



Coonabarabran High School

Assessment Notification

Subject: Year 9/10 Agriculture

Date of Notification: 08.03.23

Assessment: Soil Testing and Soil Comparison

Assessment date: 22.03.23

Weighting: 15%

Teacher: M Webb, K. Nash

Objectives and outcomes assessed:

Objectives	Knowledge, understanding and skills
Students develop knowledge and skills in the effective and responsible production of agricultural products	AG5-4 investigates and implements responsible production systems for plant and animal enterprises
Students develop skills in problem-solving, including investigating, collecting, analysing, interpreting and communicating information in agricultural contexts	AG5-12 collects and analyses agricultural data and communicates results using a range of technologies

Soils anchor roots, hold water and store the nutrients necessary for plants to grow. Soils are home to earthworms, termites and micro-organisms that fix nitrogen and decompose organic matter. There are more living organisms in a handful of soil than there are people on the planet.

There is no food security without healthy soils. Agriculture is an essential industry and farming has enormous impacts on soil health. Intensive farming eliminates species living within the soil – species that give soil its fertility. Some farming systems are destroying our ability to feed the planet in the future.

Creating new soil takes longer than the average human life.

Soil filters the rainwater and regulates the discharge of excess rainwater, preventing flooding. It protects groundwater quality by buffering against pollutants.

Soil captures large amounts of organic carbon. On average, the soil contains about three times more organic carbon than the vegetation and about twice as much carbon than is present in the atmosphere.

It is important to know as much about the soil in a production system as possible.

The task:

This task is in two parts and will take the equivalent of one period.

Part one is the practical component - Soil testing and recording data, attempted with a partner or as an individual.

Part two is the written component - Comparing the soil samples using the information collected in Part 1. Part two will be attempted individually.

A comparison shows how things (the 2 soil samples) are similar and / or different.

Student 1: _____

Student 2: _____

Soil Testing and Soil Comparison Marking Guidelines

Practical component: 7 marks

Skill	Mark
Group work: students work collaboratively	1
Working safely: minimise risks; safely manipulate equipment and chemicals	1
Following instructions: collaboratively recognise the correct test for each soil characteristic; uses appropriate investigation methods to collect accurate, reliable data	2
Clean up: dispose of materials appropriately and safely; all equipment returned; clean workspace	1
Record results in a table: organise data and information in a table with accuracy and honesty	2
Total	7

Written component: 8 marks

Criteria	Mark
Identifies and thoroughly describes the differences and/or similarities between the samples using third person, passive voice. Clearly refers to, and extensively uses, data in the table to support this comparison. Uses a mixture of simple and complex sentences. Shows a logical progression of ideas. Spelling, punctuation and grammar are correct.	7 - 8
Identifies there are differences and/or similarities between the samples using third person, passive voice. Refers to data in the table to describe the similarities and/or differences in the soil samples. Uses a mixture of simple and complex sentences. Most spelling, punctuation and grammar are correct.	5 - 6
Uses some data from the table to compare the soil samples. Identifies there are differences and names one to two differences. Identifies there are similarities and names one to two similarities. Uses mostly simple sentences. Some spelling, punctuation and grammar are correct.	3 - 4
Uses relevant information to show differences or similarities between the soil samples Identifies at least two differences OR two similarities OR one difference and one similarity Uses simple sentences. Some spelling, punctuation and grammar are correct	1 - 2