Key Stage 5 Curriculum Map 2020-21

Term 1

Subject:	Year:	
Focus/Topic	**UAE Links**	**Home Learning / Reading**
• **Orientation and Induction**		
• **Baseline Test**		
• **Recap of GCSE**		Corbett Maths – Grade 7 – 9 content
• **Expanding Brackets, Surds & Indices – rationalising denominators, use of the laws of indices, solving equations involving variable as a power. Assessed Homework, Surds, Quadratics, Discriminant**		Chapter 1 – AQA AS Level textbook
• **Quadratic Polynomials & Equations – factorizing, use of quadratic formula, completing the square, sketching quadratic graphs, use of the discriminant to identify types of solutions/roots of quadratic functions Assessment Test Surds and Quadratics**		Chapter 2 – AQA AS Level textbook
• **Algebraic Division – division process, Remainder and Factor theorems to enable factorising cubic expressions and equations and hence to solve equatons of higher order than 2.**		Chapter 3 - AQA AS Level textbook
• **Function & Graphs – sketching curves, shape, location, intercepts with axes, using a sketch to help solve quadratic inequalities Assessed Homework Functions and Graphs**		Chapter 4 - AQA AS Level textbook
• **Function & Graphs - sketching to help identify and illustrate transformations of functions, translations, reflections and stretches, use trig graphs as an example Assessment Test Functions and Graphs**		Chapter 4 - AQA AS Level textbook
• **Coordinate Geometry – Distance between 2 points, coordinates of the midpoint of a line segment, gradient of a line segment, equation of a straight line, parallel lines and gradient, perpendicular lines and gradient, coordinates of points of intersection between straight lines**		Chapter 5 - AQA AS Level textbook

• **Differentiation – working with polynomials, rational powers of the variable – gradient – tangents and normal Mechanics – displacement, speed, velocity and acceleration Assessed homework Coordinate Geometry, Differentiation**		Chapter 6 and 16 - AQA AS Level textbook
Mid Term Break		
• **Differentiation – increasing, decreasing functions, Stationary points, Maximum and minimum points** • **Mechanics – Velocity/time graphs Test on coordinate geometry, differentiation, mechanics**		Chapter 6 and 16 - AQA AS Level textbook
• **Integration – working with polynomials, indefinite and definite integrals, area under a curve** • **Mechanics – motion in a straight line with constant acceleration – horizontal motion, SUVAT equations**		Chapter 7 and 17 - AQA AS Level textbook
• **Integration – compound areas, numerical integration using the trapezium rule** • **Mechanics - vertical motion under gravity, g = 9.8 ms^{-2} and accuracy of answers Assessed homework Integration and SUVAT**		Chapter 7 and 17 - AQA AS Level textbook
• **Sequences and Series – Recurrence relations and Arithmetic series – summation of series etc** • **Mechanics – motion in a straight line with variable acceleration, differentiation and integration Test on Integration, and Mechanics**		Chapter 8 and 17 - AQA AS Level textbook
Winter Break		