



Scheme of Learning	Maths Y9 Summer Term Geometry, Algebra			
Learning outcomes	By the end of the Summer term, you should have knowledge and understanding of Trigonometry in 3D shapes, congruency, factorisation and circle theorems			
Knowledge What key concepts are covered? What key skills are developed? What key terminology is learned (i.e. glossary)?	Key concepts and skills Trigonometry in 3D shapes Congruent triangles Factorisation. Difference of two squares Circle theorems. Lengths of arcs Areas of sectors Continue from KS3 overview Contents	Key terminology Midpoint Line segment Bearings Congruency Difference of two squares Roots Radius Tangents Chord Cyclic quadrilateral. Arc sector		
Ongoing Assessment	<p>In Maths, the most important assessment takes place in every lesson where teachers observe and support whilst they are practicing applying knowledge and new skills. This assessment enables teachers to tailor their lessons to their class.</p> <p>At a point when teachers know that students are ready, a class will have a skills check in a lesson. These checks are low stakes and help to inform both teachers and students of each individuals next steps. Students are not given warning of these skills checks so that teachers can determine how regularly students are engaging in maths, rather than measure how much work a student has been able to do to prepare for a test.</p> <p>Support for revision: On SharePoint in the ‘Topic Information’ folder are overview sheets for each topic. Students can download these sheets from here Good ways to revise for the end of unit include:</p> <ul style="list-style-type: none">Review their notes,			



	<ul style="list-style-type: none"> • Use / Review materials from SharePoint • Boost, Target and Independent learning tasks from SparxMaths. 						
Key Assessment	<p>At the beginning of the Summer term students will have a large, announced assessment which covers the key concepts covered to date. The aim of this assessment is for student to develop revision skills.</p> <p>The most valuable part of this assessment is the feedback that students get. The question analysis sheets direct students to additional support using Sparx Codes that link to specific topics and content. Students will identify these areas for support through the feedback lesson set aside for assessment feedback</p>						
Clear sequencing of content	<table> <tr> <td>Geometry</td><td> Using Pythagoras and Trigonometry in 3D shapes to find unknowns Find midpoint and length of a line segment. Calculate bearings in trigonometric context. Similarity and congruency in triangles Identify congruent triangles and complete basic proofs for congruency. </td></tr> <tr> <td>Algebra</td><td> Expand double and triple brackets Identify and use difference of two squares. Factorise quadratics with $a > 1$ Solve simple quadratics by factorisation and graphing. </td></tr> <tr> <td>Geometry</td><td> Use circle theorems to find unknowns. Find circumferences and areas of circles. Find lengths and areas of arcs and sectors Use surds and pi in exact solutions. </td></tr> </table>	Geometry	Using Pythagoras and Trigonometry in 3D shapes to find unknowns Find midpoint and length of a line segment. Calculate bearings in trigonometric context. Similarity and congruency in triangles Identify congruent triangles and complete basic proofs for congruency.	Algebra	Expand double and triple brackets Identify and use difference of two squares. Factorise quadratics with $a > 1$ Solve simple quadratics by factorisation and graphing.	Geometry	Use circle theorems to find unknowns. Find circumferences and areas of circles. Find lengths and areas of arcs and sectors Use surds and pi in exact solutions.
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Links to Careers	<p>The overarching skills achieved within Mathematics are integral to numeracy in any career. If students choose to progress from GCSE into A-Level maths, they will begin to see how different types of mathematical application may feed into careers, for example, statistical analysis of data, mechanics and engineering.</p>						
Support	<p>SharePoint pages (text based, images and videos) Exam Resources for Revision Key Terminology Sheet</p>						
Challenge	<p>Sparx – independent learning challenge sections guide to ‘codes’.</p>						