Condobolin High School

Notification of an Assessment Task

Name and Type of Task: In-class Test	
Subject: Year 10 Science	**Task Number: 1**
Date Issued: Term 1 Week 10. Thursday, 11th April 2024	**Date Due: Term 2 Week 2. Friday, 10th May 2024**
Total Marks: 30	**Weighting: 30%**
Class Teacher/s: Judith Pousini, Ken Aveling-Rowe	**Head Teachers: Judith Davis**

Submission Instructions: Students are to complete the practical skills test in their Science class on ***Friday, 10th May 2024***

Task Context:

In this unit, you used your scientific skills to develop an understanding of natural selection and ecosystems. You have learned about the hierarchy of organisms and have conducted practical investigations to model this.

In this task, you will apply your knowledge to develop questions, analyse data and communicate scientific ideas to demonstrate your understanding of ecosystems and evolution.

Course Outcomes:

SC5-14LW	Analyses interactions between components and processes within biological systems
SC5-15LW	Explains how biological understanding has advanced through scientific discoveries, technological developments and the needs of society
SC5-4WS	Develops questions or hypotheses to be investigated scientifically
SC5-7WS	Processes, analyses and evaluates data from first-hand investigations and secondary sources to develop evidence-based arguments and conclusions
SC5-9WS	Presents science ideas and evidence for a particular purpose and to a specific audience, using appropriate scientific language, conventions and representations

Task Description:

Total Marks: 30

A local scientist has been investigating the dynamics of ecosystems. They have built an enclosed ecosystem that includes a variety of plants, decomposers, herbivores, and predators. The ecosystem is balanced, with enough resources to support the current populations.

In this task, you will take on the role of this scientist to analyse an ecosystem and predict the impact of changes made to it. You will be provided with information on organisms in this ecosystem and their diet.

You will be required to complete a **1 lesson in-class test** that requires you to:

- Develop hypotheses for scientific investigation.
- Classify organisms in the ecosystem.
- Create food chains and food webs to analyse the interaction between organisms.
- Process, analyse and evaluate data to create graphs and make conclusions.
- Use scientific terminology and concepts, such as evolution, to communicate and explain your findings.

Criteria for Assessing Learning:

You will be assessed on your ability to:

- Develop hypotheses that can be scientifically tested.
- Analyse the interactions between an environment and an ecosystem.
- Process, analyse and evaluate data from investigations to make conclusions.
- Communicate scientific ideas and evidence using correct scientific terminology.
- Explain how scientific theories can be applied to our understanding of the living world.

Key Verbs:

Analyse
Identify components and the relationship between them; draw out and relate implications

Classify
Arrange (a group of people or things) in categories according to shared qualities or characteristics.

Communicate
Share or exchange information, news, or ideas.

Develop
Elaborate or expand in detail

Evaluate
Make a judgement based on criteria ; Determine the value of.

Explain
Relate cause and effect; make the relationships between things evident; provide why and/or how

Process
A series of actions or steps taken in order to achieve a task

Description	Grade
● Develops extensive hypotheses that can be scientifically tested using correct scientific terminology. ● Extensively analyses the relationships between organisms and their environment in a given ecosystem by correctly classifying organisms and constructing detailed diagrams showing energy transfer. ● Processes, analyses and evaluates provided data to create accurate graphs and make well-reasoned conclusions. ● Thoroughly explains, using specific examples, how theories and evidence of evolution relate to scientific findings and contribute to our understanding of ecosystems.	A 27-30
● Develops thorough hypotheses that can be scientifically tested using mostly correct scientific terminology. ● Analyses the relationships between organisms and their environment in a given ecosystem by correctly classifying most organisms and constructing diagrams showing most transfers of energy. ● Processes and analyses most provided data to create accurate graphs and make mostly well-reasoned conclusions. ● Explains how theories and evidence of evolution relate to scientific findings and contribute to our understanding of ecosystems.	B 21-26
● Develops hypotheses that can be scientifically tested using some correct scientific terminology. ● Explains the relationships between organisms and their environment in a given ecosystem by correctly classifying some organisms and constructing diagrams showing some transfers of energy. ● Processes some provided data to create mostly accurate graphs and make conclusions. ● Describes how theories and evidence of evolution relate to scientific findings and contribute to our understanding of ecosystems.	C 12-20
● Develops basic hypotheses that cannot be scientifically tested using minimal scientific terminology. ● Describes the relationships between organisms and their environment in a given ecosystem using minimal classification and presentation techniques. ● Processes some provided data to create graphs and make basic conclusions. ● Identifies a scientific theory or evidence related to evolution that contributes to our understanding of ecosystems.	D 6-11
● Develops a limited hypothesis that cannot be scientifically tested. ● Identifies a relationship between organisms and their environment in a given ecosystem. ● Processes limited data to create graphs and make limited conclusions. ● Identifies simple evidence that contributes to our understanding of ecosystems.	E 0-5