

YEAR 13 A LEVEL MATHEMATICS YEAR 2

Long Term Plan: Overarching themes of proof, problem solving and use of technology



	W/B 10/09	W/B 17/09	W/B 24/09	W/B 01/10	W/B 08/10	W/B 15/10	W/B 29/10	W/B 05/11	W/B 12/11	W/B 19/11	W/B 26/11	W/B 03/12	W/B 10/12	W/B 17/12
Term 1	Proof/Trigonometry	AS Algebra Review 1/Sequences and Series	Algebra review Functions	Differentiation	Differentiation (cont)	Trig Functions	Further Algebra	Trig Identities	Further Differentiation	KS 5 Mock Exam Week	Exam Review/Integration	Integration (cont)	Parametric Equations	Vectors/ Differential Equations
	Deduction, Exhaustion, Contradiction (Be able to give counter examples) Radians, circular measure and small angle approximation.	Recap surds, indices, exponentials and logarithms Arithmetic and Geometric Equations, inequalities and polynomials	Review, language, composite and modulus function	Shape of curves, chain rule	Rates of change, product and quotient rules PURE 1 ASSESSMENT	Recap sine and cosine rules reciprocal trig functions, identities, solving trig equations in radians PURE 1 FEED FORWARD	Review Pascal's triangle and binomial distribution. Simplify algebraic expressions Partial fractions	Compound angle formulae, double angle formulae, The forms $\text{r}\cos(q\pm a)$, $\text{r}\sin(q\pm a)$	Differentiating exponentials, logarithms, trig functions. Implicit differentiation	INTERNAL MOCK EXAMS - ALL SUBJECTS	Feed Forward Finding areas, Integration by substitution	Integrating other functions, natural logarithms. Further integration by substitution Integration by Parts	Review line segments and circles Graphs from Parametric PURE 2 ASSESSMENT	First order differential equations Solving differential equations by separation of variables PURE 2 FEED FORWARD
Term 2	W/B 31/12	W/B 07/01	W/B 14/01	W/B 21/01	W/B 28/01	W/B 04/02	W/B 11/02	W/B 25/02	W/B 04/03	W/B 11/03	W/B 18/03	W/B 25/03	W/B 01/04	W/B 08/04
	Numerical Methods	Data	Probability	Statistical Distributions	Statistical hypothesis testing	Kinematics	Forces and Motion	Moments of forces/ Projectiles	Projectiles (cont)	Friction	KS 5 Mock Exam Week	Exam Review	Revision	Revision
	Solving equations numerically The Newton-Raphson Method Numerical Integration	Recap stats Statistical problem solving	The probability of events from two experiments Conditional probability	Review binomial distribution Discrete random variables The Normal Distribution	Interpreting sample data using the Normal Distribution Bivariate data: correlation and association STATISTICS ASSESSMENT	Review motion in one direction Motion in 2 or 3 D STATISTICS FEED FORWARD	Review forces and motion Forces in equilibrium Finding resultant forces Newton's second law in 2D	Rigid bodies Equations for projectile motion Projectile problems	Projectile problems (cont) Further examples The path of a projectile General equations	A model for friction Revise mechanics module	INTERNAL MOCK EXAMS - ALL SUBJECTS MECHANICS ASSESSMENT	Mock Feed Forward MECHANICS FEED FORWARD	Past exam papers, Questions by topic,	Past exam papers, Questions by topic,
Term 3	W/B 29/04	W/B 06/05	W/B 13/05	W/B 20/05	W/B 03/06	W/B 10/06	W/B 17/06	W/B 24/06	W/B 01/07	W/B 08/07	W/B 15/07			
	Revision	Revision	Revision	Revision	External Exams	External Exams	External Exams							
	Past exam papers, Questions by topic,	Past exam papers, Questions by topic,	Past exam papers, Questions by topic,	Past exam papers, Questions by topic,	Revision, Exam paper practice.	Revision, Exam paper practice.	Revision, Exam paper practice.							

For information on assessments see additional assessment guidance