



SOUTH AFRICAN COMPREHENSIVE ASSESSMENT INSTITUTE
SUID-AFRIKAANSE KOMPREENSIEWE ASSESSERINGSINSTITUUT

**Adult Basic Education and Training (ABET)
Site-Based Assessment
Portfolio of Evidence**

Natural Sciences: NQF Level 1
Total: 50 marks
Duration: 4 Hours
Task 3: Worksheet

Learner Information

Name : _____
Surname : _____
**Identity/
Passport Number** : _____
Employee Number : _____
Company : _____
Centre : _____
Date : _____

Declaration

I declare that this portfolio of evidence is my own work: _____

Signature



INSTRUCTIONS

1. This Worksheet consists of **FOUR QUESTIONS**.
2. Complete **ALL** the **QUESTIONS**.
3. Answer all the questions in the spaces provided.
4. Adhere to the numbering used in this Worksheet.



Question 1

Below are the ingredients a learner use to make a cup of coffee in a 300ml coffee mug.

- Three teaspoons of sugar
- Two teaspoons of coffee
- 250ml boiling water
- 30ml Fresh milk

1.1 What does the term *solute* mean? Give ONE example from Celia's ingredients. (3)

1.2 What is the scientific reason of using the teaspoon to stir the mixture? (2)

1.3 After Celia has mixed all the ingredients together, will the mixture be homogeneous or heterogeneous? (1)

1.4 Classify all the ingredients as either SOLID or LIQUID. (4)



- 1.5 How will the density of boiling water be affected after Celia adds and mixes all the other ingredients? (2)
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- 1.6 Is the temperature of the water a dependent or an independent variable for it to dissolve the solid ingredients? (1)
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Total Marks for Question 1

[13]

Question 2

Carefully study the prepaid electricity voucher slip and answer the questions.

Electricity Pre-Paid	
K.C MBONISWA 01, ,	

Credit Token	

Unit Type:	Kwh
Token Type:	PaidToken
Tariff:	48.3 Kwh @ 1.8008 R/Kwh:
Units:	48.30Kwh
Amount (exclusive):	R 86.96
VAT:	R 13.04
Amount (inclusive):	R 100.00
Tariff:	
48.3 Kwh @ 1.8008 R/Kwh	

Source: eskom.co.za/images

- 2.1 What is the meaning of kWh? (2)
-

2.2 How many electricity units were bought? (1)

2.3 How much does 1 unit of electricity cost? (1)

2.4 Show how R86,96 was calculated (3)

2.5 State TWO advantages of using prepaid electricity. (4)

Total marks for Question 2 [11]



Question 3

3.1 Study the diagram and answer the questions



3.1.1 Which TWO substances are acidic in the diagram? (2)

- 3.1.2 Complete the table by commenting on the characteristics of acids and bases in terms of how they taste and feel. (4)

	ACIDS	BASES
Taste		
Feel		

- 3.1.3 What would you observe when baking soda is added to vinegar? (4)

- 3.1.4 What is the study of chemicals? (2)

- 3.2 Classify the following items as recyclable or non-recyclable.

- 3.2.1 Water (1)

- 3.2.2 Asbestos (1)

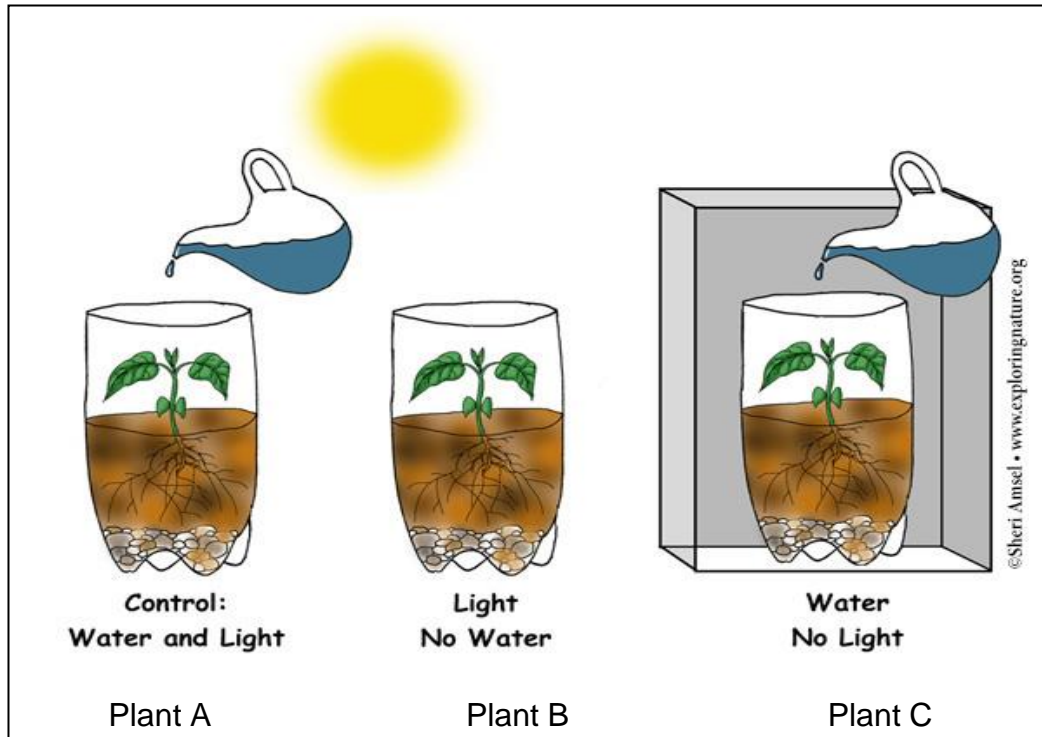
Total for Question 3

[14]



Question 4

- 4.1 The diagram illustrates the experiment conducted on photosynthesis. Carefully study it and answer the questions that follow.



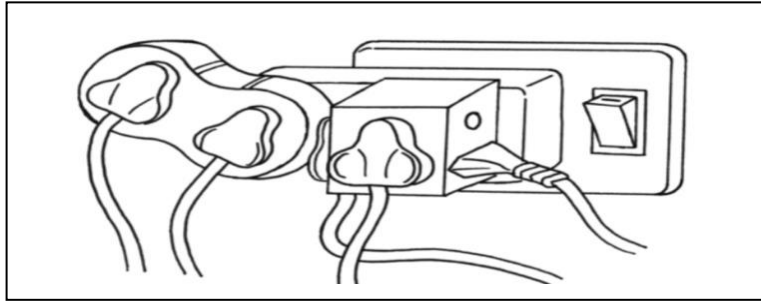
Source: www.exploringnature.org

- 4.1.1 Explain why Plant A is identified as 'Control'? (2)

- 4.1.2 Identify the plant that will grow better than the others. (1)

4.1.3 Why is Plant C put inside a box? (2)

4.2 The diagram below shows the overloaded plug socket.



Source: www.energywise.co.za

4.2.1 Explain what is meant by 'plug socket overload'. (2)

4.2.2 What is a possible reason for why people overload a plug socket? (1)

4.2.3 What danger could be caused by the overloading of plug sockets? (2)

- 4.2.4 State any TWO possible signs of danger that people should look out for when a plug socket is overloaded. (2)

Total for Question 4 [12]

GRAND TOTAL FOR TASK 3 [50]



Total for Task 3: 50 Marks

Task	Activity	Maximum Mark	Learner's Mark	Moderated Mark
Task 3	Question 1	13		
	Question 2	11		
	Question 3	14		
	Question 4	12		
	Total: Task 3	50		

