

Module/Unit of Learning	Taught During	What will students learn?	How does this develop expertise and challenge students?	Links to other subjects
<p><u>GCSE</u></p> <p>Higher Level Trig</p>	Autumn	<p>Students will extend their knowledge of trigonometry to look at non-right angled triangles and applying their knowledge to real-life contexts with bearings.</p> <p>Taking on their trigonometric knowledge students will graph these functions and identify common patterns and look at how transforming the functions affects the graphs.</p>	<p>This work stretches the students to achieve the highest of grades and beyond fully preparing them for mathematics at and beyond GCSE.</p>	<p>Geography</p> <p>Duke of Edinburgh</p>
<p><u>GCSE</u></p> <p>Data Revision</p>	Autumn	<p>This topic is an opportunity to build on prior knowledge from Year 9 and Year 10 by focusing drawing and interpreting a variety of graphs including Frequency Polygons, Stem-and-Leaf, Cumulative Frequency and Histograms.</p>	<p>Students will be interpreting data using mathematical processes and language to draw on conclusions to compare data sets.</p>	<p>Geography and Science.</p> <p>This will also link with VIPER Caves.</p>
<p><u>GCSE</u></p> <p>Quadratic Equations and Iterative Processes</p>	Autumn	<p>Students will begin by reflecting and revising previous topics that they have used to solve quadratics including factorising and the quadratic formula.</p> <p>Students will then explore Iterative Processes to build on their understanding of solving quadratics.</p>	<p>Students have previous studied solving quadratics, this is a good opportunity to extend students understanding and linking topics, such as, geometric problems with equations.</p>	<p>Geography and Science</p>

<u>GCSE</u> Surds and Indices	Autumn	Students will have an opportunity to revisit previous learning from Year 9 and Year 10 and develop these skills to start to make connections for studying Maths beyond GCSEs.	An opportunity to develop problem solving skills and hidden maths whilst strengthen core concepts.	
<u>GCSE</u> Area and Volume	Autumn	This module focuses on bringing all area and volume knowledge from previous years and interleaving the topics with numerical and algebraic problems.	Students will be drawing on previous knowledge to be able to ste up and solve equations in hidden maths problems.	Science
Adaptive Learning PPE Preparation	Autumn	Students are now at a point to practise revision of various topics in mixed lessons. This will build on the exam skills needed for the upcoming PPE exams	This work builds the students exam technique allowing them to become experts at the GCSE.	
<u>GCSE</u> Algebra Revision (Graphs)	Autumn	An opportunity to develop previous learning (Year 7 – 10), students will have the opportunity to make connections to extend their understanding of linear graphs.	Both graphical and algebraic methods will be used to develop their understanding about parallel and perpendicular lines as well as extending their knowledge by looking how to use ratio with coordinate geometry and equation of tangents to a circle.	A Level Link
QLA from PPE	Spring	Following on from the first round of PPEs, question analysis will highlight key topics per class to focus upon. Students will work on these areas in the groups	This work builds the students exam technique allowing them to become experts at the GCSE.	

GCSE Mind the Gaps	Spring	Students will work on confidence and exam technique by completing a Mind the Gap paper once per week, subsequent lessons each week will build on practising the key questions coming out as target areas.	This work builds the students exam technique allowing them to become experts at the GCSE.	
Adaptive Learning PPE 2 Preparation	Spring	Students are now at a point to practise revision of various topics in mixed lessons. This will build on the exam skills needed for the final PPE in March	This work builds the students exam technique allowing them to become experts at the GCSE.	
Adaptive Learning		Students are now at a point to practise revision of various topics in mixed lessons. This will build on the exam skills needed for the summer exams	This work builds the students exam technique allowing them to become experts at the GCSE.	
QLA from PPE	Spring	Following on from the second round of PPEs, question analysis will highlight key topics per class to focus upon. Students will work on these areas in the groups	This work builds the students exam technique allowing them to become experts at the GCSE.	
Walking Talking Mock Week	Summer	In the final throws of lessons before the exams, we will hone the skills of all students by going through a final paper in our walking talking mock format. Students will hear experts go through the key exam technique and knowledge needed to further build their confidence in preparation for the exams.	This work builds the students exam technique allowing them to become experts at the GCSE.	
Adaptive Learning Summer Preparation	Summer	Students are now at a point to practise revision of various topics in mixed lessons. This will build on the exam skills needed for the summer exams	This work builds the students exam technique allowing them to become experts at the GCSE.	