

Maths Curriculum

| Year 6 Objective Map - Curriculum | |
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| Numbers and Place Value | |
| 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. | |
| Fractions and Decimals and Percentages | |
| use common factors to simplify fractions; use common multiples to express fractions in the same denomination | |
| compare and order fractions, including fractions > 1 | |
| add and subtract fractions 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 | |
| divide proper fractions by whole numbers | |
| associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction | |
| 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 | |
| Ratio and proportion | |
| 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. | |
| Algebra | |
| 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. | |
| Multiplication, Division, Addition and Subtraction. | |
| 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. | |
| Geometry | |
| 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. | |
| 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. | |
| Measurement | |
| 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 | |

Maths New Curriculum

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| 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 (cm ³) and cubic metres (m ³), and extending to other units [for example, mm ³ and km ³]. |
| Statistics |
| interpret and construct pie charts and line graphs and use these to solve problems |
| calculate and interpret the mean as an average. |