

Note to all examiners: The approach used in assessment in the application of assessment criteria is a “best fit” model. The examiner applying an assessment criterion must choose the achievement level that overall best matches the piece of work being marked. It is not necessary for every detailed aspect of an achievement level to be satisfied for that level to be awarded but it must reflect the balance of student achievement against the markband. For example, if student work matches two of the three requirements within a markband but one is seriously lacking, the student should be awarded for the strands that have been met well, but the mark awarded should be at the lower end of the markband to compensate for what is lacking in one strand. If the level of student work spans multiple markbands, compensation depends on the performance in the higher order skills. It is worth noting that the highest level of any given criterion does not represent perfection.

Question 1a – Criterion A

Using the data from Source B, **identify** the biggest cause of land degradation in Asia.

(1 mark)

Award (1 mark) for identifying overgrazing as the biggest cause of land degradation
A one-word response is acceptable.

Note: Where more than one answer is given, the answer is considered incorrect and should be awarded (0 marks).

Question 1b – Criterion A

Using the data from Source B, **identify** which region has the most total land degraded.

(1 mark)

Award (1 mark) for identifying Asia as the region with the most total land degraded.
A one-word response is acceptable.

Note: Where more than one answer is given, the answer is considered incorrect and should be awarded (0 marks).

Question 2 – Criterion A

Explain how **one** human activity causes land degradation.

(4 marks)

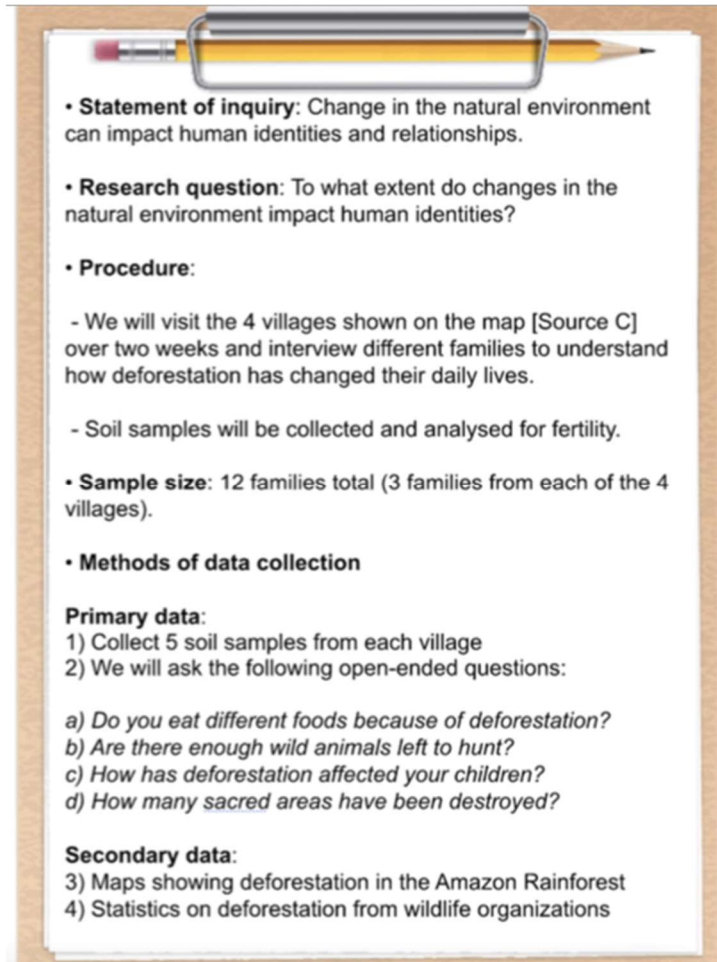
Marks	Descriptor	Notes
0	The student does not reach a standard described by any of the descriptors below.	
1	The student states how one human activity causes land degradation.	<p>The following is an example of a response that would be awarded (1 mark).</p> <p>Overgrazing leads to soil erosion.</p> <p><i>A (1 mark) response is likely to be one sentence that hints at a single cause. A one-word response is not acceptable.</i></p>
2	The student outlines how one human activity causes land degradation.	<p>The following is an example of a response that would be awarded (2 marks).</p> <p>Overgrazing removes the plant cover over the soil, leading to soil erosion.</p> <p><i>A (2 mark) response is likely to be a single sentence with two clauses or two/three short sentences; the detail provided will be brief.</i></p>
3	The student describes how one human activity causes land degradation.	<p>The following is an example of a response that would be awarded (3 marks).</p> <p>Overgrazing removes the plant cover over the soil leading to soil erosion. Without plants to keep the soil in place, water and wind can now wash away the top layer. This weakens the structure of the soil.</p> <p><i>One human activity should be considered in detail without any comprehensive reasons. An example may be used to support the description but is not a formal requirement.</i></p> <p><i>The quality and depth provided are more important than the length of the response.</i></p>

4	The student explains how one human activity causes land degradation.	<p>The following is an example of a response that would be awarded (4 marks).</p> <p>Overgrazing removes the plant cover over the soil as the animals eat them, leading to soil erosion. Without plants to keep the soil in place, the top layer of soil is exposed so water and wind can now wash away the top layer. With this soil erosion, the nutrients are removed, which weakens the structure and fertility of the soil.</p> <p><i>One human activity should be considered in detail, along with reason(s). An example may be given to support the explanation but is not a formal requirement.</i></p> <p><i>The quality and depth provided are more important than the length of the response.</i></p>
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Question 3 – Criterion B

Evaluate the action plan.

(8 marks)



• **Statement of inquiry:** Change in the natural environment can impact human identities and relationships.

• **Research question:** To what extent do changes in the natural environment impact human identities?

• **Procedure:**

- We will visit the 4 villages shown on the map [Source C] over two weeks and interview different families to understand how deforestation has changed their daily lives.
- Soil samples will be collected and analysed for fertility.

• **Sample size:** 12 families total (3 families from each of the 4 villages).

