Legend

- **Number and Place Value** (blue)
- **Calculations** (green)
- **Fractions, decimals and percentages** (magenta)

The Year 5 Mathematician 'I can...'

Number and Place Value

…count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.

…read, write, order and compare numbers to at least 1,000,000.

…determine the value of each digit in numbers up to 1,000,000.

…read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

…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 and practical problems using my knowledge of number and place value.

Calculations

…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.

…use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.

…add and subtract whole numbers with more than 4 digits, including using formal written methods.

…identify multiples and factors, including finding all factor pairs of a number and common factor pairs of two numbers.

…establish whether a number up to 100 is prime and recall prime numbers to 19.

…recognise and use square numbers and cube numbers, and the notation for squared and cubed.

…multiply and divide numbers mentally drawing on known facts.

…multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.

…multiply numbers up to 4 digits by a 1 digit or 2 digit number using a formal written method, including long multiplication for 2 digit numbers.

…divide numbers up to 4 digits by a 1 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 knowledge of factors and multiples, squares and cubes.

…solve problems involving multiplication and division including scaling by simple fractions and problems involving simple rates.

…solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.

Fractions, decimals and percentages

…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.

…write percentages as a fraction with denominator hundred and as a decimal.

…recognise the percent symbol and understand that percent relates to 'parts per hundred'.

…read, write, order and compare numbers with up to 3dp.

…solve problems involving numbers up to 3dp.

…round decimals with 2 decimal places to the nearest whole number and 1 dp.

…recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.

… read and write decimal numbers as fractions.

…add and subtract fractions with the same denominator and denominators are multiples of the same number.

…multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.

…compare and order fractions whose denominators are 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.

…write mathematical statements >1 as a mixed number.

…solve problems involving converting between units of time.

…convert between different units of metric measure.

…solve comparison , sum and difference problems using information presented in a line graph.

…understand and use approximate equivalences between metric units and common imperial units, such as inches, pounds and pints.

…measure and calculate the perimeter of composite rectilinear shapes in cm and m.

…complete, read and interpret information in tables, including timetables.

…calculate and compare the area of rectangles (including squares) and using standard units (cm^2) to estimate the area of irregular shapes.

…estimate volume and capacity.

…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.

…use all four operations to solve problems involving money using decimal notation, including scaling.

…draw given angles and measure them in degrees.

The Year 5 Mathematician 'I can…'

…use the properties of rectangles to deduce related facts and find missing lengths and angles.

…identify 3D shapes, including cubes and other cuboids, from 2D representations.

…identify other multiples of 90º.

…identify angles at a point on a straight line and ½ a turn.

…distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

…know that angles are measured in degrees.

…estimate and compare acute, obtuse and reflex angles

…identify angles at a point and one whole turn.