

Key Performance Indicator	Year 5 Milestones - Maths
Number: Number and Place Value	I can read numbers to at least 1,000,000 and determine the value of each digit.
	I can write numbers to at least 1,000,000 and determine the value of each digit.
	I can order numbers to at least 1,000,000 and determine the value of each digit.
	I can compare numbers to at least 1,000,000 and determine the value of each digit.
	I can read Roman numerals to 1,000 (M) and recognise years written in Roman numerals.
	I can count forwards in steps of powers of 10 for any given number up to 1,000,000.
	I can count backwards in steps of powers of 10 for any given number up to 1,000,000.
	I can count forwards and backwards with positive and negative whole numbers, including through zero.
	I can interpret negative numbers in context.
	I can round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000.
	I can reason with place value using Year 5 skills and knowledge.
Number: Addition and Subtraction	I can add numbers mentally with increasingly large numbers.
	I can subtract numbers mentally with increasingly large numbers.
	I can add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
	I can use rounding to check answers to calculations.
	I can check my answers are accurate and sensible.
	I can reason with addition and subtraction using Year 5 skills and knowledge.
Number: Multiplication and Division	I can multiply and divide numbers mentally using multiplication facts.
	I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
	I can multiply numbers up to 4 digits by a one-digit number using a formal written method.
	I can use a formal multiplication method up to 4 digits by a 2 digit number.
	I can divide numbers up to 4 digits by a one-digit number using the formal written method of short division.
	I can divide numbers up to 4 digits by a 1 digit number and record remainders appropriately.
	I can solve problems involving addition, subtraction, multiplication and division understanding the meaning of the equals sign.

Number: Multiplication and Division	I can solve problems involving multiplication and division using my knowledge of factors and multiples, squares and cubed numbers.
	I can solve problems involving multiplication and division, including scaling by simple fractions.
	I can find and identify factors and multiples.
	I can find square and cube numbers.
	I can find factor pairs for a given number.
	I can find common factors of 2 numbers.
	I can explain what a prime number is.
	I can use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.
	I can establish whether a number up to 100 is prime and recall prime numbers up to 19.
	I can recognise and use square numbers and cube numbers, and the notation for squared ( $^2$ ) and cubed ( $^3$ ).
Fractions, Decimals and Percentages	I can compare and order fractions whose denominators are all multiples of the same number eg, $\frac{1}{3}$ $\frac{2}{6}$ $\frac{4}{9}$ .
	I can recognise mixed numbers and improper fractions.
	I can convert between mixed number and improper fractions and write mathematical statements $> 1$ as a mixed number [for example, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1 \frac{1}{5}$ ].
	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, using materials and diagrams to help me.
	I can round decimals with two decimal places to the nearest whole number and to one decimal place.
	I can read, write, order and compare numbers with up to three decimal places.
	I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
	I can read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$ ].
	I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
	I can recognise that the % symbol means 'parts of 100'.
	I can write percentages as a fraction with denominator 100, and as a decimal ( $\frac{1}{4}$ is $\frac{25}{100}$ or 0.25).
	I can solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{5}$ , $\frac{2}{5}$ , $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.
	I can solve problems involving number up to three decimal places.
I can reason with fractions, decimals and percentages using Year 5 skills and knowledge.	

Geometry: Properties of Shape	I can identify: Angles at a point, on a straight line and multiples of 90 degrees.
	I can identify 3-D shapes, including cubes and other cuboids, from 2-D representations.
	I can use the properties of rectangles 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: I can estimate and compare acute, obtuse and reflex angles.
	I can draw given angles, and measure them in degrees ( $^{\circ}$ ).
Measurement	I can convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).
	I can use and approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
	I can use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.
	I can measure and calculate the perimeter of compound shapes in centimetres and metres.
	I can calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres ( $\text{cm}^2$ ) and square metres ( $\text{m}^2$ ) and estimate the area of irregular shapes.
	I can estimate volume [for example, using $1 \text{ cm}^3$ blocks to build cuboids (including cubes)] and capacity [for example, using water].
	I can solve problems involving converting between units of time.
I can reason with measurement using Year 5 skills and knowledge.	
Geometry: Position and Direction	I can 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.
Statistics	I can complete, read and interpret information in tables, including timetables.
	I can solve comparison, sum and difference problems using information presented in a line graph.