

Year 13: Our curriculum intent:

A-level Maths at Derby Moor is the perfect choice if you enjoy the subject and want to be taught by a team with over 30 years of A-level teaching experience. Our curriculum at Year 13 is designed to cover the three strands of AQA Year 2 A-level Maths (Pure, Statistics and Mechanics) by the end of the Spring term. This allows us to ensure that ample time is available for revision and exam practice prior to the exams in June. Alongside our programme of study, our aim is also to provide you with a variety of assessments which challenge the core objectives and interleave mathematical knowledge to increase your retention of learning and your ability to transfer it to other contexts. Our assessments are designed to identify your areas of development and at frequent points throughout the year you will be provided with feedback and given the opportunity to securely embed a deeper understanding of the topics covered.

Term	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer 1	Summer 2
Subject Specific Skills (KS5 National Curriculum)	Pure: <ul style="list-style-type: none"> Review trigonometry from Year 12 Trigonometry, including addition formulae, double angle formulae, harmonic form and further trigonometric identities Binomial expansion for negative and fractional indices Functions, including composite, inverse and modulus 	Pure: <ul style="list-style-type: none"> Differentiation, including product rule, quotient rule and chain rule Further differentiation, including working with trigonometric functions and implicit differentiation Simplifying rational expressions Decomposition to partial fractions Transformations of graphs Sequences and series review from Year 12 	Pure: <ul style="list-style-type: none"> Integration, including by substitution and by parts Differential equations Numerical methods Parametric equations Proof by contradiction 	Statistics: <ul style="list-style-type: none"> Conditional probability Normal distribution Hypothesis tests using normal distribution Hypothesis tests for correlation coefficients Mechanics: <ul style="list-style-type: none"> Kinematics in two dimensions Forces and motion Moments 	Revision of topics needing development as identified by full mock exam	EXAMS Three 2-hour Papers Exam Board: AQA
Previous Links (KS4 National Curriculum and Year 12)	KS4: <ul style="list-style-type: none"> Functions Year 12: <ul style="list-style-type: none"> Arcs, sectors and radians Trigonometric Identities Binomial expansion 	KS4: <ul style="list-style-type: none"> Simplifying rational expressions Year 12: <ul style="list-style-type: none"> Differentiation Transformations of graphs Sequences and series 	KS4: <ul style="list-style-type: none"> Iteration and sign change method for identifying location of a root Direct and inverse proportion Year 12: <ul style="list-style-type: none"> Integration Proof 	Year 12 Statistics: <ul style="list-style-type: none"> Probability Binomial distribution Hypothesis tests Year 12 Mechanics <ul style="list-style-type: none"> Kinematics in one dimension 	Revision of topics from A-level Maths Year 1	

Post 18 and beyond: In Year 13 you will receive subject references from your teachers and a predicted grade for UCAS. Our comprehensive assessment plan is designed to give you plenty of opportunities to improve that prediction so you are not disadvantaged when it comes to applying for the courses you want. Maths at A-level will prepare students for a wide range of degrees, not only including Mathematics, but also Science, Engineering, Computing and Finance. It can lead to a Science based career, work as a Statistician, Accountant, within the Finance sector, in Engineering and Teaching. That is by no means an exhaustive list and the way you are taught to think logically and systematically to solve problems will be beneficial in any degree and future career.