Maths Year 5

Number and 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 or backwards in steps of powers of 10 for any given number up to 1 000 000.

I interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.

I can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.

I can solve number problems and practical problems that involve all of the above.

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

Number - addition and subtraction

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

I can add and subtract numbers mentally with increasingly large numbers.

I can use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.

I can solve addition and subtraction multi-step problems in context, deciding which operations and methods to use and why.

Measurement

I can convert between different units of metric measure

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

I can measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.

I can calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimates the area of irregular shapes.

I can estimate volume and capacity.

I can solve problems involving converting between units of time.

I can Use all four operations to solve problems involving measure using decimal notation, including scaling.

Geometry-Properties of shapes

I can identify 3-D shapes, including cubes and other cuboids, from 2-D representations.

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 (o).

I can identify angles at a point and one whole turn (total 3600).

I can identify angles at a point on a straight line and 1/2 a turn (total 1800).

I Use the properties of rectangles to deduce related facts and find missing lengths and angles.

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

Geometry-Position & 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 solve comparison, sum and difference problems using information presented in a line graph.

I can complete, read and interpret information in tables, including timetables.

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 know and 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 multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.

I can multiply and divide numbers mentally drawing upon known facts.

I can divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.

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

I can recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).

I can solve problems involving multiplication and division including using my knowledge of factors and multiples, squares and cubes.

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

I can solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Number - Fractions (decimals and percentages)

I can compare and order fractions whose denominators are all 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 convert from one form to the other

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.

I can read and write decimal numbers as fractions.

I 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.

I can read, write, order and compare numbers with up to three decimal places.

I can solve problems involving numbers up to three decimal places.

I recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred'

I can write percentages as a fraction with denominator 100, and as a decimal.

I can solve problems which require knowing percentage and decimal equivalents and those fractions with a denominator of a multiple of 10 or 25.