Key Stage 5 Curriculum Map 2019 - 2020

Term 2

Subject: Mathematics		Year: 12	
Focus/Topic		**UAE Links**	**Home Learning / Reading**
Week 1 • Sequences and series – Geometric series – sum of series, sum to infinity, convergence • Statistics – Probability, definitions, set notation, vocabulary, combined events, addition law			See guided reading
Week 2 • Sequences and series – Binomial expansion, positive integer powers • Statistics – Probability – Mutually exclusive and Independent events, Conditional Probability, Venn diagrams, multiplication law			Assessed homework
Week 3 • Coordinate Geometry of the Circle, equation of a circle centre (a, b) radius r, • Statistics – Probability – tree diagrams, two way tables			
Week 4 • Coordinate Geometry of the Circle, Geometrical properties of a circle, Tangents to a circle • Statistics – Discrete Random Variables, measures of spread and location, mean, mode, median, range, standard deviation, quartiles, IQR • **In class Assessment**			See guided reading
Week 5 • Trigonometry – Exact values for trig ratios, Sine Rule, Cosine Rule, Area of a Triangle • Statistics – Discrete probability distributions, vocabulary, distribution functions, Expectation E(X)			
Week 6 • Trigonometry – radian measure, conversion degrees ↔ radians, length of arc and area of sector • Statistics – variance and standard deviation, sum of independent random variables			
Mid Term Break			
Week 7 • Trigonometry – sin, cosine and tangent graphs, solving simple trig equations, equations with compound angles • Mechanics – Momentum and Impulse, I = change in momentum = Ft **Assessed homework**			See guided reading

Week 8 • **Exponentials and Logs – graphs of exponential functions, graphs of log functions, laws of logarithms** • **Mechanics – Conservation of linear momentum**		
Week 9 • **Exponentials and Logs – changing base of logs, solving equations using exponential and logarithm functions** • **Mechanics – Newton's Laws of motion – force diagrams, resultant force, mass and weight** **Assessment Test**		See guided reading
Week 10 • **Pure Mathematics – Revision and practice** • **Mechanics – connected particles, diagrams, separating particles for solution, friction as a resisting force only.**		
Week 11 • **Pure Mathematics – Revision and practice** • **Statistics – Bernoulli probability distribution, Binomial distribution, conditions for application of the distribution, vocabulary, calculating probabilities and using tables** **Assessed Homework**		
Spring Break		