



Curriculum Plans - Year 13 - A2 Pure Mathematics 2 and 3

Please find below a detailed outline of the curriculum covered in Pure Mathematics through Year 13 in key stage 5.

BLOCK	1	2	3	4	5	6	7
Dates	28th August - 27th September (5 weeks)	2nd October - 27th October (4 weeks)	6th November - 15th December (6 weeks)	3rd January - 2nd February (5 weeks)	12th February - 22nd March (6 weeks)	2nd April - 26th April (4 weeks)	6th May - 21st June (7 weeks)
Topics	Algebra Modulus functions Polynomials Quotients and Remainders Factor and remainder theorem Logarithmic and exponential functions Logarithms and indices Properties of e^x and $\ln x$ Linear equations which have the function e^x and $\ln x$	Trigonometry Advanced trig identities Cosec, Sec, Cot Double angle formula and new expressions for trig. Differentiation Product and quotient rules Differentiation of e , \ln and trig. Parametric and implicit differentiation	Integration Integration of e , fractions and trig identities. Numerical solutions of equations Find a root of an equation by means of graphical consideration and/or sign change. Further Algebra Rational functions Partial fractions Expansions of brackets with degrees less than 1	Further calculus Derivative of inverse tan, integrate fraction, integrate using substitution and parts. Vectors vectors in 2 and 3 dimensions, calculate Magnitudes, Vector equation of the line, Parallel, intersect or skew	Differential Equations Creating and solving differential equations Complex numbers Complex numbers Real and imaginary parts Square and cube roots of equations Argand diagrams Exponential form	A2 Level External Examinations	
Assessments	Chapter 1 and 2 assessment	Chapter 1 - 4 assessment	Chapter 1 - 7 assessment	Mock Examinations	Chapter 1 - 9 assessment	External examinations	
Academic Theme	Planning for Tomorrow	The World around us	Better Together	The Working World	Opportunities for Everyone	Keep it Green, Keep it Clean	Healthy Body, Healthy Mind