Key Stage 4 Curriculum Map 2021-22

Year 12- Term 1

Subject: Accelerated A Level Mathematics		Year: 12	
Focus/Topic		**HPL Links**	**Home Learning / Guided Reading**
Integration – Trapezium Rule			**From the text book**
Review Integration of polynomials, Areas under curves, Numerical Integration using the Trapezium		Hardworking Linking Analysing	**AS textbook Chapter 8**
Probability			
Calculations of the mean, standard deviation, variance etc Combined Events, Conditional Events, Tr Diagrams, Two way tables, Venn Diagrams		Hardworking Linking Analysing	**AS textook Chapter 13**
Circle Geometry			
Equation of a circle, Geometry of a circle, Tangents and Normals to circles		Hardworking Linking Analysing	**AS textbook Chapter 9**
Discrete Random Variables			
Discrete variables, Discrete Random variables, Expectation of X, variance and standard deviation of X, Sum or Difference of two independent random variables, further applications		Hardworking Linking Analysing	**AS textbook Chapter 14**
Functions			
Functions, composite functions, inverse functions, modulus functions, combinations of transformat of functions, Partial Fractions		Hardworking Linking Analysing	**A2 textbook Chapter 1**
Binomial Probability distribution			
Bernouilli distribution, Binomial distribution, Cumulative binomial distribution, mean, variance and standard deviation of binomial distribution, further applications		Hardworking Linking Analysing	**AS textbook Chapter 15**
Mid Term			

Term 1

Subject: Accelerated A Level Mathematics		Year: 12	
Focus/Topic		HPL Links	Home Learning / Guided Reading
Trigonometry			
Inverse Trig fucntions, reciprocal Trig functions, Trig formulae, Compound angle formulae, $a\cos\theta + b\sin\theta = f(\theta)$, double angle formulae		**Hardworking Linking Analysing**	**A2 textbook Chapter 3**
Displacement, speed, velocity and acceleration			
Displacement, speed, velocity and acceleration, displacement/time graphs, velocity/time graphs		**Hardworking Linking Analysing**	**AS textbook Chapter 16**
Differentiation			
Derivative of lnx, other standard derivatives, Review of chain rule, product rule and quotient rule, Implicit differentiation, Parametric Equations, differentiating parametric equations		**Hardworking Linking Analysing**	**A2 textbook Chapter 4**
Motion in a straight line			
Equations of motion with constant acceleration (SUVAT), free fall under gravity, motion in a straight line with variable acceleration		**Hardworking Linking Analysing**	**AS textbook Chapter 17**
Numerical methods			
Locating the roots of an equation, Iteration, Mid ordinate rule, Simpson's rule		**Hardworking Linking Analysing**	**A2 textbook Chapter 8**
Force and Newton's laws			
Types of force, Newton's first law of motion, connected particles, dynamic friction		**Hardworking Linking Analysing**	**AS textbook Chapter 18**
Momentum and Impulse			
Momentum and impulse, conservation of linear momentum		**Hardworking Linking Analysing**	**AS textbook Chapter 19**

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Force and Newton's laws			
Types of force, Newton's first law of motion, connected particles, dynamic friction		**Hardworking Linking Analysing**	**AS textbook Chapter 18**
Impulse and Momentum			
Impulse and momentum, Conservation of linear momentum		**Hardworking Linking Analysing**	**AS textbook Chapter 19**