KS4 Learning Overview

Maths (Higher Tier)

Exam Board: Edexcel

Year 11		
Term	Topics	Extra learning opportunities
Autumn 1	• Quadratics, expanding triple brackets, sketching graphs, graphs of circles, cubes & quadratics • Circle theorems • Circle geometry	**Research task:** What shape would a graph take if its highest power was 4? What about 5?
Autumn 2	• Complex rearranging formulae, algebraic fractions, rationalising surds, proof	**Research task:** Bertrand Russell spent the first 360 pages of his book Principia Mathematica to prove a simple result. What was it?
Spring 1	• Vectors & geometric proof	
Spring 2	• Reciprocal & exponential graphs, gradient & area under graphs • Direct & inverse proportion	**Research task:** What is the meaning of the term 'reciprocal'? How do you find the reciprocal of a given number? **Research task:** Find one practical example of exponential growth and one of exponential decay.
Summer 1	• REVISION	
Summer 2	• REVISION	