**Analysis**

This criterion assesses the extent to which the student’s report provides evidence that the student has

selected, recorded, processed and interpreted the data in ways that are relevant to the research question and can support a conclusion.

|  |  |
| --- | --- |
| Mark Descriptor |  |
| 0 | The student’s report does not reach a standard described by the descriptors below. |
| 1-2 | The report includes insufficient relevant raw data to support a valid conclusion to the research question.  Some basic data processing is carried out but is either too inaccurate or too insufficient to lead to a valid conclusion.  The report shows evidence of little consideration of the impact of measurement uncertainty on the analysis.  The processed data is incorrectly or insufficiently interpreted so that the conclusion is invalid or very incomplete. |
| 3-4 | The report includes relevant but incomplete quantitative and qualitative raw data that could support a simple or partially valid conclusion to the research question.  Appropriate and sufficient data processing is carried out that could lead to a broadly valid conclusion but there are significant inaccuracies and inconsistencies in the processing.  The report shows evidence of some consideration of the impact of measurement uncertainty on the analysis.  The processed data is interpreted so that a broadly valid but incomplete or limited conclusion to the research question can be deduced. |
| 5-6 | The report includes sufficient relevant quantitative and qualitative raw data that could support a detailed and valid conclusion to the research question.  Appropriate and sufficient data processing is carried out with the accuracy required to enable a conclusion to the research question to be drawn that is fully consistent with the experimental data.  The report shows evidence of full and appropriate consideration of the impact of  measurement uncertainty on the analysis.  The processed data is correctly interpreted so that a completely valid and detailed conclusion to the research question can be deduced. |

**Evaluation**

This criterion assesses the extent to which the student’s report provides evidence of evaluation of the

investigation and the results with regard to the research question and the accepted scientific context.

|  |  |
| --- | --- |
| Mark Descriptor |  |
| 0 | The student’s report does not reach a standard described by the descriptors below. |
| 1-2 | A conclusion is outlined which is not relevant to the research question or is not supported by the data presented.  The conclusion makes superficial comparison to the accepted scientific context.  Strengths and weaknesses of the investigation, such as limitations of the data and sources of error, are outlined but are restricted to an account of the practical or procedural issues faced.  The student has outlined very few realistic and relevant suggestions for the improvement and extension of the investigation. |
| 3-4 | A conclusion is described which is relevant to the research question and supported by the data presented.  A conclusion is described which makes some relevant comparison to the accepted scientific context.  Strengths and weaknesses of the investigation, such as limitations of the data and sources of error, are described and provide evidence of some awareness of the methodological issues\* involved in establishing the conclusion.  The student has described some realistic and relevant suggestions for the improvement and extension of the investigation. |
| 5-6 | A detailed conclusion is described and justified which is entirely relevant to the research question and fully supported by the data presented.  A conclusion is correctly described and justified through relevant comparison to the accepted scientific context.  Strengths and weaknesses of the investigation, such as limitations of the data and sources of error, are discussed and provide evidence of a clear understanding of the methodological issues\* involved in establishing the conclusion.  The student has discussed realistic and relevant suggestions for the improvement and extension of the investigation. |

**Communication**

This criterion assesses whether the investigation is presented and reported in a way that supports effective communication of the focus, process and outcomes.

|  |  |
| --- | --- |
| Mark Descriptor |  |
| 0 | The student’s report does not reach a standard described by the descriptors below. |
| 1-2 | The presentation of the investigation is unclear, making it difficult to understand the focus, process and outcomes.  The report is not well structured and is unclear: the necessary information on focus, process and outcomes is missing or is presented in an incoherent or disorganized way.  The understanding of the focus, process and outcomes of the investigation is obscured by the presence of inappropriate or irrelevant information.  There are many errors in the use of subject specific terminology and conventions\*. |
| 3-4 | The presentation of the investigation is clear. Any errors do not hamper understanding of the focus, process and outcomes.  The report is well structured and clear: the necessary information on focus, process and outcomes is present and presented in a coherent way.  The report is relevant and concise thereby facilitating a ready understanding of the focus, process and outcomes of the investigation.  The use of subject specific terminology and conventions is appropriate and correct. Any errors do not hamper understanding. |

**Contribution** – each member of the group will complete (independently) an analysis of the relative contribution of each group member. Members are all expected to contribute equally to the final product. Those who do less than their share will receive less credit accordingly.