| Practical Assessment: | Data Collection and Processing |
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Title: «Expttitle»

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| Name: «Name1» «Name2» | HL SL «Group» |
| Student IB #:«Date» | Date:«LEVEL» |
| Teacher: | Level Awarded: |

| | ASPECTS | | |
|---|---|---|---|
| **LEVELS** | **1. Recording raw data** | **2. Processing raw data** | **3. Presenting processed data** |
| **Complete (all of the statements apply)**<br><br>**2** | ***Records appropriate raw data, including units and uncertainties where relevant.***<br><br>a. Headings are explicit and the correct units for raw data are included in the table headings.<br><br>b. Appropriate, estimated uncertainties for raw data are included in table headings. (The rational for these uncertainties should be explained).<br><br>c. Uncertainties are given to one sig fig only and the data is consistent (same number of dp's) with this uncertainty.<br><br>d. There is no variation in the precision of the raw data, i.e. the same number of decimal places is used for all data in a given column. | ***Processes the quantitative raw data correctly.***<br><br>a. Processes raw data, if necessary, into a form suitable for graphical representation.<br><br>b. An example of the calculation steps involved in the processing is given.<br><br>c. Plots an **appropriate** 'best-fit' line graph, with trend line drawn.<br><br>d. Rational is given for choice of axes, where appropriate.<br><br>e. Relevant data (such as gradient and intercept) is obtained from the graph and explicitly stated.<br><br>f. A final numerical answer is calculated, if required. | ***Presents processed data appropriately and, where relevant, includes errors and uncertainties.***<br><br>a. Processed data tables are clear and neatly presented, with correct headings and units.<br><br>b. A reasonable method is used to propagate uncertainties.<br><br>c. The precision of processed data is consistent with that of the raw data. (i.e. no more precise).<br><br>d. Graph axes are labelled and include the correct units<br><br>e. The size and layout of the graph is appropriate.<br><br>f. Points are plotted accurately.<br><br>g. Error bars are included for at least one variable.<br><br>h. Uncertainties in the gradient are calculated by an appropriate method. (i.e. max/min gradients or using graphing software). |
| **Partial (some of the above is done)**<br><br>**1** | ***Records appropriate quantitative raw data, but with some mistakes or omissions.***<br><br>**Or** student is told how to record the raw data or a table is provided. | ***Processes quantitative raw data, but with some mistakes and/or omissions.***<br><br>**Or** student is told how to process the raw data or told what graph to plot. | ***Presents processed data appropriately, but with some mistakes and/or omissions.***<br><br>There are **significant** omissions or mistakes in the presentation of processed data. |
| **Not at all (none of the above is done)**<br><br>**0** | ***Does not record any appropriate quantitative raw data*** *or* ***raw data is incomprehensible.***<br><br>**Or** data table is copied | ***No processing of quantitative raw data is carried out*** *or* ***major mistakes are made in processing.*** | ***Presents processed data inappropriately*** *or* ***incomprehensibly.*** |

Comments: