A Year 6 Mathematician at Crabtree Junior School

Number

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

I can round any whole number to a required degree of accuracy and solve problems which require answers to be rounded to a specific degree of accuracy.

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

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

I can solve problems involving the calculation of percentages.

I can multiply 1-digit numbers with up to two decimal places by whole numbers.

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

I can divide numbers up to 4-digits by a 2-digit whole number using formal written methods of long division and interpret remainder in various ways.

I use my knowledge of order of operations to carry out calculations involving all four operations.

I can add and subtract fractions with different denominators and mixed numbers, using the concept of 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 express missing number problems algebraically.

I can find pairs of numbers that satisfy number sentences involving two unknowns.

Measurement and geometry

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

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

I can illustrate and name parts of circles, including radius, diameter and circumference and know that the radius is half the diameter.

I can read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and visa versa, using decimal notation to up to 3 decimal places.

I can calculate the area of a parallelogram and triangles and calculate, estimate and compare volume of cubes and cuboids using standard units.

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

Enrichment Objectives

I can compare, order and convert between fractions, decimals and percentages, for example, in contexts related to science, history or geography learning

I can move beyond squared and cubed numbers to calculate problems such as X x 10^{n} where n is positive.

I can use =, ≠, <, >, ≤, ≥ correctly.

I can multiply all integers, (using efficient written methods) including mixed numbers and negative numbers.

I can recognise an arithmetic progression and find the n*th* term .

I can use a formula for measuring the area of a shape, such as a rectangle and triangle to work out the area of an irregular shape in the school environment

I can use the four operations with mass, length, time, money and other measures, including the use of decimal quantities.

I can create a scaled model of an historical or geographical structure showing an acceptable degree of accuracy using known measurements.

I can calculate the costs and time involved of a visit to a destination in another part of the world relating to on-going learning in history or geography.

I can collect my own data on a personal project and present information in formats of my choosing, using charts, graphs and tables, and answer specific questions related to my research.