



The Forest School Maths and Finance Curriculum

“Everything is physics and maths.”

Katherine Johnson

American mathematician who worked on the NASA Apollo missions

Introduction and Intent

At The Forest School, we believe every pupil can learn maths at their own pace, at the right level and with appropriate support. All maths learning is supported and structured in the same way throughout school, beginning with concrete resources such as cubes, counters or shapes. The next part of the pupils' maths journey involves linking their concrete, active learning to pictorial representations of numbers. Following this, they start to build understanding of abstract maths concepts, developing knowledge and skills that allow pupils' to apply maths knowledge at a greater-depth, enabling them to solve problems. We aim for pupils to be actively involved in their daily maths lessons and to continue to use the resources they need for as long as they need them.

The National Curriculum for Mathematics aims to ensure that all pupils:

- *become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time*
- *reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language*
- *can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.*

In the Early Years Foundation Stage and Primary classes, maths learning is class-based. In Key Stages 3 and 4, pupils will reinforce and refine their knowledge and embed their learning. They will work towards gaining a maths qualification or AQA certification, which will help all pupils with life-long problem solving, reasoning and critical thinking.



Section 1 - Yearly Plan

EYFS Curriculum

	Half Term 1			Half Term 2		
	Topic 1	Topic 2	Topic 3	Topic 1	Topic 2	Topic 3
Autumn	Comparison	Space and Measure	Pattern	Counting	Subitising	Shape (Pattern for those working at EYFS 1)
Spring	Counting	Pattern	Space and Measure	Subitising	Counting	Shape (Pattern for those working at EYFS 1)
Summer	Space and Measure	Counting	Pattern	Subitising	Shape (Pattern for those working at EYFS 1)	Counting

Key Stage 1 Curriculum

	Main Topic Half Term 1 (At least 75% of the Half Term)	Subsidiary Topic Half Term 1	Main Topic Half Term 2 (At least 75% of the Half Term)	Subsidiary Topic Half Term 2
Autumn	Place Value	Measure - Time	Number	Measure - Length and Height
Spring	Number	Measure - Money	Geometry	Number
Summer	Proportion	Measure	Number	Measure - Mass and Volume

Lower Key Stage 2 Curriculum

	Main Topic Half Term 1 (At least 75% of the Half Term)	Subsidiary Topic Half Term 1	Main Topic Half Term 2 (At least 75% of the Half Term)	Subsidiary Topic Half Term 2
Autumn	Place Value	Measure - Time	Number	Measure - Area, Length and Perimeter; including conversion
Spring	Proportion	Measure - Money	Geometry	Number
Summer	Proportion	Statistics and Data	Number	Measure - Mass, Volume and Capacity including conversion



Upper Key Stage 2 Curriculum

	Main Topic Half Term 1 (At least 75% of the Half Term)	Subsidiary Topic Half Term 1	Main Topic Half Term 2 (At least 75% of the Half Term)	Subsidiary Topic Half Term 2
Autumn	Place Value	Measure	Number	Measure
Spring	Proportion	Measure	Geometry	Statistics and Data
Summer	Proportion	Statistics and Data	Number	Measure

KS3 and KS4 Curriculum

	Main Topic Half Term 1 (At least 75% of the Half Term)	Subsidiary Topic Half Term 1	Main Topic Half Term 2 (At least 75% of the Half Term)	Subsidiary Topic Half Term 2
Autumn	Place Value and Proportion	Algebra	Number	Proportion
Spring	Place Value and Proportion	Number	Geometry	Statistics and Data
Summer	Algebra	Statistics and Data	Statistics and Data	Place Value and Proportion

Alternative Functional Skills KS4 Curriculum

** For those working towards functional skills qualifications, an emphasis on problem solving in real world scenarios will be applied**

Teachers use the content areas of Pearson Edexcel Functional Skills to support planning.

These can be found here: [Entry Levels](#) and [Level 1 and 2](#).

