



SHFGS Assessment Criteria: Y8 Mathematics

Level Descriptor Strands	B: Working below expected standard	W: Working towards expected standard	E: Expected standard Students will be expected to apply their knowledge and skills from all areas to answer 2 or 3 step problems.	A: Above 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.	O: Outstanding, well above 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.
Number & Algebra	<ul style="list-style-type: none"> Use letter symbols to represent unknown numbers or variables. Develop efficient methods with fractions and decimals. Confident use of four rules of number in the context of integers and fractions. Understand the relationship between number and 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"> Use all of these skills effectively and extend in problem solving situations.
Geometry & Measures	<ul style="list-style-type: none"> Use mathematical geometrical equipment. Use facts of Lines and Angles to solve simple geometric problems. Know and use simple area formulae. Use correct vocabulary, notation and labelling conventions for lines, angles and shapes. 	<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. Derive and use formulae and effectively solve 	<ul style="list-style-type: none"> Effectively use all mathematical geometrical equipment. Extending 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. 	<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.

		simple Area and Volume problems.			
Statistics & Probability	<ul style="list-style-type: none"> Calculate statistics for small sets of Discrete Data. Construct and Interpret Simple Graphs and diagrams. Comparisons of experimental and Theoretical probabilities in a simple context. 	<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 distribution 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.