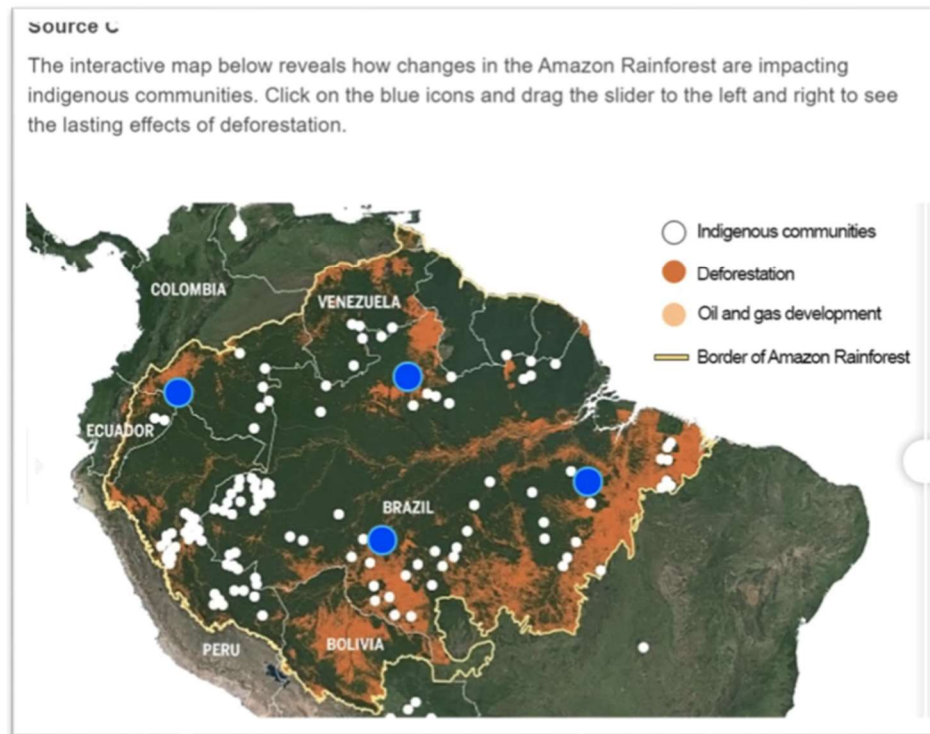
• **Methods of data collection**

Primary data:

- 1) Collect 5 soil samples from each village
- 2) We will ask the following open-ended questions:
 - a) Do you eat different foods because of deforestation?
 - b) Are there enough wild animals left to hunt?
 - c) How has deforestation affected your children?
 - d) How many sacred areas have been destroyed?

Secondary data:

- 3) Maps showing deforestation in the Amazon Rainforest
- 4) Statistics on deforestation from wildlife organizations



Note: Students do not need to discuss both strengths and limitations of every part of the action plan to access full marks.

Strengths

Marks	Descriptor	Notes
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0	The student does not reach a standard described by any of the descriptors below.	
1	The student states the strength(s) of the action plan.	<p>The following is an example of a response that would be awarded (1 mark).</p> <p>The sample size of families is large enough to gather useful data.</p> <p><i>Only one strength needs to be mentioned to warrant (1 mark).</i></p> <p><i>A (1 mark) response can be one sentence that refers to a single strength.</i></p>
2	The student outlines the strength(s) of the action plan.	<p>The following is an example of a response that would be awarded (2 marks).</p> <p>Interviewing 12 different families from 4 different communities will provide the students with a variety of data to analyze.</p> <p><i>Only one strength needs to be mentioned and elaborated on with brief detail to warrant (2 marks). However, if a student outlines three or more strengths, they can be awarded (3 marks).</i></p>
3	The student explains the strength(s) of the action plan.	<p>The following is an example of a response that would be awarded (3 marks).</p> <p>Interviewing 12 different families from 4 different communities will provide the students with a variety of data to analyze. Different families from different villages might have varying experiences, so interviewing 12 families from four areas, each with unique insights into the issue, will give more valuable primary data.</p> <p><i>Only one strength needs to be mentioned and elaborated on in additional detail with reasoning to warrant (3 marks).</i></p> <p><i>If a student outlines <u>three or more</u> strengths, they can be awarded (3 marks).</i></p>

Limitations

Note: A suggestion for improvement can be considered a limitation.

Marks	Descriptor	Notes
0	The student does not reach a standard described by any of the descriptors below.	
1	The student states the limitation(s) of the action plan.	<p>The following is an example of a response that would be awarded (1 mark).</p> <p>The action plan does not consider the possible language barrier between the students and indigenous communities.</p> <p><i>Only one limitation needs to be mentioned to warrant (1 mark).</i></p> <p><i>A (1 mark) response can be one sentence that refers to a single limitation.</i></p>
2	The student outlines the limitation(s) of the action plan	<p>The following is an example of a response that would be awarded (2 marks).</p> <p>The action plan does not consider the possible language barrier between the students and indigenous communities. The families might not speak Portuguese or English.</p> <p><i>Only one limitation needs to be mentioned and elaborated on with brief detail to warrant (2 marks). However, if a student outlines three or more limitations, they can be awarded (3 marks).</i></p>
3	The student explains the limitation(s) of the action plan	<p>The following is an example of a response that would be awarded (3 marks).</p> <p>The action plan does not consider the possible language barrier between the students and indigenous communities. The families might not speak Portuguese or English. This is a limitation, as the students would need to consider overcoming any communication difficulties, such as by using a translator. Impaired communication would impact the validity and reliability of the data.</p> <p><i>Only one limitation needs to be mentioned and elaborated on in additional detail with reasoning to warrant (3 marks).</i></p> <p><i>If a student outlines three or more limitations, they can be awarded (3 marks).</i></p>

Appraisal

Marks	Descriptor	Notes
0	The student does not reach a standard described by any of the descriptors below.	
1	An appraisal is stated .	<p>The following is an example of a response that would be awarded (1 mark).</p> <p>Overall, the strengths of the action plan will allow the investigation to be successful.</p> <p><i>For [1 mark], the appraisal statement is likely to be a summary of the strengths and limitations or a brief judgment on the action plan.</i></p> <p><i>The appraisal can appear anywhere in the response; it does not have to be a concluding statement.</i></p>
2	An appraisal is outlined .	<p>The following is an example of a response that would be awarded (2 marks).</p> <p>Although the action plan does not provide details about overcoming any communication difficulties, the student will still be collecting soil samples and secondary data. Overall, the strengths of the action plan will allow the investigation to be successful.</p> <p><i>The appraisal statement will weigh up both positive and negative points (this may be done implicitly or explicitly) and make an overall judgement on the students' investigative process.</i></p> <p><i>The appraisal can appear anywhere in the response; it does not have to be a concluding statement.</i></p>

Question 4a – Criterion B

Use the following statement of inquiry to **formulate** a clear and focused research question for an investigation into a biome you have studied.