	Main Topic Half Term 1 (At least 75% of the Half Term)	Subsidiary Topic Half Term 1	Main Topic Half Term 2 (At least 75% of the Half Term)	Subsidiary Topic Half Term 2
Autumn	Place Value or Proportion	Money	Number	Time
Spring	Place Value or Proportion	Statistics and Data	Geometry	Time
Summer	Measure	Money	Statistics and Data	Geometry



Section 2 - Curriculum Steps and topic order

EYFS Curriculum

Comparison	Space and Measure	Pattern	Counting	Subitising	Shape
More than, fewer than, same	Explore position and space	Explore repeats	Hear and say number names	I see 1, 2, 3	Explore and build with shapes and objects
Compare and sort collections	Explore position and routes	Join in with repeats	Begin to order number names	Show me 1, 2, 3	Circles and Triangles
Match, sort, compare	Match, talk, push and pull	Explore patterns	Move and label 1, 2, 3	Talk about dots	Shapes with 4 sides
Match, sort and compare	Start to puzzle	Lead on own repeats	Take and give 1, 2, 3	It's me 1, 2, 3	Explore 3D shapes
Sharing and grouping	Talk about measure and patterns (Steps 1-3)	Making patterns together	Show me 5	1, 2, 3, 4, 5	Manipulate, compose and decompose
Next Step - KS1 Place Value	Mass and Capacity	My own pattern	Stop at 1, 2, 3, 4, 5	Next Step - KS1 Place Value	Next Step - KS1 Geometry
	Length, height and time	Talk about measure and patterns (Steps 4-6)	Alive in 5		
	Next Step - KS1 Measure	Visualise build and map	Growing 6, 7, 8		
		Make connections	Build 9 and 10		
		Next Step - Any Subsidiary Topic	To 20 and beyond		
			How many now?		
			Next Step - KS1 Addition and Subtraction		

EYFS Curriculum topics are based on:

EYFS 1 Curriculum - Based on WRM Nursery Curriculum (0 months - 48 months)

EYFS 2 Curriculum - Based on WRM Reception Curriculum (48 months - 60 month)



Key Stage 1 Curriculum

Place Value	Number	Proportion	Measure	Geometry	Statistics and Data
Prior Step - EYFS Subitising	Prior Step - EYFS Counting	Prior Step - EYFS Pattern	Prior Step - EYFS Space and Measure	Prior Step - EYFS Shape	Prior Step - EYFS Pattern
Yr 1 Place Value within 10	Yr 1 Addition and Subtraction within 10	Yr 1 Fractions	Yr 1 Money	Yr 1 Shape	Yr 2 Statistics
Yr 1 Place Value within 20	Yr 1 Addition and Subtraction within 20	Yr 2 Fractions	Yr 1 Time	Yr 1 Position and Direction	Next Step - LKS2 Statistics and Data
Yr 1 Place Value within 50	Yr 1 Multiplication and Division	Next Step - LKS2 Proportion	Yr 1 Length and Height	Yr 2 Shape	
Yr 1 Place Value within 100	Yr 2 Addition and Subtraction		Yr 1 Mass and Volume	Yr 2 Position and Direction	
Yr 2 Place Value	Yr 2 Multiplication and Division		Yr 2 Money	Next Step - LKS2 Geometry	
Next Step - LKS2 Place Value	Next Step - LKS2 Number		Yr 2 Length and Height		
			Yr 2 Mass, capacity and temperature		
			Yr 2 Time		
			Next Step - LKS2 Measure		

KS1 Curriculum topics are based on:

WRM Year 1 topics and WRM Year 2 topics.



Lower Key Stage 2 Curriculum

Place Value	Number	Proportion	Measure	Geometry	Statistics and Data
Prior Step - KS1 Place Value	Prior Step - KS1 Number	Prior Step - KS1 Proportion	Prior Step - KS1 Measure	Prior Step - KS1 Geometry	Prior Step - KS1 Statistics and Data
Yr 3 Place value	Yr 3 Addition and subtraction	Yr 3 Fractions A	Yr 3 Length and perimeter	Yr 3 Shape	Yr 3 Statistics
Yr 4 Place value	Yr 3 Multiplication and division A	Yr 3 Fractions B	Yr 3 Mass and capacity	Yr 4 Area	Yr 4 Statistics
Next Step - UKS2 Place Value	Yr 3 Multiplication and division B	Yr 4 Fractions	Yr 3 Money	Yr 4 Shape	Next Step - UKS2 Statistics and Data
	Yr 4 Addition and subtraction	Yr 4 Decimals A	Yr 3 Time	Yr 4 Position and direction	
	Yr 4 Multiplication and division A	Yr 4 Decimals B	Yr 4 Length and perimeter	Next Step - UKS2 Geometry	
	Yr 4 Multiplication and division B	Next Step - UKS2 Proportion	Yr 4 Money		
	Next Step - UKS2 Number		Yr 4 Time		
			Next Step - UKS2 Measure		

