

Set assignment

DRAFT

LEVEL 3 CAMBRIDGE ADVANCED NATIONAL (AAQ) IN

APPLIED SCIENCE

Extended Certificate H151

For first teaching in 2025

F184: Environmental studies

Introduction

This is Sample Assessment Material (SAM). It is an example set assignment that we publish alongside a new specification to help illustrate the intended style and structure of our set assignments.

During the lifetime of the qualification, updates to the set assignment template may happen. We always recommend you look at the most recent set of past set assignments where available.

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Designed and tested with teachers and students



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Equality, diversity, inclusion and belonging (EDIB) are [part of everything we do](#)

Summary of updates

Date	Version	Page number	Summary of change
July 2023	1 DRAFT	All	Creation of document

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- are respectful and considerate
- celebrate differences and promote positive attitudes to belonging
- include perspectives that reflect the diverse cultural and lifestyle backgrounds of our society
- challenge prejudicial views and unconscious biases
- promote a safe and supportive approach to learning
- are accessible and fair, creating positive experiences for all
- provide opportunities for everyone to perform at their best
- are contemporary, relevant and equip everyone to live and thrive in a global, diverse world
- create a shared sense of identity in a modern mixed society with one humanity.

To learn more, including our work on accessibility in our assessment materials, visit our [People and planet page](#).

OCR-set Assignment

Sample Assessment Material

OCR Level 3 Cambridge Advanced National (AAQ) in Applied Science
(Extended Certificate)

F184: Environmental studies

Scenario Title: Building and managing a woodland retreat for
ecotourism

This is a sample OCR-set assignment which should only be used for
practice.

This assignment **must not** be used for live assessment of students.

The live assignments will be available on our secure website, 'Teach Cambridge'.

The OCR administrative codes linked to this unit are:

- unit entry code F184
- certification code H151

The regulated qualification number linked to this unit is:

TBC

Duration

About:

- 18 hours of supervised time (GLH)
(work that **must** be completed under teacher supervised conditions)
- 8 hours of unsupervised time
(work that students can complete independently without teacher supervision)

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assessment.

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Information and instructions for Teachers

Using this assignment

This assignment provides a scenario and set of related tasks that enable students to study a woodland ecosystem and reflect how the impact of human activity on biodiversity and the ecosystem can be managed.

The assignment:

- Is written so that students have the opportunity to meet the requirements of all assessment criteria for the unit.
- Will tell students if their evidence must be in a specific format. If the task does not specify a format, students can choose the format to use.
- **Must** be completed under teacher supervision. Any exceptions to this will be stated in the assessment guidance.

You **must**:

- Use an OCR-set assignment for summative assessment of students.
- Familiarise yourself with the assessment criteria and assessment guidance for the tasks. These are given at the end of each student task. They are also with the unit content in **Section 4** of the Specification.
Assessment guidance is only given where additional information is needed. There might not be assessment guidance for each criterion.
- Make sure students understand that the assessment criteria and assessment guidance tell them in detail what they need to do in each task.
- Read and understand **all** the rules and guidance in **Section 6** of the Specification **before** your students start the set assignments.
- Make sure that your students complete the tasks and that you assess the tasks fully in line with the rules and guidance in **Section 6** of the Specification.
- Give your students the Applied Science **Student guide to NEA assignments** **before** they start the assignments.
- Complete the **Teacher Observation Record** for **Task 3**. You **must** follow the guidance given when completing it.

You **must not**:

- Use live OCR-set assignments for practice or formative assessment. This sample assessment material **can** be used for practice or formative assessment.
- Use this sample assessment material for live assessment of students.
- Allow group work for **any** task in this assignment.
- Change any part of the OCR-set assignments or assessment criteria.

Information for delivering tasks

Task	Requirements
General	<p>Students should have practised a variety of fieldwork techniques throughout Unit F184.</p> <p>It is recommended that teachers decide on a location for the development. The fieldwork should be completed at an appropriate time of the year.</p> <p>The area chosen should allow for:</p> <ul style="list-style-type: none"> • substantial location analysis from publicly accessible information, e.g. local nature reserves, country parks, wetlands • students to use a wide range of fieldwork techniques. • independent work to be completed by each student. <p>The school will be required to seek their own permissions to perform surveys on the chosen site, and the school will also be expected to complete risk assessments for the fieldwork.</p>
Task 2	<p>It is recommended that teachers check each student's plan and risk assessment for suitability.</p> <p>Students may request equipment that the centre does not have available. It is recommended that teachers inform students of the range of equipment available prior to students completing their plan and risk assessment.</p>
Task 3	<p>Students completing similar surveys can share equipment. However, students should be independently using this equipment.</p>

Pages 1-5 are for teachers only. Please do **not** give **Pages 1-5** to your students.

