Maths Year 11 Foundation Tier Curriculum End Points and key vocabulary

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Unit of Work	• Functions • Linear graphs and sequences • Properties of number • Probability, systematic listing and product rule	• Inequalities • Direct and inverse proportion • Curves and graphs • Constructions and loci	• Simultaneous equations • Vectors	• Transformations	Revision and recap	*Exams*
Ethos Links	STEM – use of linear graphs within science	STEM – Curves and graphs used to demonstrate exponential growth within bacteria STEM and Sustainability – constructions and loci used within relation to landscape planning and gardening. Also used in relation to security cameras.	Sustainability - simultaneous equations can model the balance between energy supply and demand from renewable sources	STEM – use of enlargement in scale models		

Knowledge	By the end of this unit students will know and understand: Functions By the end of this unit students will know and understand: • How to interpret function notation • Use substitution to evaluate functions • Find the numerical value of composite functions Linear graphs and sequences By the end of this unit students will know and understand: • Common sequences including geometric progression • Fibonacci sequences and be able to	By the end of this unit students will know and understand: Inequalities By the end of this unit students will know and understand: • How to solve linear inequalities • How to represent inequalities on a number line Direct and inverse proportion By the end of this unit students will know and understand: • Direct and inverse proportions • Equations that describe direct and inverse proportion	By the end of this unit students will know and understand: Simultaneous equations By the end of this unit students will know and understand: • How to solve simultaneous equations • How to form simultaneous equations and solve Vectors By the end of this unit students will know and understand: • Addition and subtraction of vectors • Multiplication of vectors by a scalar • Vectors represented on a diagram	By the end of this unit students will know and understand: Transformations By the end of this unit students will know and understand: • How to transform shapes and recognise a combination of transformations *Revision and recap*	By the end of this unit students will know and understand: Revision and recap on all content in preparation for exams	By the end of this unit students will know and understand:

	apply and use them • How to deduce the nth term of linear sequences • How to plot straight line graphs • Parallel lines and how to identify them Properties of number By the end of this unit students will know and understand: • How to calculate highest common factor and lowest common multiple • How to identify and interpret prime factors • Square and cube numbers and how to recognise them	• Graphs that represent direct and inverse proportion Curves and graphs By the end of this unit students will know and understand: • Cubic graphs and how to sketch them • Reciprocal graphs and how to sketch them Constructions and loci By the end of this unit students will know and understand: • How to construct angle bisectors and perpendicular bisectors • How to construct a perpendicular to a given line				

	Probability, systematic listing and the product rule By the end of this unit students will know and understand: • Probability and the outcome of probability experiments • Frequency trees and how to complete them • Relative frequency • Mutually exclusive events • Set notation of Venn diagrams • How to apply systematic listing strategies • The product rule for counting	from a given point • How to solve loci problems • That the perpendicular distance from a point to a line is the shortest distance to the line				

Key Vocabulary	Function Substitute Composite Sequence Arithmetic Linear Parallel Frequency trees Likelihood Venn diagram Product rule Relative frequency	Inequality Greater than Less than Proportion Direct Inverse Cubic Reciprocal Exponential Bisector Locus	Simultaneous Vector Scalar	Enlarge Reflect Rotate Translate Describe fully Invariance		