

Respiration practice questions

3 questions • 5 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 / 5

1 Which two processes both use energy released by respiration? [1 mark]

- A. ☐ protein synthesis and photosynthesis
- B. ☐ muscle contraction and active transport
- C. ☐ diffusion and osmosis
- D. ☐ evaporation and transpiration

2 Define aerobic respiration and write the word equation for it. [3 marks]

3 **Supplement** [1 mark]

Which is the balanced chemical equation for aerobic respiration?

- A. ☐ $\text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
- B. ☐ $\text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 \rightarrow 6\text{CO}_2 + 6\text{H}_2\text{O}$
- C. ☐ $\text{C}_6\text{H}_{12}\text{O}_6 \rightarrow 2\text{C}_2\text{H}_5\text{OH} + 2\text{CO}_2$
- D. ☐ $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$

Mark scheme

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

1. [1]

B B (1)

2. [3]

- chemical reactions in cells (1)
- that use oxygen to break down nutrient molecules to release energy (1)
- glucose + oxygen → carbon dioxide + water (1)

3. [1] **Supplement**

B B (1)