



## Maths Curriculum Overview - Year 11 Higher

	Unit	Details
Autumn One	<p><b>More Algebra</b></p> <p><b>Vectors and Geometric Proof</b></p>	<p>We will start this year by extending prior knowledge of expressions by changing the subject of a formula where the subject appears twice and solving equations involving algebraic fractions. Pupils will then learn how to manipulate expressions involving surds and rationalise the denominator of a fraction. Finally, they will use function notation to find inverses and composite functions. The vectors unit will develop angle and gradient concepts to look at resultants, before moving into formal proof of parallel lines and collinear points.</p>
Autumn Two	<p><b>Proportion and Graphs</b></p>	<p>In this final unit, pupils will extend their concept of proportion by writing and using equations to solve problems involving direct and inverse proportion. They will sketch graphs of exponential functions, calculate the gradient of a tangent at a point and estimate the area under a non-linear graph. They will then use function notation to describe how transformations change graphs.</p>
Spring One	<p><b>Consolidation and Revision</b></p>	<p>Depending on timings, some classes may need to complete or revisit certain topics in this half term. Others will be ready to move on to the revision stage where students are required to switch between topics, as in an exam.</p>
Spring Two		<p>Having encountered all content, pupils will begin the phase of consolidation and revision. This will consist of lessons following a mix of strategies such as individual topic revision, exam practice questions, non-calculator methods, walking talking mock exams etc. The areas which are focussed on will be informed by regular practice papers sat under exam conditions in class, and occasionally in the hall. These are teacher marked and results are entered on <a href="http://Pinpointlearning.co.uk">Pinpointlearning.co.uk</a>, building up a matrix of weak/strong areas which can also inform the individual's revision. The website also generates a follow-up question booklet of areas to improve which will be done in class.</p>
Summer One		<p>Gradually scaffolding is removed and pupils should become more proactive in their own revision, suggesting areas to revise as a class, or questions they have found difficult. Sparx maths is a key resource to develop pupils' learning, and resources such as Edexcel's mock set papers and "Aiming for" papers will be posted on Google Classroom to help support independent study.</p>