Articulates with Program 1

PRE-APPROVED LEARNING AND ASSESSMENT PLAN

**Stage 2 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) |
|  |  |  | **2018** | **2** | **B** | **G** | **Y** | **20** |  |

**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 2 Biology (20-credits)

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 30%** | Conditions affecting Enzyme Activity: Students carry out an Investigation analysing the effect that conditions such as temperature, pH, substrate concentration, product concentration have on enzyme activity. They record and analyse results, evaluate procedures, and justify their conclusion. Students consider enzymes in industry and deconstruct a problem relating to this. They suggest possible solutions. | 2,3, 4 | 4 | **Practical Completion Investigation:**  Maximum 1500 words or multimodal equivalent (excluding materials, methods, safety, results)  Investigation completed in 90 minutes.  Practical report completed in 3 days. |
| **Effect of Hormones on Plant Growth:** Students individually design and carry out an investigation that analyses the effect of hormones on plant growth. They undertake the practical investigation collaboratively; however each student submits an individual practical report. | 1,2,3,4 |  | **Practical Design Investigation:**  Maximum 1500 words or multimodal equivalent (excluding materials, methods, safety, results)  Design 1 lesson.  Investigation completed over three weeks.  Practical report completed in 3 days. |
| **Science as a Human Endeavour Investigation:** Students investigate an aspect of biology with a focus on Science as a Human Endeavour. The scientific communication must emphasise one of the SHE understandings described in the subject outline. They access information from different sources, select relevant information, analyse their findings, and develop and justify their own conclusions from the investigation. |  | 1,3,4 | **Science as a Human Endeavour Investigation:**  Maximum 1500 words or a maximum of 10 minutes oral presentation or multimodal equivalent.  Draft submitted in 1 week.  SHE Investigation to be completed in 3 weeks. |
| **Assessment Type 2: Skills and Applications Tasks**  **Weighting**  **40%** | **DNA and Proteins Test:** Students demonstrate knowledge and understanding of the key biological concepts and learning in the DNA and Proteins theme, and apply this knowledge to solve problems in new and familiar contexts. Students analyse biological problems and pose solutions using appropriate biological terms and conventions in multiple-choice and short-answer questions. | 2 | 1,2,4 | **DNA and Protein Test:**  Individually completed  90-minute supervised test |
| **Cells as the Basis of Life Test:** Students demonstrate knowledge and understanding of the key biological concepts and learning in the topic Cells as the Basis of Life, and apply this knowledge to solve problems in new and familiar contexts. Students represent data using appropriate conventions and formats. Students analyse biological problems and pose solutions using appropriate biological terms and conventions in multiple-choice, short-answer questions and paragraph answers. | 2 | 1,2,4 | **Cells as the Basis of Life Test:**  Individually completed  90-minute supervised test |
| **Homeostasis Test:** Students demonstrate knowledge and understanding of the key biological concepts and learning in the Homeostasis topic, and apply this knowledge to solve problems in new and familiar contexts. Students analyse data and evidence to formulate logical conclusions. Students analyse biological problems and pose solutions using appropriate biological terms and conventions in multiple-choice, short-answer questions and paragraph answers. Some questions require the use of science inquiry skills. | 3 | 1,2,4 | **Homeostasis Test:**  Individually completed  90-minute supervised test |
| **Evolution Test:** Students demonstrate knowledge and understanding of the key biological concepts and learning in the Evolution topic, and apply this knowledge to solve problems in a test. Students analyse biological problems and pose solutions using appropriate biological terms and conventions in multiple choice, short answer questions and an extended response. The paragraph answers will relate to the science as a human endeavour component of the subject. |  | 1,3,4 | **Evolution Test:**  Individually completed  90-minute supervised test |
| **External Examination**  **Weighting 30%** | 130 minute online examination | All specific features of the assessment design criteria for this subject may be assessed in the external examination.  Questions of different types cover all Stage 2 topics and the science inquiry skills. Some questions may require students to integrate their knowledge from more than one topic and show an understanding of science as a human endeavour. | | |

***Eight assessments including the external examination.*** *Please refer to the draft Stage 2 Biology subject outline.*