sweets and 6 bags. How many sweets will go in each bag?

Five

Jane says…

"3 groups of 6 is the same as 2 groups 9."

Is she correct?
Explain your reasoning!

Maths no problem - What is it? Why?

Uses a well researched and highly effective teaching approach, with its emphasis on teaching pupils to solve problems.

- A highly effective approach to teaching maths based on research and evidence
- Builds students' mathematical fluency without the need for rote learning
- Introduces new concepts using Bruner's Concrete Pictorial Abstract (CPA) approach
- Pupils learn to think mathematically as opposed to reciting formulas they don't understand
- Teaches mental strategies to solve problems such as drawing a bar model

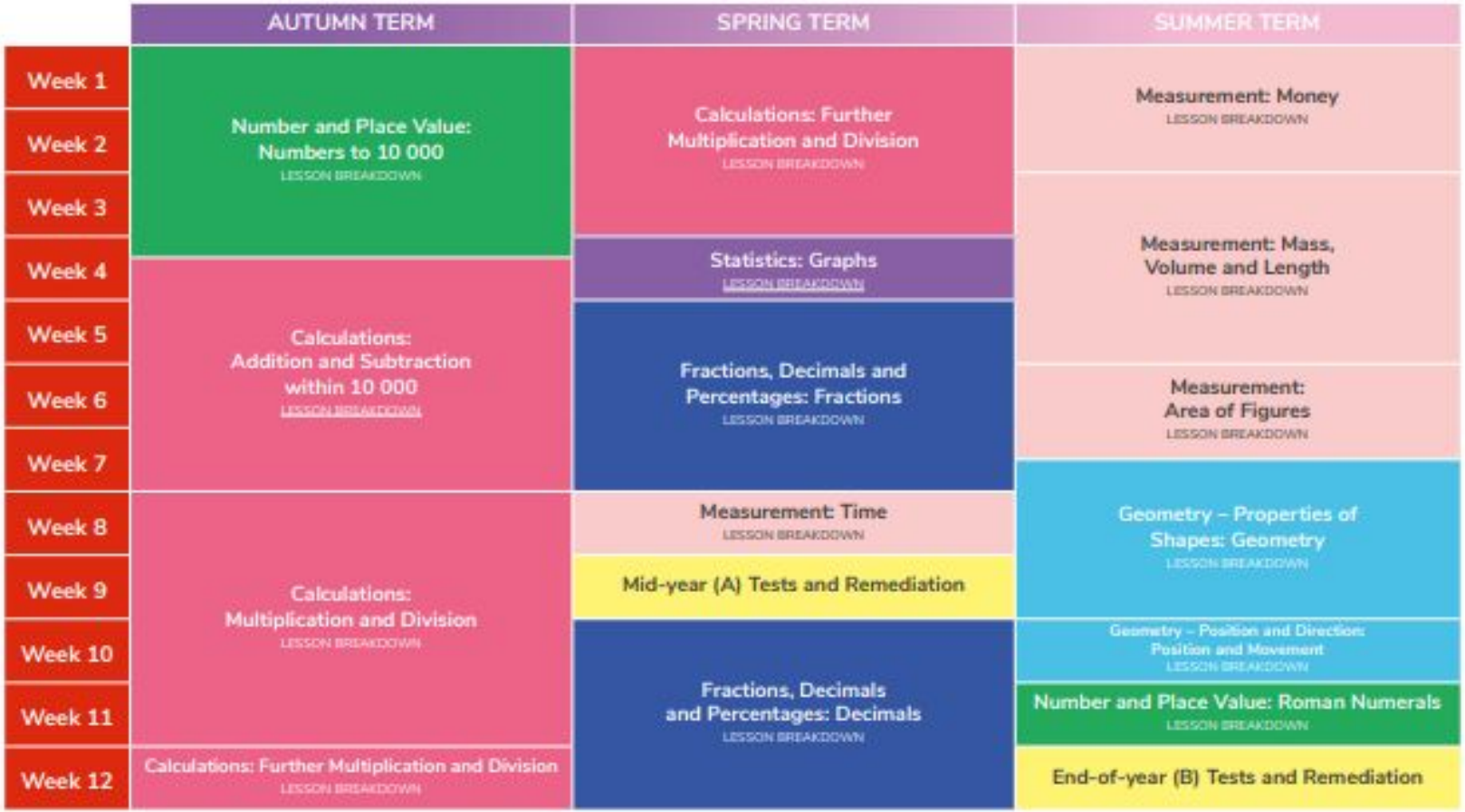
Primary Maths Series - Year 3 at a Glance

