Curriculum Plans – Sixth Form Pure Mathematics 1

Please find below a detailed outline of the curriculum covered in Pure Mathematics 1 through Year 12 in Sixth Form Mathematics.

Year 12

Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
Quadratics The chapter focuses on the use of functions in terms of defining functions, creating composite functions from two separate functions, drawing graphs from functions and understanding how to create inverse functions and draw the consequential graphs. **Functions** The chapter also delves into how functions can be used to reflect, transform and stretch graphical displays of functions	**Coordinate Geometry** Students learn how to write equations of straight lines, understand equations that create circles and learn to interpret the relationship between a graph and its associated algebraic equation. **Circular measure** Students will learn the definition of a radian and the relationship between radians and degrees and how to apply the equations for arc length and sector area of a circle	**Trigonometry** Students will expand their knowledge of trigonometry, moving into identities and transformations of graphs as well as using graphs to solve trigonometric equations. **Series** Students will learn how to expand brackets using binomial expansion and how to find terms and equations for arithmetic and geometric sequences/ series.	**Differentiation and Further Differentiation** Students will understand the connections between gradients on curves and differentiated equations, differentiation notations, how to apply differentiation to discover rates of change, how to use integration to reveal the area under the curve and the connection between differentiation and integration.	**Integration** Students will understand the connections between gradients on curves and differentiated equations, differentiation notations, how to apply differentiation to discover rates of change, how to use integration to reveal the area under the curve and the connection between differentiation and integration.	**Examination preparation**
End of chapter assessment	**End of chapter assessment**	**End of chapter assessment**	**Mock Examination**	**End of chapter assessment**	**External examination**