Curriculum and Assessment Plan: VCE Environmental Science (From 2023)

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| Senior secondary education provider details |
| Senior secondary education provider name: |  |
| Submission number: |  |
| Contact name/s: |  |
| Contact details (email and telephone): |  |
| What is the accreditation period and title of the VCE study design being used to complete this document?***NOTE:*** *Please ensure that you use the study design that is accredited for the year that you plan to commence delivery.* |  |

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| **Schedule 8 – Minimum standards for registration to provide an accredited senior secondary course:** **2 Student learning outcomes**A senior secondary education provider that provides, or proposes to provide, an accredited senior secondary course must—1. deliver the course to the standards established by the awarding body for the qualification; and
2. ensure that a student who satisfactorily completes all of the course requirements is entitled to be awarded the registered qualification.

**5 Teaching and learning**A senior secondary education provider must have— 1. processes to ensure the consistent application of assessment criteria and practices; and
2. processes to oversee the conduct of assessments of the course including processes to conduct investigations and hearings and, if necessary, amend or cancel assessments.

*(Education and Training Reform Regulations 2017, Schedule 8.5)* |
| **Evidence requirement** | Complete this template or provide a comparable curriculum and assessment plan for VCE Environmental Science as follows:* for Units 1 to 4: a curriculum delivery plan identifying how students will meet the requirements of each outcome.
* for Units 3 and 4: a School-assessed Coursework (SAC) plan for each assessment task in Units 3 and 4.
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| **What the VCAA is assessing** | A senior secondary education provider must be able to demonstrate that the format and conditions of tasks used for school-based assessment meet the requirements of the relevant VCE study design, the VCE assessment principles and the VCAA’s administrative requirements. This is an aspect of the process to ensure that:* the course is being delivered to the standards established by the VCAA
* students are able to satisfactorily complete the course
* there is consistent application of assessment criteria and practices
* there are compliant processes in place to oversee the conduct of assessments.
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| **Compliance is measured against** | * VCE study design applicable for the year of delivery
* [VCE assessment principles](https://www.vcaa.vic.edu.au/curriculum/vce/Pages/VCEPoliciesandGuidelines.aspx)
* any additional documents as prescribed in the study design and located on the study’s webpage; e.g. VCAA Bulletin items
* the VCE Administrative Handbook, particularly the section ‘Scored assessment: School-based Assessment’.
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| **Resources** | * [VCE Environmental Science study page](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx)
* [VCE assessment principles](https://www.vcaa.vic.edu.au/curriculum/vce/Pages/VCEPoliciesandGuidelines.aspx)
* [VCE Administrative Handbook](https://www.vcaa.vic.edu.au/administration/vce-handbook/Pages/index.aspx)
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| **Advice on completing these plans*** A curriculum delivery plan for Units 1 and 2 or Units 3 and 4 must be completed for each unit the senior secondary education provider is applying for permission to deliver. Use the template provided.
* For Units 3 and 4 **only**: A School-assessed Coursework (SAC) plan must be completed for each SAC task planned for delivery in Units 3 and 4. If only Units 1 and 2 are being applied for, this plan does not need to be completed.
* Senior secondary education providers that have established documentation in place; e.g. assessment tasks, are invited to attach these as appendices.
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| **Checklist**Prior to submitting this document, ensure the following points are checked:[ ]  Correct study design is being used.***NOTE:*** *Please ensure that you use the study design that is accredited for the year that you plan to commence delivery.*[ ]  Correct outcomes, key knowledge and key science skills are being taught and assessed.[ ]  Students have opportunity to demonstrate the key knowledge and key science skills required to satisfactorily meet the requirements of each outcome within the units.[ ]  Examples of set work are outlined in the plan.[ ]  Assessment task types and requirements reflect specifications set out within the study design.[ ]  The conditions under which the task will be run are fair to all students.[ ]  Timing of assessment task/s and the time/s allocated to the task/s is fair.[ ]  Instructions provided to students about task/s are appropriate and clear.[ ]  Authentication management is appropriate. |

Units 1 and 2 Curriculum delivery plan

The following curriculum delivery plan must be completed for each unit for which the senior secondary education provider is applying for permission to deliver.

Demonstration of achievement of outcomes and satisfactory completion of a unit are determined by evidence gained through the assessment of a range of set work and assessment tasks. Teachers must develop courses that provide appropriate opportunity for students to demonstrate satisfactory achievement of each outcome. The decision about satisfactory completion of a unit is distinct from the assessment of levels of achievement. Schools will report a student’s result for each unit to the VCAA as S (Satisfactory) or N (Not Satisfactory). In each VCE study, teachers and schools determine the assessment tasks to be used at Units 1 and 2.