(2 marks)

Statement of inquiry: Human activities can change the natural environment.

Note: When a student has recreated the previous investigation, the response should be awarded (0 marks).

Marks	Descriptor	Notes
0	The student does not reach a standard described by any of the descriptors below.	Rewording the statement of inquiry into a question cannot be rewarded. Using the RQ from the previous investigation cannot be rewarded.
1	The student formulates a research question that is either clear or focused and connected to the statement of inquiry.	The following is an example of a response that would be awarded (1 mark) . How does the increase in commercial fishing impact oceans? <i>In the example above, the RQ is clear (you can easily understand the intention of the investigation) and is connected to the Sol by referencing a human activity. However, the question lacks focus by not dealing with a named location.</i>
2	The student formulates a research question that is both clear and focused and connected to the statement of inquiry.	The following is an example of a response that would be awarded (2 marks) . How does the increase in commercial fishing impact biodiversity in the North Sea? <i>In the example above, the RQ is clear (you can easily understand the intention of the investigation) and is connected to the Sol by referencing a human activity. The RQ is focused on biodiversity in the North Sea so merits 2 marks.</i>

Question 4b – Criterion B

Justify the relevance of the research question in 4(a) to the statement of inquiry.

(4 marks)

Marks	Descriptor	Notes
0	The student does not achieve a standard described by any of the descriptors given below.	
1	The student states the relevance of the research question to the statement of inquiry.	<p>The following is an example of a response that would be awarded (1 mark).</p> <p>It focuses on how human actions can decrease the biodiversity of the North Sea.</p> <p><i>No detail is required. This is likely to be a single sentence response that makes a simple connection between the Sol and the RQ.</i></p>
2	The student outlines the relevance of the research question to the statement of inquiry.	<p>The following is an example of a response that would be awarded (2 marks).</p> <p>It focuses on how human actions can decrease the biodiversity of the North Sea by focusing on the increase in commercial fishing.</p> <p><i>Likely to be a single sentence with two clauses or two/three short sentences that provides brief detail (or a single factor) on why the RQ is relevant to the Sol.</i></p>
3	The student describes the relevance of the research question to the statement of inquiry.	<p>The following is an example of a response that would be awarded (3 marks).</p> <p>Commercial fishing results in high levels of by-catch, which disrupts the food chain of many different species in the aquatic biome. My research question focuses on how human actions can decrease the biodiversity of the North Sea by focusing on the increase in commercial fishing.</p> <p><i>At least one argument/factor should be considered in detail without providing reason(s) why the RQ is relevant to the Sol</i></p> <p><i>More important than the length of the response, is the quality and depth provided.</i></p>
4	The student justifies the relevance of the research question to the statement of inquiry.	<p>The following is an example of a response that would be awarded (4 marks).</p> <p>Commercial fishing does not only catch intended species for consumption but also inadvertently traps other species. This is called by-catch. Commercial fishing results in high levels of by-catch, because of the large nets used, which disrupts the food chain of many different species in the aquatic biome. My research question focuses on how</p>

		<p>human actions can decrease the biodiversity of the North Sea by focusing on the increase in commercial fishing.</p> <p><i>At least one argument/factor should be considered in detail, along with reason(s) why the RQ is relevant to the Sol. There does not need to be explicit reference to the Sol.</i></p> <p><i>More important than the length of the response, is the quality and depth provided.</i></p>
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Question 4c – Criterion B

Outline one challenge you might face in your investigation.

(2 marks)

Marks	Descriptor	Notes
0	The student does not reach a standard described by any of the descriptors below.	
1	The student states one challenge they might face in the investigation.	<p>The following is an example of the type of response that would be awarded (1 mark).</p> <p>A lack of primary data.</p> <p><i>For 1 mark, students would provide a statement/fact about a possible challenge.</i></p>
2	The student outlines one challenge they might face in the investigation.	<p>The following is an example of the type of response that would be awarded (2 marks).</p> <p>As the fishing industry is so large, it will be hard for me to go out and collect the relevant primary data.</p> <p><i>For 2 marks, students would elaborate on the reason for a challenge with some brief detail.</i></p>

Question 4d – Criterion B

Excluding interviews, **explain** the benefit of using **one** other method of data collection in your investigation.

(4 marks)

Marks	Descriptor	Notes
0	The student does not reach a standard described by any of the descriptors below.	
1	The student states the benefit of including one method of data collection, other than interviews, in their investigation.	<p>The following is an example of the type of response that would be awarded (1 mark).</p> <p>A survey of commercial fishing businesses would help me know how much by-catch they catch.</p> <p><i>A (1 mark) response is likely to be one sentence that gives a basic benefit of the method.</i></p> <p>(1 mark) cannot be awarded for simply stating a method.</p>
2	The student outlines the benefit of including one method of data collection, other than interviews, in their investigation.	<p>The following is an example of the type of response that would be awarded (2 marks).</p> <p>A survey of commercial fishing businesses would help me know how much by-catch they catch and calculate the impact this has on biodiversity in the North Sea.</p> <p><i>A (2 mark) response is likely to be a single sentence with two clauses or two/three short sentences; the detail provided will be brief.</i></p>

<p>3</p>	<p>The student describes the benefit of including one method of data collection, other than interviews, in their investigation.</p>	<p>The following is an example of the type of response that would be awarded (3 marks).</p> <p>There are lots of fishing businesses that depend on the fish stocks in the North Sea. A survey of how much by-catch the fishing businesses catch per species would help me calculate the impact this has on biodiversity in the North Sea.</p> <p><i>One benefit should be considered in detail without any comprehensive reason(s) provided.</i></p> <p><i>More important than the length of the response is the quality and depth provided.</i></p>
<p>4</p>	<p>The student explains the benefit of including one method of data collection, other than interviews, in their investigation.</p>	<p>The following is an example of the type of response that would be awarded (4 marks).</p> <p>There are lots of fishing businesses that depend on the fish stocks in the North Sea. A survey of how many tonnes of by-catch per species they catch would help me calculate the impact this has on biodiversity in the North Sea. If I can understand how many species of fish are killed as by-catch, I can evaluate the impact this has on the food chain.</p> <p><i>One benefit should be considered in detail, along with reason(s).</i></p> <p><i>More important than the length of the response is the quality and depth provided.</i></p>

Question 5

Write a script for your persuasive presentation to **explain** the sustainable management strategies you would recommend to address the **two** threats you have identified.

(18 marks)

In your script, you **must** include:

- examples from your MYP studies
- reference(s) to your labelled diagram
- a concluding statement or summary.

Criterion A

Marks	Descriptor	Notes
0	The student does not achieve a standard described by any of the descriptors given below.	
1	The student demonstrates limited knowledge and understanding by outlining sustainable management strategies, using limited examples and limited relevant terminology.	<p>The following is an extract of the type of response that would be awarded (1 mark).</p> <p>I suggest that you sustainably manage the use of chemical fertilizers and pesticides by passing a law to regulate their use. This strategy has worked in Germany.</p> <p><i>Responses are likely to be brief, with little detail.</i></p> <p><i>There is requirement to include an example but the lack of one does not mean the student cannot be awarded (1 mark). A response that only refers to one management strategy can still be awarded (1 mark).</i></p> <p><i>Terminology may be limited in terms of accuracy and/or frequency.</i></p>

<p>2-3</p>	<p>The student demonstrates adequate knowledge and understanding by describing sustainable management strategies that could be used in two identified locations, using satisfactory examples, and appropriate relevant terminology.</p>	<p>The following is an extract of the type of response that would be awarded (3 marks).</p> <p>As you can see at point A, this river needs sustainable management due to agricultural activity. Increased agricultural run-off comes from fertilizers, animal waste and pesticides. These wash into the river with rainfall and irrigation.</p> <p>My suggestion is that you encourage farmers to put sustainable management strategies in place. I suggest that you sustainably manage the use of chemical fertilizers and pesticides by passing a law to regulate their use. This strategy has worked in Germany where the government has restricted fertilizer application. Farmers who don't comply are fined.</p> <p>Therefore, given the evidence, I think we should put similar regulations in place to sustainably manage the river in Portchester.</p> <p><i>It should be evident that the student has knowledge of sustainable management strategies and they should be able to call on relevant example(s) to support their point(s) but these examples might be lacking in detail or not be the most appropriate.</i></p> <p><i>There is likely to be little or no reasoning provided in the response i.e. there may be some reasoning provided but if the examples/terminology/detail in the response is not sufficient enough to warrant a mark in the higher band then a mark in this band should be awarded. Similarly, students may demonstrate detailed or substantial knowledge (required for the two higher markbands) for one threat but not the other – if this is the case, then a mark in this band might be more appropriate, depending on the depth of knowledge demonstrated for the weaker of the two threats referred to (see best-fit guidance at the start of the document).</i></p> <p><i>Terminology used should be accurately used in the correct context.</i></p>
<p>4-5</p>	<p>The student demonstrates substantial knowledge and understanding by explaining sustainable management strategies that could be used in two identified locations, using accurate examples, and appropriate relevant terminology.</p>	<p>The following is an extract of the type of response that would be awarded (4 marks).</p> <p>As you can see at point A, this river needs sustainable management as there is currently a decline in water quality due to agricultural activity. Firstly, increasing demand for crops and meat to feed a growing human population is resulting in increased agricultural run-off such as fertilizers, animal waste and pesticides. These wash into the river with rainfall and irrigation.</p> <p>My suggestion is that you encourage farmers to put sustainable management strategies in place. I suggest that you sustainably manage the use of chemical fertilizers and pesticides by passing a law to regulate their use. This strategy has worked in Germany where the government has restricted fertilizer application to only include fertilizers which have minimal impact on the surrounding environment. Farmers who don't comply are fined.</p>

		<p>Therefore, given the evidence, I think we should put similar regulations in place to sustainably manage the river in Portchester.</p> <p><i>At this level, students need to demonstrate good understanding of sustainable management strategies by providing a detailed response to the question.</i></p> <p><i>The student should call on appropriate example(s) that support their point(s).</i></p> <p><i>There may be some reasoning provided but if the examples/terminology/detail in the response are not sufficient to warrant a mark in the higher band then a mark in this band should be awarded. Similarly, students may demonstrate detailed knowledge (required for 6 marks) for one threat but not the other – if this is the case, then a mark in this band is likely to be more appropriate, depending on the depth of knowledge demonstrated for the weaker of the two threats referred to (see best-fit guidance at the start of the document).</i></p> <p><i>Terminology used should be accurately and effectively used in the correct context.</i></p>
<p>6</p>	<p>The student demonstrates detailed knowledge and understanding by thoroughly explaining sustainable management strategies that could be used in two identified locations, using accurate and effective examples, and appropriate relevant terminology.</p>	<p>The following is an extract of the type of response that would be awarded (6 marks).</p> <p>As you can see at point A, this river needs sustainable management as there is currently a decline in water quality due to agricultural activity. Firstly, increasing demand for crops and meat to feed a growing human population is resulting in increased agricultural run-off such as fertilizers, animal waste and pesticides. These wash into the river with rainfall and irrigation. This combination reduces water quality and increases turbidity and eutrophication.</p> <p>My suggestion is that you encourage farmers to put sustainable management strategies in place. I suggest that you sustainably manage the use of chemical fertilizers and pesticides by passing a law to regulate their use. This would stop the likelihood of algal blooms downstream from Point A, and the spread of diseases from cattle waste such as E. coli in the river water. This strategy has worked in the Alster River in Germany where the government has restricted fertilizer application to only include fertilizers which have minimal impact on the surrounding environment. Farmers who don't comply are fined.</p> <p>Therefore, given the evidence, I think we should put similar regulations in place to sustainably manage the river in Portchester.</p> <p><i>The response should be very detailed and provide clear reasoning, making use of example(s). Comprehensive understanding of sustainable management strategies should be included.</i></p> <p><i>The response above addresses only one location; students would need to cover two identified locations on the diagram in a similar level of detail to be awarded (6 marks).</i></p> <p><i>A response that uses one relevant strategy to mitigate two threats is acceptable so can still be awarded (6 marks).</i></p>