You can give **any** or **all** of the pages **that follow** to your students.

Sample

Tasks for students and assessment criteria

Unit F184: Environmental science

Scenario Title: Building and managing a woodland retreat for ecotourism

Scenario

You are a member of an ecological survey team. A woodland charity is planning to build a small woodland retreat for ecotourism where people can come and enjoy the outdoors and discover some of the species living in the ecosystem. The aim is to build an eco-friendly cabin in a woodland area that will be open to the public from April to October (the woodland area should be no more than 1000 m²). The cabin will provide suitable accommodation for twelve people and the retreat should include facilities for observing wildlife in their natural habitat.

You have been asked by the charity to research and survey a nearby woodland area that would be suitable for building the retreat.

They have asked you to produce a report on your chosen area based on your findings. Your report should include research into an existing woodland retreat to inform your planning. The links show case studies where similar retreats were permitted:

- [Case Study 1](#)
- [Case Studies 2-7, pp29-35](#)

The report should consider:

- the sensitive nature of a woodland ecosystem and its biodiversity,
- the impact of building the retreat including any potential issues with different types of pollution, waste management and conservation.
- how the retreat could be managed sustainably if building goes ahead.

The report does **not** need to include aspects of constructing the cabin itself.

Task 1

Research to inform planning

Topic Areas 1 to 5 are assessed in this task.

The task is:

Review and research one case study.

Your evidence **must** include:

- Written evidence

Use the assessment criteria below to tell you what you need to do in more detail.

Pass	Merit	Distinction
<p>P1: Use research to help summarise information from the chosen case study.</p> <p>P2: Describe how surveys were used to inform the environmental management and conservation methods used.</p>	<p>M1: Discuss the sustainability of the environmental management and conservation methods used.</p>	

Assessment Guidance

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion. It is only given where it is needed. You must read this guidance before you complete your evidence.

Assessment Criteria	Assessment guidance
P1	<ul style="list-style-type: none"> • Students should research the case study selected to help them interpret the information. Students may use an alternative case study from that in the scenario but should ensure that it is easily accessible and referenced. • Students should summarise relevant information about how the impact of human activity has affected the ecosystem in the chosen case study, and methods of environmental management and conservation used. • The research element of this criterion does not need to be completed under supervised conditions.

Advice:

- Remember to clearly reference any information used from books, websites or other sources to support your evidence.

Task 2

Research the area and plan appropriate surveys

Topic Areas 4 and 5 are assessed in this task.

The task is:

Research the characteristics of the chosen area and plan appropriate surveys to help inform decisions about its suitability and the possible impacts of the development.

Your evidence **must** include:

- Written evidence
- A risk assessment using the template provided

Use the assessment criteria below to tell you what you need to do in more detail.

Pass	Merit	Distinction
P3: Use research to describe the characteristics of the environment and the ecosystem of the chosen area.		
P4: Create a plan to carry out appropriate surveys.	M2: Explain how the methodology of your surveys will enable data of sufficient quality to be gathered.	D1: Discuss how the proposed surveys are appropriate to inform planning and environmental management.
		D2: Evaluate the usefulness of the case study to inform your planning.
P5: Complete a risk assessment for your surveys.		

Assessment Guidance

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion. It is only given where it is needed. You must read this guidance before you complete your evidence.

Assessment Criteria	Assessment guidance
P3	<ul style="list-style-type: none"> Students should research the area chosen for the development. Students must do a location analysis to be able to describe the characteristics of the area chosen for their development. They must provide information on both abiotic and biotic factors of the ecosystem in the chosen area. The research element of this criterion does not need to be completed under supervised conditions.
P4	<ul style="list-style-type: none"> Students must create a plan for at least two appropriate surveys which they will carry out in the chosen area. Within their plan, students must include details of methodology and appropriate equipment required.
P5	<ul style="list-style-type: none"> Students must consider the environmental impact of the fieldwork as part of the risk assessment, including how any damage can be minimised.
D1	<ul style="list-style-type: none"> Students must discuss the appropriateness of the survey(s) planned in P4 and how results from these survey(s) will help to inform planning for the development in the chosen area.
D2	<ul style="list-style-type: none"> Students should make a reasoned qualitative judgment about the usefulness of the case study to their plan.

