

Mathematics in Year 6

By the end of the year it is expected that children will be able to:

Place Value

- ✓ read, write, order and compare numbers up to 10000000 and know the place value of each digit
- ✓ round any whole number to the required number of digits
- ✓ use negative numbers in context

Calculations

- ✓ multiply numbers up to 4 digits by 2 digit numbers using the formal written method of long multiplication
- ✓ divide numbers up to 4 digits by 2 digit numbers using the formal written method of long division
- ✓ identify common factors, common multiples and prime numbers
- ✓ understand the order of operations to carry out calculations involving the 4 operations
- ✓ solve problems involving all 4 operations

Measurement

- ✓ read, write and use standard units of measurements
- ✓ convert measurements of length, mass, volume and time
- ✓ convert between miles and kilometres
- ✓ recognise when it is possible to use a formulae to calculate the area and volume of shapes
- ✓ calculate the area of parallelograms and triangles

Geometry

- ✓ find unknown angles in any triangle, quadrilateral and regular polygon
- ✓ name and recognise parts of a circle including radius, diameter and circumference
- ✓ use co-ordinates in all 4 quadrants on a grid to describe positions
- ✓ know how to draw, translate and reflect simple shapes within a co-ordinate grid

Fractions

- ✓ use common factors to simplify, compare and order fractions
- ✓ add and subtract fractions with different denominators
- ✓ multiply simple pairs of fractions e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$
- ✓ divide fractions by whole numbers e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$
- ✓ understand how to use division to change a fraction into a decimal
- ✓ identify the value of each digit in a number with up to 3 decimal places and be able to multiply and divide these numbers by 10, 100 and 1000
- ✓ multiply 1 digit numbers with up to 2 decimal places by whole numbers
- ✓ know and use simple equivalences between fractions, decimals and percentages