

Year 12 A-Level Maths

Year 12 Subject Curriculum Information



	Key Questions:	Specification:	Skill Focus:
Term 1:	Can we solve quadratics? Can interpret various graphs linear and non-linear? What is differentiation?	<ul style="list-style-type: none"> Algebraic Expressions Quadratics Graphs and Transformations Equations and Inequalities Trigonometry Coordinate Geometry Differentiation Algebraic Methods 	Simplify surds and indices, solve quadratics, sketch quadratic, cubic graphs and transform graphs including trig graphs, Solve simultaneous equations, trig equations using identities. Solve problems with linear graphs and circles. Differentiation from first principles.
Term 2:	What is integration? What does it mean to binomially expand and expression? How can we interpret data? What are forces and how do we resolve?	<ul style="list-style-type: none"> Integration Exponentials and Logarithms Vectors Binomial Expansion Data Collection Measures of spread and location Representation of data Correlation Probability Mechanics – forces horizontally/vertically and through an angle 	Understand how to integrate and find areas. Solve problems with e^x and $\ln x$. Binomially expand expressions such as $(2 + 3x)^8$. Find averages and measures of spread such as standard deviation and interpret data including use of large data set. Introduction into mechanics including SUVAT and forces.
Term 3:	Can you test a hypothesis?	<ul style="list-style-type: none"> Statistical Distributions Hypothesis Testing Mechanic – forces Revision Functions and Graphs Algebraic Methods Y2 	Discrete Distributions including Binomial Distribution. Hypothesis testing for binomial distributions and finding Critical region. Functions – curve sketching, modulus function, domain and range.

Year 12 Subject Assessment Information

Assessment	Time/Venue	What will be assessed?
In class baseline assessment	September in class	<ul style="list-style-type: none"> Key algebra skills (mainly) from GCSE, along with first couple of weeks of the course.
In class assessment	December in class	<ul style="list-style-type: none"> Algebra and Functions Trigonometry
End of Year 12 Exam	June in exam hall	<ul style="list-style-type: none"> Whole content of Year 12 including pure, statistics and mechanics.

