



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: 40 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



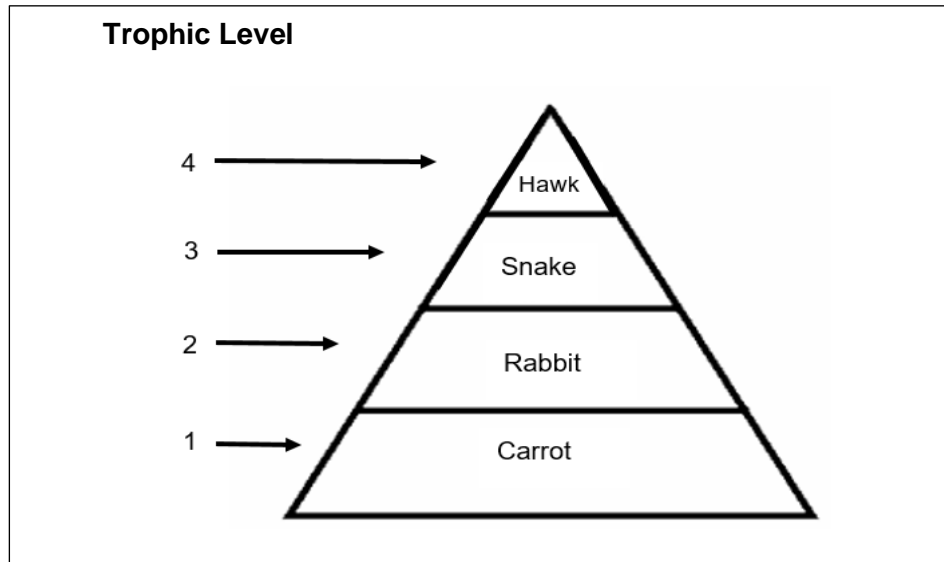
INSTRUCTIONS

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 system used in this Worksheet.



Question 1: Life and Living

1.1 Consider the diagram below and answer the questions.



Source: Own Creation

1.1.1 What is represented by the diagram? (1)

1.1.2 Identify the following from the diagram.

(a) Producer (1)

(b) Tertiary consumer (1)

1.1.3 Trophic level 1 is said to possess the highest amount of energy. (2)
Provide a reason for this.

1.2 Read the passage and answer the questions.

WHY DO LIONESSES MATE SO OFTEN?

Female lions are said to be 'promiscuous'. This means they may mate with many males during the few days when they are sexually active (in oestrus). This may have several advantages. Firstly, this ensures that only the most active healthy sperm fertilizes the egg. Secondly, the cubs will be varied. This variation will lead to a greater chance of survival for the species.

Adapted from ScienceNow, Gr.8, LB

1.2.1 What is the meaning of 'fertilization'? (2)

1.2.2 Lionesses are sexually active for a few days at a time. What is this period called? (1)

1.2.3 Name the instrument used to study the structure of the cell. (2)

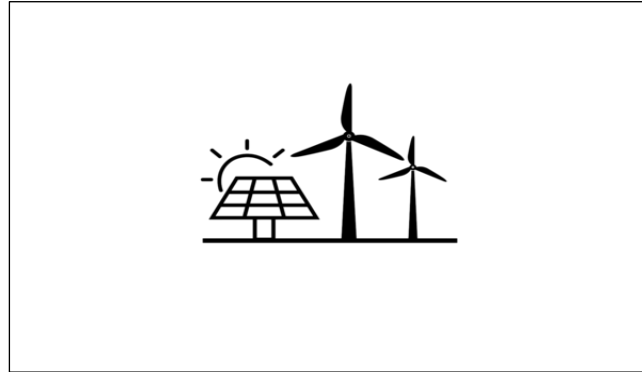
Total Marks for Question 1

[10]



Question 2: Energy and Change

2.1 Study the diagram and answer the questions.



Source: https://www.kadriwovens.com/about_us

2.1.1 Identify the power-generating plants depicted in the diagram. (2)

2.1.2 Which of the TWO power-generating plants uses mechanical energy for its function? (1)

2.1.3 Is the energy produced by the Sun, endothermic or exothermic? (1)

2.1.4 South Africa generates most of its electricity from coal. Describe the energy conversion that occurs when coal is burnt. (2)

2.2 Classify the following objects as Luminous or Non-luminous.

2.2.1 Sun (1)

2.2.2 Moon (1)

2.2.3 Torch (1)

2.2.4 Bulb holder (1)

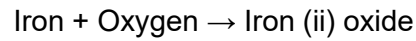
Total marks for Question 2

[10]



Question 3: Matter and Materials

3.1 The following chemical equation represents the rusting of a metal.



3.1.1 Identify a diatomic molecule from the chemical equation. (1)

3.1.2 What colour is iron (ii) oxide? (2)

3.1.3 List TWO methods of preventing a metal from rusting. (2)

3.2 Study the picture and answer the questions.



Source: Byju's.com

3.2.1 Which separating method is illustrated in the picture? (2)

3.2.2 Is the separating method illustrated in the picture an Indigenous or Modern Technology? (1)

3.2.3 Explain the physical property of a solid mixture that can be separated using the method indicated in Question 3.2.1. (2)

Total for Question 3

[10]

Question 4: Earth and Beyond

4.1 Study the image and answer the questions.



Source: <https://www.istockphoto.com/vector/lumberjack-group-in-forest-vector-illustration-man-people-character-cut-tree-gm1451876256-488468560>

- 4.1.1 Identify the term used to describe the human activity depicted in the image. (1)
- the image.
-

- 4.1.2 The human activity depicted in the image tends to impact the biodiversity negatively. Mention TWO ways how the biodiversity gets affected. (2)
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-

- 4.1.3 Provide TWO industrial uses of trees. (2)
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- 4.2 Study the image and answer the questions.



Source: <https://www.pngwing.com/en/free-png-dxtro>

- 4.2.1 Name the pollution depicted in the image. (1)
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4.2.2 Identify TWO pollutants in the water. (2)

4.2.3 Provide advice to people on how to keep water resources clean. (2)

Total for Question 4 [10]

GRAND TOTAL FOR TASK 3 [40]



Total for Task 3: 40 Marks

Task	Activity	Maximum Mark	Learner's Mark	Moderated Mark
Task 3	Question 1	10		
	Question 2	10		
	Question 3	10		
	Question 4	10		
	Total: Task 3	40		

