

Key Stage 5 Curriculum Map 2020-21

Term 1

Subject:	Year:	
Focus/Topic	UAE Links	Home Learning / Reading
<ul style="list-style-type: none"> Orientation and Induction 		
<ul style="list-style-type: none"> Functions-composite and inverse, sketching functions 		See Guided Reading
<ul style="list-style-type: none"> Modulus functions and sketching, Transformations of graphs, algebraic simplification and division, partial fractions (linear factors) Assessed homework 		See Guided Reading
<ul style="list-style-type: none"> Partial fractions (repeated factors) Binomial Expansion – negative and rational powers, related to partial fractions, approximations Test on chapters 1 and 2 		See Guided Reading
<ul style="list-style-type: none"> Trig Functions and Formulae – Inverse trig functions, cosec, cot, sec, Pythagoras, Statistics Poisson Distribution Mechanics – Modelling, reminder of $F = ma$, connected particles, SUVAT 		See Guided Reading
<ul style="list-style-type: none"> Trig formulae - addition formulae, double angles Poisson as an approximation to the Binomial distribution Vectors and variable acceleration Assessed homework 		See Guided Reading
<ul style="list-style-type: none"> Trigonometry $R\cos(\theta \pm \alpha)$ etc solving equations, max/min values Sum of independent Poisson random variables Mechanics Use of diagrams to solve problems, Resultant Force 		See Guided Reading
<ul style="list-style-type: none"> Exponential and Log functions – e^x and natural log function Applications of Poisson Distⁿ Equilibrium and Friction Test on Trig, Poisson and Mechanics 		See Guided Reading
<ul style="list-style-type: none"> Differentiation of all new functions, chain rule, product rule, quotient rule Continous Probability distributions pdf and sketching it Calculation of moment of a force 		See Guided Reading

<ul style="list-style-type: none"> • Implicit functions, parametric equations and differentiation Finding the cumulative distribution function, working out probabilities using integration, the median Statics problems Assessed homework 		See Guided Reading
<ul style="list-style-type: none"> • Finish differentiation and Parametric equations Expectation and variance, also with linear combinations of continuous random variables Centre of Mass in 1 and 2 dimensions 		See Guided Reading
<ul style="list-style-type: none"> • Integration of basic functions – standard integrals Sum of independent Normal random variables Centre of mass of Laminae and suspending from a point Test on Differentiation, Trigonometry, continuous random variables , Statics and centres of mass 		See Guided Reading
<ul style="list-style-type: none"> • Integration using a change of variable Further applications of continuous random variables Simple centre of mass for 3D shapes 		See Guided Reading
<ul style="list-style-type: none"> • Integration using a substitution Finish off continuous random variables Centre of Mass to be completed 		See Guided Reading
Winter Break		