		<p><i>The student may have demonstrated an excellent understanding, however this does not mean that the response must be perfect or the best example of a response you have seen; there are multiple ways of demonstrating ability and quite different responses may be awarded the same mark.</i></p> <p><i>Terminology used should be accurately and effectively used in the correct context.</i></p>
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C1: Format

Marks	Descriptor
0	The student does not achieve a standard described by any of the descriptors given below.
1	<p>One of the following features is included:</p> <ul style="list-style-type: none"> ● An appropriate key/legend e.g. A = agricultural run-off; B = coastal erosion or Grey Buildings = City or A = Threat of erosion. ● A concluding/summary statement appropriate to their presentation
2	<p>Two of the following features are included:</p> <ul style="list-style-type: none"> ● An appropriate key/legend e.g. A = agricultural run-off; B = coastal erosion or Grey Buildings = City or A = Threat of erosion. ● A concluding/summary statement appropriate to their presentation

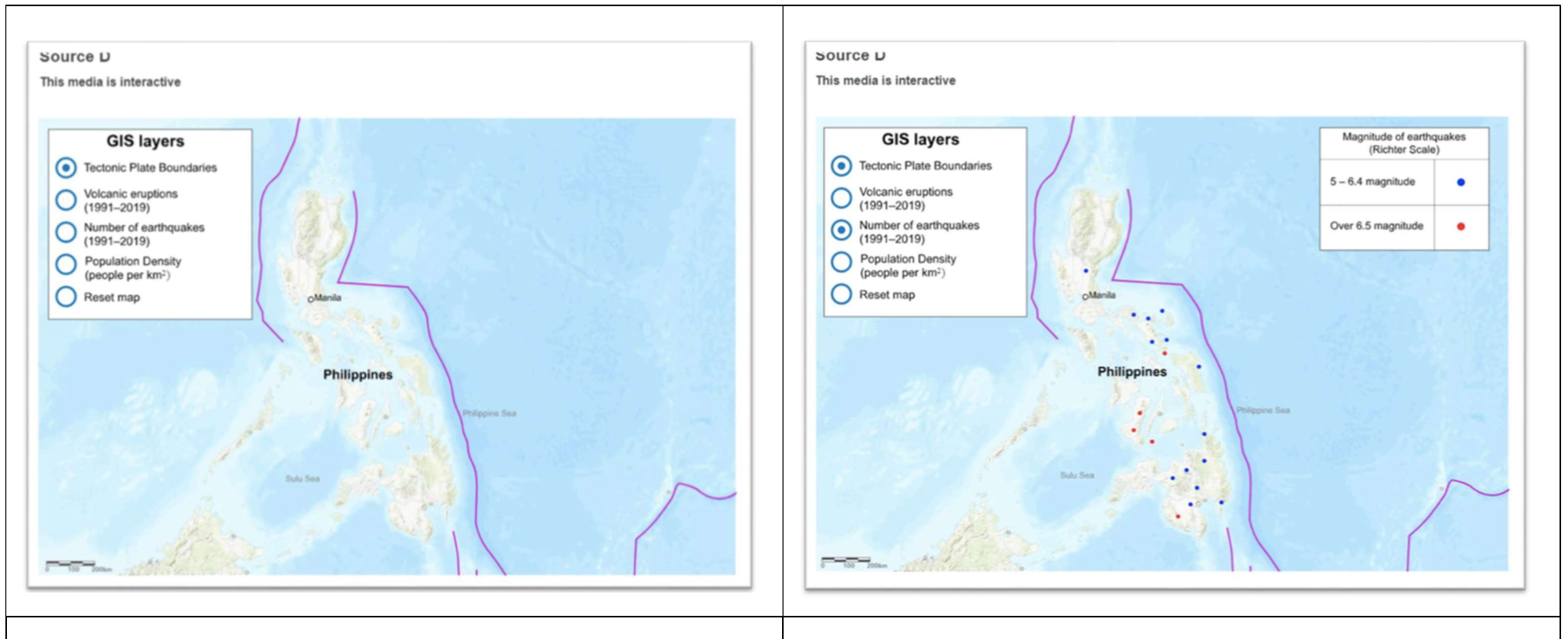
C2: Communicating information and ideas

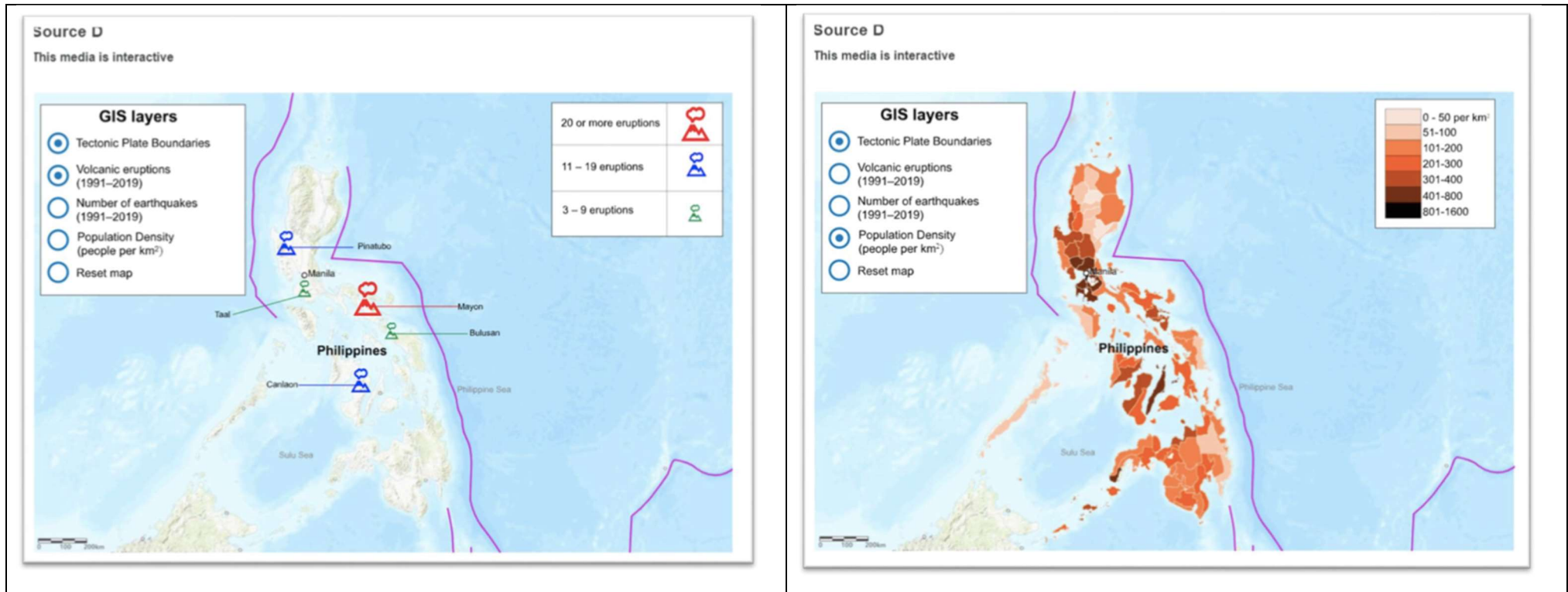
Marks	Descriptor	Notes
0	The student does not achieve a standard described by any of the descriptors given below.	
1–2	The student communicates information and ideas using a style and language that are rarely appropriate to the format of a presentation for an audience of local government officials and the purpose of explaining.	<p>Language is rarely clear or appropriate to what would be expected in a presentation. The text reads more formally e.g. like an essay.</p> <p>Language is basic/simple and doesn't engage the audience effectively. There is no clear reference to the labelled image.</p> <p>Text may be extremely short so that not enough evidence is available to award a higher level.</p>
3–4	The student communicates information and ideas using a style and language that are occasionally appropriate to the format of a presentation for an audience of local government officials and the purpose of explaining.	<p>Language is clear and appropriate to what would be expected in a presentation.</p> <p>The text reads at times more formally e.g. like an essay and at times like a presentation. (A presentation that is written more like an essay is likely to be awarded 3 marks. If it is written more like a presentation, it is likely to be awarded 4 marks. Best-fit should always be applied.) References to the labelled image are required.</p> <p>Some language features such as hyperbole, metaphor, rhetorical questions, concise sentences and emotive vocabulary are used to engage the audience.</p>
