COTTINGLEY VILLAGE PRIMARY SCHOOL *Together we'll succeed*

Year Five Maths End of Year Expectations – October 2023

Place Value	Addition and Subtraction	Multiplication and Division	Fractions	Measures	Geometry	Geometry – direction & position
Read, write, represent, order & compare numbers to at least 1,000,000 and determine that value of each digit	Continue to develop mental strategies to add and subtract larger numbers including partitioning to bridge and rounding and adjusting	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	Compare and order fractions whose denominators are all multiples of the same number.	Convert units of measure :km/m m/cm cm/mm kg/g l/mls	Identify 3D shapes, including cubes and other cuboids, from 2D representations	Reflect shapes on lines that run parallel to the axis & represent shapes following a given translation
Count forwards or backwards in steps of powers or 10 from any given number for any given number up to 1,000,000		Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.	Identify, name & represent visually equivalent fractions of a given fraction including tenths & hundredths	Understand and use approximate equivalences between metric units & imperial units eg.miles & pints	Recognise and build simple 3D shapes, including making nets for cubes and other cuboids, from 2-D representations	Translate & reflect shapes – describing movement & identifying coordinates in the first quadrant
Interpret negative numbers in context & count forwards and backwards with positive & negative whole numbers through 0	Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).	Multiply numbers up to 4 digits by a 1- or 2-digit number using a formal written method & by 2-digits long multiplication	Recognise & convert mixed numbers & improper fractions	Calculate & compare the area of rectangles (inc) squares in standard cm & square cm & estimate the area of irregular shapes.	Use conventional markings for parallel lines and right angles	Reason to complete missing sides of shapes
			+ & - fractions including mixed numbers & improper fractions		Draw given angles and measure them in degrees	**Statistics**
Round any number up to 1,000,000 to the nearest 10 100 1,000, 10,000 and 100,000	Use rounding to check answers to calculations and levels of accuracy.	**Establish whether a number up to 100 is prime and recall prime numbers up to 19.**	Multiply proper fractions & mixed numbers by whole numbers, supported by materials and diagrams	Measure & calculate the perimeter of composite rectilinear shapes in cm and metres	Identify:Angles at a point & whole turn of 360 degrees. Angles at a point & half turn of 180 degrees. Angles with other multiples of 90 degrees	Solve comparison, sum and difference problems from line graphs
Read Roman Numerals to 1,000 (M) and recognise years written in Roman Numerals	Reason to solve addition and subtraction multi-step problems in contexts, representing problems using bar models, deciding which operations and methods to use and why.	Multiply and divide numbers mentally drawing on known facts.	Read & write decimals as fractions eg. 0.71 = 71/100	Estimate volume, build cuboids with 1cm cubes & measure capacity		Interpret scales including for decimals & negative numbers
Reason to place five and six digit numbers on number lines – including marked and unmarked applying the skills of proportional reasoning		Divide up to 4 digits by a 1-digit numbers using the method of short division & interpret remainders in context, as decimals or fraction	Recognise & use thousandths & relate them to tenths & hndths	Solve problems converting between units of time including timetables, weeks/days months/days, minutes/hours & 12/24 hr clock	Reason to find missing lengths of angles on straight lines	Complete, read & interpret information from tables including timetables
			Round 2 place decimals to the nearest whle no & 1 dec place		Reason to find missing lengths of angles in full turns	
Reason to solve problems involving negative numbers including completing sequences and finding the difference	Reason to solve addition and subtraction problems using inverse operations to solve missing numbers & complete number sequences	Solve problems involving multiplication and division including using knowledge of factors and multiples, squares and cubes & inverses	Read, write & order decimals with up to 3 decimal places	Use all 4 operations to solve problems involving measure: money, length, mass & capacity including reading scales, converting measures, using decimals & scaling	Reason by using the properties of triangles and rectangles to find missing lengths of sides and missing angles	
			Solve problems with numbers up to 3 decimal places			
Reason to solve problems by applying knowledge of place value to solve missing numbers		Multiply and divide whole numbers and decimals by 10, 100 and 1000 inc measures	Recognise the % symbol & understand % relates to 'number of parts per 100' Write % as fraction with a denominator to 100 & as a decimal & know equivalent F D & % eqivs of ½ ¼ ¾ 1/5		Reason using knowledge of angles & lengths of sides, parallel & perpendicular sides to distinguish between, classify & sort regular and irregular polygons	
Reason to solve place value problems in the context of measures & scales		Solve problems involving + - x & div and a combination of these, including understanding the meaning of the equals sign		Draw lines to the nearest mm		
		Solve problems involving multiplication and division including scaling by simple fractions and problems involving simple ratio.	Solve problems for percentage and decimal equivalents of ½, ¼, ⅕, ⅖, ⅘ and those with a denominator of a multiple of 10 or 25 & general fractions		Understand diagonals within quadrilaterals & conjecture about angles formed between sides	