

Key Stage 3 Level 6

Algebra

- To collect like terms with various powers.
- To expand single brackets.
- To factorise single brackets.
- To solve equations by trial and improvement ($x^2+x=26$).
- To draw and interpret simple mappings.
- To understand that the gradient of a distance/time graph shows speed.
- To know and use the distance/speed/time formulae.
- To solve two stage equations using inverse operations.
- To find a linear Nth term.
- To substitute negative numbers into formulae.

Number

- To round to a specified number of decimal places.
- To round to a specified number of significant figures.
- To check answers using estimation.
- To recognise prime factors and common factors.
- To find prime factors.
- To use BODMAS.
- To use a calculator efficiently (memory and brackets).
- To use coordinates in all four quadrants.
- To understand the equivalence between fractions, decimals and percentages.
- To calculate percentage change.
- To understand equivalent fractions and be able to cancel down.
- To add, subtract, multiply and divide fractions.
- To multiply or divide fractions by an integer.
- To express the product of a number in index form.
- To write numbers greater than 1 in standard form.
- To show double inequalities on a number line.
- To list the integer solutions to double inequalities.
- To solve simple inequalities.
- To multiply and divide negative numbers.
- To use unitary ratios.
- To divide in a given ratio.
- To find a missing amount, given the ratio and one amount.
- To use ratios in context.

Shape

- To understand and use bearings.
- To know and use angle properties of equilateral and isosceles triangles.
- To find interior and exterior angles of polygons.
- To know angle properties of parallel lines.
- To find the area of a parallelogram, trapezium and any composite shape.
- To enlarge by whole number scale factors.
- To use computers to generate and transform shapes.
- To know the common imperial units and their rough metric equivalents.
- To be able to find the volume of cuboids.
- To produce and interpret scale drawings.
- To know the properties of the special triangles and quadrilaterals.
- To draw accurate nets of 3D shapes.
- To draw cross sections, plans and elevations.
- To find the circumference and area of a circle.
- To find a diameter given the circumference.

Handling Data

- To show data using a pie chart.
- To show data using a scatter graph.
- To be able to draw a line of best fit.
- To show data using a frequency polygon.
- To draw and use stem and leaf diagrams.
- To interpret frequency diagrams for continuous variables.
- To interpret scatter graphs.
- To calculate expected frequency given the probability of an event.
- To show outcomes from two combined independent events using a table or tree diagram.
- To know that probabilities of mutually exclusive events add up to 1.