Communities Adaptations

GCSE Biology · Written to the shared content for AQA, Edexcel and OCR

Name _____ Class _____ Date _____

1. Worked example

Define the terms population, community and ecosystem. (3 marks)

Step 1 · Population

All the organisms of one species living in a habitat.

Step 2 · Community

The populations of different species living in a habitat.

Step 3 · Ecosystem

The interaction of a community of living organisms (biotic) with the non-living (abiotic) parts of their environment.

Answer: Population (one species) → community (all species) → ecosystem (+ abiotic)

Check: A habitat is the place where an organism lives.

2. Now try one with the steps

Explain what is meant by interdependence. (2 marks)

Step 1 · Definition

Step 2 · Consequence

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. What is a habitat? [1]

2. Give three things plants compete for. [3]

3. Give three things animals compete for. [3]

4. What is an abiotic factor? Give an example. [2]

5. What is a biotic factor? Give an example. [2]

6. What is an extremophile? [1]

7. Explain why removing bees from a community could reduce the number of fruit-eating birds. [2]

8. Give one behavioural adaptation of an animal living in a cold climate. [1]

9. A population of 250 plants fell by 20%. How many plants remain? [1]

10. A population increased from 80 to 140. Calculate the percentage increase. [2]

11. Explain why an Arctic fox has smaller ears than a desert fox. [2]

12. Explain how a low soil pH could reduce plant growth in an area. [2]

13. Explain why oxygen concentration is an important abiotic factor in a river but less so in a meadow. [2]

14. Explain why a stable community can change if one abiotic factor changes. [3]

4. Before you hand it in

"Population and community mean the same thing."
Population = one species; community = all the species in a habitat.

"Animals develop adaptations because they need them."
Individuals with useful characteristics survive and breed more, so adaptations become common over generations.

Calling food availability abiotic
Food availability is a BIOTIC factor.