Articulates with Topic 1 and 4 NTS

LEARNING AND ASSESSMENT PLAN

**Stage 1 Biology**

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** | **B** | **G** | **Y** | **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 Biology (10-credits) Topics 1: Cells and Microorganisms and 4: Biodiversity and Ecosystem Dynamics (NTS)

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 %** | Students design and implement a practical investigation for **Topic 1: Cells and Microorganisms**. They design an investigation to determine the effect of a factor (for example: concentration, temperature, SA : VOL) on osmosis in rhubarb cells or potato cubes. Students individually design an investigation with an appropriate method, hypothesis and variables. They record, represent, and analyse data using appropriate terms and conventions. Students evaluate procedures and their effects on the data collected. They formulate and justify a conclusion, taking into account the limitations of the investigation. Correct use of biological terminology is also assessed. | 1, 2, 3, 4 | 1,4 | Class time will be given for students to individually design the investigation question/hypothesis.  A double lesson to undertake the practical in a group.  Each student submits a practical report according to the guidelines in the subject outline.  Students may submit one draft for feedback  Word Count: maximum of 1000 words or 6 minutes for an oral presentation for the introduction, analysis, evaluation and conclusion sections of the report. |
| The Science as a Human Endeavour Investigation enables students to focus on at least one aspect of the Science as a Human Endeavour understandings described on page 12 and 13 of the subject outline and related to **Topic 4: Biodiversity and Ecosystem Dynamics**. They research keystone species and the impact human activities have on these species and their habitats. They reference this to an aspect of Science as a Human Endeavour of their choice. Students access information from different sources, and select and acknowledge appropriate sources to support and justify their own conclusions. Students choose the format of their work: either an article for a scientific journal or a written report providing an expert’s point of view. | 2,3 | 1,3,4 | 3 weeks to complete. Class time provided for research and to support students.  Students may submit one draft for feedback  Word Count: maximum of 1000 words or 6 minutes for an oral presentation. |
| **Assessment Type 2: Skills and Applications Tasks**  **Weighting**  **50 %** | Students demonstrate Biological knowledge and skills from **Topic 1: Cells and Microorganisms**. The content of the test covers key concepts from any aspect of the topic. Students apply their knowledge and skills to a range of questions including both new and familiar contexts, solve problems, and interpret data or diagrams. An extended response question is included. Some questions require students to use science inquiry skills to provide an answer. Correct use of biological terminology is also assessed. | 2,3,4 | 1,2,4 | Supervised written assessment  Total Time: 50 minutes |
| Students demonstrate Biological knowledge and skills from both **Topic 1: Cells and Microorganisms and Topic 4: Biodiversity and Ecosystem Dynamics**. Students visit a waste water treatment plant and then respond to a series of questions to generate a report to demonstrate their ability to analyse and evaluate information and propose justified conclusions. Correct use of biological terminology is assessed. | 3,4 | 1,3,4 | Visit waste water treatment plant prior to completing the report.  Individual report. Students choose the format.  2 weeks to complete. |

***Four assessments.*** *Please refer to the draft Stage 1 Biology subject outline.*