

Year 6 National Curriculum Programme of Study

Number and Place Value

I can read, write, order and compare numbers up to 10 000 000 and know the value of each digit.

I can round any whole number.

I use negative numbers in context and calculate intervals across zero.

I can solve problems using all the above.

Addition, Subtraction, Multiplication & Division

I can solve problems involving addition, subtraction, multiplication and division.

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

I can use estimation to check answers to calculations.

I can use the knowledge of the order of operations to carry out calculations involving the 4 operations.

I can identify common factors, common multiples and prime numbers.

I can perform mental calculations, including with mixed operations and large numbers

I can multiply multi-digit numbers up to 4 digits by a two-digit whole number using a formal written method

I can divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context

I can divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context

Algebra

I can use simple formulae.

I can generate and describe linear number sequences.

I can express missing number problems algebraically.

I can find pairs of numbers that satisfy an equation with two unknowns.

I can list possibilities of combinations of two unknown variables e.g. $2g + w = 10$

Fractions, Decimals and Percentages.

I can use common factors to simplify fractions; common multiples to express fractions in the same denomination.

I can compare and order fractions & mixed numbers.

I can add and subtract fractions with different denominators, and mixed numbers using equivalent fractions

I can multiply simple pairs of proper fractions, writing the answer in its simplest form.

I can divide proper fractions by whole numbers.

I can associate a fraction with division and calculate decimal fraction equivalents.

I can identify the value of each digit in numbers given to 3 decimal places and multiply and divide by 10, 100 & 1000 giving answers to 3 decimal places.

I can multiply 1 digit numbers with 2 d.p by whole numbers.

I can use written division methods in cases where the answer has up to 2 d.p.

I can recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

I can solve problems which require answers to be rounded to specified degrees of accuracy

Ratio and Proportion.

I can solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.

I can solve problems involving the calculation of percentages.

I can solve problems involving similar shapes where the scale factor is known or can be found.

I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

Measurement.

I can solve problems involving the calculation and conversion of units of measure, using decimal notation up to two decimal places where appropriate.

I use, read, write and convert between standard units using decimal notation to 3 decimal places.

I can convert between miles and kilometres.

I can recognise that shapes with the same areas can have different perimeters and vice versa.

I can recognise when it is possible to use formulae for area and volume of shapes.

I can calculate the area of parallelograms and triangles.

I can calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres(cm^3) and cubic metres (m^3), and extending to other units e.g. mm^3 and km^3 .

Geometry (Properties of Shape).

I can draw 2-D shapes using given dimensions and angles.

I can recognise, describe and build simple 3-D shapes, including making nets.

I can compare and classify geometric shapes based on their properties and sizes and can find unknown angles in any triangles, quadrilaterals and regular polygons.

I can illustrate and name parts of circles, including radius, diameter and circumference.

I can recognise that shapes with the same areas can have different perimeters and vice-versa.

I can recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.

Geometry (Position and Direction).

I can describe positions on the full coordinate grid.

I can draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

Statistics.

I can interpret and construct pie charts and line graphs and use these to solve problems

I can calculate and interpret the mean as an average.