

## KS5 Curriculum Plan 2025-2026

Year 12	TOPIC	LP1	LP2	LP3	LP4	LP5
		<i>Algebra and Statistics</i>	<i>Graphs, Statistics and Probability</i>	<i>Trigonometry, Binomial Expansion and Vectors</i>	<i>Calculus and Statistics</i>	<i>Probability, Calculus, Algebraic Fractions and Functions</i>
		Pure Mathematics – Algebraic manipulation, indices and surds, quadratic equations, graphs of functions, inequalities, simultaneous equations.  Statistics - sampling, types of data, averages, quartiles, percentiles, standard deviation, variance, box plots and cumulative frequency.	Pure Mathematics - cubic graphs, quartic graphs, transformations of functions, straight line graphs, equation of circles.  Statistics - histograms, scatter graphs, Venn diagrams, tree diagrams, probability distributions, hypothesis testing.	Statistics - histograms, scatter graphs, Venn diagrams, tree diagrams, probability distributions  Pure Mathematics - Binomial expansion, cosine rule, sine rule, area of triangles, trigonometric functions, vectors.	Pure Mathematics - differentiation, integration, exponentials and logarithms  Statistics - regression, correlation	Pure Mathematics - integration, modelling, partial fractions, functions  Statistics - conditional probability, normal distribution.
	<b>Skills</b>	Use appropriate knowledge and methodology for new algebra and geometry concepts and apply them in a range of modelling problems in different contexts. Use appropriate statistical notation and interpret statistical answers in the context of a variety of problems including the Edexcel large data set. Draw clear diagrams and use them to set up the equations required to solve problems. Recognise the limitations of the models used to answer a variety of problems in context. Use appropriate knowledge and methodology for new algebra and geometry concepts and apply them in a range of modelling problems in different contexts. Use appropriate statistical notation and interpret statistical answers in the context of a variety of problems including the Edexcel large data set. Use appropriate calculus skills and apply them to non-constant acceleration problems.				
	<b>Key Vocab</b>	Rational, surd, function, discriminant, quadratic, inequality, quartic, averages, quartile, mean, spread, standard deviation, outlier, interquartile range.	Reciprocal, perpendicular, bisector, chord, polynomial, factorial, binomial, spread, interquartile range, frequency density, correlation, regression, independent, hypothesis	Pure - Binomial, sine, cosine, tangent, identity, vector, magnitude Statistics - frequency density, correlation, regression, union, mutually exclusive, discrete, cumulative	Identity, derivative, normal, stationary point, gradient, polynomial, integration, exponential, logarithm, power, non-linear, correlation, hypothesis, conditional.	Acceleration, velocity, forces, Newton, exponential, logarithm, radian..

Year 13	TOPIC	LP1	LP2	LP3	LP4	LP5
		<i>Algebra, Trigonometry and Mechanics</i>	<i>Trigonometry, Algebra and Mechanics</i>	<i>Calculus, Vectors and Mechanics</i>	<i>Vectors and Calculus</i>	
	<b>Knowledge</b>	Pure Mathematics - sequences, series, radians, trigonometric functions  Mechanics - vectors, acceleration, forces, connected particles.	Pure Mathematics - partial fractions, algebraic fractions, trigonometry and modelling  Mechanics - forces, vectors, inclined planes.	Pure Mathematics - Binomial expansion, numerical methods, vectors, differentiation, integration	Pure Mathematics - vectors and integration.	
	<b>Skills</b>	Use appropriate knowledge and methodology for new algebra and geometry concepts and apply them in a range of modelling problems in different contexts. Use appropriate statistical notation and interpret statistical answers in the context of a variety of problems including the Edexcel large data set. Draw clear diagrams and use them to set up the equations required to solve problems. Recognise the limitations of the models used to answer a variety of problems in context. Use appropriate knowledge and methodology for new algebra and geometry concepts and apply them in a range of modelling problems in different contexts. Use appropriate statistical notation and interpret statistical answers in the context of a variety of problems including the Edexcel large data set. Use appropriate calculus skills and apply them to non-constant acceleration problems.				
	<b>Key Vocab</b>	Sequence, geometric, radian, segment, domain, reciprocal, inverse, vector, acceleration, gravity, equilibrium, resolve, pulley, tension.	Radian, inverse function, reciprocal, identity, binomial, expansion, friction, moment, equilibrium, projectile, velocity, acceleration.	Pure JDW - Binomial, partial fractions, roots, iteration, modelling, vector, modelling. Pure SMV - Cartesian, parametric, derivative, quotient, implicit, rates of change, integration.	Moment, friction, projectile, tension, acceleration, binomial, iteration, roots, magnitude.	