

Year 5 maths	
Objective	Strand
Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit	Number – number and place value
Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	Number – number and place value
Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	Number – number and place value
Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	Number – number and place value
Solve number problems and practical problems that involve all of the above	Number – number and place value
Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	Number – number and place value
Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	Number – addition and subtraction
Add and subtract numbers mentally with increasingly large numbers	Number – addition and subtraction
Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Number – addition and subtraction
Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Number – addition and subtraction
Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers	Number – multiplication and division
Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	Number – multiplication and division
Establish whether a number up to 100 is prime and recall prime numbers up to 19	Number – multiplication and division
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	Number – multiplication and division
Multiply and divide numbers mentally drawing upon known facts	Number – multiplication and division
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	Number – multiplication and division
Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	Number – multiplication and division
Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)	Number – multiplication and division
Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	Number – multiplication and division
Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	Number – multiplication and division
Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Number – multiplication and division
Compare and order fractions whose denominators are all multiples of the same number	Number – fractions (including decimals and percentages)
Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	Number – fractions (including decimals and percentages)
Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $2/5 + 4/5 = 6/5 = 1 1/5$]	Number – fractions (including decimals and percentages)
Add and subtract fractions with the same denominator and denominators that are multiples of the same number	Number – fractions (including decimals and percentages)
Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Number – fractions (including decimals and percentages)
Read and write decimal numbers as fractions [for example, $0.71 = 71/100$]	Number – fractions (including decimals and percentages)
Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	Number – fractions (including decimals and percentages)
Round decimals with two decimal places to the nearest whole number and to one decimal place	Number – fractions (including decimals and percentages)
Read, write, order and compare numbers with up to three decimal places	Number – fractions (including decimals and percentages)
Solve problems involving number up to three decimal places	Number – fractions (including decimals and percentages)
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	Number – fractions (including decimals and percentages)
Solve problems which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those fractions with a denominator of 10 or 25	Number – fractions (including decimals and percentages)
Convert between different units of metric measure (for example, kilometre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	Measurement
Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints	Measurement
Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Measurement
Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm ²) and square metres (m ²) and estimate the area of irregular shapes	Measurement
Estimate volume [for example, using 1 cm ³ blocks to build cuboids (including cubes)] and capacity [for example, using water]	Measurement
Solve problems involving converting between units of time	Measurement
Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	Measurement
Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Geometry – properties of shapes
Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	Geometry – properties of shapes
Draw given angles, and measure them in degrees (o)	Geometry – properties of shapes
Identify: angles at a point and one whole turn (total 360o)	Geometry – properties of shapes
Identify: angles at a point on a straight line and half a turn (total 180o)	Geometry – properties of shapes
Identify: other multiples of 90o	Geometry – properties of shapes

Use the properties of rectangles to deduce related facts and find missing lengths and angles	Geometry – properties of shapes
Distinguish between regular and irregular polygons based on reasoning about equal sides and angles	Geometry – properties of shapes
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	Geometry – position and direction
Solve comparison, sum and difference problems using information presented in a line graph	Statistics
Complete, read and interpret information in tables, including timetables	Statistics