Advice:

- Following the completion of Task 2, your teacher will need to ensure that your plan is safe and appropriate.
- Remember to clearly reference any information used from books, websites or other sources to support your evidence.

Task 3

Carry out surveys to provide information for the development

Topic Area 5 is assessed in this task.

The task is:

Collect and process raw data, and then analyse the data.

Your evidence **must** include:

- A presentation of the results
- Annotated photographic evidence of the collection of the raw data
- A teacher observation record

Use the assessment criteria below to tell you what you need to do in more detail.

Pass	Merit	Distinction
P6: Use your planned surveys to collect sufficient raw data.		
P7: Present your raw data in appropriate ways.	M3: Use appropriate calculations to process your raw data.	D3: Analyse the raw and processed data collected from your surveys.

Assessment Guidance

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion. It is only given where it is needed. You must read this guidance before you complete your evidence.

Assessment Criteria	Assessment guidance
P6	<ul style="list-style-type: none"> • Students should collect photographic evidence while performing the surveys they have planned. This should be annotated to describe to the assessor what the photographs are showing. • The teacher observation record form should be used to detail students following their plan safely, according to their risk assessment.
P7	<ul style="list-style-type: none"> • The teacher observation record form should also confirm that students collected all of the data recorded.
M3	<ul style="list-style-type: none"> • Students must show their detailed working of the calculations used to process the data.
D3	<ul style="list-style-type: none"> • Students must analyse their data quantitatively and qualitatively. • Students should comment on the characteristics of the data.

Task 4

Produce a report

Topic Areas 1 to 5 are assessed in this task.

The task is:

Complete a written report about the suitability of the chosen area for the development using your research and the results from your surveys.

Your evidence **must** include:

- Written evidence

Use the assessment criteria below to tell you what you need to do in more detail.

Pass	Merit	Distinction
P8: Write appropriate conclusions from the data obtained.	M4: Use research to identify appropriate methods for conserving and managing the chosen area.	D4: Justify suggested methods for conserving and managing the area in a sustainable way.
P9: Describe how the development could affect the chosen area.		

Assessment Guidance

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion. It is only given where it is needed. You must read this guidance before you complete your evidence.

Assessment Criteria	Assessment guidance
P8	<ul style="list-style-type: none"> • Students should use their analysis of the data from D3 to help them make reasoned conclusions about the chosen area.
P9	<ul style="list-style-type: none"> • Students must write about the potential impact of the development on the chosen area, using conclusions from P8 where appropriate.
M4	<ul style="list-style-type: none"> • The appropriateness of the methods must be linked to P9.

Task 5

Review the report

Topic Area 5 is assessed in this task.

The task is:

Review your report and reflect on whether it provides appropriate information for planning the development in the chosen area.

Your evidence **must** include:

- Written evidence

Use the assessment criteria below to tell you what you need to do in more detail.

Pass	Merit	Distinction
P10: Summarise the strengths and weaknesses of your plan.	M5: Suggest appropriate improvements to your plan.	D5: Justify improvements that could increase your confidence in your report.
P11: Assess the quality of the data collected.	M6: Suggest how to improve the quality of the data collected.	

Assessment Guidance

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion. It is only given where it is needed. You must read this guidance before you complete your evidence.

Assessment Criteria	Assessment guidance
P10	<ul style="list-style-type: none"> • If changes were made to the original plans created in Task 2, these should be reflected upon when summarising the strengths and weaknesses of the methodology.
M6	<ul style="list-style-type: none"> • Improvements to the data collected should be linked to the assessment of the quality of the data collected in P11.
D5	<ul style="list-style-type: none"> • This should focus on improvements that would increase your confidence in your report to the organisation.

Teacher Observation Record Form

Use this form to record what is observed.

Read the **guidance notes** below the form **before** you complete the form.

