

Year 9 Science					
	Embarking	Emerging	Developing	Securing	Mastering
Knowledge and understanding	 Answers show knowledge of basic information and simple understanding. Answers are poorly organised, with almost no specialist terms and their use, demonstrating a general lack of understanding of their meaning. Some specialist terms are used in order to describe processes in science. 	 Answers show some knowledge of basic information and clear understanding. The answer has some structure and organisation, use of specialist terms has been attempted but not always accurately. Some specialist terms are used in order to describe and explain processes in science. 	 Answers show a good knowledge and clear understanding most of the time. The answer has some structure and organisation, use of specialist terms has been attempted but not always accurately and some detail is given. Scientific ideas, models and theories are used when applying knowledge to familiar situations with some support. 	 Answers show a good level of knowledge, which is appropriately contextualised. Answers are mainly structured and organised, use of specialist terms is generally correct and some detail is given. Scientific ideas, models and theories from different topics are linked when applying knowledge to familiar situations. 	 Answers show a high level of knowledge, which is appropriately contextualised. Answers are structured and organised, use of specialist terms is correct and detail is given. Scientific ideas, models and theories from different topics are linked when applying knowledge to unfamiliar situations with some support.
Working scientifically	 Can follow simple instructions in an investigation. Can understand risks in an investigation, when they are explained. Has some understanding about the importance of controlling variables to test a given hypothesis. Can record data in a simple format. Is sometimes able to identify patterns in data presented in a simple format. Is sometimes able to draw some simple conclusions from data collected. Is able to suggest some basic improvements to the method. 	 Can follow instructions to reduce the risk from hazards in an investigation. Able to identify some variables in an investigation. Can record data in appropriate formats with some support. Is able to identify patterns in data presented in various formats, including line graphs. Is sometimes able to draw some conclusions from data collected. Can describe some ways of modifying the method to improve it. 	 Can plan a simple experiment to investigate a hypothesis safely. Able to identify the variables in an investigation. Can record data in appropriate formats. Is able to interpret data in a variety of formats. Is able to draw conclusions which are based on data collected. Can describe ways of modifying the method to improve reliability and validity of the investigation. 	 Can plan an experiment to investigate a hypothesis in order to obtain valid results. Able to identify the variables in an investigation and begin to justify the control variables. Can record data clearly and accurately in appropriate formats. Is able to interpret data in a variety of formats, recognising some obvious anomalies. Is able to identify patterns in data presented in various formats, including line graphs. Can explain conclusions using scientific understanding and knowledge. Can explain some ways of modifying the method to improve reliability and validity of the investigation. 	 Can plan an experiment to investigate a hypothesis in order to obtain valid results and justify the techniques used and variables identified. Can record data clearly and accurately in appropriate formats and justify how the data is displayed. Is able to interpret data in a variety of formats, recognising anomalies. Is able to identify quantitative relationships between variables, using them to inform conclusions and make further predictions. Can explain in detail ways of modifying the method to improve reliability and validity of the investigation.