



Curriculum Summary Document

Year 11 Mathematics (Higher)

Module/Unit of Learning	Term Taught	What will students learn?	What does this prepare students for?	Links to other subjects
Equations of circles	Autumn	Determine the centre and radius of a circle	Calculating equations of tangents to circles.	
To understand equations and how they can be represented as graphs	Autumn	Linear and quadratic graphs and equations.	Differentiation and integration.	
Solving simultaneous equations	Autumn	Simultaneous equations non-linear.	Calculating equations of tangents to curves.	
Sketching Graphs	Autumn	Find intersections with axes; Turning points.	Determine the equation from a quadratic graph.	Science.
To understand and solve problems using direct and inverse proportion	Spring	Graphs and equations involving direct and inverse proportion.	More complex proportion problems.	
To understand the difference between equations and inequalities	Spring	Represent inequalities on number lines and on graphs.	Linear programming.	Business.
To be able to use statistical measures to answer questions	Spring	Compare sets of data using spread and central tendency.	A Level Statistics.	Business; Science.
To use vectors to solve problems	Spring	Vector geometry including proofs	More complex vector problems.	
Transformations of functions	Spring	Understand how changing an equation will effect a graph.	Transforming piece-wise functions.	
Sine and Cosine Rules	Spring	Problems involving non-right-angled triangles.	Navigation; engineering in complex designs.	Geography, Science
Circle Theorems	Spring	Solve problems involving angles within a circle	Prove circle theorems algebraically.	
Area under and gradient of a curve	Spring	Trapezium rule; Estimate gradient of curve using a tangent.	Differentiation and integration.	