OCR Level 3 Cambridge Advanced National (AAQ) in Applied Science (Extended Certificate)

Unit number:	F184
Unit title:	Environmental science
Task number:	3
Task title:	Carry out surveys to provide information for the development

Student's name:	
Date the activity was completed:	

What extra evidence is attached to the form?	
----------------------------------------------	--

The **teacher** fills in this section:

<p>What Assessment Criteria does this activity relate to?</p> <p>This activity relates to assessment criteria P6 and P7. For P6, you must comment on the safe carrying out of the student's plan, according to their risk assessment. For P7, you must confirm that students independently collected all of the data recorded.</p>	
<p>How does the activity meet the requirements of the Assessment Criteria?</p> <p>You must describe:</p> <ol style="list-style-type: none"> 1. what the student did 2. how it relates to the relevant Assessment Criteria 	
Teacher's name:	
Teacher's signature:	
Date:	

The **student** fills in this section:

I agree with my teacher's description of how I completed this activity		Yes <input type="checkbox"/>
Use this space to make any extra comments.		
Student's signature:		
Date:		

Guidance notes

Both the teacher **and** the student are responsible for completing this form.

The **teacher must**:

- use the form to describe in detail what they observed the student doing.
- give contextualised details of what the student did and how this relates to the Assessment Criteria.
- say how well the activity was completed in relation to the Assessment Criteria with reasons.
- share what they have written with the student and offer the opportunity to discuss if the student disagrees with what is written.
- reach agreement with the student before the work is submitted for moderation.
- sign and date the form as evidence of agreement.

The **student must**:

- reach agreement with the teacher before the work is submitted for moderation.
- use the form to show that they agree with the teacher's record of the activity observed.
- sign and date the form as evidence of agreement.

The form **must**:

- be accompanied by extra evidence, as required by the task.
- provide evidence that is individual to the student.

The form **must not**:

- contain a simple repeat of the Assessment Criteria.
- contain just a list of skills.
- be completed by anyone other than the teacher observing the activity and the student completing the activity.
- be written by the student for the teacher to sign.
- be used to evidence achievement of a whole unit or task in isolation.

Risk assessment template

Name:	
Date of assessment:	

Activity	Hazards	Risks	Control measures	Emergency measures

Consideration of environmental impact and how to minimise damage

NEA Command Words

The table below shows the command words that may be used in the NEA assignments and/or assessment criteria.

Command Word	Meaning
Adapt	<ul style="list-style-type: none"> Change to make suitable for a new use or purpose
Analyse	<ul style="list-style-type: none"> Separate or break down information into parts and identify their characteristics or elements Explain the different elements of a topic or argument and make reasoned comments Explain the impacts of actions using a logical chain of reasoning
Assess	<ul style="list-style-type: none"> Offer a reasoned judgement of the standard or quality of situations or skills. The reasoned judgement is informed by relevant facts
Calculate	<ul style="list-style-type: none"> Work out the numerical value. Show your working unless otherwise stated
Classify	<ul style="list-style-type: none"> Arrange in categories according to shared qualities or characteristics
Compare	<ul style="list-style-type: none"> Give an account of the similarities and differences between two or more items, situations or actions
Conclude	<ul style="list-style-type: none"> Judge or decide something
Describe	<ul style="list-style-type: none"> Give an account that includes the relevant characteristics, qualities or events
Discuss (how/whether/etc)	<ul style="list-style-type: none"> Present, analyse and evaluate relevant points (for example, for/against an argument) to make a reasoned judgement
Evaluate	<ul style="list-style-type: none"> Make a reasoned qualitative judgement considering different factors and using available knowledge/experience
Examine	<ul style="list-style-type: none"> To look at, inspect, or scrutinise carefully, or in detail
Explain	<ul style="list-style-type: none"> Give reasons for and/or causes of something Make something clear by describing and/or giving information
Interpret	<ul style="list-style-type: none"> Translate information into recognisable form Convey one's understanding to others, e.g. in a performance
Investigate	<ul style="list-style-type: none"> Inquire into (a situation or problem)
Justify	<ul style="list-style-type: none"> Give valid reasons for offering an opinion or reaching a conclusion
Research	<ul style="list-style-type: none"> Do detailed study in order to discover (new) information or reach a (new) understanding
Summarise	<ul style="list-style-type: none"> Express the most important facts or ideas about something in a short and clear form

We might also use other command words but these will be:

- commonly used words whose meaning will be made clear from the context in which they are used
- subject specific words drawn from the unit content.

Examine *with us*

- Build confidence supporting your students with assessment
- Enhance subject knowledge
- Great for professional development











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