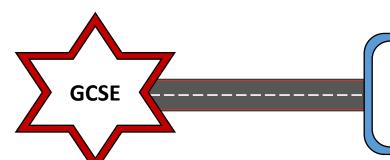# Big Picture – Year 11 Foundation Overview
Mathematics Department

GCSE

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

Exam Prep'

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

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

UNIT 5

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

UNIT 4

The Probability of Combined Events
Venn diagrams, sample space diagrams, frequency trees, probability trees.

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

UNIT 3

Pythagoras and Trigonometry
Pythagoras' theorem, trigonometry in right-angled triangles, exact trigonometric values, vectors.

Graphs 2
Quadratic graphs, sketching linear, quadratic, cubic and reciprocal functions, real-life graphs.

UNIT 2

Handling Data 2
Discrete, continuous and grouped data, comparing distributions using averages and range, correlation, time series graphs.

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

Working in 3D
Faces, edges and vertices, plan and elevation, volume and surface area.

Graphs 1
Coordinates, straight line graphs, gradient and y-intercept, equation of a line, distance, speed and acceleration graphs.

UNIT 1

Year 11F