

Implementation Curriculum Overview A-Level Maths

A learner in Year 12 will cover the prescribed national A-Level Mathematics curriculum, covering the overarching themes of:

- 1) Mathematical argument, language and proof
- 2) Mathematical Problem Solving
- 3) Mathematical Modelling

IMPLEMENTATION – planned and sequenced towards cumulative knowledge and skills

Term 1	Year 12	Year 13	Autumn Summative Assessment
	<ul style="list-style-type: none"> ➤ Complex Numbers ➤ Matrices ➤ Graphs ➤ Critical Path Analysis ➤ Networks ➤ Proof by Induction ➤ Polar Coordinates ➤ Network Flows ➤ Game Theory for Zero-Sum Games ➤ Linear Programming 	<ul style="list-style-type: none"> ➤ Matrices 2 ➤ Complex Numbers 2 ➤ Further Vectors 2 ➤ Discrete Random Variables and Expectation 2 ➤ Confidence Intervals ➤ Graphs 2 ➤ Critical Path Analysis 2 ➤ Further Algebra and Functions 2 ➤ Hyperbolic Functions 2 ➤ Confidence Intervals 2 ➤ Chi² Test for Association 2 ➤ Network Flows 2 ➤ Game Theory for Zero-Sum Games 	<p>Questions based on the content taught covering all 3 AOs:</p> <ul style="list-style-type: none"> ➤ AO1: Use and apply standard techniques ➤ AO2: Reason, interpret and communicate mathematically ➤ AO3: Solve problems within mathematics and in other contexts
Term 2	Year 12	Year 13	Spring Summative Assessment
	<ul style="list-style-type: none"> ➤ Further Algebra and Functions ➤ Hyperbolic Functions ➤ Discrete Random Variables + Expectation ➤ Continuous Random Variables ➤ Further Calculus ➤ Further Vectors ➤ Poisson Distribution ➤ Chi² Test for Association ➤ Type 1 and Type 2 Errors 	<ul style="list-style-type: none"> ➤ Further Calculus ➤ Polar Coordinates 2 ➤ Type 1 and Type 2 Errors 2 ➤ Inference – One Sample t-Distribution ➤ Linear Programming 2 ➤ Binary Operations 2 ➤ Differential Equations 2 ➤ Numerical Methods ➤ Binary Operations 2 ➤ Exponential Distribution 	<p>Questions based on the content taught covering all 3 AOs:</p> <ul style="list-style-type: none"> ➤ AO1: Use and apply standard techniques ➤ AO2: Reason, interpret and communicate mathematically ➤ AO3: Solve problems within mathematics and in other contexts
Term 3	Year 12	Year 13	Summer Summative Assessment
	<ul style="list-style-type: none"> ➤ Matrices 2 ➤ Confidence Intervals ➤ Summer Exams + Revision 	<ul style="list-style-type: none"> ➤ Summer examinations and revision 	<p>A-Level Maths Exam</p>