

General Earth and Environmental Science

Properties of Water Investigation

Student Name:

Due Date: 16 October 2023

Weighting:

Assessment Type: Investigation

Task description:

Task 6: Properties of Water Investigation

Part 1: Water Investigation Report

(44 marks)

Water quality is important to the survival of humans and ecosystems. Wetland ecosystems play an important part in filtering water and improving the quality of it.

Your task is to investigate the quality of the water in the Billabong on the school block, as well as to design an investigation to demonstrate how wetlands can improve water quality.

Water Quality Testing

- Perform water quality tests on the Billabong water .
- Explain their significance to the environment.
- Consider what factors could be affecting the water quality.

Design Your Own Experiment

- come up with a question to investigate which relates to water quality in wetlands
- design an experiment which demonstrates this
- perform the experiment
- write the report.

Part 2: Graphing Analysis Test

(20 marks)

Graphing and Data Analysis

- Pre-read the research “Nitrate: Good for plants, bad for drinking water”
- During one lesson, graph the data provided and answer data analysis questions

What needs to be handed in:

Investigation booklet due 16 October.

In class graphing analysis test 16 October.

Assessment Criteria

Descriptors	Marks
Water Quality in the Billabong	/12
Water testing and results	1-4
Explanation of what the results indicate (Conclusion)	1-4
Description of factors which could affect water quality	1-4
Design Your Own Experiment	/24
Experiment Aim/Purpose/Question	1-4
Hypothesis	1-4
Materials	1-4
Method	1-4
Results	1-4
Conclusion	1-4
Laboratory Etiquette	/8
Uses appropriate equipment	1-4
Works safely and ethically	1-4
Total	/44
Graphing Analysis Test	/20
Overall Total	/64

Comment:

Billabong Water Testing

Aim:

Materials:

- pH, ammonia, nitrate, nitrite testing kit

Method:

Results:

Conclusion:

Factors which could affect the water quality in the Billabong:

Design Your Own Wetland Experiment

Aim:

Hypothesis:

Materials:

Method:

Diagram of setup:

Results:

Conclusion:

