

Big Picture – Year 8 Mathematics Department



Probability

Representing possible outcomes and theoretical probability, experimental probability and comparisons, Venn diagrams and sets.

Ratio and Proportion

Simplifying and dividing into ratios, direct proportion and comparing proportions, problem solving with ratio and proportion.

UNIT
8

3D Shapes

Properties of 3d shapes, nets, plans and elevations, surface area and volume.

Constructions

Constructing triangles (and bisectors), Loci, Scale drawing (and bearings).

UNIT
7

Sequences

Linear (and geometric) sequences, term-to-term and position-to-term rules, real life sequences.

Written and Calculator Methods

Written methods for the four operations, solving real life problems, using a calculator.

UNIT
6

Equations

One and multi step equations, further solving equations, real life equations.

Statistics

Planning an investigation and collecting data, tables, charts and other methods of representing data, averages.

UNIT
5

Transformations

Rotational, reflection, translation (and enlargements), symmetry (and combined transformations).

Mental Calculations

Mental methods of the four operations and rounding or order of operations.

UNIT
4

Graphs

Coordinates, straight line graphs, real life graphs including time series or conversion graphs.

Angles and 2D Shapes

Angle rules including parallel lines, angles in 2d shapes, properties of 2d shapes.

Expressions and Formulae

Simplifying and substituting, collecting like terms and expanding brackets, indices, forming and using formulae.

UNIT
3

Fractions, Decimals and Percentages

Understanding and using fractions, working with percentages, converting between fractions, decimals and percentages, fraction arithmetic.

UNIT
2

Measure, Perimeter and Area

Metric, imperial and other units of measure, perimeter and area of 2d shapes.

Whole Numbers and Decimals

Factors, multiples and primes, indices, common multiples and factors, rounding and estimation.

UNIT
1

Year
8