Maths in Year 3 and 4

	AUTUMN TERM	SPRING TERM	SUMMER TERM
Week 1	Number and Place Value: Numbers to 1000 LESSON BREAKDOWN	Measurement: Length LESSON BREAKDOWN	Statistics: Pictographs and Bar Graphs LESSON BREAKDOWN
Week 2			Fractions, Decimals and Percentages: Fractions LESSON BREAKDOWN
Week 3	Calculations: Addition and Subtraction LESSON BREAKDOWN	Measurement: Mass LESSON BREAKDOWN	
Week 4		Measurement: Volume LESSON BREAKDOWN	
Week 5			
Week 6		Mid-year (A) Tests and Remediation	
Week 7		Measurement: Money LESSON BREAKDOWN	Geometry – Properties of Shapes: Angles LESSON BREAKDOWN
Week 8	Calculations: Multiplication and Division LESSON BREAKDOWN		
Week 9			Geometry – Properties of Shapes: Lines and Shapes LESSON BREAKDOWN
Week 10		Measurement: Time LESSON BREAKDOWN	Measurement: Perimeter of Figures LESSON BREAKDOWN
Week 11	Calculations: Further Multiplication and Division LESSON BREAKDOWN		
Week 12			End-of-year (B) Tests and Remediation

Maths in Year 3 and 4

Primary Maths Series - Year 4 at a Glance



Progress Paths

https://docs.google.com/document/d/1ISdcihoWPfdodgL4TNa1fQGSlD_yoj31nyFasRIETPw/edit?usp=sharing

Year 3

What do we know that will help us with this problem?

Explore

There are 32 runners in each race.

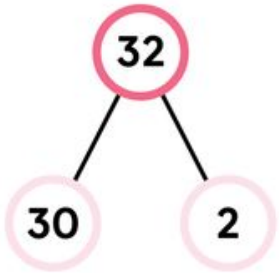
How many runners are there in 3 races?

Year 3

Explore

There are 32 runners in each race.
How many runners are there in 3 races?

Number bond diagrams can be used to help visualise the steps in solving the problem

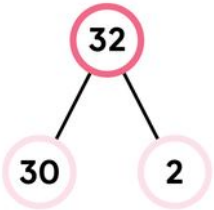


Master

32 × 3 = ☐

Step 1 Multiply 2 ones by 3.
2 ones × 3 = 6 ones

	t	o
	3	2
×		3
		6



Step 2 Multiply 3 tens by 3.
3 tens × 3 = 9 tens

	t	o
	3	2
×		3
		6
	9	0

Step 3 Add the products.
6 + 90 = 96

	t	o
	3	2
×		3
		6
	9	0
	9	6

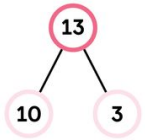
32 × 3 = 96

There are 96 runners in 3 races.

Guided Practice

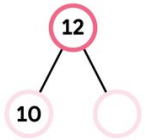
1 Multiply.

(a) 13 × 2 = ☐



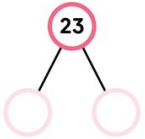
	t	o
	1	3
×		2
	☐	☐
☐	☐	
☐	☐	

(b) 12 × 4 = ☐



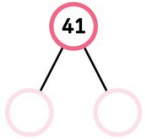
	t	o
	1	2
×		4
	☐	☐
☐	☐	
☐	☐	

(c) 23 × 3 = ☐



	t	o
	2	3
×		3
	☐	☐
☐	☐	
☐	☐	

(d) 41 × 2 = ☐



	t	o
	4	1
×		2
	☐	☐
☐	☐	
☐	☐	

2 Find the product of:

(a) 14 and 2 ☐

(b) 3 and 22 ☐

(c) 3 and 31 ☐

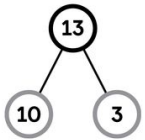
Guided practice provides the children to work in pairs and for the adults to assess who will need more support.

Worksheet 3

Multiplying 2-Digit Numbers

1 Multiply.

(a) 13 × 3 = ☐



	t	o
	1	3
×		3
	☐	☐
+	☐	☐
	☐	☐

(b) 24 × 2 = ☐

	t	o
	2	4
×		2
	☐	☐
+	☐	☐
	☐	☐

2 Multiply.

(a) 23 × 3 = ☐

	t	o
	2	3
×		3
	☐	☐
+	☐	☐
	☐	☐

(b) 34 × 2 = ☐

	t	o
	3	4
×		2
	☐	☐
+	☐	☐
	☐	☐

3 Fill in the blanks.

(a)

	t	o
	☐	3
×		2
	☐	
+	8	☐
	☐	☐

(b)

	t	o
	2	☐
×		☐
	☐	
+	8	☐
	☐	8

Worksheets are independent.

Homework

https://play.edshed.com/en-gb/login

https://ttrockstars.com/

At home - all maths is good maths

Supporting Your Children at Home

https://www.nationalnumeracy.org.uk/helping-children-maths

- White Rose is also a brilliant website. That free home learning videos for all ages from reception.

- https://whiterosemaths.com/homelearning

All maths is good!

Questions and feedback