

## Maths Long Term Plan – 2022-2023

	<b>Advent 1 (7)</b>	<b>End Points</b>	<b>Advent 2 (8)</b>	<b>End Points</b>	<b>Lent 1 (7)</b>	<b>End Points</b>	<b>Lent 2 (5)</b>	<b>End Points</b>	<b>Pentecost 1 (6)</b>	<b>End Points</b>	<b>Pentecost 2 (6)</b>	<b>End Points</b>
<b>E Y F S</b>	Baseline: initial assessment		Shape, space and measure	Circles and triangles.	Understanding number	Introducing zero. Comparing numbers to 5. Composition of 4 and 5.	Shape, space and measure	Length and height. Time.	Understanding number	Building numbers beyond 10.	Understanding number	Doubling. Sharing and grouping.
	Understanding number	Match and sort. Compare amounts.	Shape, space and measure	Positional language.			Understanding number	9 and 10. Comparing numbers to 10.	Understanding number	Counting patterns beyond 10.	Understanding number	Odd and even.
	Shape, space and measure	Compare size, mass and capacity. Exploring pattern.	Understanding number	Representing numbers 1 to 5. One more, one less.	Shape, space and measure	Compare mass. Compare capacity.	Understanding number	Bonds to 10.	Shape, space and measure	Spatial reasoning: match, rotate, manipulate.	Shape, space and measure	Spatial reasoning : visualise and build.
	Understanding number	Representing 1,2,3. Comparing 1,2,3. Composition of 1,2,3.	Shape, space and measure	Shapes with 4 sides.	Understanding number	6,7,8 Making pairs. Combining 2 groups.	Shape, space and measure	3D shape. Pattern.	Understanding number	Adding more	Understanding number	Patterns and relationships.
			Time					Understanding number	Taking away	Shape, space and measure	Spatial reasoning : mapping.	
<b>Y e a r 1</b>	Place value	Sort, count and represent objects with numbers	Addition and subtraction within 10	Subtraction - crossing out. Subtraction symbol. Finding a part. Fact families.	Addition and Subtraction	Related facts. Compare number sentences.	Measurement: weight and volume	Introduce capacity and volume. Measure capacity. Compare capacity.	Fractions	Make a half.	Measurement: time	Before and after. Dates. Time to the hour.
	Place value	Count read and write forwards & backwards from any number 0-10. Count one more. Count one less.	Addition and subtraction within 10	Counting back. Finding the difference.	Place value	Numbers to 50. Tens and ones. Represent numbers to 50.	Multiplication and division	Count in 2s. Count in 5s. Count in 10s.	Geometry: position and direction	Make a quarter.	Measurement: time	Time the half hour. Writing time. Comparing time.
			Shape	Comparing addition and subtraction statements.	Place value	One more one less. Compare objects within 50. Compare numbers within 50.	Consolidate and assess		Place value	Describe turns. Describe position.	Consolidate and assess	
	Place value	Compare groups using one-to-one correspondence		Recognise and name 3D shapes. Sort 3D shapes. Recognise and name 2D			Multiplication and division	Make equal groups.	Place value	Counting forwards and backwards within 100. Partitioning numbers.		
								Place value	Comparing numbers. Ordering			

