

	0 Absent	<b>Emerging (1)</b>	<b>Developing (2)</b>	<b>Secure (3)</b>	<b>Excelling (4)</b>
<b>K S 3 S c i e n c e G r a d i n g s</b>	<b>Kn ow led ge &amp; Un der sta ndi ng</b>	Recall scientific key words, but not necessarily their meaning or be able to link them together.  Match labels to diagrams.  Identify, state and recognise scientific language.	Recall some basic facts for the unit.  Simply describe with some correct use of scientific language.  Some basic explanations of observations using everyday language.	Recall the majority of facts for the unit.  Describe using scientific language and apply knowledge.  Give simple scientific explanations for observations using correct scientific language.  Apply scientific knowledge to familiar situations.	Recall all relevant information for that unit.  Demonstrate detailed, depth of scientific knowledge using scientific vocabulary correctly.  Explain in detail using detailed scientific knowledge.  Apply knowledge and skills to similar but new contexts.
	<b>Scie ntifi c For mul ae</b>	Complete a calculation	Substitute values into a given formula and calculate the correct answer.	Recall the correct formula to use to find an unknown value.  Substitute values from text into a given formula. With support, convert units.	Convert units, substitute numbers into formula. Rearrange simple formula.  With support, complete multistep formula.

<b>W o r k i n g S c i e n t i f i c a l l y</b>	<b>Pl a n n i n g</b>	Identify variables and basic hazards in practical's.  Verbally describe the method.	With support identify independent, dependent and control variables.  Identify hazards with some ideas to control hazards.  State a prediction.  Describe what needs to be measured and name correct equipment.	Identify independent, dependent and control variables correctly.  Suggest how to control hazards.  Write a prediction with some scientific justification  Write a suitable method, using the correct equipment and measurements.	Handle all variables in an investigation and describe how variables will be controlled.  Assess the risks and control hazards.  Independently write a prediction with scientific justification or write a hypothesis based on previous observations or scientific knowledge.  Write a detailed method that others could follow.
	<b>Col l e c t i n g</b>	Follow step by step method with support at each step.  Record simple observations.	Follow a method with support .  Complete a given table of results with repeats or create my own two column table.	Follow a method with limited support.  Create a correct table, with repeats.	Independently follow a method to get data with repeats.  Independently draw a table with repeats, identify, record and repeat any outliers.
	<b>An a l y s i s</b>	Plot results on given axis and/or scale. Read values off a graph.  Use everyday language to describe what you have found out.	With support, draw a scale, plot points of straight forward data and draw a line of best fit.  Describe patterns in data with simple explanations.	With minimal support, draw a graph of results with an appropriate scale, include a line of best fit.  Describe the general pattern and give a valid conclusion. Explain the conclusion using scientific keywords	Independently draw an accurate graph with a suitable scale. Include a correct line of best fit.  Describe and explain the pattern of results with scientific detail.
	<b>E v a l u a t i n g</b>	Identify basic patterns in data.  Give a general comment about what could be improved in the experiment to get better results.	Identify and describe patterns in data.  Identify anomalous results and suggest reasons for it. Describe basic ways to improve the practical to get valid data.	Explain patterns in data using scientific knowledge.  Identify any anomalous results. Explain why these may have occurred and why repeated results may be different.	Be able to describe potential sources of random and/or systematic error.  Evaluate methods and suggest improvements, including precision and accuracy. Link results to scientific knowledge.

## **Further Marking Guidance**

### **Marking graphs**

Excelling – perfect graph, no errors, completed independently

Secure – one error (could be – plotting, scale, line of best fit, axis not labelled/missing units)

Developing – more than one error from list above.

Emerging – incorrect graph.

Student cannot get more than developing if axis template used to plot points.