Harrietsham Church of England Primary School

Maths Framework – Year 5

Autumn	Spring	Summer
Number: Place Value I can read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit. I can count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000. I can interpret negative numbers in context and can count forwards and backwards with positive and negative numbers through zero. I can round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000. Read Roman numerals up to 1,000 and recognise different years written in Roman numerals.	**Number: Multiplication and Division** I can multiply and divide numbers mentally drawing upon known facts. I can multiply numbers up to a four-digit by a one or two-digit number using a more formal written method, including long multiplication for two-digit numbers. I can divide numbers up to four digits by a one-digit number using the formal written method of short division and interpret remainders appropriately. I can solve problems involving addition, subtraction, multiplication and division and a combination of these including understanding the meaning of the equals sign.	**Number: Decimals** I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. I can solve problems involving number up to three decimal places. I can use all for number operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation, including scaling.

	Number: Addition and Subtraction I can add and subtract numbers with more than four digits, using formal written methods of columnar addition and subtraction. I can use rounding to check the answer to a calculation and determine, in the context of the problem, levels of accuracy. I can solve addition and subtraction multi-step problems in context, deciding which operations and methods to use. I can add and subtract numbers mentally with increasingly large numbers.	**Number: Fractions** I can compare and order fractions whose denominators are multiples of the same number. I can identify, name and write equivalent fractions of a given fraction, represented visually (including tenths and hundredths). I can recognise mixed numbers and improper fractions and can convert from one form to the other and write mathematical statements >1 as a mixed number (e.g. 2/5 + 4/5 = 6/5 = 1 1/5). I can add and subtract fractions with the same denominator and denominators that are multiples of the same number. I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	**Geometry: Properties of Shapes** I can identify 3D shapes, including cubes and other cuboids, from 2D representations. I can use the properties of rectangles to deduce related facts and to find missing lengths and angles. I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles. I know angles are measured in degrees and can estimate and compare acute, obtuse and reflex angles. I can draw given angles and measure them in degrees

	Number: Multiplication and Division I can identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers. I can understand and use the vocabulary of prime factors, prime and composite (non-prime) numbers. I can establish whether a number up to 100 is prime and can recall prime numbers up to 19. I can recognise and use square and cubed numbers and the notation for squared and cubed. I can solve problems involving multiplication and division using their knowledge of factors, multiples, squares and cubes.	**Number: Decimals** I can read, write, order and compare numbers with up to three decimal places. I can read and write decimal numbers as fractions e.g. 0.71 is 71/100. I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. I can round decimals with two decimal places to the nearest whole number and to one decimal place.	**Measurement: Converting Units** I can convert between different units of metric measure (e.g km and m, cm and m, cm and mm, g and kg, ml and l). I use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. I can solve problems involving converting between units of time.
	Measurement: Perimeter and Area I can measure and calculate the perimeter of composite rectilinear figure in centimetres and metres. I can calculate and compare the area of rectangles (including squares) using: standard units, square centimetres and square metres. I can estimate the area of irregular shapes.	**Number: Percentages** I can recognise the percent symbol (%) and understand that percent relates to 'number of parts per 100.' I can solve problems which require knowing percentage and decimal equivalents of ½ ¼ 1/5 2/5 4/5 and those fractions with a denominator of a multiple of 10 or 25.	**Measurement: Volume** I can estimate volume (e.g using 1cm^3 blocks to build cuboids) and capacity (e.g using water). I can use all four operations to solve problems involving measure (for example: length, mass, volume and money) using decimal notation including scaling

	Statistics I can solve comparison, sum and difference problems using information from a line graph I can complete, read and interpret information from tables including timetables.		