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   (3)
       ingredients.

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   (1)
       homogeneous or heterogeneous?

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   (2)
      mixes all the other ingredients?

1.6   Is the temperature of the water a dependent or an independent variable   (1)
      for it to dissolve the solid ingredients?

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

Source: cshomemanagement.com

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   (4)
and bases in terms of how they taste and feel.

	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)
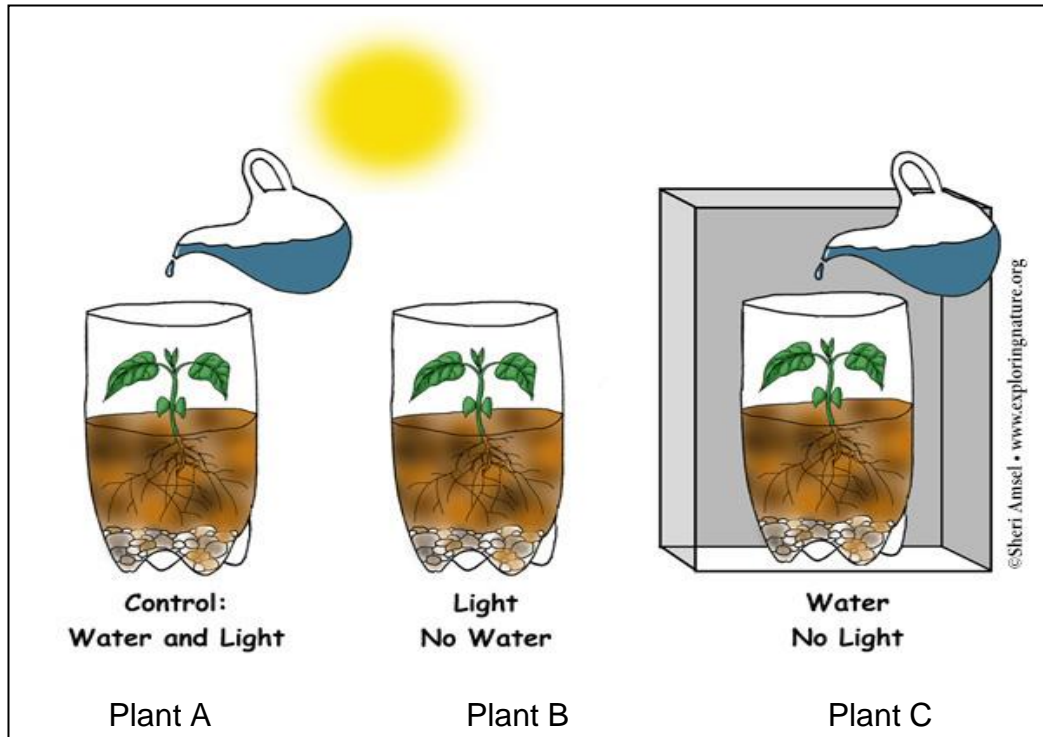
_____

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)

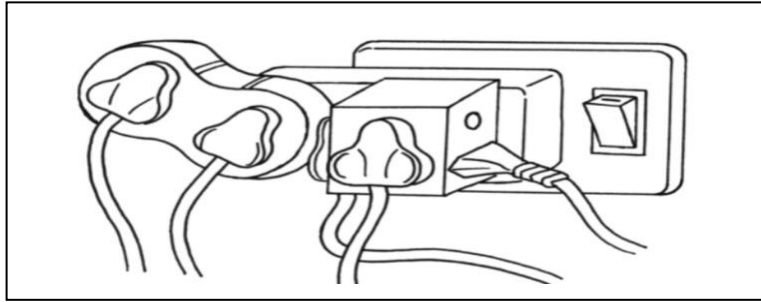   4.1.2 Identify the plant that will grow better than the others.   (1)

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   (2)
out for when a plug socket is overloaded.

_____

_____

_____

_____

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	**12**		
	Question 3	**14**		
	Question 4	**11**		
	Total: Task 3	**50**		