Federation of Yatton Schools : Year 5 Medium Term Planning Autumn 1

Date	Area of Study	Curriculum Objective	Non-Statutory Guidance	What will core learning look like?
	Place Value to 1,000,000	• To read, write, order and compare numbers at least to 1,000,000 and determine the value of each digit. • To count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.	Pupils identify the place value in large whole numbers. They continue to use number in context, including measurement. Pupils extend and apply their understanding of the number system to the decimal numbers and fractions that they have met so far. They should recognise and describe linear number sequences, including those involving fractions and decimals, and find the term-to-term rule. They should recognise and describe linear number sequences (for example, 3, 3 ½, 4, 4 ½ , including those involving fractions and decimals, and find the term-to-term rule in words (for example, add a ½ .)	
	Mental addition and subtraction	• To add and subtract whole numbers with more than 4 digits, including using efficient written methods (columnar addition and subtraction). • To add and subtract numbers mentally with increasingly large numbers. • To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	Pupils practise using the formal written methods of columnar addition and subtraction with increasingly large numbers to aid fluency (see Mathematics Appendix 1). They practise mental calculations with increasingly large numbers to aid fluency (for example, 12 462 – 2300 = 10 162). See the Federation of Yatton Schools Calculations Policy	
	Factors of numbers and prime numbers	• To identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. • To multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. • To solve problems involving multiplication and division where larger numbers are used by decomposing them into factors. • To know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. • To establish whether a number up to 100 is prime and recall prime numbers up to 19.	Pupils practise and extend their use of the formal written methods of short multiplication and short division (see Mathematics Appendix 1). They apply all the multiplication tables and related division facts frequently, commit them to memory and use them confidently to make larger calculations. They use and understand the terms factor, multiple and prime, square and cube numbers. Pupils interpret non-integer answers to division by expressing results in different ways according to the context, including with remainders, as fractions, as decimals or by rounding (for example, 98 ÷ 4 = = 24 r 2 = 24 = 24.5 ≈ 25). 4 98 2 1	

	Using multiplication and division	● To multiply and divide numbers mentally drawing upon known facts. ● To multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. ● To solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates..	Pupils use multiplication and division as inverses to support the introduction of ratio in year 6, for example, by multiplying and dividing by powers of 10 in scale drawings or by multiplying and dividing by powers of a 1000 in converting between units such as kilometres and metres. Distributivity can be expressed as $a(b + c) = ab + ac$. They understand the terms factor, multiple and prime, square and cube numbers and use them to construct equivalence statements (for example, 4 x 35 = 2 x 2 x 35; 3 x 270 = 3 x 3 x 9 x 10 = 9^2 x 10). Pupils use and explain the equals sign to indicate equivalence, including in missing number problems (for example, 13 + 24 = 12 + 25; 33 = 5 x).	

	Geometry:
	Angles
		● To know angles are measured in degrees; estimate and compare acute, obtuse and reflex angles
		● To draw given angles, and measure them in degrees (º).
		● To identify:
		  • angles at a point and one whole turn (total 360º)
		  • angles at a point on a straight line and $1/2$ a turn (total 180º)
		  • other multiples of 90º.
			Pupils become accurate in drawing lines with a ruler to the nearest millimetre, and measuring with a protractor. They use conventional markings for parallel lines and right angles.
			Pupils use the term diagonal and make conjectures about the angles formed between sides, and between diagonals and parallel sides, and other properties of quadrilaterals, for example using dynamic geometry ICT tools.
			Pupils use angle sum facts and other properties to make deductions about missing angles and relate these to missing number problems.	

	Measures: Length, perimeter and area	● To convert between different units of measure (for example, kilometre and metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre). ● To understand and use equivalences between metric units and common imperial units such as inches, pounds and pints. ● To use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling. ● To measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. ● To calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm^2)	Pupils use their knowledge of place value and multiplication and division to convert between standard units. Pupils calculate the perimeter of rectangles and related composite shapes, including using the relations of perimeter or area to find unknown lengths. Missing measures questions such as these can be expressed algebraically, for example 4 + 2b = 20 for a rectangle of sides 2 cm and b cm and perimeter of 20cm. Pupils calculate the area from scale drawings using given measurements.	

		and square metres (m^2) and estimate the area of irregular shapes.		
To assess the half-term's work				