![Mathematics Mastery logo]

Year 4 '*Curriculum for Depth*' Programme of Study - *'Term per page overview'*

Half term		National Curriculum requirements
Autumn 1	**Reasoning with 4 digit numbers** (2 weeks)	• find 1000 more or less than a given number • recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • order and compare numbers beyond 1000 • solve number and practical problems that involve all of the above and with increasingly large positive numbers • identify, represent and estimate numbers using different representations • round any number to the nearest 10, 100 or 1000 • 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 • count in multiples of 6, 7, 9, 25 and 1000
	Problem solving with integer addition and subtraction (3 weeks)	• 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
Autumn 2	**Multiplication and division** (2 weeks)	• recall multiplication and division facts for multiplication tables up to 12 × 12 • solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as *n* objects are connected to *m* objects • recognise and use factor pairs and commutativity in mental calculations • use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers • multiply two-digit and three-digit numbers by a one-digit number using formal written layout
	Time (1 week)	• convert between different units of measure [for example, hour to minute] • problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days • write and convert time between analogue and digital 12- and 24-hour clocks
	Area and perimeter (2 weeks)	• measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • convert between different units of measure [for example, kilometre to metre] • find the area of rectilinear shapes by counting squares

Spring 1	**Fractions** **(3 weeks)**	• add and subtract fractions with the same denominator • 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
	Discrete and continuous data **(2 weeks)**	• solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs • interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs
Spring 2	**Decimals** **(2 weeks)**	• 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 • recognise and write decimal equivalents of any number of tenths or hundredths • recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$ • 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
	Solving problems with addition and subtraction o **(2 weeks)**	• solve simple measure and money problems involving fractions and decimals to two decimal places • estimate, compare and calculate different measures, including money in pounds and pence

Summer 1	Coordinates, shape and symmetry (5 weeks)	• 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 • 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
Summer 2	Calculating with whole numbers and decimals (5 weeks)	• consolidation and application opportunities