Mathematics
Year 5 Key Objectives

• Read Roman numerals to 1000 (M) and recognise years written in Roman numerals
• Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})
• Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
• Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
• Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers
• Establish whether a number up to 100 is prime and recall prime numbers up to 19
• Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
• Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
• Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context
• Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number
• Compare and order fractions whose denominators are all multiples of the same number
• Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
• Add and subtract fractions with the same denominator and denominators that are multiples of the same number
• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
• Read and write decimal numbers as fractions
• Round decimals with two decimal places to the nearest whole number and to one decimal place
• Read, write, order and compare numbers with up to three decimal places
• Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal
• Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
• Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres

• Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes
• Use the properties of rectangles to deduce related facts and find missing lengths and angles
• Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
• Identify 3-D shapes, including cubes and other cuboids, from 2-D representations
• Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
• Draw given angles, and measure them in degrees (°)
• Identify angles at a point and one whole turn (total 360°); at a point on a straight line and ½ a turn (total 180°)
• Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed
• Complete, read and interpret information in tables, including timetables