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		<p>nce. Compare using Language equal, more/greater, less/fewer. Introduce symbols <math>&lt;</math> <math>&gt;</math> <math>=</math>. Compare numbers.</p> <p>Order groups of objects. Order numbers. Ordinal numbers, Number line.</p> <p>Part-Whole model. Addition symbol. Fact families – addition facts.</p> <p>Number bonds within 10. Systematic methods for number bonds within 10. Number bonds to 10. Compare number bonds.</p> <p>Addition adding together. Addition adding more. Finding a part.</p>	<p>Place value</p> <p>Place value</p> <p>Consolidate and assess</p> <p>Addition and Subtraction</p> <p>Addition and Subtraction</p>	<p>shapes. Sort 2D shapes. Patterns with 2D and 3D shapes.</p> <p>Count forwards and backwards and write numbers to 20 in words and numerals. Numbers from 11-20. Tens and ones.</p> <p>Count one more and one less. Compare groups of objects. Compare numbers. Order groups of objects. Order numbers.</p> <p>Add by counting on. Find and make number bonds. Add by making 10.</p> <p>Subtraction not crossing 10. Subtraction crossing 10.</p>	<p>Place value</p> <p>Measurement: length and height</p> <p>Measurement: length and height</p> <p>Measurement: weight and volume</p>	<p>Order numbers within 50.</p> <p>Count in 2s. Count in 5s.</p> <p>Compare lengths and heights. Measure length.</p> <p>Measure length.</p> <p>Introduce weight and mass. Measure mass. Compare mass.</p>	<p>Multiplication and division</p>	<p>Add equal groups. Make arrays.</p> <p>Make doubles. Make equal groups – grouping. Make equal groups – sharing.</p>	<p>Measurement: money</p>	<p>numbers. One more, one less.</p> <p>Recognising coins. Recognising notes. Counting in coins.</p>		
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Y e a r 2	Number and Place value	Counting in steps of 2,3,5,10	Statistics	Statistics – interpret tables	Measures Money	Money change from £1,£2	Measures time	Time in 5-minute intervals	Fractions	Revise fraction knowledge	Assess and then consolidate learning	
	Number and Place value	Read and write numbers to 100	Fractions	Calculate $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$	Multiplication and division	Multiplication & division – understand the functions	Number and Place value	Place value in a 2-digit nr	Geometry Position and direction	Vocab for position, direction and movement		
	Measures Length & mass/weight	Compare and order length/weight $< > =$	Measures time	Time – in quarter of an hour	Multiplication and division	Understand commutativity (multiplication)	Consolidate and assess	Inverse relationship between addition and subtraction	Geometry 2D & 3D shape	Explore 3D shapes		
	Addition and Subtraction	Addition/Subtraction facts to 100	Number and Place Value	Compare and order numbers up to 100 $< > =$	Measures Length & mass/weight	Measure accurately and estimate (length/weight)	Addition/Subtraction	Measure: temperature and capacity	Measures Time	Compare and sequence intervals of time		
	Addition and Subtraction	Mental addition/subtraction	Consolidate and assess	Compare and order capacity/volume $< > =$	Addition/Subtraction	Commutativity in addition	Measures Temperature and capacity	Multiplication and division	Multiplication and division	Inverse relationship between Multiplication and division (doubling & halving)		
	Multiplication and division	2s, 5s, 10s multiplication & division facts	Measures capacity and volume	Describe 3D shapes in terms of their 2D components	Fractions	Simple fraction equivalence	Statistics	Statistics – ask questions, represent results pictorially	Measures Money	Simple problems involving money		
	Geometry 2D & 3D shape	Describing 2D and 3D shapes	Geometry 2D & 3D shape		Geometry Position and direction	Sequencing and Patterns	Consolidate and assess					

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Y e a r 3	Number and Place Value	Count from 0 in multiples of 4, 8, 50 and 100. Find 10 or 100 more or less than a given number.	Multiplication & Division	Write and calculate mathematical statements for multiplication using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to formal written methods.	Measures Length, volume and capacity	Measure, compare, add & subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).	Measures Time	12-hour & 24-hour clocks; Record and compare time in terms of seconds, minutes, hours; Use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight.	Multiplication and division: Measures	Write and calculate measures for multiplication and division using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to formal written methods.	Measures Money	Adding and subtracting amounts of money to give change, using both £ and p in practical contexts
	Number and Place Value	Read and write numbers to 1,000 in numerals and words.	Multiplication & Division	Write and calculate mathematical statements for division using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to formal written methods.	Multiplication and division	Write and calculate mathematical statements for multiplication and division using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to formal written methods.	Multiplication and division	Additional practise for formal methods of multiplication and division, including a high focus on reasoning	Measures Time	Know the numbers of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events, for example, to calculate time taken by particular events or tasks.	Statistics	Solve 1-step and 2-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts pictograms and other graphs
	Measures perimeter	Measure the perimeter of simple 2D shapes.										
	Statistics	Interpret and present data using: bar charts pictograms tables.	Measures Time	Estimate and read time with increasing accuracy to the nearest minute; -Tell and write the time from an analogue clock, including using Roman numerals from I to XII.	Multiplication and Division Measures Money and Length	Write and calculate mathematical statements for multiplication and division using known	Consolidate and assess	Count up and down in tenths; recognise that tenths arise from	Geometry Properties	Identify horizontal and vertical lines and pairs of	Consolidate and assess	
	Addition and Subtraction	Add and subtract numbers mentally, including: 3-digit number & ones, 3-digit numbers & tens 3-digit numbers &	Geometry 3D Shapes	Make 3D shapes using modelling materials;			Addition and Subtraction: Decimals Money					

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	<p>Addition and Subtraction</p> <p>Multiplication &amp; Division</p>	<p>hundreds</p> <p>Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction</p> <p>Recall and use multiplication and division facts for the 3, 4 and 8 tables.</p>	<p>Place value mental addition and subtraction</p> <p>Consolidate and assess</p> <p>Fractions</p> <p>Fractions</p>	<p>-recognise 3D shapes in different orientations; &amp; describe them.</p> <p>Compare and order numbers up to 1000. Recognise the place value of each digit in a 3-digit number.</p> <p>Recognise and show, using diagrams, equivalent fractions with small denominators. Recognise and write fractions or a discrete set of objects: unit &amp; non-unit fractions with small denominators.</p> <p>Compare and order unit fractions, and fractions with the same denominators.</p>	<p>Geometry 2D shapes</p> <p>Addition and Subtraction</p> <p>Fractions</p> <p>Geometry Angles</p>	<p>multiplication tables, including use of money and length</p> <p>Accurately draw 2D shapes and name them, e.g. squares, rectangles and triangles.</p> <p>Estimate the answer to a calculation and use the inverse operations to check answers.</p> <p>Add and subtract fractions with the same denominator within one whole.</p> <p>Recognise angles are a property of shape or a description of a turn; Identify right angles, recognise that two right angles make a half-turn, three make three quarters &amp; four a complete turn;</p>	<p>Addition and Subtraction: Measures</p>	<p>dividing an object into ten equal parts and in dividing numbers or quantities by 10.</p> <p>Add and subtract measures (length, weight and volume) with up to 3 digits, using formal written methods of columnar addition and subtraction</p>	<p>Place Value</p> <p>Addition and Subtraction</p> <p>Fractions</p>	<p>perpendicular &amp; parallel lines</p> <p>Revise all Year 3 activities associated with place value, including additional reasoning activities</p> <p>Solve word problems including missing number problems, number facts, place value and more complex addition and subtraction.</p> <p>Revise all Year 3 activities associated with fractions and decimals</p>		
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						Identify whether angles are greater than or less than a right angle							
Year 4	Number and Place value	Count backwards through zero to include negative numbers.	Multiplication and division	Recognise and use factor pairs and commutativity in mental calculations.	Geometry Position and Direction	Describe positions on a 2D grid as coordinates in the first quadrant	Multiplication and division	Find the effect of multiplying a number with up to two decimal places by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.	Measures Length, Mass, Capacity, Time	Convert between different units of measure (e.g. km to m; hr to min)	Addition and Subtraction	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	
	Number and Place value	Count in multiples of 6, 7, 9, 25 and 1000.	Multiplication and division	Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout.	Measures Area	Find the area of rectilinear shapes by counting squares.			Geometry Position and Direction	Describe positions on a 2D grid as coordinates in the first quadrant; Describe movements between positions as translations of a given unit to the left/right and up/down; Plot specified points and draw sides to complete given polygon	Fractions Decimals	Round decimals with one decimal place to the nearest whole number. Compare numbers with the same number of decimal places up to two decimal places.	
	Addition and Subtraction	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.	Measures Perimeter	Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m.	Multiplication and division	Divide 2-digit and 3-digit numbers by a 1-digit number using formal written layout with no remainder.							
	Addition and Subtraction	Estimate and use inverse operations to check answers to a calculation.	Statistics	Interpret and present discrete and continuous data using appropriate graphical methods, including: bar charts time graphs	Multiplication and division	Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; multiplying three numbers together.	Number and place value	Compare and order numbers beyond 1000					
	Geometry and shape	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.	Number and Place Value	Read Roman numerals to 100 and understand that over time, the numeral system changes to include the concept of zero and place value.	Number and Place Value	Find 1000 more or less than a given number.	Consolidate and assess	Find the effect of dividing a 1-digit or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones,	Fractions	Recognise and write decimal equivalents of any number of tenths or hundredths - Recognise and write decimal equivalents to $\frac{1}{4}$ , $\frac{1}{2}$ and	Geometry	Identify acute and obtuse angles and compare and order angles up to two	

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	Measures Time	Read, write and convert time between analogue and digital 12- and 24-hour clocks.	Fractions	Recognise and show, using diagrams, families of common equivalent fractions	Addition and Subtraction	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.	Fractions	tenths and hundredths.  Count up and down in hundredths; recognise that hundredths arise from dividing an object into 100 equal parts and in dividing numbers or quantities by 100.	Number and Place Value	Round any number to the nearest 10, 100 or 1000	Place value: Measures	right angles by size.
	Multiplication and division	Recall multiplication and division facts for tables up to 12x12.	Fractions	Add and subtract fractions with the same denominator.	Geometry 2D shapes	Identify lines of symmetry in 2D shapes presented in different orientations. Complete a simple symmetric figure with respect to a specific line of symmetry			Statistics	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	Multiplication and division	Identify, represent and estimate numbers
									Consolidate and assess table knowledge		Consolidate and assess	Solve problems including scaling
Year 5	Number and Place Value	Count forward or backwards in steps of powers of 10 for any given number up to 1,000,000.	Fractions	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. Read and write decimal numbers as fractions, e.g. $0.71 = 71/100$ .	Geometry 2D shapes	Distinguish between regular and irregular polygons based on reasoning about equal sides and angles	Measures Time	Solve problems involving converting between units of time.	Addition and subtraction	Addition and Subtraction using columnar addition and subtraction.	Number and Place value (Y6)	Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit.
	Number and Place Value	Count up and down in thousandths			Multiplication and division	Multiply and divide whole numbers	Fractions	Round decimals with two decimal places to the	Fractions	Recognise the percent symbol (%) and understand that per cent relates to	Four	Perform



