



SHFGS Assessment Criteria: Y9 SCIENCE

Level Descriptor	<u>Below</u> <u>(B)</u>	<u>Working towards</u> <u>Expected</u> <u>(W)</u>	<u>Expected</u> <u>(E)</u>	<u>Above expected</u> <u>(A)</u>	<u>Outstanding</u> <u>(O)</u>
Strands					
Strand 1 Scientific knowledge and understanding	<p>Answers show knowledge of basic information and simple understanding.</p> <p>Answers are poorly organised, with almost no specialist terms and their use, demonstrating a general lack of understanding of their meaning.</p> <p>There is little or no detail in answers and spelling, punctuation and grammar are weak.</p>	<p>Answers show some knowledge of and clear understanding.</p> <p>The answer has some structure and organisation, use of specialist terms has been attempted but not always accurately.</p> <p>There is some accuracy in spelling, punctuation and grammar, although there may be a number of errors.</p>	<p>Answers show a good knowledge and clear understanding.</p> <p>The answer has some structure and organisation, use of specialist terms has been attempted but not always accurately and some detail is given.</p> <p>There is reasonable accuracy in spelling, punctuation and grammar, although there may be some errors.</p>	<p>Answers show a high level of knowledge, which is appropriately contextualised.</p> <p>There is detailed understanding, supported by relevant evidence and examples.</p> <p>Answers are coherent and in an organised, logical sequence, containing a range of appropriate or relevant specialist terms, usually used accurately.</p> <p>Answers show almost faultless spelling, punctuation and grammar.</p>	<p>Answers show an extremely high level of knowledge, which is appropriately contextualised.</p> <p>There is highly detailed understanding, supported by relevant evidence and examples.</p> <p>Answers are coherent and in an organised, logical sequence, containing a wide range of appropriate or relevant specialist terms used accurately.</p> <p>Answers show faultless spelling, punctuation and grammar.</p>
Strand 2 Using investigative approaches	<p>Decides when it is appropriate to carry out fair tests in investigations, to test a given hypothesis.</p> <p>Is able to select appropriate equipment to test specific questions under investigation and can make measurements.</p> <p>Can identify some risks to themselves and others.</p>	<p>Is able to identify the significant variables in an investigation, and can explain the hypothesis partially using scientific knowledge and understanding.</p> <p>Can explain why specific pieces of apparatus are appropriate for the questions under investigation and is able to collect a reliable set of data, with repeats.</p> <p>Make and act on suggestions to control obvious risks.</p>	<p>Is able to identify the independent and dependent variables in an investigation, and can explain the hypothesis using scientific knowledge and understanding.</p> <p>Is able to justify their choices of data collection and proposed number of observations and measurements. Uses suitable ranges, numbers or values for measurements and observations.</p> <p>Is able to recognise a range of familiar risks and take action to control them.</p>	<p>Is able to formulate a hypothesis, which is explained using scientific knowledge and understanding.</p> <p>Is able to identify the key variables in an investigation and can plan a suitable method to obtain reliable data, taking into account sources of error.</p> <p>Is able to make a risk assessment and act upon appropriate sources of information.</p>	<p>Is able to formulate a hypothesis, which is fully explained using scientific knowledge and understanding.</p> <p>Is able to choose appropriate methods of data collection, independently, that minimise error and produce precise and reliable results.</p> <p>Makes a thorough risk assessment by consulting appropriate resources.</p>
Strand 3 Working critically with evidence	<p>Is able to identify patterns in data presented in various formats, including line graphs.</p> <p>Is able to spot anomalous results.</p> <p>Is able to draw straightforward conclusions from data presented in various formats.</p> <p>Is able to suggest improvements to the method, giving reasons.</p>	<p>Is able to interpret data in a variety of formats, recognising obvious inconsistencies.</p> <p>Is able to offer explanations for anomalous results.</p> <p>Is able to draw conclusions which are based on more than one piece of supporting evidence.</p> <p>Can evaluate the effectiveness of their working methods, making practical suggestions for improving them.</p>	<p>Is able to suggest reasons, based on scientific knowledge and understanding, for any inconsistencies in the data collected.</p> <p>Is able to manipulate data and information in order to make conclusions that are consistent with the evidence collected. Can explain the conclusions using scientific understanding and knowledge.</p> <p>Is able to make valid comments on the quality of the data collected.</p>	<p>Is able to explain how data can be interpreted in different ways and how unexpected outcomes could be significant.</p> <p>Is able to identify quantitative relationships between variables, using them to inform conclusions and make further predictions.</p> <p>Is able to assess the strength of evidence, deciding if it is sufficient to support a conclusion.</p> <p>Can explain ways of modifying the method to improve reliability.</p>	<p>Is able to propose scientific explanations for unexpected observations or measurements, making allowances for anomalies.</p> <p>Is able to process data, including using multi-step calculations, and is able to identify complex relationships between variables.</p> <p>Is able to critically interpret and evaluate conflicting evidence.</p> <p>Is able to suggest and justify improvements to experimental procedures using detailed scientific knowledge and understanding.</p>