LKS2 Curriculum topics are based on:

WRM Year 3 topics and WRM Year 4 topics.



Upper Key Stage 2 Curriculum

Place Value	Number	Proportion	Measure	Geometry	Statistics and Data
Prior Step - LKS2 Place Value	Prior Step - LKS2 Number	Prior Step - LKS2 Proportion	Prior Step - LKS2 Measure	Prior Step - LKS2 Geometry	Prior Step - LKS2 Statistics and Data
Yr 5 Place value	Yr 5 Addition and subtraction	Yr 5 Fractions A	Yr 5 Converting units	Yr 5 Perimeter and Area	Yr 5 Statistics
Yr 5 Negative numbers	Yr 5 Multiplication and division A	Yr 5 Fractions B	Yr 5 Volume	Yr 5 Shape	Yr 6 Statistics
Yr 6 Place value	Yr 5 Multiplication and division B	Yr 5 Decimals and Percentages	Yr 6 Converting units	Yr 5 Position and direction	Next Step - KS3 and KS4 Statistics and Data
Next Step - KS3 and KS4 Place Value and Proportion	Yr 6 Addition, subtraction, multiplication and division	Yr 5 Decimals	Next Step - KS3 and KS4 Geometry	Yr 6 Area, perimeter and volume	
	Yr 6 Algebra	Yr 6 Fractions A		Yr 6 Shape	
	Next Step - KS3 and KS4 Number	Yr 6 Fraction B		Yr 6 Position and direction	
		Yr 6 Ratio		Next Step - KS3 and KS4 Geometry	
		Yr 6 Decimals			
		Yr 6 Fractions, decimals and percentages			
		Next Step - KS3 and KS4 Place Value and Proportion			

LKS2 Curriculum - Based on:
WRM Year 5 topics and **WRM Year 6 topics**.



Key Stage 3 and Key Stage 4 Curriculum

Place Value and Proportion	Number	Algebra	Geometry	Statistics and Data
Prior Step - UKS2 Place Value or Proportion	Prior Step - UKS2 Number	Prior Step - UKS2 Place Value	Prior Step - UKS2 Geometry	Prior Step - UKS2 Statistics and Data
Place Value and Ordering Integers and Decimals	Solving Problems with Addition and Subtraction	Sequences	Constructing, Measuring and Using Geometric Notation	Working in the Cartesian plane
Fraction, Decimal and Percentages Equivalence	Solving Problems with Multiplication and Division	Understand and Use Algebraic Notation	Developing Geometric Reasoning	Representing data
Fractions and Percentages of Amounts	Operations and Equations with Directed Number	Equality and Equivalence	Angles in parallel lines & polygons	Tables & Probability
Addition and Subtraction of Fractions	Developing number sense	Brackets, equations & inequalities	Area of trapezia & circles	The data handling cycle
Ratio and Scale	Sets & probability	Sequences	Line symmetry & reflection	Measures of location
Multiplicative change	Prime numbers & proof	Indices	Three dimensional shapes	Straight line graphs
Multiplying and dividing fractions	Standard index form	Forming and Solving Equations	Constructions & congruency	Collecting, interpreting and representing data
Fractions and Percentages	Number sense	Testing conjectures	Deduction	Gradients and Lines
Numbers	Probability	Algebraic representation	Rotation and Translation	Non-linear graphs
Using percentages	Non-calculator methods	Representing solutions of equations & inequalities	Pythagoras' theorem	Using Graphs
Maths and money	Types of number and sequences	Simultaneous equations	Congruence, similarity & enlargement	Listing and describing
Enlargement & similarity	Indices and roots	Expanding & factorising	Trigonometry	Show that...
Solving ratio & proportion problems	Manipulating expressions	Changing the subject	Angles & bearings	
Rates	Manipulative reasoning	Functions	Working with circles	
Ratios and Fractions	Show that...	Algebraic reasoning	Vectors	
Percentages and Interest		Show that...	Geometric reasoning	
Probability			Transforming and constructing	
Show that...			Show that...	

