

BALMAIN CAMPUS

# SCIENCE FACULTY

ASSESSMENT TASK Notification:

Science

Year 9 Marine

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| TOPIC / MODULE: |

Year 9 Aquarium Design, Construction and Maintenance

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| WEIGHTING: |

25%

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| DUE DATE: |

Term 1, Week 11

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| OUTCOMES: |

5.5.1 selects and uses a broad range of contemporary materials, equipment and techniques with confidence in aquaculture and marine settings.

5.5.2 demonstrates safe and responsible use of a range of materials, equipment and techniques in different aquaculture, marine and maritime situations

5.7.1 collects and organises data by experimenting and accurately reading instruments, signals and charts and communicates this information

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| TASK |

**INDIVIDUAL - Creating an Aquarium Maintenance Portfolio**

The students will be required to create a portfolio based on their work with aquariums. The portfolio must include:

1. Introduction to their Fish Tank
   * A list of group members’ names and the names of their fish;
   * A definition of the term aquarium;
   * A functional description of their aquarium set-up;
   * A description of the fish chosen and the conditions required by those fish;
2. Management Plans
   * An initial management plan including feeding, cleaning and testing regime;
   * A simplified holiday management plan (for when the teacher is feeding the fish).
3. A journal, which should comprise at least 10 entries. Entries should include:
   * date of entry;
   * pictures displaying their aquarium/fish;
   * written descriptions of their fish and aquarium ecosystem;
   * any tests that were performed including results and photos;
   * any changes to your management plan with a reason;
   * A final set of tables and graphs showing the change in pH and nitrate levels over time.
4. A critical evaluation of their aquarium including good points and areas of improvement.
5. Correct referencing for any secondary resources.

A scaffold has been provided ([link here](https://docs.google.com/document/d/17U-sphgNN8SSji2MxwKN-Midfg2m2NSK86-TQaMrfaw/edit?usp=sharing)) but students may decide to use their own format.

The Portfolio must be created on Google Drive and submitted in our Google Classroom. It should be presented neatly and creatively – with marks being awarded for presentation.

Marks will be also awarded for teamwork and the effort observed from all group members.

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| ASSESSMENT CRITERIA |

**Students are reminded that late assessments will receive ZERO marks unless an illness/misadventure form is submitted to the appropriate HT with a Doctors certificate immediately upon return to school.**

You will be assessed on recognising the various conditions of an aquarium, your understanding on the importance of maintaining these conditions, the procedure to correctly test the conditions, analysing the results for each test and a table displaying the data from each test performed.

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| ASSESSMENT CRITERIA: |

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| Outcome | Mark | A – Outstanding (5) | B – Very Good (4) | C – Good (3) | D – Satisfactory (2) | E – Insufficient Detail (1) |
| 5.5.1 selects and uses a broad range of contemporary materials, equipment and techniques with confidence in aquaculture and marine settings. |  | Student *describes* the aquarium and fish including identifying biotic and abiotic features and *explains* the function of components. | Student *describes* features of their aquarium and their fish. | Student *identifies* all or most of the features of the aquarium and the fish and *describes* some features. | Student *identifies* features of the aquarium and the fish. | Student does not clearly *identify* the relevant features of the aquarium. |
|  | Student *analyses* tests that are required for the aquarium and produces a suitable management plans. | Student *describes* the key tests required for the aquarium in their management plans. | Student *identifies* key tests that need to be done as part of their management plans. | Student *identifies* some key tests that need to be performed for their management plans. | Student does not clearly *identify* the tests that need to be performed in their management plan.. |
| 5.5.2 demonstrates safe and responsible use of a range of materials, equipment and techniques in different aquaculture, marine and maritime situations |  | Student logbook *describes* in detail the condition of their aquariums over the course of the testing. Photos, diagrams, data, date etc provide detail. | Student logbook *describes* the condition of the aquarium and fish. | Student logbook *identifies* conditions of the aquarium at different dates. | Student *identifies* some conditions of the aquarium at different dates . | Student has not provided a full record of conditions in the tank.. |
|  | Student *critically* *evaluates* any test or change in their aquarium and *describes* solutions including changes to their management plans. | Student *evaluates* any tests or change in their tank and *identifies* solutions they used. | Student *evaluates* each test or change. | Student *describes* each test or change in their tank. | Student has not provided a full record of changes they made to their management of the tank. |
| 5.7.1 collects and organises data by experimenting and accurately reading instruments, signals and charts and communicates this information |  | Student produces graphs and tables of data and *analyses* the data. | Student produces graphs and tables of data and *describes* the data. | Student produces partial graphs or tables of data and *describes* the data. | Student *identifies* data in tables or graphs. | Student does not clearly organise or present data in tables or graphs. |
|  | Student produces an APA formatted bibliography with at least 3 appropriate references | Student produces an APA formatted bibliography with at least 3 references. | Student produces an APA formatted bibliography | Student produces an bibliography. | Student does not produce a bibliography. |
| 5.5.1 and 5.5.2 |  | Student *critically* *evaluates* the success of their aquarium and *describes* how they could improve in the future. | Student *evaluates* the success of their aquarium and *identifies* possible improvements. | Student *describes* the success of their aquarium. | Student *identifies* successful parts of their aquarium. | Student does not clearly *identify* successful parts of their aquarium. |
| TOTAL MARK |  |  |  |  |  |  |
| Weighted Mark |  |  |  |  |  |  |