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(Fractions)	; recognise that thousandths arise from dividing an object into 1000 equal parts and in dividing numbers or quantities by 1000.	Multiplication and division	Multiply numbers up to 4-digits by a 1-digit or 2-digit number using a formal written method, including long multiplication for 2-digit numbers.	Geometry 2D and 3D shapes	and those involving decimals by 10, 100 and 1000.		nearest whole number and to one decimal place. Read, write, order and compare numbers with up to three decimal places.	Measures	'number of parts per hundred' and write percentages as a fraction with denominator 100, and as a decimal.	operations (Y6)	mental calculations, including with mixed operations and large numbers. -Use knowledge of the order of operations to carry out calculations involving the four operations.
Addition and subtraction	Add and subtract numbers mentally with increasingly large numbers.	Statistics	Complete, read and interpret information in: tables, including timetables		Identify 3D shapes, including cubes and other cuboids, from 2D representations - Use the properties of rectangles to deduce related facts & find missing lengths & angles.	Addition and subtraction	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.		Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.		
Geometry Angles	Know angles are measured in degrees; estimate & compare acute, obtuse & reflex angles. Identify: Angles at a point on a straight line & ½ a turn (total 180°); Angles at a point & one whole turn (total 360°); Other multiples of 90°; Draw given angles, & measure them in degrees	Number and Place value	Interpret negative numbers in context, count forward and backwards with positive and negative numbers, including through zero. - Read Roman numerals to 1000 and recognise years written in Roman numerals	Fractions	Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements.	Consolidate and assess	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	Geometry	Consolidate and revise all Year 5 learning associated with geometry to include work on angles, translations and shape.	Multiplication and division (Y6)	Identify common factors, common multiples and prime numbers.
		Addition and subtraction	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.	Measures	Estimate volume (e.g. using 1 cm <sup>3</sup> blocks to build cubes, including cuboids) & capacity (e.g. using water). - Convert between different units of	Multiplication and Division	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	Fractions	Add and subtract fractions with the same denominator	Geometry (Y6)	Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.
Measure Perimeter	Measure and calculate the	Multiplication and division	Divide numbers up to 4-digits by a 1-digit number using the formal written method of short division and interpret remainders			Number and	Round any	Consolidate and assess		Addition and	Use estimation





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	division	numbers mentally drawing upon known facts. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19.										
Y e a r 6	Fractions	Compare and order fractions, including fractions $>1$ . Use common factors to simplify fractions; use common multiples to express fractions in the same denominator.	Multiplication and Division	Multiply multi-digit numbers up to 4-digits by a 2-digit whole number using the formal written method of long multiplication.	Algebra	Express missing number problems algebraically. -Use simple formulae. -Generate and describe linear number sequences.	Consolidate and Assess		Consolidate and Assess		Consolidate and Assess	
	Fractions: Percentages	Recall and use equivalences between simple fractions, decimals and percentages, including different contexts.	Multiplication and Division	Divide numbers up to 4-digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. Divide numbers up to 4-digits by a 2-digit number using the formal written method of short division,	Algebra	Find pairs of numbers that satisfy an equation with two unknowns						
	Geometry:	Draw 2D			Fractions	Divide proper fractions by whole numbers. Use written division methods where the answer has						

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	angles	shapes using given dimensions and angles.		where appropriate, interpreting remainders according to the context.		up to two decimal places. Associate a fraction with division to calculate decimal fraction equivalents, for simple fractions							
	Measures (Volume)	Calculate, estimate and compare volume of cubes and cuboids using standard units. Convert between miles & km.	Four operations: BODMAS Fractions:	Perform mental calculations, including with mixed operations and large numbers. -Use knowledge of the order of operations to carry our calculations involving the four operations.	Statistics	Calculate and interpret the mean as an average.							
	Measures	Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places.	Ratio and Proportion	Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Solve problems involving the calculation of percentages of whole numbers or measures such as 15% of 360 and the use of percentages for comparison.	Geometry	Illustrate and name parts of circles							
	Place value: negative numbers	Use negative numbers in context and calculate intervals across zero.	Geometry: 3D Shapes	Recognise, describe and build simple 3D shapes, including making nets.	Ratio & Proportion	Solve problems involving scaling							
	Geometry: Co-	Describe positions on	Measures: Area and Volume	Recognise when it is possible to use the formulae		Consolidate and Assess							