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| Curriculum and Assessment Plan |
| **Unit 1, Outcome 1:** <insert outcome statement – see the VCE study design> |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g., Term 1 Week 1 – Term 1 Week 6> |
| **Key knowledge:** <Select as appropriate. See the VCE study design> | **Key skills:** <Select as appropriate. See the VCE study design> | List and describe the set work that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome.Consider a range of resources when developing appropriate set work, e.g. Support Materials found on the [Environmental Science](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) study page. | List and describe the assessment tasks that will be used to assess students’ level of achievement for this Outcome. See the VCE study design.Include an estimate of when each task will occur. E.g. Term 1 Week 6Ensure that any activities directly sourced from a public resource are suitably modified and contextualised to your school/provider. |
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| **Unit 1, Outcome 2:** <insert outcome statement – see the VCE study design> |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g., Term 1 Week 1 – Term 1 Week 6> |
| **Key knowledge:** <Select as appropriate. See the VCE study design> | **Key skills:** <Select as appropriate. See the VCE study design> | List and describe the set work that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome.Consider a range of resources when developing appropriate set work, e.g. Support Materials found on the [Environmental Science](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) study page. | List and describe the assessment tasks that will be used to assess students’ level of achievement for this Outcome. See the VCE study design.Include an estimate of when each task will occur. E.g. Term 1 Week 6Ensure that any activities directly sourced from a public resource are suitably modified and contextualised to your school/provider. |
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| **Unit 1, Outcome 3:** <insert outcome statement – see the VCE study design> |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g., Term 1 Week 1 – Term 1 Week 6> |
| **Key knowledge:** <Select as appropriate. See the VCE study design> | **Key skills:** <Select as appropriate. See the VCE study design> | List and describe the set work that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome.Consider a range of resources when developing appropriate set work, e.g. Support Materials found on the [Environmental Science](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) study page. | List and describe the assessment tasks that will be used to assess students’ level of achievement for this Outcome. See the VCE study design.Include an estimate of when each task will occur. E.g. Term 1 Week 6Ensure that any activities directly sourced from a public resource are suitably modified and contextualised to your school/provider. |
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| **Unit 2, Outcome 1:** <insert outcome statement – see the VCE study design> |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g., Term 1 Week 1 – Term 1 Week 6> |
| **Key knowledge:** <Select as appropriate. See the VCE study design> | **Key skills:** <Select as appropriate. See the VCE study design> | List and describe the set work that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome.Consider a range of resources when developing appropriate set work, e.g. Support Materials found on the [Environmental Science](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) study page. | List and describe the assessment tasks that will be used to assess students’ level of achievement for this Outcome. See the VCE study design.Include an estimate of when each task will occur. E.g. Term 1 Week 6Ensure that any activities directly sourced from a public resource are suitably modified and contextualised to your school/provider. |
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| **Unit 2, Outcome 2:** <insert outcome statement – see the VCE study design> |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g., Term 1 Week 1 – Term 1 Week 6> |
| **Key knowledge:** <Select as appropriate. See the VCE study design> | **Key skills:** <Select as appropriate. See the VCE study design> | List and describe the set work that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome.Consider a range of resources when developing appropriate set work, e.g. Support Materials found on the [Environmental Science](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) study page. | List and describe the assessment tasks that will be used to assess students’ level of achievement for this Outcome. See the VCE study design.Include an estimate of when each task will occur. E.g. Term 1 Week 6Ensure that any activities directly sourced from a public resource are suitably modified and contextualised to your school/provider. |
|  |  |  |  |
| **Unit 2, Outcome 3:** <insert outcome statement – see the VCE study design> |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g., Term 1 Week 1 – Term 1 Week 6> |
| **Key knowledge:** <Select as appropriate. See the VCE study design> | **Key skills:** <Select as appropriate. See the VCE study design> | List and describe the set work that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome.Consider a range of resources when developing appropriate set work, e.g. Support Materials found on the [Environmental Science](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) study page. | List and describe the assessment tasks that will be used to assess students’ level of achievement for this Outcome. See the VCE study design.Include an estimate of when each task will occur. E.g. Term 1 Week 6Ensure that any activities directly sourced from a public resource are suitably modified and contextualised to your school/provider. |
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1. List the resources that will be used in the curriculum delivery, including: textbooks, practical guides, simulations, online resources, fieldwork, incursions, excursions

Click here to enter text.

1. Practical work is a central component of learning and assessment. Outline how the logbook will be used by students and monitored by the teacher.

Click here to enter text.

1. Outline how risk assessment for practical activities will be managed.

Click here to enter text.

1. Outline how the Unit 1 Outcome 3 student-designed or student-adapted scientific investigation involving the generation of primary data will be managed, including the degree to which students are given choice of topic and the range of topics that will be offered to students.

Click here to enter text.

1. Outline how the Unit 2 Outcome 3 student research relating to the explanation of the application of science in environmental management will be managed, including the degree to which students are given choice of topic and the range of topics that will be offered to students.

Click here to enter text.

Units 3 and 4 Curriculum delivery plan

The following curriculum delivery plan must be completed for each unit for which the senior secondary education provider is applying for permission to deliver.

Demonstration of achievement of outcomes and satisfactory completion of a unit are determined by evidence gained through the assessment of a range of set work and assessment tasks. Teachers must develop courses that provide appropriate opportunity for students to demonstrate satisfactory achievement of each outcome. The decision about satisfactory completion of a unit is distinct from the assessment of levels of achievement. Schools will report a student’s result for each unit to the VCAA as S (Satisfactory) or N (Not Satisfactory).

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| Curriculum and Assessment Plan |
| **Unit 3, Outcome 1:** <insert outcome statement – see the VCE study design> |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g., Term 1 Week 1 – Term 1 Week 6> |
| **Key knowledge:** <Select as appropriate. See the VCE study design> | **Key skills:** <Select as appropriate. See the VCE study design> | List and describe the set work that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome.Consider a range of resources when developing appropriate set work, e.g. Support Materials found on the [Environmental Science](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) study page. | List and describe the assessment tasks that will be used to assess students’ level of achievement for this Outcome. See the VCE study design.Include an estimate of when each task will occur. E.g. Term 1 Week 6Ensure that any activities directly sourced from a public resource are suitably modified and contextualised to your school/provider. |
|  |  |  |  |
| **Unit 3, Outcome 2:** <insert outcome statement – see the VCE study design> |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g., Term 1 Week 1 – Term 1 Week 6> |
| **Key knowledge:** <Select as appropriate. See the VCE study design> | **Key skills:** <Select as appropriate. See the VCE study design> | List and describe the set work that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome.Consider a range of resources when developing appropriate set work, e.g. Support Materials found on the [Environmental Science](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) study page. | List and describe the assessment tasks that will be used to assess students’ level of achievement for this Outcome. See the VCE study design.Include an estimate of when each task will occur. E.g. Term 1 Week 6Ensure that any activities directly sourced from a public resource are suitably modified and contextualised to your school/provider. |
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| **Unit 4, Outcome 1:** <insert outcome statement – see the VCE study design> |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g., Term 1 Week 1 – Term 1 Week 6> |
| **Key knowledge:** <Select as appropriate. See the VCE study design> | **Key skills:** <Select as appropriate. See the VCE study design> | List and describe the set work that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome.Consider a range of resources when developing appropriate set work, e.g. Support Materials found on the [Environmental Science](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) study page. | List and describe the assessment tasks that will be used to assess students’ level of achievement for this Outcome. See the VCE study design.Include an estimate of when each task will occur. E.g. Term 1 Week 6Ensure that any activities directly sourced from a public resource are suitably modified and contextualised to your school/provider. |
|  |  |  |  |
| **Unit 4, Outcome 2:** <insert outcome statement – see the VCE study design> |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g., Term 1 Week 1 – Term 1 Week 6> |
| **Key knowledge:** <Select as appropriate. See the VCE study design> | **Key skills:** <Select as appropriate. See the VCE study design> | List and describe the set work that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome.Consider a range of resources when developing appropriate set work, e.g. Support Materials found on the [Environmental Science](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) study page. | List and describe the assessment tasks that will be used to assess students’ level of achievement for this Outcome. See the VCE study design.Include an estimate of when each task will occur. E.g. Term 1 Week 6Ensure that any activities directly sourced from a public resource are suitably modified and contextualised to your school/provider. |
|  |  |  |  |
| **Unit 4, Outcome 3:** <insert outcome statement – see the VCE study design> |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g., Term 1 Week 1 – Term 1 Week 6> |
| **Key knowledge:** <Select as appropriate. See the VCE study design> | **Key skills:** <Select as appropriate. See the VCE study design> | List and describe the set work that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome.Consider a range of resources when developing appropriate set work, e.g. Support Materials found on the [Environmental Science](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) study page. | List and describe the assessment tasks that will be used to assess students’ level of achievement for this Outcome. See the VCE study design.Include an estimate of when each task will occur. E.g. Term 1 Week 6Ensure that any activities directly sourced from a public resource are suitably modified and contextualised to your school/provider. |
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1. List the resources that will be used in the curriculum delivery, including: textbooks, practical guides, simulations, online resources, fieldwork, incursions, excursions

Click here to enter text.

1. Practical work is a central component of learning and assessment. Outline how the practical logbook will be used by students and monitored by the teacher.

Click here to enter text.

1. Outline how risk assessment for practical activities will be managed.

Click here to enter text.

1. Outline how the Unit 4 Outcome 3 student-designed scientific investigation involving the generation of primary data will be managed, including the degree to which students are given choice of topic, the range of topics that will be offered to students and how suggested student topics and methodology/method will be approved.

Click here to enter text.

Units 3 and 4 School-assessed Coursework (SAC) plan

In Units 3 and 4, specified assessment tasks are set by the VCE study design. In Units 3 and 4 Environmental Science there are five specified School-assessed Coursework (SAC) tasks. The following plan needs to be completed for each SAC task planned in Units 3 and 4. Please copy and paste the plan as appropriate.

1. Unit number/title

Click here to enter text.

1. Outcome number and outcome statement

Click here to enter text.

1. List the specific key knowledge being assessed by this SAC task

Click here to enter text.

1. List the specific Environmental Science Units 1–4 key science skills being assessed by this SAC task.

Click here to enter text.

1. What is the proposed week of delivery for this SAC task (e.g. Term 1, Week 4)?

Click here to enter text.

1. What task type and context will be used for this SAC task?

Click here to enter text.

*Example (Unit 3 Area of Study 2):*

*Task type: application of Earth systems thinking in the evaluation of a case study*

*Context: ecotourism at Ningaloo Coast, Western Australia*

Click here to enter text.

1. How will the SAC task be structured?

*Use the following questions to help shape the response: (examples below relate to a Unit 3 Outcome 2 Ningaloo Coast Earth systems case study task):
How will the task be constructed? For example: The task will be constructed as a set of x number of short answer questions, x number of extended response questions and a graphic organiser where students will map environmental effects related to the case study for each of Earth’s four systems, including showing interrelationships between these systems.
What stimulus materials will be used? For example: Students respond to stimulus materials based on a contemporary environmental issue presented as a case study.
How will the task cater for a range of high, medium and low responses? For example: Bloom’s taxonomy will be used so that 25% of questions are accessible to all students, 25% of questions will distinguish between high-performing students, and 50% of questions can be reasonably attempted by most students.*

1. Explain how the SAC task meets the [VCE assessment principles](https://www.vcaa.vic.edu.au/curriculum/vce/Pages/VCEPoliciesandGuidelines.aspx) (please refer to the document via the link to complete the response)

Click here to enter text.

*How is the SAC task valid and reasonable? How is the SAC task equitable?*

*How is the SAC task balanced? How is the SAC task efficient?*

1. Outline the conditions under which the task will run (include information on pre-SAC preparation, the length of the SAC task, conditions under which the SAC task will be run, degree of supervision, access to materials and resources.)

Click here to enter text.

*Example (for a Unit 3 Area of Study 2 Ningaloo Coast Earth systems case study task):*

*Pre-SAC preparation: 60 minutes class time to present Ningaloo Coast case study to students. During this time, students can discuss and annotate the case study in relation to Earth systems. Stimulus materials and annotations will be collected by the teacher at the end of the period.*

*Time: 60 minutes (including 10 minutes reading time).*

*SAC task conditions: task distributed under test conditions.*

*Supervision: supervised by teacher/invigilator.*

*Materials: stimulus materials and annotations (returned by the teacher), pens, highlighters.*

1. How will it be ensured that student work can be authenticated for this task?

Click here to enter text.

*Example (Unit 3 Area of Study 2 Ningaloo Coast Earth systems case study task):*

*Students can read and discuss the provided stimulus materials for the task during the 60 minutes pre-SAC period. They can write notes and annotate their stimulus materials.*

*Notes and annotated stimulus materials will be collected by the teacher and returned to students for the assessment task in the second period. No new materials can be brought into the second period.*

*All notes and annotations will be submitted with the task response.*

*Further notes:*

*If there will be multiple classes of this study, include information on how authentication of student work will be managed.*

*If materials available in the public domain will be used to create assessment tasks (e.g. commercially produced tasks, tasks used from previous years, past VCAA examination papers) explain how the materials will be modified to ensure student work can be authenticated.*

1. What assessment tool/s will be used to assess the SAC task?

Click here to enter text.

*Example: VCAA descriptors, Modified VCAA descriptors, Commercially developed marking guide, School-developed marking guide.*