5–6	The student communicates information and ideas using a style and language that are consistently appropriate to the format of a presentation for an audience of local government officials and the purpose of explaining.	<p>Language is clear and completely appropriate to what would be expected in a presentation.</p> <p>The text reads like a presentation throughout, for example by engaging with the audience and appealing to them, using simpler language and terminology than an essay would, and using signposts to help the listener follow the content (eg. 'as you can see', 'firstly', 'secondly'). Use of personal pronouns and first person is evident. References to the labelled image are required.</p> <p>Language features such as hyperbole, metaphor, rhetorical questions, concise sentences and emotive vocabulary are often used to engage the audience.</p>

C3: Organizational structure

Marks	Descriptor	Notes
0	The student does not achieve a standard described by any of the descriptors given below.	
1	The student structures information and ideas in a way that is rarely effective and appropriate to the audience of local government officials and purpose of explaining.	<p>Ideas rarely build on each other in a logical manner.</p> <p>When appropriate, the student rarely uses effective transitions within sentences and/or between sentences and/or paragraphs to show relationships between ideas.</p>
2	The student structures information and ideas in a way that is occasionally effective and appropriate to the audience of local government officials and purpose of explaining	<p>Ideas occasionally build on each other in a logical manner.</p> <p>When appropriate, the student sometimes uses effective transitions within sentences and/or between sentences and/or paragraphs to show relationships between ideas.</p>
3	The student structures information and ideas in a way that is mainly effective and appropriate to the audience of local government officials and the purpose of explaining.	<p>Ideas frequently build on each other in a logical manner.</p> <p>When appropriate, the student often uses effective transitions within sentences and/or between sentences and/or paragraphs to show relationships between ideas.</p>
4	The student structures information and ideas in a way that is consistently effective and appropriate to the audience of local government officials and the purpose of explaining.	<p>Ideas consistently build on each other in a clear and logical manner.</p> <p>When appropriate, the student always uses effective transitions within sentences and/or between sentences and/or paragraphs to show relationships between ideas.</p>

Question 6 Source Material





Question 6a – Criterion D

Identify the number of volcanoes in the Philippines that have erupted between 11 and 19 times.

(1 mark)

Award (1 mark) for 2 Volcanic Eruptions or the naming of Pinutabu and Canlaon

Question 6b – Criterion D

State the origin of **Source D**.

(1 mark)

Award (1 mark) for stating GIS-Education.

Question 6c – Criterion D

Outline one value of Source D to a resident living in the Philippines.

