



Scheme of Learning	Maths Y9 Spring Term Standard Form, Algebra, Probability, Ratio and Proportion			
Learning outcomes	By the end of the Spring term, you should have knowledge and understanding of Trigonometry in 3D shapes, congruency, factorisation and circle theorems			
Knowledge	Key concepts and skills Index notation and Standard Form Formulae in more complex settings Tree diagrams Ratio and fractions in equivalence problems Pythagoras in 3D problems. Continue from KS3 overview Contents	Key terminology Fractional powers Standard form Independent events Dependent events Theoretical probability Experimental probability Equivalence problems		
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 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:</p> <p>On SharePoint in the 'Topic Information' folder are overview sheets for each topic. Students can download these sheets from here</p> <p>Good ways to revise for the end of unit include:</p> <ul style="list-style-type: none"> • Review their notes, • Use / Review materials from SharePoint • Boost, Target and Independent learning tasks from SparxMaths. 			



Key Assessment	At the end of the Spring term students will have a large, announced assessment which covers the key concepts outlined above. The aim of this assessment is for student to develop revision skills. 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											
Clear sequencing of content	<table><tr><td>Number</td><td>Use Index notation and laws to simplify expressions and solve equations Calculate standard form using non-calculator methods Manipulate surds Solve geometric problems in context involving surds.</td></tr><tr><td>Algebra</td><td>Use a given formula including substitution, Change subjects of formulae involving variables on both sides.</td></tr><tr><td>Probability</td><td>Calculate probability of independent and simple dependent events. Tree diagrams Understand differences between theoretical and experimental probability.</td></tr><tr><td>Ratio and Proportion</td><td>Combine ratios Use ratio and fraction equivalence to solve problems</td></tr><tr><td>Geometry</td><td>Use Pythagoras in 3D to find unknowns</td></tr></table>		Number	Use Index notation and laws to simplify expressions and solve equations Calculate standard form using non-calculator methods Manipulate surds Solve geometric problems in context involving surds.	Algebra	Use a given formula including substitution, Change subjects of formulae involving variables on both sides.	Probability	Calculate probability of independent and simple dependent events. Tree diagrams Understand differences between theoretical and experimental probability.	Ratio and Proportion	Combine ratios Use ratio and fraction equivalence to solve problems	Geometry	Use Pythagoras in 3D to find unknowns
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Links to Careers	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.											
Support	SharePoint pages (text based, images and videos) Weekly lunchtime support sessions, by invitation only. Key Terminology Sheet											
Challenge	Sparx – independent learning challenge sections guide to ‘codes’.											



	UKMT Intermediate Challenge
	UKMT Enrichment Club from which a team is chose for the UKMT Team Challenge