Big Picture – Year 11 Higher Overview

Mathematics Department

GCSE

Practice Papers
You will work through previous GCSE papers to improve your ability to answer exam-style questions.

Revision
You will review previous learning both in school and at home to ensure you remember as much of the curriculum as possible.

Gap Analysis
You will work with your teacher to identify areas of strength and weakness, allowing you to focus your practice.

Exam Prep'

Units and Proportionality
Standard and compound units, length, area and volume of similar shapes, direct and inverse proportion, algebraic proportion, proportion graphs, growth and decay.

UNIT 5

Sequences
Term-to-term rule, n^{th} term, recognising special sequences, quadratic sequences.

The Probability of Combined Events
Venn diagrams and set notation, sample space diagrams, frequency trees, probability trees, conditional probability.

UNIT 4

Graphs 2
Cubic, reciprocal, exponential and trigonometric graphs, transformations of graphs, real-life graphs, gradient of a curve, area under a curve, equation of a circle.

UNIT 3

Pythagoras, Trigonometry and Vectors
Pythagoras' theorem, trigonometry in right-angled triangles, exact trigonometric values, sine and cosine rule, area of any triangle, vectors.

Calculations 2
Roots and indices, calculate in terms of π, standard form.

Handling Data 2
Grouped frequency tables, cumulative frequency and box plots, scatter graphs and correlation, time series graphs.

UNIT 2

Graphs 1
Straight line graphs, gradient and y-intercept, equation of a line, parallel and perpendicular lines, quadratic graphs, distance, speed and acceleration graphs.

UNIT 1

Working in 3D
Plan and elevation, volume and surface area, length, area and volume of similar shapes.

Year 11H