(2 marks)

Marks	Descriptor	Notes
0	The student does not reach a standard described by any of the descriptors below.	
1	The student states one value of Source D to a resident living in the Philippines.	The following is an example of a response that would be awarded (1 mark) . They know how high the risk of a volcanic eruption is. <i>For (1 mark), students would provide a statement about the value of the map to residents.</i>
2	The student outlines one value of Source D to a resident living in the Philippines.	The following is an example of a response that would be awarded (2 marks) . They know how high the risk of a volcanic eruption is and can choose whether they want to live there. <i>For (2 marks), students would provide a brief sentence about the value of the map to residents.</i>

Question 6d – Criterion D

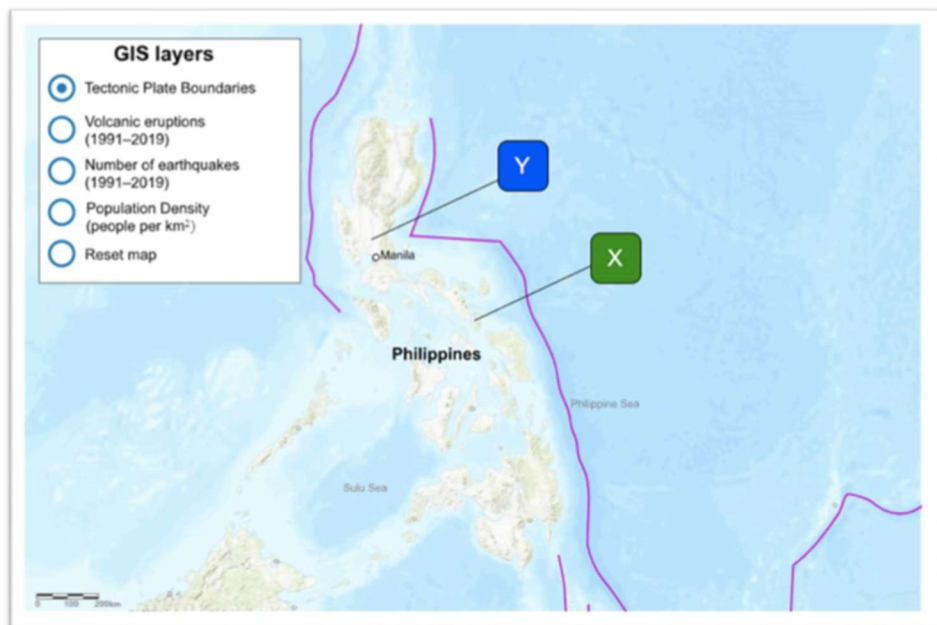
Outline one limitation of Source D for a resident living in the Philippines.

(2 marks)

Marks	Descriptor	Notes
0	The student does not reach a standard described by any of the descriptors below.	
1	The student states one limitation of Source D to a resident living in the Philippines.	<p>The following is an example of a response that would be awarded (1 mark).</p> <p>The map doesn't show the impact of the tectonic activity.</p> <p><i>For (1 mark), students would provide a brief fact or hint about the limitation of the map to residents.</i></p>
2	The student outlines one limitation of Source D to a resident living in the Philippines.	<p>The following is an example of a response that would be awarded (2 marks).</p> <p>The map doesn't show the impact of the tectonic activity, such as the number of deaths.</p> <p><i>For (2 marks), students would elaborate on a limitation of the map to residents.</i></p>

Question 7 – Criterion D

The government of the Philippines has decided to invest in earthquake-proof structures. They need to decide whether to invest in location X or Y. These locations are marked on the map in Source D.



Using evidence from Source D, **justify** which location the government should invest in.

(6 marks)

Marks	Descriptor	Notes
0	The student does not reach a standard described by any of the descriptors below.	
1	The student provides a limited justification on which location should be invested in.	<p>The following is an example of a response that would be awarded (1 mark).</p> <p>Location X, which has had more earthquakes in the past.</p> <p><i>A (1 mark) response is likely to be one or two sentences that give a basic supporting argument for their choice of location.</i></p>

		<i>Simply selecting a location cannot be awarded (1 mark).</i>
2 - 3	The student provides a satisfactory justification on which location should be invested in.	<p>The following is an example of a response that would be awarded (3 marks).</p> <p>Location X, which has had more frequent and high-magnitude earthquakes in the past and has a high population density close to the epicentres. Therefore, there is a higher risk from earthquakes to the population. Location Y has not had as many earthquakes.</p> <p><i>The response will provide brief argument(s) to support the choice of location. There is not a minimum requirement in terms of the number of points/arguments made.</i></p> <p><i>A (2 mark) response will provide less detail.</i></p>
4 – 5	The student provides a detailed justification on which location should be invested in.	<p>The following is an example of a response that would be awarded (4 marks).</p> <p>Location X, which has had more frequent and high-magnitude earthquakes in the past, which suggests they are more likely to have earthquakes again in the future. Location X has a high population density close to the epicentres. Therefore, there is a higher risk from earthquakes to a larger proportion of the population. Location Y has not had as many earthquakes.</p> <p><i>A (4-5 mark) response should provide detailed argument(s) to support the choice of location. There is not a minimum requirement in terms of the number of points/arguments made.</i></p>
6	The student provides a thorough justification on which location should be invested in.	<p>The following is an example of a response that would be awarded (6 marks).</p> <p>Location X, which has had more frequent and high-magnitude earthquakes in the past, which suggests they are more likely to have earthquakes again in the future. Location X has a high population density of more than 400 per square km close to the epicentres. Therefore, there is a higher risk from earthquakes to a larger proportion of the population. This means that more people will benefit from the earthquake-proof structures and this could save more lives. Location Y has not had as many earthquakes with only one occurring in the area since 1991. The risk of earthquakes in Y is lower than in X so the government’s money will not be well spent here as it will not benefit as many people.</p> <p><i>There should be in-depth arguments at this level, referring to specific details of why the location has</i></p>

been chosen.

To provide the required level of detail for (6 marks), a short paragraph is likely to be required.

More important than the length of the response is the quality and depth provided.

Question 8

To what extent do secondary effects of tectonic activity pose a greater risk to people and property than primary effects?

(24 marks)

In your essay you must:

- include examples from your MYP studies to support your arguments
- refer to volcanic activity and/or earthquakes
- consider different perspectives.

