Mathematics Programmes of Study

5

Number, place value and rounding

I can recognise years written in Roman numerals.

I can read Roman numerals to 1000 (M).

I can solve number problems and practical problems.

I can round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100, 000.

I can use negative numbers in context and can count forwards and backwards with positive and negative numbers through 0.

I can count forwards or backwards in steps of powers of 10 for any given Number up to 1,000,000.

I know what each digit represents in numbers to 1,000,000.

I can read, write, order and compare numbers to at least 1,000,000.

Addition and Subtraction

I can solve addition multi-step problems in contexts, deciding which operations and methods to use and why.

I can solve subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

I can use rounding to check answers to calculations.

I can subtract mentally using increasingly large numbers.

I can add mentally using increasingly large numbers.

I can subtract numbers with more than 4 digits using a formal written method.

I can add numbers with more than 4 digits using a formal written method.

Multiplication and Division

I can solve problems including scaling by simple fractions and simple rates.

I can recognise and use square numbers and cube numbers.

I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.

I can divide numbers up to 4 digits by a 1 digit number using a formal written method, including remainders

I can multiply numbers up to 4 digits by a 1 or 2 digit number using a formal written method, including decimals.

I can establish whether a number up to 100 is prime and recall prime numbers up to 19.

I know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.

I can solve problems using x and ÷, factors, multiples, squares and cubes

I can identify multiples and factors, including finding all factor pairs.

Fractions and Decimals

I can write percentages as a fraction.

I can recognise the % symbol and understand what it means.

I can solve problems numbers up to 3 decimal places.

I can read, write, order and compare numbers with up to 3 decimal places.

I can round decimals with 2 decimal places to the nearest whole number and to one decimal place.

I can recognise and use 1000ths and relate them to 10ths, 100ths and decimal equivalents.

I can read and write decimal numbers as fractions and %

I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.

I can add and subtract fractions with the same denominator and related fractions.

I can recognise mixed numbers and improper fractions and convert from one form to another.

I can compare and order fractions whose denominators are all multiples of the same number.

Measures

I can solve problems involving addition and subtraction of units of measures using decimal notation.

I can solve problems involving converting between units of time.

I can recognise and estimate volume and capacity.

I can estimate the area of irregular shapes.

I can calculate and compare the area of squares and rectangles.

I can measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.

I understand and use basic equivalences between metric and common imperial units.

I can convert between different units of measure (e.g. Kilometre to metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre).

Geometry

I can distinguish between regular and irregular polygons.

I can state and use the properties of a rectangle to deduce related facts.

I can draw shapes using given dimensions and angles.

I can compare different angles and identify reflex angles

I can identify angles at a point and one whole turn.

I can identify angles at a point on a straight line and 1/2 a turn.

I can identify multiples of 90 degrees.

I know angles are measured in degrees and can estimate and measure them and draw a given angle.

I can describe thee position of a shape after reflection or translation

I can identify 3-D shapes, including cubes and cuboids, from 2-D presentations.

Statistics

I can present information using ICT.

I can read and interpret information in tables including timetables.

I can complete information in tables including timetables.

I can solve 'difference' problems using information presented line graphs.

I can solve 'sum' problems using information presented in line graphs.

I can solve 'comparison' problems using information presented in line graphs.