

Name:	Marked by:	Date:	/ 50
-------	------------	-------	------

Assessment Evidence Grid - Unit 3: Developing Scientific Skills

Stage 1	Stage 2	Stage 3	Mark
Skill: Planning and Following Instructions			
1A.1 carry out a risk assessment, given clear guidelines / 2	2A.1 carry out risk assessment, given some guidelines (Given an example row) / 2	3A.1 independently carry out a risk assessment (1mark if not complete) / 2	
1A.2 follow instructions, with guidance, in simple standard procedures, one step at a time. / 2	2A.2 follow instructions in standard procedures, with little guidance for the more complex tasks / 1	3A.2 independently follow instructions in standard procedures (complex task) / 1	
	2A.3 select and prepare appropriate laboratory equipment and use it correctly and safely. / 1	3A.3 select and prepare laboratory equipment of appropriate precision and use it correctly and safely. (complex task) / 1	
			/ 12

Skill: Obtaining Evidence By Experimenting			
1B.1 make simple observations and measurements / 2	2B.1 make careful and accurate measurements and observations (appropriate d.p. / descriptive detail) / 1	3B.1 make careful and accurate measurements and observations consistently / 1	
1B.2 record them in tables and in charts or graphs with guidance. / 2	2B.2 recognise with some guidance when it is necessary to repeat measurements and observations (or reason why not) / 1	3B.2 independently repeat measurements and observations, when necessary / 2	
	2B.3 record results accurately in tables (units) and graphs where appropriate and using lines of best fit where appropriate. / 2	3B.3 independently record and present data in an appropriate form. (hand drawn graph) / 1	
			/ 12

Skill: Analysing and Considering Evidence			
1C.1 carry out simple calculations with guidance / 2	2C.1 (correctly) identify and explain patterns within data / 1	3C.1 identify (numerical) relationships where appropriate / 1	
1C.2 offer simple explanations for their findings. / 2	2C.2 carry out simple calculations (averages, percentages and substitution into equations) / 2	3C.2 manipulate data using a variety of sophisticated techniques (rearranging equations [method shown] and calculations of reacting quantities and percentage yields.) / 2	
	2C.3 draw conclusions which are consistent with the evidence. / 1	3C.3 draw and present well-structured and accurate conclusions from the data which illustrate an indepth understanding. / 1	
			/ 12

Skill: Evaluating Evidence			
1D.1 give a simple evaluation of their practical activity. / 2	2D.1 give an evaluation of their practical activity (how could the results be better) / 1	3D.1 review their practical activity by presenting a wellstructured, logical evaluation of its strengths and weaknesses / 1	
	2D.2 suggest an improvement to their method that would allow the collection of more reliable data. (ignore 'repeat it' or 'work more carefully' without qualification) (no justification or explanation for the improvement = max mark 3) / 1	3D.2 describe improvements to their method that would allow the collection of more reliable evidence. (justification) / 2	
			/ 7

Skill: Vocational Application			
1E.1 give a use for this practical activity in a workplace that uses science. (example and link) / 2	2E.1 describe how the practical activity is used in a workplace that uses science. / 2	3E.1 explain why the practical activity is useful in a workplace that uses science (how are results used and benefits of results) / 2	
		3E.2 give examples of the types of organisation that use this type of activity. / 1	
			/ 7

Marks should be awarded hierarchically; for example, all Stage 1 marks must be achieved before any Stage 2 marks can be awarded, and all Stage 2 marks must be achieved before Stage 3 marks can be awarded.

However, if a candidate has missed up to a maximum of two criteria at Stage 1 or Stage 2 this may be compensated by work completed at the stage above. In such cases the maximum mark that may be awarded is the maximum mark allowable at the lower stage.