Criterion A

Marks	Descriptor	Notes
0	The student does not achieve a standard described by any of the descriptors given below.	
1-2	The student demonstrates limited contextual and conceptual understanding in an outline , using limited examples and limited terminology	<ul style="list-style-type: none">• <i>Responses are likely to be brief, with little detail.</i>• <i>There is requirement to include an example but the lack of one does not mean the student cannot be awarded a mark in this band.</i>• <i>Terminology may be limited in terms of accuracy and/or frequency.</i>

<p>3-4</p>	<p>The student demonstrates adequate contextual and conceptual understanding in a description, using satisfactory examples and appropriate terminology.</p>	<ul style="list-style-type: none"> • <i>It should be evident that the student has knowledge of the particular issue/topic. Example(s) to support their point(s) are accurate but might be lacking in detail or not be the most appropriate.</i> • <i>There may be some reasons provided but if the examples/terminology/detail in the response are not sufficient enough to warrant a mark in the higher band then a mark in this band should be awarded (see best-fit guidance at the start of the document).</i> • <i>Terminology should be accurately used in the correct context.</i>
<p>5-6</p>	<p>The student demonstrates substantial contextual and conceptual understanding in an explanation, using accurate examples and appropriate terminology.</p>	<ul style="list-style-type: none"> • <i>At this level, students need to demonstrate a very good understanding of the issue/topic by providing a response that is accurate and responds to the question posed. An explanation requires reasons to be included.</i> • <i>The student should call on appropriate examples, such as previous tectonic activities, that support their points.</i> • <i>Terminology should be accurately and effectively used in the correct context in most of the essay.</i>
<p>7-8</p>	<p>The student demonstrates detailed contextual and conceptual understanding in a thorough explanation, using accurate and effective examples and appropriate terminology.</p>	<ul style="list-style-type: none"> • <i>The response should provide accurate detail throughout and provide clear reasons that support the point(s) made, making use of examples that demonstrate a comprehensive understanding of the issue/topic.</i> • <i>For (7-8 marks), the response must reference examples, such as previous tectonic activities, in detail to support their points.</i> • <i>Terminology should be accurately and effectively used in the correct context throughout the essay.</i> • <i>The student may have demonstrated an excellent understanding, however this does not mean that the response must be perfect or the best example of a response you have seen; there are multiple ways of demonstrating ability and quite different responses may be awarded the same mark.</i>

C1: Format

Marks	Descriptor
0	The student does not achieve a standard described by any of the descriptors given below.
1	Two of the following elements are included: introduction, a main body of argument or a conclusion. Note: The elements must appear as separate paragraphs. If this is not the case (0 marks) should be awarded.
2	Three of the following elements are included: introduction, a main body of argument and a conclusion. Note: The elements must appear as separate paragraphs.

C2: communicating information and ideas

Marks	Descriptor	Notes
0	The student does not achieve a standard described by any of the descriptors given below.	
1	The style and language used are rarely appropriate to the audience and purpose of informing.	The style of writing is rarely consistent with what would be expected in an essay. Language may be mostly unclear. Text may be extremely short so that not enough evidence is available to award a higher level.
2	The style and language used are occasionally appropriate to the audience and purpose of informing.	The style of writing is not always consistent. It may appear to be more informal in style than expected in an essay. Language may be less clear in places.
3	The style and language used are consistently appropriate to the audience and purpose of informing.	The style of writing is consistent with what would be expected in an essay. Language is formal and clear.

C3: organizational structure

Marks	Descriptor	Notes
0	The student does not achieve a standard described by any of the descriptors given below.	
1	The organizational structure is rarely effective.	Paragraphs/ideas sometimes build on each other in a logical manner. When appropriate, rarely uses effective transitions within sentences or between sentences and/or paragraphs to show relationships between ideas. Text may be extremely short so that not enough evidence is available to award a higher level.
2	The organizational structure is occasionally effective.	Paragraphs/ideas build on each other in a mainly logical manner. When appropriate, sometimes uses effective transitions within sentences and between sentences and/or paragraphs to show relationships between ideas.
3	The organizational structure is consistently effective.	Paragraphs/ideas build on each other in consistently clear and logical manner. When appropriate, uses effective transitions within sentences and between sentences and/or paragraphs to show relationships between ideas.

Criterion D

Marks	Descriptor	Notes
0	The student does not reach a standard described by any of the descriptors below.	
1 -2	The student provides one perspective in a basic analysis and summarizes information to a limited extent in response to the question posed	<ul style="list-style-type: none"> • <i>One perspective is included and is only considered superficially, i.e. only general or vague points are made.</i> • <i>The response might not reach a conclusion or fully answer the question at this level</i>

<p>3-4</p>	<p>The student provides different perspectives in an analysis and summarizes information to make clear arguments in response to the question posed.</p>	<ul style="list-style-type: none"> • <i>Two perspectives (supporting the statement and arguing against) must be included with development of these to show some understanding and their implications; the two perspectives do not have to be equally considered/balanced.</i> • <i>A conclusion indicating which effects pose (e.g. multiple primary effects or secondary over primary) the most risk, which is likely to be not fully developed at this level, is expected nevertheless. Students may conclude that they pose equal risk.</i>
<p>5-6</p>	<p>The student provides different perspectives in an analysis and synthesizes information to make clear arguments in response to the question posed.</p>	<ul style="list-style-type: none"> • <i>Two perspectives (supporting the statement and arguing against) must be included with substantial development of these to show a good understanding and their implications, although the two perspectives might not be equally considered/balanced.</i> • <i>Ideas on which effects pose (e.g. multiple primary effects or secondary over primary) the most risk are combined to form a clear and coherent conclusion. Students may conclude that they pose equal risk.</i> <p><i>The synthesis (combining ideas) could appear in the main body of the essay or in the conclusion.</i></p>
<p>7-8</p>	<p>The student provides different perspectives in a detailed discussion and synthesizes information to make clear arguments in response to the question posed.</p>	<ul style="list-style-type: none"> • <i>Two perspectives (supporting the statement and arguing against) must be included with thorough development of these to show an excellent understanding and their implications. The two perspectives must be considered/balanced.</i> • <i>Ideas on which effects pose (e.g. multiple primary effects or secondary over primary) the most risk are combined to form a clear, coherent and convincing conclusion indicating which factor is most important is required. Students may conclude that they pose equal risk.</i> <p><i>The synthesis (combining ideas) could appear in the main body of the essay or in the conclusion.</i></p> <ul style="list-style-type: none"> • <i>Although the student will have demonstrated critical thinking, this does not mean that the response must be perfect or the best example of a response you have seen; there are multiple ways of demonstrating analytical skills and quite different responses may be awarded the same mark.</i>