



SHFGS Assessment Criteria: Y9 Physics

Level Descriptor	Below SHFGS Standard	Working towards SHFGS Standard	SHFGS Expected Standard	Above SHFGS Expected Standard	Outstanding SHFGS Expected Standard
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 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>	<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>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</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</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</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</p>

	Can identify some risks to themselves and others.	appropriate for the questions under investigation and is able to collect a reliable set of data, with repeats. Make and act on suggestions to control obvious risks.	and proposed number of observations and measurements. Uses suitable ranges, numbers or values for measurements and observations. Is able to recognise a range of familiar risks and take action to control them.	obtain reliable data, taking into account sources of error. Is able to make a risk assessment and act upon appropriate sources of information.	minimise error and produce precise and reliable results. Makes a thorough risk assessment by consulting appropriate resources.
Strand 3 Working critically with evidence	Is able to identify patterns in data presented in various formats, including line graphs. Is able to spot anomalous results. Is able to draw straightforward conclusions from data presented in various formats. Is able to suggest improvements to the method, giving reasons.	Is able to interpret data in a variety of formats, recognising obvious inconsistencies. Is able to offer explanations for anomalous results. Is able to draw conclusions which are based on more than one piece of supporting evidence. Can evaluate the effectiveness of their working methods, making practical suggestions for improving them.	Is able to suggest reasons, based on scientific knowledge and understanding, for any inconsistencies in the data collected. 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. Is able to make valid comments on the quality of the data collected.	Is able to explain how data can be interpreted in different ways and how unexpected outcomes could be significant. Is able to identify quantitative relationships between variables, using them to inform conclusions and make further predictions. Is able to assess the strength of evidence, deciding if it is sufficient to support a conclusion. Can explain ways of modifying the method to improve reliability.	Is able to propose scientific explanations for unexpected observations or measurements, making allowances for anomalies. Is able to process data, including using multi-step calculations, and is able to identify complex relationships between variables. Is able to critically interpret and evaluate conflicting evidence. Is able to suggest and justify improvements to experimental procedures using detailed scientific knowledge and understanding.