

NATURAL SCIENCES GRADE 8
TOPIC: INTRODUCTION TO ECOLOGY, ECOSYSTEMS
FEEDING RELATIONSHIPS, FOOD CHAINS & FOOD WEBS
INFORMAL TEST 1.2
MARKS: 15

Name and Surname: _____ Gr. 8 _____ Date: _____

SECTION A
QUESTION 1
1.1 Write the **LETTER** (A, B, C or D) of the correct answer on the line provided.

1.1.1 Which of the following best describes a community?

- A The physical environment and its non-living components.
- B All the living and non-living things in an area.
- C All the interacting populations in an area.
- D A group of individuals of the same species.

Answer: _____ (1)

1.1.2 What is the role of decomposers in an ecosystem?

- A To break down dead organisms and recycle nutrients.
- B To produce their own food using sunlight.
- C To hunt and consume other animals.
- D To consume plants and other producers.

Answer: _____ (1)

1.1.3 Which of the following is an example of a biotic factor in an ecosystem?

- A Sunlight
- B Temperature
- C Bacteria
- D Water

Answer: _____ (1)

1.2 Provide the correct **WORD** for each of the descriptions.

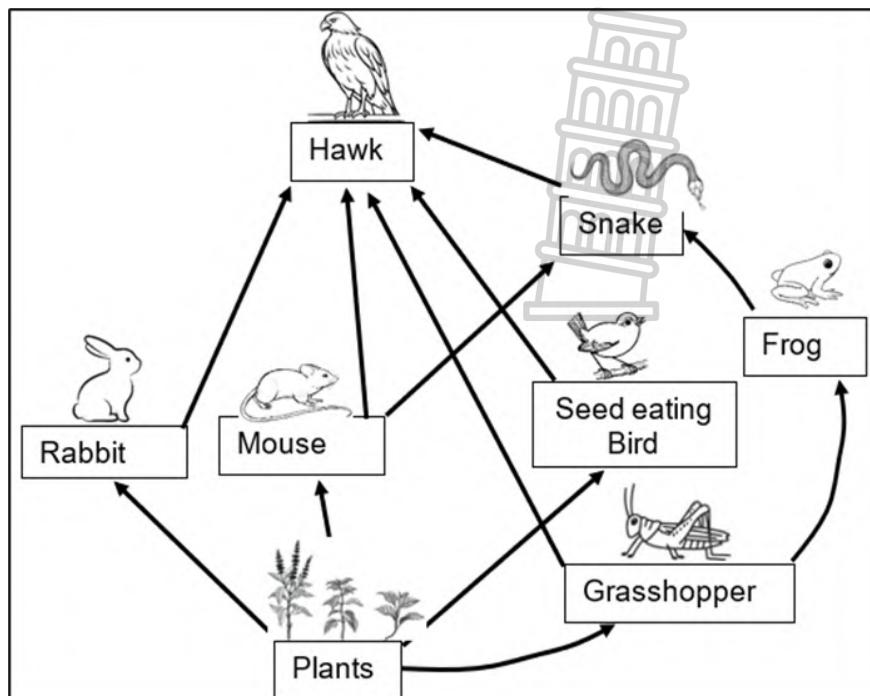
1.2.1 The natural environment where an organism lives. _____ (1)

1.2.2 Animals that eat plants only. _____ (1)

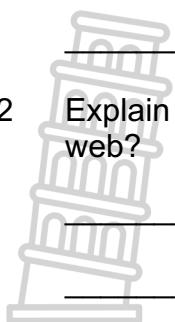
[5]

SECTION B
QUESTION 2

Study the food web:

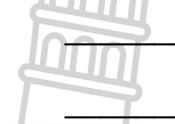


2.1 What is the main source of energy for all living organisms in this food web?



(1)

2.2 Explain why it can be stated that there are no visible abiotic factors present in this food web?



(2)

2.3 Name an organism from the food web above which is an example of a:

(a) Carnivore _____ (1)

(b) Producer _____ (1)

(c) Secondary consumer _____ (1)

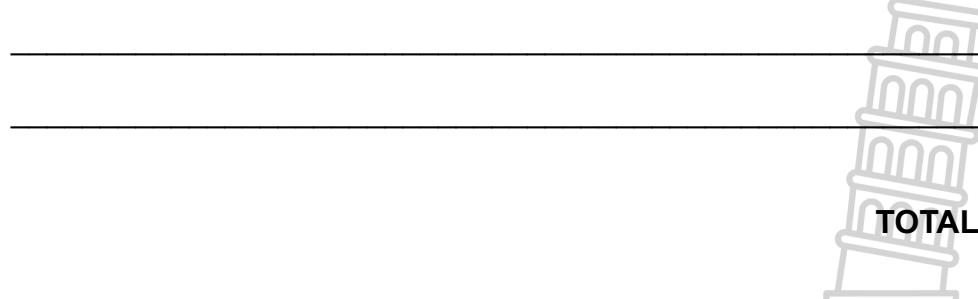
2.4 How many primary consumers are there in this food web? _____ (1)

2.5 Use the information in the food web and write down a food chain that contains FIVE organisms (five trophic levels).



(2)

2.6 Referring to the feeding relationships in the food web above, name ONE factor that can lead to an INCREASE in the snake population.



(1)
[10]

TOTAL MARK: 15

TOPIC: INTRODUCTION TO ECOLOGY, ECOSYSTEMS
 FEEDING RELATIONSHIPS, FOOD CHAINS & FOOD WEBS

MEMORANDUM

SECTION A

QUESTION 1

1.1.1 C ✓ (1)
 1.1.2 A ✓ (1)
 1.1.3 C✓ (1)

1.2.1 habitat ✓ (1)
 1.2.2 herbivores ✓ (1)

[5]

SECTION B

QUESTION 2

2.1 Sun / Sunlight✓ (1)

2.2 There are no✓ non-living things✓ (sun, rocks, soil, water, etc.) visible in the diagram.
OR
 Abiotic factors refer to non-living✓ things like soil, water, sunlight, which are not present / absent✓ in the illustration of the food web.
OR
 The food web contains only biotic factors (living things)✓, there are no abiotic (non-living)✓ things visible in the food web. (2)

2.3 (a) Hawk **OR** Snake **OR** Frog ✓ (Any ONE) (1)
 (b) Plants ✓ (1)
 (c) Hawk **OR** Snake **OR** Frog ✓ (1)

2.4 Four ✓ (1)

2.5 Plants → Grasshopper → Frog → Snake → Hawk

Marking criteria: 1 mark – Correctly naming all 5 organisms in the correct order. ✓
 1 mark – Arrows indicating the correct flow of energy. ✓ (2)

2.6 **An increase in the mice AND/OR frog population.**✓ (More food for snakes.)
A decrease in the hawk population. ✓ (Less predators hunting snakes.)
 (Any ONE) (1)