Year 5 Maths Overview 2022 - 2023

'With each small step the Lord guides me to the best that I can be'

	Week	Mental Maths	Curriculum
Half Term 1 (Autumn 1)	1	*Use pre-assessment of Y4 objectives to identify misconceptions / gaps in knowledge. Use the mental starter sessions to address gaps.* *-Counting in multiples of 6,7, 9, 25, 1000*	*Pre-Assessment of Y4 Place Value to take place* <u>Year 4 Place Value</u> • Count in multiples of 6, 7, 9, 25 and 1000 • Find 1000 more or less than a given number • Count backwards through zero to include negative numbers • Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • Order and compare numbers beyond 1000 • Identify, represent and estimate numbers using different representations • Round any number to the nearest 10, 100 or 1000 • Solve number and practical problems that involve all of the above and with increasingly large positive numbers • Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value. <u>Year 5 Place Value</u> • Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit • Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 • Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000 • Solve number problems and practical problems that involve all of the above • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. *End of unit check for Y5 Place Value to take place* *Pre-Assessment of Y4 Addition and Subtraction to take place*
	2	Counting backwards through zero to include negative numbers	
	3	Rounding numbers	

Year 5 Maths Overview 2022 - 2023

'With each small step the Lord guides me to the best that I can be'

	4	Mental addition and subtraction strategies	Year 4 Addition and Subtraction • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • Estimate and use inverse operations to check answers to a calculation • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why Year 5 Addition and Subtraction • Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • Add and subtract numbers mentally with increasingly large numbers • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. *End of unit check for Y5 Addition and Subtraction to take place* *Pre-Assessment of Y4 Multiplication and Division to take place*
	5	Mental addition and subtraction strategies – adding across boundary numbers	
	6	Revisit – Times Tables up to 12 x 12.	Year 4 Multiplication and Division • Recall multiplication and division facts for multiplication tables up to 12 × 12 • Recognise and use factor pairs and commutativity in mental calculations • Recall multiplication and division facts for multiplication tables up to 12 × 12 Year 5 Multiplication and Division • Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers
	7	**Consolidation Week** Revisit – Times Tables up to 12 x 12.	Consolidation Week • Place Value • Addition and Subtraction • Multiplication and Division (Factors and Prime / Non-Prime Numbers)

Year 5 Maths Overview 2022 - 2023

'With each small step the Lord guides me to the best that I can be'

		Mental Maths	Curriculum
Half Term 2 (Autumn 2)	1	Multiplication and division facts beyond 12 x 12	Year 5 Multiplication and Division • Establish whether a number up to 100 is prime and recall prime numbers up to 19 • Multiply and divide numbers mentally drawing upon known facts • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 • Recognise and use square numbers and cube numbers, and the notation for squared and cubed *Pre-Assessment of Y4 Fractions to take place*
	2	Multiplication and division facts beyond 12 x 12	
	3	Multiplying and dividing by 10, 100 and 1000	Year 4 Fractions • Recognise and show, using diagrams, families of common equivalent fractions • Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. • Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number • Add and subtract fractions with the same denominator Year 5 Fractions (Block A) • Compare and order fractions whose denominators are all multiples of the same number • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
	4	Equivalent Fractions	

Year 5 Maths Overview 2022 - 2023

'With each small step the Lord guides me to the best that I can be'

	5	Fractions of amounts and their link to multiplication and division	• Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number • Add and subtract fractions with the same denominator and denominators that are multiples of the same number *End of unit check for Y5 Fractions (Block A) to take place*
	6	**Assessment Week** Improper fractions and mixed numbers	
	7	**Consolidation Week** Improper fractions and mixed numbers	<u>Consolidation Week</u> • Multiplication and Division (Factors and prime numbers) • Fractions (Adding, subtracting, comparing and ordering)

Year 5 Maths Overview 2022 - 2023

'With each small step the Lord guides me to the best that I can be'

	Week	Mental Maths	Curriculum
Half Term 3 (Spring 1)	1	Mental multiplication and division strategies	<u>Year 5 Multiplication and Division</u> • Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates *End of unit check for Y5 Multiplication and Division to take place*
	2	Mental multiplication and division strategies	
	3	Times tables up to 12 x 12 and beyond	<u>Year 5 Fractions (Block B)</u> • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams • Read and write decimal numbers as fractions [for example, 0.71 = 71/100] • Solve problems which require knowing those fractions with a denominator of a multiple of 10 or 25 *End of unit check for Y5 Fractions (Block B) to take place* *Pre-Assessment of Y4 Decimals to take place*
	4	Times tables up to 12 x 12 and beyond	

Year 5 Maths Overview 2022 - 2023

'With each small step the Lord guides me to the best that I can be'

	5	Addition and subtraction facts in decimals	Year 4 Decimals • Recognise and write decimal equivalents of any number of tenths or hundredths • Recognise and write decimal equivalents to 1/4 , 1/2 and 3/4 • Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths • 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 • Solve simple measure and money problems involving fractions and decimals to two decimal places. Year 5 Decimals and Percentages • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • Round decimals with two decimal places to the nearest whole number and to one decimal place
	6	Addition and subtraction facts in decimals	
	7	**Consolidation Week** Addition and subtraction facts, crossing boundary numbers and in decimals	Consolidation Week • Multiplication and Division • Fractions • Decimals and Percentages

