Year 6 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 Y5 objectives to identify misconceptions / gaps in knowledge. Use the mental starter sessions to address gaps.* *-Read, write, order and compare numbers up to 10,000,000*	*Pre-Assessment of Y5 Place Value to take place* <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 • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero • 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. <u>Year 6 Place Value</u> • Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • Round any whole number to a required degree of accuracy • Use negative numbers in context, and calculate intervals across zero • Solve number and practical problems that involve all of the above. *End of unit check for Y6 Place Value to take place* *Pre-Assessment of Y5 Addition, Subtraction, Multiplication and Division to take place*
	2	Using basic addition and subtraction facts across boundary numbers	
	3	Adding to place value boundary numbers including money amounts	<u>Year 5 Addition and Subtraction</u> • 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.

Year 6 Maths Overview 2022 - 2023

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

	4	Adding to place value boundary numbers including money amounts	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 • 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 • 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 Year 6 Addition, Subtraction, Multiplication and Division • Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • Divide numbers up to 4 digits by a two-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 two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • Perform mental calculations, including with mixed operations and large numbers • Identify common factors, common multiples and prime numbers • Use their knowledge of the order of operations to carry out calculations involving the four operations • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why *End of unit check for Y6 Addition, Subtraction, Multiplication and Division to take place* *Pre-Assessment of Y5 Fractions to take place*
	5	Adding hundredths, tenths, ones, tens, hundreds, thousands, some using money	
	6	Recap of times tables up to 12 x 12 and beyond	
	7	**Consolidation Week** Recap of times tables up to 12 x 12 and beyond	

Year 6 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	Mental multiplication and division strategies	Year 5 Fractions • 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 • 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 • 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 Year 6 Fractions • Compare and order fractions, including fractions > 1 • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • Multiply simple pairs of proper fractions, writing the answer in its simplest form[for example, 4 • Divide proper fractions by whole numbers *End of unit check for Y6 Fractions to take place* *Pre-Assessment of Y5 Converting Units to take place*
	2	Equivalent Fractions	
	3	Improper fractions and mixed numbers	
	4	Multiplying and dividing by 10 and 100	

Year 6 Maths Overview 2022 - 2023

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

	5	Telling the time and calculating intervals	Year 5 Converting Units • 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.
	6	**Assessment Week** Time and timetables	Year 6 Converting Units • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • 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 up to three decimal places • Convert between miles and kilometres
	7	**Consolidation Week** Telling the time, calculating intervals and timetables	Consolidation Week / Revision Week • Fractions • Converting Units *End of unit check for Y6 Converting Units to take place*

Year 6 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	Scaling	Year 6 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 [for example, of measures, and such as 15% of 360] and the use of percentages for comparison • Solve problems involving similar shapes where the scale factor is known or can be found • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. *End of unit check for Y6 Ratio and Proportion to take place*
	2	Doubling, halving and scaling	
	3	Exploring multiplication tables	Year 6 Algebra • Use simple formulae • Generate and describe linear number sequences • Express missing number problems algebraically • Find pairs of numbers that satisfy an equation with two unknowns • Enumerate possibilities of combinations of two variables. *End of unit check for Y6 Algebra to take place*
	4	Exploring multiplication tables and beyond	

Year 6 Maths Overview 2022 - 2023

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

	5	Multiplying by 10, 100 and 1000	Year 6 Decimals • Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places • Multiply one-digit numbers with up to two decimal places by whole numbers • Use written division methods in cases where the answer has up to two decimal places • Solve problems which require answers to be rounded to specified degrees of accuracy
	6	Dividing by 10, 100 and 1000	
	7	**Consolidation Week** Equivalent fractions and decimals	Year 6 Fractions, Decimals and Percentages • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts • Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction

Year 6 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	Percentages of amounts	<u>Year 6 Fractions, Decimals and Percentages</u> • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts • Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction *End of unit check for Y6 Fractions, Decimals and Percentages to take place* *Pre-Assessment for Y5 Perimeter and Area to take place*
	2	Mental addition and subtraction strategies	<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 <u>Year 5 Volume</u> • Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water] <u>Year 6 Area, Perimeter and Volume</u> • Recognise that shapes with the same areas can have different perimeters and vice versa • Recognise when it is possible to use formulae for area and volume of shapes • Calculate the area of parallelograms and triangles • Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3]. *End of unit check for Y6 Area, Perimeter and Volume to take place* *Pre-Assessment for Y5 Statistics to take place*
	3	Mental multiplication and division strategies	

Year 6 Maths Overview 2022 - 2023

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

	4	**Assessment Week** Applying addition and subtraction facts to larger numbers	<u>Year 5 Statistics</u> • Solve comparison, sum and difference problems using information presented in a line graph • Complete, read and interpret information in tables, including timetables <u>Year 6 Statistics</u> • Interpret and construct pie charts and line graphs and use these to solve problems • Calculate and interpret the mean as an average. *End of unit check for Y6 Statistics to take place* *Pre-Assessment for Y5 Shape, Position and Direction to take place*
	5	**Consolidation Week** Multiplication facts recap	<u>Consolidation Week / Revision Week</u> • Ratio and Proportion • Algebra • Fractions, Decimals and Percentages • Perimeter, Area and Volume • Statistics

Year 6 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	Addition and Subtraction mental strategies	<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. <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. <u>Year 6 Shape, Position and Direction</u> • Draw 2-D shapes using given dimensions and angles • Recognise, describe and build simple 3-D shapes, including making nets • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. • Describe positions on the full coordinate grid (all four quadrants) • Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. *End of unit check for Y6 Shape, Position and Direction to take place*
	2	Multiplication and division mental strategies	

Year 6 Maths Overview 2022 - 2023

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

	3	Identify areas for further work	Consolidation Week / Revision Week Identify areas for further work
	4	**KS2 SATs Week**	**KS2 SATs Week**
	5	**Themed projects, consolidation and problem solving.**	
	6	**Consolidation Week** **Themed projects, consolidation and problem solving**	
Half Term 6 (Summer 2)	**Week**	**Mental Maths**	**Maths Curriculum**
	1	**Themed projects, consolidation and problem solving**	
	2	**Themed projects, consolidation and problem solving**	
	3	**Themed projects, consolidation and problem solving**	
	4	**Themed projects, consolidation and problem solving**	

Year 6 Maths Overview 2022 - 2023

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

	5	**Themed projects, consolidation and problem solving**
	6	**Consolidation Week** **Themed projects, consolidation and problem solving**