



SHFGS Assessment Criteria: Y9 Mathematics

Level Descriptor Strands	Below Expected Standard	Working towards expected Standard Students will be expected to apply their knowledge and skills from all areas to answer 2 or 3 step problems.	SHFGS Expected Standard Students will be expected to find an efficient route to solve a problem, and be able to show a clear and thorough method, algebraically where appropriate.	Above SHFGS Expected Standard Students will be expected to understand alternative approaches and be able to make reasoned judgements about the appropriate method to use in different contexts.	Outstanding: Well above expected standard Students will need to be able to efficiently solve complex problems which draw on multiple areas of the syllabus. Students will be expected to show competence in generalising and creating proofs.
Number & Algebra	<ul style="list-style-type: none"> Construct and solve simple linear equations. Use simple graphs in context. Estimate and Round effectively. Develop efficient methods with fractions and decimals. Understand use different properties of number. 	<ul style="list-style-type: none"> Expand simple bracketed expressions. Developing knowledge of sequences. Use $y=mx+c$ effectively Use efficient methods with fractions and decimals Develop the use of appropriate properties of numbers. 	<ul style="list-style-type: none"> Secure techniques of factorisation. Solving equations effectively. Secure knowledge of generalisation of linear sequences. Plot and effectively use linear graphs. Solve complex percentage problems Understand and use proportionality 	<ul style="list-style-type: none"> Extending techniques of quadratic factorisation. Solving equations with up to 2 unknowns. Deduce properties of more complex Sequences. Effectively use conventional notation. Use fractional powers and indices. 	<ul style="list-style-type: none"> Solve complex algebraic techniques to solve multi- step contextual problems. Plot and effectively use graphs of more complex functions Use powers in context. Use all of these skills effectively and extend in problem solving situations.
Geometry & Measures	<ul style="list-style-type: none"> Understand and use the language and notation associated with transformations. Identify and use angle and symmetry properties of simple shapes. Perform simple constructions. Effectively solve simple Area and Volume problems. 	<ul style="list-style-type: none"> Effectively use all mathematical geometrical equipment. Developing Skills in the full range of 2- dimensions. Perform constructions in context. 	<ul style="list-style-type: none"> Solve problems using properties of angles. Explore and compare combinations of transformations. Work confidently in the full range of 2- dimensions, including Area. 	<ul style="list-style-type: none"> Distinguish between practical demonstration and proof in a geometrical context. Solve multistep problems, using properties of angles. Work confidently in 3- dimensions, including Volume. 	<ul style="list-style-type: none"> Show step- by-step deductions in solving more complex geometrical problems. Solve problems involving more complex Surface Areas and Volumes.

Statistics & Probability	<ul style="list-style-type: none"> • Calculate Statistics, including from frequency tables, for sets of discrete data. • Construct and Interpret more complex graphical representations. Effectively compare two distributions. Effective use of the probability scale. 	<ul style="list-style-type: none"> • Calculate Statistics for sets of discrete and continuous data. • Compare in more detail two distributions. Construct and Interpret more developed complex graphical representations. • Develop probability to include mutually exclusive outcomes. 	<ul style="list-style-type: none"> • Calculate, Interpret and refine summary statistics and charts from a suitably collected data set. • Compare experimental and theoretical probabilities in a range of contexts. • Use an appropriate range of statistical methods to explore and summarise data. 	<ul style="list-style-type: none"> • Examine critically the results of a statistical enquiry. • Develop, understand and effectively use the concept of independence. • Select, construct and modify, suitable graphical representations to progress an enquiry. 	<ul style="list-style-type: none"> • Consider possible difficulties with planned approaches and adjust project plan accordingly. • Use an appropriate range of statistical methods to explore and summarise data. • Compare distributions appropriately •