Year 4 – Maths Objectives

- count backwards through zero to include negative numbers
- find 1000 more or less than a given number
- identify, represent and estimate numbers using different representations
- order and compare numbers beyond 1000
- read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value.
- recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
- round any number to the nearest 10, 100 or 1000
- add and subtract fractions with the same denominator
- add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
- compare numbers with the same number of decimal places up to two decimal places
- complete a simple symmetric figure with respect to a specific line of symmetry
- convert between different units of measure (e.g. kilometre to metre; hour to minute)
- count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten
- describe movements between positions as translations of a given unit to the left/right and up/down
- describe positions on a 2-D grid as co-ordinates in the first quadrant
- estimate and use inverse operations to check answers to a calculation
- find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths
- identify acute and obtuse angles and compare and order angles up to two right angles by size
- identify lines of symmetry in 2-D shapes presented in different orientations
- interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs
- measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- multiply two-digit and three-digit numbers by a one-digit number using formal written layout
- plot specified points and draw sides to complete a given polygon
- read, write and convert time between analogue and digital 12 and 24-hour clocks
- recall multiplication and division facts for multiplication tables up to 12 × 12
- recognise and write decimal equivalents of any number of tenths or hundredths
- recognise and write decimal equivalents to 1/4, 1/2, and 3/4
- round decimals with one decimal place to the nearest whole number
- solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
- solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
- solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- solve problems involving multiplying and adding, including using the distributive law to multiply 2 digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

- solve simple measure and money problems involving fractions and decimals to two decimal places
- use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers

Year 3 – Maths Objectives

- add and subtract amounts of money to give change, using both £ and p in practical contexts
- add and subtract fractions with the same denominator within one whole (e.g. 5/7 + 1/7 = 6/7)
- add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three-digit number and hundreds
- add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
- compare and order numbers up to 1000
- compare and order unit fractions, and fractions with the same denominator
- compare durations of events, for example to calculate the time taken by particular events or tasks.
- count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
- count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10
- draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations; and describe them
- estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight
- estimate the answer to a calculation and use inverse operations to check answers
- identify horizontal and vertical lines and pairs of perpendicular and parallel lines
- identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle
- interpret and present data using bar charts, pictograms and tables
- know the number of seconds in a minute and the number of days in each month, year and leap year
- measure the perimeter of simple 2-D shapes
- measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
- read and write numbers up to 1000 in numerals and in words
- recognise and show, using diagrams, equivalent fractions with small denominators
- recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
- recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
- recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
- solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables.
- solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
- tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
- write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods