

## Curriculum Sequencing Overview – Year 11 Higher



Unit 2								
Week	1	2	3	4	5	6	7	8
Date wb	14/11/22	21/11/22	28/12/22	05/12/22	12/12/22	02/01/23	09/01/23	16/01/23
Key dates	Unit 1 KA data due			Year 11 mock data and ATL deadline	Year 11 parents evening			
Big ideas (key concepts)	Circle Geometry	Year 11 mock exams		Changing the subject, algebraic fractions, rationalising surds, proof		Vectors and geometric proof		Reciprocals and exponential graphs, gradient and area under a curve
Lesson topics sequence	Apply construction techniques and understanding of loci to draw graphs based on circles and perpendiculars of lines Find the equation of a tangent to a circle at a given point, Recognise and construct the graph of a circle using $x^2 + y^2 = r^2$ for radius $r$ centred at the origin of coordinates			Rationalise the denominator involving surds Simplify algebraic fractions Multiply and divide algebraic fractions Solve quadratic equations arising from algebraic fraction Change the subject of a formula Solve 'Show that' and proof questions Use function notation Find $f(x) + g(x)$ and $f(x) - g(x)$ , $2f(x)$ , $f(3x)$ etc algebraically Find the inverse of a linear function Know that $f^{-1}(x)$ refers to the inverse function For two functions $f(x)$ and $g(x)$ , find $gf(x)$		Understand and use vector notation Understand and interpret vectors as displacement in the plane with an associated direction Represent vectors, combinations of vectors and scalar multiples in the plane pictorially Calculate the sum of two vectors, the difference of two vectors and a scalar multiple of a vector using column vectors Find the length of a vector using Pythagoras' Theorem Calculate the resultant of two vectors Solve geometric problems in 2D where vectors are divided in a given ratio Produce geometrical proofs to prove points are collinear and vectors/lines are parallel		Recognise, sketch and interpret graphs of the reciprocal function Recognise, sketch and interpret graphs of exponential functions Use calculators to explore exponential growth and decay Set up, solve and interpret the answers in growth and decay problems Interpret and analyse transformations of graphs of functions and write the functions algebraically Estimate area under a curve  Interpret and estimate the gradient of linear or non-linear graphs
Key assessments		Year 11 mock exams 3 x maths papers 1 x non-calc/ 2 x calc			Unit 17 assessment		Unit 18 assessment	Unit 2 KA



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<b>Homework</b>	Mock exam revision	1 x Half Paper Set 3B Paper 2H Calculator <a href="#">Higher Half Papers</a>	1 x Half Paper Set 3B Paper 3H Calculator <a href="#">Higher Half Papers</a>	1 x Half Paper Set 4A Paper 1H Non – Calculator <a href="#">Higher Half Papers</a>	1 x Half Paper Set 4A Paper 2H Calculator <a href="#">Higher Half Papers</a>	1 x Half Paper Set 4A Paper 3H Calculator <a href="#">Higher Half Papers</a>	1 x Half Paper Set 4B Paper 1H Non – Calculator <a href="#">Higher Half Papers</a>	1 x Half Paper Set 4B Paper 2H Calculator <a href="#">Higher Half Papers</a>
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