KS3 and KS4 Curriculum - Based on:

WRM Year 7 topics, WRM Year 8 topics, WRM Year 9 topics, WRM Year 10 topics, and WRM Year 11 topics.



Alternative Functional Skills KS4 Curriculum

Table shows the steps required for **Entry 1**, **Entry 2**, **Entry 3**, **Level 1**, **Level 2** taken from White Rose Maths

Place Value	Number	Proportion	Measure	Geometry	Statistics and Data
Yr 1 Place value (within 20)	Yr 1 Addition and subtraction (within 20)	Yr 2 Fractions	Yr 1 Length and height	Yr 1 Shape	Yr 2 Statistics (Steps 1 -3)
Yr 2 Place value	Yr 2 Addition and subtraction	Yr 4 Decimals A (Steps 1-6)	Yr 1 Mass and volume	Yr 1 Position and direction	Yr 3 Statistics (Steps 3-6)
Yr 4 Place value (Step 14)	Yr 2 Multiplication and division	Yr 3 Fractions A	Yr 2 Length and height	Yr 2 Shape	Yr 4 Statistics
Yr 3 Place value	Yr 3 Multiplication and division A	Yr 4 Decimals A	Yr 2 Mass, capacity and temperature	Yr 3 Shape	Yr 5 Statistics
Yr 4 Place value	Yr 3 Multiplication and division B	Yr 4 Decimals B	Yr 3 Length and height	Yr 4 Shape	Yr 6 Statistics
Yr 5 Place value (Step 2-5 and 7-11)	Yr 3 Addition and subtraction	Yr 5 Fractions A (Steps 1 -8)	Yr 3 Mass and capacity	Yr 5 Shape	Yr 7 Tables and Probability
Yr 5 Negative numbers	Year 4 Multiplication and division B	Yr 5 Fraction B (Steps 4 and 5)	Yr 4 Length and perimeter	Yr 6 Shape	Yr 8 The data handling cycle
Yr 6 Place value	Yr 5 Multiplication and division B (Steps 1-2 and 6-9)	Yr 5 Decimals and percentages (Step 6-15)	Yr 5 Converting units	Yr 6 Position and Direction	Yr 8 Measures of location
	<i>Recognise and continue sequences that involve decimals (Not WRM)</i>	Yr 5 Decimals	Yr 5 Perimeter and area	<i>Draw 3-D shapes to include plans and elevations (Not in WRM)</i>	Money
	Yr 5 Multiplication and division A (Steps 1-2 and 6-9)	Yr 6 Understand percentages (Step 3-9)	Yr 5 Volume	Time	Yr 1 Money
	Yr 6 Addition, subtraction, multiplication and division.	Yr 6 Fractions A	Yr 6 Converting units	Yr 1 Time	Yr 2 Money
	Yr 6 Ratio (Steps 1-4)	Yr 6 Fractions B (Steps 6 and 7)	<i>Calculate using compound measures including speed, density and rates of pay (Not WRM)</i>	Yr 2 Time	Yr 3 Money
	Yr 7 Sets and Probability (Steps 6-10)	Yr 6 Decimals	Yr 6 Area, perimeter and volume	Yr 4 Time (Steps 4 and 5)	Yr 4 Money
	Yr 6 Ratio (Steps 8-10)	Yr 6 Fractions, decimals and percentages		Yr 3 Time	<i>Calculate amounts of money, compound interest, percentage increases, decreases and discounts including tax and simple budgeting (Not WRM)</i>
		Yr 7 Fractions and percentages of amounts		Yr 4 Time	

