Mathematics
Year 6 Key Objectives

• 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
• Use their knowledge of the order of operations to carry out calculations involving the four operations
• Use common factors to simplify fractions
• 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
• Multiply one-digit number 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 involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
• Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
• 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 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.
• Use simple formulae
• Generate and describe linear number sequences
• Express missing number problems algebraically
• 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

• Calculate the area of parallelograms and triangles
• Calculate, estimate and compare volume of cubes and cuboids using standard units
• Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
• Find unknown angles in any triangles, quadrilaterals, and regular polygons
• 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.
• Interpret and construct pie charts and line graphs
• Calculate and interpret the mean as an average