

Year 5 Objective Map - New Curriculum

Numbers and the Number System	Multiplication and Division
read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit	identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers
interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	establish whether a number up to 100 is prime and recall prime numbers up to 19
round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	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
solve number problems and practical problems that involve all of the above	multiply and divide numbers mentally drawing upon known facts
read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	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
Fractions and Decimals and Percentages	multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
compare and order fractions whose denominators are all multiples of the same number	Geometry
identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	identify 3-D shapes, including cubes and other cuboids, from 2-D representations
recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number	know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
add and subtract fractions with the same denominator and denominators that are multiples of the same number	draw given angles, and measure them in degrees
multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	identify angles at a point and one whole turn (total 360)
read and write decimal numbers as fractions	angles at a point on a straight line and a turn (total 180)
recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	other multiples of 90o
round decimals with two decimal places to the nearest whole number and to one decimal place	use the properties of rectangles to deduce related facts and find missing lengths and angles

read, write, order and compare numbers with up to three decimal places	distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
solve problems involving number up to three decimal places	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.
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	Measurement * tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks * cycle 2
solve problems which require knowing percentage and decimal equivalents of and those fractions with a denominator of a multiple of 10 or 25	convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)
Addition and Subtraction	understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
add and subtract numbers mentally with increasingly large numbers	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
use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	estimate volume [for example, using 1 cm ³ blocks to build cuboids (including cubes)] and capacity [for example, using water]
solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	solve problems involving converting between units of time
	use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.
	Statistics
	solve comparison, sum and difference problems using information presented in a line graph
	complete, read and interpret information in tables, including timetables.