



Scheme of Learning	Maths Y8 Autumn Term Algebra, Number			
Learning outcomes	By the end of the Autumn term, you should have knowledge and understanding of Linear equations, linear functions, linear graphs, approximations, percentages, index notation, standard form and prime factorisation.			
Knowledge	Key concepts and skills Solving linear equations Forming and recognising Linear sequences and simple quadratic sequences Plotting and graphing linear functions Finding gradients of linear functions Key aspects of basic number manipulation – prime decomposition, HCF, LCM expansion Continue from KS3 overview Contents	Key terminology Linear equations Solve Linear sequence Nth Term Quadratic sequence Linear functions Gradients Intercepts Significant figures Recurring decimal Percentage change Reverse percentage Common factor Expansion		
Ongoing Assessment	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. 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. 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: • Review their notes, • Use / Review materials from SharePoint • Boost, Target and Independent learning tasks from SparxMaths.			



Key Assessment	At the end of the Autumn 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 border="1"> <tr> <td data-bbox="456 464 696 719">Algebra</td><td data-bbox="696 464 1951 719"> Solve linear equations with unknowns on both sides. Form and solve linear equations in context Linear sequences and simple quadratic sequences Plot and graph linear functions Recognise equations in the form $y=mx+c$ Find gradients and intercepts Investigate parallel lines </td></tr> <tr> <td data-bbox="456 719 696 1007">Numbers</td><td data-bbox="696 719 1951 1007"> Rounding and significant figures Justify estimates and approximations Recurring decimals – convert to fractions using algebraic methods Percentage change and reverse percentages Index notation with positive and negative integers Standard form use Prime factorisation Finding LCM and HCF </td></tr> <tr> <td data-bbox="456 1007 696 1118">Algebra</td><td data-bbox="696 1007 1951 1118"> Common factors in algebraic expressions Expansion of double brackets, $a=1$ Square linear expressions </td></tr> </table>	Algebra	Solve linear equations with unknowns on both sides. Form and solve linear equations in context Linear sequences and simple quadratic sequences Plot and graph linear functions Recognise equations in the form $y=mx+c$ Find gradients and intercepts Investigate parallel lines	Numbers	Rounding and significant figures Justify estimates and approximations Recurring decimals – convert to fractions using algebraic methods Percentage change and reverse percentages Index notation with positive and negative integers Standard form use Prime factorisation Finding LCM and HCF	Algebra	Common factors in algebraic expressions Expansion of double brackets, $a=1$ Square linear expressions
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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.						
Diversity and Inclusion	Year 8 students are introduced to female mathematicians via their assessments and can learn about their achievements.						



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'.