LAP 3

LEARNING AND ASSESSMENT PLAN

**Stage 1 Earth and Environmental Science**

Pre-approved learning and assessment plans are for *school use only*.

* Teachers may make changes to the plan, retaining alignment with the subject outline.
* The principal or delegate endorses the use of the plan, and any changes made to it, including use of an addendum.
* The plan does not need to be submitted to the SACE Board for approval.

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| School |  | Teacher(s) |  |

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| SACE  School Code | | |  | Year |  | Enrolment Code | | | | |  | Program Variant Code (A–W) |
| Stage | Subject Code | | | No. of Credits (10 or 20) |
|  |  |  |  | **1** |  |  |  | **10** |  |

**Addendum – changes made to the pre-approved learning and assessment plan**

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| Describe any changes made to the pre-approved learning and assessment plan to support students to be successful in meeting the requirements of the subject. In your description, please explain:   * what changes have been made to the plan * the rationale for making the changes * whether these changes have been made for all students, or for individuals within the student group. |

**Endorsement**

The use of the learning and assessment plan is approved for use in the school. Any changes made to the plan support student achievement of the performance standards and retain alignment with the subject outline.

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| Signature of principal or delegate |  | Date |  |

Stage 1 Earth and Environmental Science (10-credits)

Water: Past and Present Environments – Assessment Overview

The table below provides details of the planned tasks and shows where students have the opportunity to provide evidence for each of the specific features of all of the assessment design criteria.

| **Assessment Type and Weighting** | **Details of assessment** | **Assessment Design Criteria** | | **Assessment conditions**  (e.g. task type, word length, time allocated, supervision) |
| --- | --- | --- | --- | --- |
| **IAE** | **KA** |
| **Assessment Type 1: Investigations Folio**  Weighting  50% | **Design Investigation**  Students design an investigation to assess the effect of one factor on the quality of water in a local waterway. The investigation involves **field and laboratory work**. Students work independently and collaboratively, using Science Inquiry Skills, to gather and analyse data.  Students will be required to present an individual report which should include:   * introduction with relevant earth and environmental concepts, hypothesis and variables * materials/apparatus, method/procedure outlining steps taken\* * identification and management of safety and/or ethical risks\* * results\* * analysis of results, identifying trends, and linking results to concepts * evaluation of procedures and data, identifying sources of uncertainty * conclusion. | 1, 2, 3, 4 | 1 | Students work in groups of between 2 and 4 to collect and record information on aspects of the local waterway and the associated vegetation. The task involves field and laboratory work.  Students can present their report with a maximum of 1000 words if written or a maximum of 6 minutes for an oral presentation, or the equivalent in multimodal form (excluding sections marked \*). |
| **SHE Investigation**  Students individually design an investigation focused on how **science interacts with a particular society** in order to implement more sustainable water management practices. Their investigation question is based on research into how scientific knowledge and understanding can enable scientists to develop solutions, make discoveries, and design actions for sustainability.  The report should include:   * an introduction outlining the earth and environmental science affecting the water based issue the nature of the society affected and the challenge faced to bring about change for improved water management. * an investigable question * the science concepts, models or theories involved in the issue * a summary of relevant data and evidence revealed by each student’s research. * an analysis of social, economic, cultural, and ethical considerations affecting the implementation of scientific knowledge * a justifiable conclusion. | 3, | 3,4 | Students work individually to research information and prepare reports. The task is completed in 2 weeks.  The report should be a maximum of 1000 words, if written or a maximum of 6 minutes for an oral presentation or the equivalent in multimodal form. |
| **Assessment Type 2: Skills and Applications Tasks**  Weighting  50% | Fossils  Students analyse articles about the fossil evidence that has developed our understanding of the Permian–Triassic extinction event. | 3 | 1, 3 | Supervised, 80 minutes |
| Biodiversity and Threatened Species  Students visit a revegetation site in order to assess whether a nationally endangered species, the Southern Brown Bandicoot is likely to become extinct. They collect data on factors affecting the survival of the bandicoot and assess the effectiveness of current practices aimed at increasing bandicoot numbers. | 2 | 2, 3, 4 | Students work in small groups to collect information on the excursion. They present findings individually as an infographic. Students have some class time and some homework time to complete their presentation. |

***Four assessments.*** *Please refer to the draft Stage 1 Earth and Environmental Science subject outline.*