Year 5 Maths Overview 2022 - 2023

'With each small step the Lord guides me to the best that I can be'

	Week	Mental Maths	Maths Curriculum
Half Term 4 (Spring 2)	1	Rounding numbers and decimals	<u>Year 5 Decimals and Percentages</u> • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • Round decimals with two decimal places to the nearest whole number and to one decimal place • Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal • Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5 and 4/5 *End of unit check for Y5 Decimals and Percentages to take place* *Pre-Assessment of Y4 Perimeter and Area to take place*
	2	Equivalent fractions and decimals	<u>Year 4 Perimeter and Area</u> • Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • Find the area of rectilinear shapes by counting squares <u>Year 5 Perimeter and Area</u> • Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes *End of unit check for Y5 Perimeter and Area to take place* *Pre-Assessment of Y4 Statistics to take place*
	3	Equivalent fractions, decimals and percentages	
	4	**Assessment Week** Timetables and intervals	<u>Year 4 Statistics</u> • Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

			Year 5 Statistics • Solve comparison, sum and difference problems using information presented in a line graph • Complete, read and interpret information in tables, including timetables
	5	**Consolidation Week** Timetables and intervals	Consolidation Week • Decimals and Percentages • Perimeter and Area • Statistics *End of unit check for Y5 Statistics to take place* *Pre-Assessment of Y4 Shape to take place*

Year 5 Maths Overview 2022 - 2023

'With each small step the Lord guides me to the best that I can be'

	Week	Mental Maths	Maths Curriculum
Half Term 5 (Summer 1)	1	Times Tables Recap up to 12 x 12 and beyond	<u>Year 4 Shape</u> • Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • Identify acute and obtuse angles and compare and order angles up to two right angles by size • Identify lines of symmetry in 2-D shapes presented in different orientations • Complete a simple symmetric figure with respect to a specific line of symmetry. <u>Year 5 Shape</u> • Identify 3-D shapes, including cubes and other cuboids, from 2-D representations • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles • Draw given angles, and measure them in degrees • Identify: angles at a point and one whole turn (total 360o), angles at a point on a straight line and ½ a turn (total 180o) other multiples of 90o • Use the properties of rectangles to deduce related facts and find missing lengths and angles • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. *End of unit check for Y5 Shape to take place* *Pre-Assessment of Y4 Position and Direction to take place*
	2	Times Tables Recap up to 12 x 12 and beyond	<u>Year 4 Position and Direction</u> • Describe positions on a 2-D 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 a given polygon <u>Year 5 Position and Direction</u> • Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed. *End of unit check for Y5 Position and Direction to take place*
	3	Times Tables Recap up to 12 x 12 and beyond	

Year 5 Maths Overview 2022 - 2023

'With each small step the Lord guides me to the best that I can be'

	4	Addition of hundredths, tenths, ones, tens, hundreds and thousands, including with money	Year 5 Decimals • Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5 and 4/5, and those fractions with a denominator of a multiple of 10 or 25. • Round decimals with two decimal places to the nearest whole number and to one decimal place • Read, write, order and compare numbers with up to three decimal places
	5	Addition of hundredths, tenths, ones, tens, hundreds and thousands, including with money	
	6	**Consolidation Week**	Consolidation Week • Shape • Position and Direction • Decimals

Year 5 Maths Overview 2022 - 2023

'With each small step the Lord guides me to the best that I can be'

	Week	Mental Maths	Maths Curriculum
Half Term 6 (Summer 2)	1	Scaling up and down	<u>Year 5 Decimals</u> • Solve problems involving number up to three decimal places *End of unit check for Y5 Decimals to take place* <u>Year 5 Negative Numbers</u> • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
	2	**Assessment Week** Counting forwards and backwards through zero	<u>Year 5 Negative Numbers</u> • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero *Pre-Assessment of Y4 Measurement Units (Length, Mass, Capacity and Time) to take place*
	3	Telling the time and calculating intervals	<u>Year 4 Measurement</u> • Convert between different units of measure [for example, kilometre to metre; hour to minute] <u>Year 5 Converting Units</u> • Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) • Understand and use approximate equivalences between metric units and common • Imperial units such as inches, pounds and pints • Solve problems involving converting between units of time • Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. *End of unit check for Y5 Converting Units to take place*
	4	Telling the time and calculating intervals	

Year 5 Maths Overview 2022 - 2023

'With each small step the Lord guides me to the best that I can be'

	5	Times Tables Recap up to 12 x 12 and beyond	Year 5 Volume • Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]
	6	**Consolidation Week** Times Tables Recap up to 12 x 12 and beyond	Consolidation Week • Decimals • Negative Numbers • Converting Units • Volume *End of unit check for Y5 Volume to take place*