

Learning Programme – Mathematics – 4th Year – Set 1

Topic/ Content	Objectives/Skills (topic grade in brackets)	Homework	Assessment	Success Criteria (GCSE grades)	Stretch & Challenge (Thirst for Learning)
	Michaelmas First Half Term				
Similarity & trigonometry	Similarity & trigonometry Understanding properties of similar shapes. Using similar triangles to calculate lengths of unknown sides (6). Calculating unknown sides and angles of right-angled triangles using sine, cosine and tangent (6/7).	Two to three teacher marked pieces of homework will be set each half-term.	Half Term Test (week before October half-term)	Mainly determined from Half-Term test, however, class work & homework may also be used. GCSE Grade boundaries dependent on difficulty of test.	Students will be challenged using extension questions on the topics they are studying, designed to develop their ability to solve multi-staged problems.
Pythagoras & trigonometry in 3 dimensions	Use Pythagoras and Trigonometry to solve problems in three dimensions (7/8).				
Ratio and the unitary method	Simplifying ratios and converting between ratios, fractions and percentages (3). Sharing quantities in a given ratio (4). Solving problems using the unitary method, including value for money comparisons (4).				
Direct and inverse proportion	Identify direct and indirect proportion. Perform calculations involving direct and inverse proportionality (7). Recognise and interpret proportionality graphs (7).				
Fractions, decimals, percentages	Converting fractions, decimals, percentages (3). Ordering fractions, decimals, percentages (4). Converting recurring decimals to fractions (7).				
Accuracy	Finding the lower and upper bound of rounded numbers (5). Calculating using the lower and upper bound (7). Calculate absolute and percentage error.				