12. Respiration

Starter Quiz ·

IGCSE Biology Name: _____ Score: _____

1. Respiration is the process of:

   ☐ breathing air in and out

   ☐ removing waste

   ☐ releasing energy from food in cells

   ☐ making food from light

2. The products of aerobic respiration are:

   ☐ lactic acid

   ☐ alcohol and carbon dioxide

   ☐ glucose and oxygen

   ☐ carbon dioxide and water

3. Anaerobic respiration in human muscles produces:

   ☐ glucose

   ☐ lactic acid

   ☐ carbon dioxide and water

   ☐ alcohol

4. What does a cell use the energy from respiration for? (Select all that apply.)

   ☐ movement

   ☐ making sunlight

   ☐ active transport

   ☐ growth

   Tick every correct option.

5. In aerobic respiration, oxygen is:

   ☐ used up

   ☐ turned into glucose

   ☐ produced

   ☐ not involved

6. Anaerobic respiration in yeast produces:

   ☐ protein

☐ water and oxygen

☐ lactic acid

☐ alcohol and carbon dioxide

7. Respiration and breathing are the same process.

   ☐ True ☐ False

8. The aerobic respiration equation is the reverse of photosynthesis.

   ☐ True ☐ False

9. After hard exercise, breathing returns to normal at once because no extra oxygen is needed.

   ☐ True ☐ False

10. Aerobic respiration takes place mainly in the _____ of the cell.

    _____

IGCSE Biology

1. **releasing energy from food in cells**

   Respiration releases energy from glucose in cells.

2. **carbon dioxide and water**

   Glucose + oxygen → carbon dioxide + water.

3. **lactic acid**

   Glucose → lactic acid in muscles.

4. **movement; active transport; growth**

   Energy powers movement, growth and active transport; cells cannot make sunlight.

5. **used up**

   Oxygen is a reactant, used up in the reaction.

6. **alcohol and carbon dioxide**

   Yeast fermentation gives alcohol + CO_2.

7. **False**

   Respiration is a chemical reaction in cells; breathing moves air.

8. **True**

   Glucose + oxygen → CO_2 + water reverses CO_2 + water → glucose + oxygen.

9. **False**

   False. Extra oxygen is needed to break down the lactic acid built up during anaerobic respiration (the oxygen debt), so you keep breathing hard after stopping.

10. **mitochondria**

    Mitochondria are the site of aerobic respiration.