**Exploration**

1-2

**EXP -** The topic of the investigation is identified and a research question of some relevance is

**stated but it is not focused**.

**EXP -** The background information provided for the investigation is **superficial** or of limited relevance and does not aid the understanding of the context of the investigation.

**EXP -** The methodology of the investigation is only appropriate to address the research question to a very limited extent since it takes into consideration few of the significant factors that may influence the relevance, reliability and sufficiency of the collected data.

**EXP -** The report shows evidence of limited awareness of the significant safety, ethical or environmental issues that are **relevant to the methodology of the investigation**\*.

3-4

**EXP -** The topic of the investigation is identified and a relevant but not fully focused research question is described.

**EXP -** The background information provided for the investigation is mainly appropriate and relevant and aids the understanding of the context of the investigation.

**EXP -** The methodology of the investigation is mainly appropriate to address the research question but has limitations since it takes into consideration only some of the significant factors that may influence the relevance, reliability and sufficiency of the collected data.

**EXP -** The report shows evidence of some awareness of the significant safety**,** ethical or environmental issues that are **relevant to the methodology of the investigation.\***

**5-6**

**EXP -** The topic of the investigation is identified and a relevant and fully focused research question is clearly described.

**EXP -** The background information provided for the investigation is entirely appropriate and relevant and enhances the understanding of the context of the investigation.

**EXP -** The methodology of the investigation is highly appropriate to address the research question because it takes into consideration all, or nearly all, of the significant factors that may influence the relevance, reliability and sufficiency of the collected data.

**EXP -** The report shows evidence of full awareness of the significant safety, ethical or environmental issues that are **relevant to the methodology of the investigation**.\*

**Analysis**

1-2

**ANA -** The report includes **insufficient relevant** raw data to support a valid conclusion to the research question.

**ANA -** Some **basic** data processing is carried out but is either too **inaccurate or too insufficient to lead to a valid** conclusion.

**ANA -** The report shows evidence of little consideration of the impact of measurement uncertainty on the analysis.

**ANA -** The processed data is incorrectly or insufficiently interpreted so that the conclusion is invalid or very incomplete.

3-4

**ANA -** The report includes relevant but incomplete quantitative and qualitative raw data that could support a simple or partially valid conclusion to the research question.

**ANA -** 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.

**ANA -** The report shows evidence of some consideration of the impact of measurement uncertainty on the analysis.

**ANA -** The processed data is interpreted so that a broadly valid but incomplete or limited conclusion to the research question can be deduced.

5-6

**ANA -** The report includes sufficient relevant quantitative and qualitative raw data that could support a detailed and valid conclusion to the research question.

**ANA -** 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.

**ANA -** The report shows evidence of full and appropriate consideration of the impact of measurement uncertainty on the analysis.

**ANA -** The processed data is correctly interpreted so that a completely valid and detailed conclusion to the research question can be deduced.

**Evaluation**

1-2

**EVAL -** A conclusion is **outlined** which is not relevant to the research question or is not supported by the data presented.

**EVAL -** The conclusion makes superficial comparison to the accepted scientific context.

**EVAL -** 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.

**EVAL -** The student has **outlined** very few realistic and relevant suggestions for the improvement and extension of the investigation.

3-4

**EVAL -** A conclusion is **described** which is relevant to the research question and supported by the data presented.

**EVAL -** A conclusion is described which makes some relevant comparison to the accepted scientific context.

**EVAL -** 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.

**EVAL -** The student has **described** some realistic and relevant suggestions for the improvement and extension of the investigation.

5-6

**EVAL -** A detailed conclusion is **described and justified** which is entirely relevant to the research question and fully supported by the data presented.

**EVAL -** A conclusion is correctly **described and justified** through relevant comparison to the accepted scientific context.

**EVAL -** 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.

**EVAL -** The student has **discussed** realistic and relevant suggestions for the improvement and

extension of the investigation.