

AQA Biology GCSE

7.1 - Adaptations, Interdependence and Competition

Flashcards

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State the levels of organisation in an ecosystem.



State the levels of organisation in an ecosystem.

Individual, population, community,
ecosystem.



What is an ecosystem?



What is an ecosystem?

The interaction between the living components and non-living components.



State the factors that plants may compete for.



State the factors that plants may compete for.

- Light
- Space
- Water
- Mineral ions from soil



State the factors that animals might compete for.



State the factors that animals might compete for.

- Food
- Mates
- Territory



What is intraspecific competition?



What is intraspecific competition?

Competition within a species.



What is interspecific competition?



What is interspecific competition?

Competition between different species.



What is interdependence?



What is interdependence?

Different species in a ecosystem depend on each other for various resources, if one species is removed, the whole community may be affected.



What is a stable community?



What is a stable community?

A community in which all the biotic factors (the different species) and all abiotic factors are balanced so that population sizes remain relatively constant.



What are abiotic factors?



What are abiotic factors?

Non-living factors.



State the abiotic factors that may affect an ecosystem.



State the abiotic factors that may affect an ecosystem.

- Light intensity
- Temperature
- Moisture
- Soil pH and mineral content
- Wind intensity and direction
- Carbon dioxide level
- Oxygen level



Why might light intensity affect an ecosystem?



Why might light intensity affect an ecosystem?

Different species of plants may have different optimum light intensities for growth.



Why does temperature affect an ecosystem?



Why does temperature affect an ecosystem?

Different species of plants and animals may have different optimum temperatures for growth and survival.



How does soil pH affect an ecosystem?



How does soil pH affect an ecosystem?

Certain plants may grow better in either alkaline or acidic soil.

Soil pH may affect the appearance of the plant eg. colour of hydrangea.



How does moisture level affect an ecosystem?



How does moisture level affect an ecosystem?

Many plants cannot survive in waterlogged soil as their roots cannot respire.

Certain plants are adapted to high moisture levels.



How does wind intensity affect an ecosystem?



How does wind intensity affect an ecosystem?

Plant seeds are more likely to germinate in locations with lower wind intensity, which may also attract animals that depend on the plant to live nearby.



How does soil mineral content affect an ecosystem?



How does soil mineral content affect an ecosystem?

Most plants require a high level of soil minerals to grow well.



Give an example of a type of plants that have adapted to low soil mineral content.



Give an example of a type of plants that have adapted to low soil mineral content.

Carnivorous plants catch insects to compensate for the low level of soil mineral content.



How does carbon dioxide concentration affect an ecosystem?



How does carbon dioxide concentration affect an ecosystem?

Higher carbon dioxide concentration leads to more plant growth.



How does oxygen concentration affect an ecosystem?



How does oxygen concentration affect an ecosystem?

Aquatic animals cannot survive in areas with low oxygen concentration.



State the biotic factors that may affect an ecosystem.



State the biotic factors that may affect an ecosystem.

- Food
- New predators
- New pathogens
- Competition



What are adaptations?



What are adaptations?

Features that enable organisms to survive in their living environment.



What are organisms living in extreme environments called?



What are organisms living in extreme environments called?

Extremophiles.



Give 3 examples of extreme living environments.



Give 3 examples of extreme living environments.

- High temperature
- High pressure
- High salt concentration



State an example of where extremophile bacteria can be found.



State an example of where extremophile bacteria can be found.

In deep sea vents.

