

Year 6 Requirements

Number

| Number and Place Value | Addition and Subtraction Multiplication and Division | Fractions |
|--|--|---|
| <ul style="list-style-type: none"> ○ read, write, order and compare numbers up to 10 000 000 and determine the value of each digit ○ round any whole number to a required degree of accuracy ○ use negative numbers in context, and calculate intervals across zero ○ solve number and practical problems that involve all of the above. | <ul style="list-style-type: none"> ○ multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication ○ 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 ○ 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 ○ perform mental calculations, including with mixed operations and large numbers ○ identify common factors, common multiples and prime numbers ○ use their knowledge of the order of operations to carry out calculations involving the four operations ○ solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why ○ solve problems involving addition, subtraction, multiplication and division ○ use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy | <ul style="list-style-type: none"> ○ use common factors to simplify fractions; use common multiples to express fractions in the same denomination ○ compare and order fractions, including fraction ○ add and subtract fractions > 1ons with different denominators and mixed numbers, using the concept of equivalent fractions ○ multiply simple pairs of proper fractions, writing the answer in its simplest form [for example $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] ○ divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$] ○ associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] ○ identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places ○ multiply one-digit numbers with up to two decimal places by whole numbers ○ use written division methods in cases where the answer has up to two decimal places ○ solve problems which require answers to be rounded to specified degrees of accuracy ○ recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. |

| Measurements | Geometry | | Statistics |
|---|--|---|--|
| | Properties of Shapes | Direction and Position | |
| <ul style="list-style-type: none"> ○ solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate ○ use, 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 vice versa, using decimal notation to up to three decimal places ○ convert between miles and kilometres ○ recognise that shapes with the same areas can have different perimeters and vice versa ○ recognise when it is possible to use formulae for area and volume of shapes ○ calculate the area of parallelograms and triangles ○ calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³]. | <ul style="list-style-type: none"> ○ draw 2-D shapes using given dimensions and angles ○ recognise, describe and build simple 3-D shapes, including making nets ○ compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons ○ illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius ○ recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles | <ul style="list-style-type: none"> ○ describe positions on the full coordinate grid (all four quadrants) ○ draw and translate simple shapes on the coordinate plane, and reflect them in the axes | <ul style="list-style-type: none"> ○ interpret and construct pie charts and line graphs and use these to solve problems ○ calculate and interpret the mean as an average |



| Ratio and Proportion | Algebra |
|---|--|
| <ul style="list-style-type: none"> ○ solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts ○ solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison ○ solve problems involving similar shapes where the scale factor is known or can be found ○ solve problems involving unequal sharing and grouping using knowledge of fractions and multiples | <ul style="list-style-type: none"> ○ use simple formulae ○ generate and describe linear number sequences ○ express missing number problems algebraically ○ find pairs of numbers that satisfy an equation with two unknowns ○ enumerate possibilities of combinations of two variables. |