Curriculum Summary Document
Year 8 Mathematics

WE ARE MBA

Module/Unit of Learning	Term Taught	What will students learn?	What does this prepare students for?	Links to other subjects
To understand the use of sets and probability	Autumn	Sample space diagrams; Set notation; Venn diagrams.	Conditional probability and tree diagrams	
To be able to use 2D representations of 3D shapes	Autumn	Plans and elevations of 3D shapes; Nets of shapes.	Solve problems involving Pythagoras and Trigonometry in 3 dimensions	Graphics
To understand the properties of multiplicative change	Autumn	Map scales; converting between metric units; direct and inverse proportion; conversion graphs	Direct and inverse proportion equations	Science
Working in the Cartesian plane	Autumn	Understand coordinates; plotting linear and quadratic graphs	Know the properties of linear and non-linear graphs.	
Collecting and representing data in order to answer a question	Autumn	Pie charts; Scatter graphs; correlation; questionnaires; averages and measures of spread; frequency tables; two-way tables	Cumulative frequency graphs; Histograms	Business, Science.
Solving problems involving fractions, decimals and percentages	Spring	Recurring decimals; equivalent fractions; percentage calculations	Simple and compound interest; Reverse percentages; Algebraic fractions	
To be able to use formula, equations and inequalities	Spring	Rearrange formulae; solve linear equations including brackets; draw inequalities on number lines	Solve quadratic equations; Algebraic Proof; Inverse Functions	Science
To understand different ways to represent sequences	Spring	n^{th} term rules for linear and quadratic sequences; geometric and Fibonacci sequences	Know the properties of linear and non-linear graphs.	Geography.
To understand the structure of indices	Summer	Use the Laws of Indices to simplify expressions; Write a number as a power of another.	Simplify more complex algebraic expressions; Surds	
To construct and measure using angles, scale diagrams and bearings	Summer	Basic angle rules; Parallel lines; Bearings and navigation; intro to similar shapes; Intro to circle theorems	Sine and Cosine Rule problems, Circle Theorems	Geography, Art
To understand Pythagoras' Theorem and introduction to Trigonometry	Summer	To solve more complex problems using Pythagoras' Theorem; Understand Sine, Cosine and Tangent in right-angles triangles	3D Pythagoras and Trigonometry	