Learning Programme – Mathematics – 4th Year – Set 2

Topic/ Content	Objectives/Skills (topic grade in brackets)	Homework	Assessment	Success Criteria (GCSE grades)	Stretch & Challenge (Thirst for Learning)
	Michaelmas First Half Term				
Using a calculator and approximations	Using BODMAS for order of operations (3). Using a calculator for complex calculations. Rounding to decimal places (3) and significant figures (3), and estimating calculations (4). Use inequality notation to specify simple error intervals due to truncation or rounding. Estimating square roots (5).	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 Theorem	Use Pythagoras Theorem to find the lengths of unknown sides in right-angled triangles (4).				
Similarity and enlargement	Understanding properties of similar shapes. Using similar triangles to calculate lengths of unknown sides (5).				
Trigonometry	Calculating unknown sides and angles of right-angled triangles using sine, cosine and tangent.				
Algebraic Expressions	Being able to use algebraic notation. Distinguish the meaning of 'expression', 'identify', 'equation' and formula. Simplifying algebraic expressions (3), expanding single (3) & double brackets (4) and factorising into a single bracket (4). Algebraic substitution (3/4).				
Expand Triple Brackets	Be able to expand triple brackets (7).				
Solving linear equations	Solving equations with unknowns on one side, unknowns on both sides (3) and brackets (4). Forming, then solving linear equations (4).				
Equations With Fractions	Solving equations with fractions (5).				