

Identifying the context (CXT) (6)

This criterion assesses the extent to which the student establishes and explores an environmental issue (either local or global) for an investigation and develops this to state a relevant and focused research question.

Achievement level	Descriptor
0	The student's report does not reach a standard described by any of the descriptors given below.
1–2	The student's report: <ul style="list-style-type: none"> • states a research question, but there is a lack of focus • outlines an environmental issue (either local or global) that is linked to the research question • lists connections between the environmental issue (either local or global) and the research question but there are significant omissions.
3–4	The student's report: <ul style="list-style-type: none"> • states a relevant research question • outlines an environmental issue (either local or global) that provides the context to the research question • describes connections between the environmental issue (either local or global) and the research question, but there are omissions.
5–6	The student's report: <ul style="list-style-type: none"> • states a relevant, coherent and focused research question • discusses a relevant environmental issue (either local or global) that provides the context for the research question • explains the connections between the environmental issue (either local or global) and the research question.

Discussion and evaluation (DEV) (6)

This criterion assesses the extent to which the student discusses the conclusion in the context of the environmental issue, and carries out an evaluation of the investigation.

Achievement level	Descriptor
0	The student's report does not reach a standard described by any of the descriptors given below.
1–2	The student's report: <ul style="list-style-type: none"> • describes how some aspects of the conclusion are related to the environmental issue • identifies some strengths and weaknesses and limitations of the method • suggests superficial modifications and/or further areas of research.
3–4	The student's report: <ul style="list-style-type: none"> • evaluates the conclusion in the context of the environmental issue but there are omissions • describes some strengths, weaknesses and limitations within the method used • suggests modifications and further areas of research.
5 – 6	The student's report: <ul style="list-style-type: none"> • evaluates the conclusion in the context of the environmental issue • discusses strengths, weaknesses and limitations within the method used • suggests modifications addressing one or more significant weaknesses with large effect and further areas of research.

Planning (PLA) (6)

This criterion assesses the extent to which the student has developed appropriate methods to gather data that is relevant to the research question. This data could be primary or secondary, qualitative or quantitative, and may utilize techniques associated with both experimental or social science methods of inquiry. There is an assessment of safety, environmental and ethical considerations where applicable.

Achievement level	Descriptor
0	The student's report does not reach a standard described by any of the descriptors given below.
1–2	The student's report: <ul style="list-style-type: none"> • designs a method that is inappropriate because it will not allow for the collection of relevant data • outlines the choice of sampling strategy but with some errors and omissions • lists some risks and ethical considerations where applicable.
3–4	The student's report: <ul style="list-style-type: none"> • designs a repeatable* method appropriate to the research question but the method does not allow for the collection of sufficient relevant data • describes the choice of sampling strategy • outlines the risk assessment and ethical considerations where applicable.
5–6	The student's report: <ul style="list-style-type: none"> • designs a repeatable* method appropriate to the research question that allows for the collection of sufficient relevant data • justifies the choice of sampling strategy used • describes the risk assessment and ethical considerations where applicable.

*Repeatable, in this context, means that sufficient detail is provided for the reader to be able to replicate the data collection for another environment or society. It does **not** necessarily mean repeatable in the sense of replicating it under laboratory conditions to obtain a number of runs or repeats in which all the control variables are exactly the same.

Applications (APP) (3)

This criterion assesses the extent to which the student identifies and evaluates one way to apply the outcomes of the investigation in relation to the broader environmental issue that was identified at the start of the project.

Achievement level	Descriptor
0	The student's report does not reach a standard described by any of the descriptors given below.
1	The student's report: <ul style="list-style-type: none"> • states one potential application and/or solution to the environmental issue that has been discussed in the context • describes some strengths, weaknesses and limitations of this solution.
2	The student's report: <ul style="list-style-type: none"> • describes one potential application and/or solution to the environmental issue that has been discussed in the context, based on the findings of the study, but the justification is weak or missing • evaluates some relevant strengths, weaknesses and limitations of this solution.
3	The student's report: <ul style="list-style-type: none"> • justifies one potential application and/or solution to the environmental issue that has been discussed in the context, based on the findings of the study • evaluates relevant strengths, weaknesses and limitations of this solution.

Results, analysis and conclusion (RAC) (6)

This criterion assesses the extent to which the student has collected, recorded, processed and interpreted the data in ways that are relevant to the research question. The patterns in the data are correctly interpreted to reach a valid conclusion

Achievement level	Descriptor
0	The student's report does not reach a standard described by any of the descriptors given below.
1–2	The student's report: <ul style="list-style-type: none"> • constructs some diagrams, charts or graphs of quantitative and/or qualitative data, but there are significant errors or omissions • analyses some of the data but there are significant errors and/or omissions • states a conclusion that is not supported by the data.
3–4	The student's report: <ul style="list-style-type: none"> • constructs diagrams, charts or graphs of quantitative and/or qualitative data which are appropriate but there are some omissions. • analyses the data correctly but the analysis is incomplete • interprets some trends, patterns or relationships in the data so that a conclusion with some validity is deduced.
5–6	The student's report: <ul style="list-style-type: none"> • constructs diagrams, charts or graphs of all relevant quantitative and/or qualitative data appropriately • analyses the data correctly and completely so that all relevant patterns are displayed • interprets trends, patterns or relationships in the data, so that a valid conclusion to the research question is deduced.

Communication (COM) (3)

This criterion assesses whether the report has been presented in a way that supports effective communication in terms of structure, coherence and clarity. The focus, process and outcomes of the report are all well presented.

Achievement level	Descriptor
0	The student's report does not reach a standard described by any of the descriptors given below.
1	<ul style="list-style-type: none"> • The investigation has limited structure and organization. • The report makes limited use of appropriate terminology and it is not concise. • The presentation of the report limits the reader's understanding.
2	<ul style="list-style-type: none"> • The report has structure and organization but this is not sustained throughout the report. • The report either makes use of appropriate terminology or is concise. • The report is mainly logical and coherent, but is difficult to follow in parts.
3	<ul style="list-style-type: none"> • The report is well structured and well organized. • The report makes consistent use of appropriate terminology and is concise. • The report is logical and coherent.

Please note that while the report would be expected to be correctly referenced, students will not be penalized under this criterion for a lack of bibliography or other means of citation. It is likely that such an omission would be treated under the IB Diploma Programme academic honesty policy.

(Teacher's note: violation of the IB Diploma Programme academic honesty policy results in an automatic grade of 0 for the assignment, and is a failing condition for the IB diploma/certificate. We will review this policy together so that everyone understands what is expected and what the consequences may be.)