

Foundation Separate version — Higher Tier (★) questions removed.

Q1. Describe the carbon cycle. Name ALL processes that move carbon between atmosphere and organisms.

[4 marks]

Q2. Explain the process of eutrophication and its effect on an aquatic ecosystem.

[4 marks]

Total: 8 marks

Q1 (4 marks)

Describe the carbon cycle. Name ALL processes that move carbon between atmosphere and orga...

- Photosynthesis removes CO₂ from atmosphere → fixed in glucose [1]
- Respiration (all organisms) returns CO₂ [1]
- Decomposition: decomposers break down dead matter → CO₂ released [1]
- Combustion (burning) releases stored carbon as CO₂ [1]

Q2 (4 marks)

Explain the process of eutrophication and its effect on an aquatic ecosystem.

- Fertiliser run-off → excess nitrates/phosphates in water [1]
- Algal bloom on surface → blocks light to plants below [1]
- Aquatic plants die → bacteria decompose → use dissolved O₂ [1]
- O₂ depleted → fish and aquatic organisms suffocate [1]