

Nutrient cycles: practice questions

3 questions • 8 marks • mark scheme at the back

For Cambridge IGCSE Combined Science 0653. **Supplement** is Extended content, only examined on Papers 2 and 4.

Name

Total / 8

1 Which process removes carbon dioxide from the air? [1 mark]

- A. ☐ Respiration
- B. ☐ Combustion
- C. ☐ Photosynthesis
- D. ☐ Decomposition

2 Describe how carbon in the bodies of dead plants returns to the air as carbon dioxide, [4 marks]
and how carbon in dead organisms that are buried for millions of years may later return to the air.

3 A student states that the amount of carbon dioxide in the air stays roughly constant in a [3 marks]
natural ecosystem. (a) Name the process that removes carbon dioxide from the air. [1] (b)
Name two processes that add carbon dioxide to the air. [2]

Mark scheme

One mark for each point unless a maximum is given. Words in brackets are not needed for the mark.

1. [1]

C C (1)

2. [4]

- decomposers / bacteria and fungi break down the dead plants (1)
- decomposers respire (1)
- releasing carbon dioxide (into the air) (1)
- buried organisms form fossil fuels / coal, oil, gas (1)
- burning / combustion of the fossil fuel releases carbon dioxide (1)
- Max 4

3. [3]

- (a) photosynthesis (1)
- (b) any two from: respiration; combustion / burning; decomposition / decay (2)
- ignore breathing