

## Year 5 National Curriculum Programme of Study

### Number and Place Value

I can read, write, order and compare numbers to at least 1 000 000 and know 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 can use negative numbers in context; count forwards and backwards with positive and negative whole numbers through 0.

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

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

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

### Addition and Subtraction

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

I can add and subtract mentally using increasingly large numbers.

I can use rounding to check answers to calculations.

I can use addition and subtraction to solve multi-step problems.

### Multiplication and Division.

I can identify multiples and factors including finding all factor pairs and common factors of 2 numbers.

I know and use the vocabulary of prime numbers, prime factors and composite.

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

I can multiply and divide numbers mentally.

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

I can recognise and use square and cube numbers and the notation.

I can solve  $\times$  and  $\div$  problems, scaling by simple fractions and problems involving simple rates.

I can solve problems involving  $\times$  and  $\div$  including factors, multiples square and cubes.

I can solve problems using all four operations including the understanding of the equals sign.

### Fractions

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.

I can recognise mixed number and improper fractions and convert from one form to another.

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.

I can read and write decimal numbers as fractions.

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

I can round decimals with 2 decimal places to the nearest whole number & to one decimal place.

I can read, write, order and compare numbers with 3 decimal places.

I can solve problems involving numbers up to 3 decimal places

I can recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction

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

### Measurement

I can convert between different units of metric measurement

I understand and use approximate equivalences between metric units and imperial units.

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

I can calculate and compare the area of rectangles (including squares) and the area of irregular shapes.

I can estimate the 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 Shape).

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

I know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.

I can draw angles and measure them in degrees (o)

I can identify angles at a point and one whole turn.

I can identify angles at point on a straight line and  $\frac{1}{2}$  a turn and other multiples of 90 degrees

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

I can distinguish between regular and irregular polygons.

### Geometry (Position and Direction).

I can identify, describe and represent the position of a shape following a reflection or translation.

### 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.