

Multiple-choice test

Chapter 11: Respiration and gas exchange

Click on the correct answer to each question.

- 1 Why do cells respire?
 - A to digest large nutrient molecules into small ones
 - B to make carbon dioxide
 - C to produce food
 - D to release energy from nutrient molecules
- 2 Which word equation represents aerobic respiration?
 - A carbon dioxide + water \rightarrow glucose + oxygen
 - B glucose + oxygen \rightarrow carbon dioxide + water
 - C glucose \rightarrow lactic acid
 - D glucose \rightarrow ethanol + carbon dioxide
- 3 Which organisms respire?
 - A animals only
 - B animals and plants only
 - C animals and fungi only
 - D animals, plants and fungi
- 4 What is the gas exchange surface in a human?
 - A the surface of a red blood cell
 - B the surface of the alveoli in the lungs
 - C the surface of the left ventricle of the heart
 - D the surface of the trachea and bronchi
- 5 Which process in the human body does **not** require energy input from respiration?
 - A diffusion
 - B maintenance of a constant body temperature
 - C muscle contraction
 - D passage of nerve impulses

- 6 Which statement about anaerobic respiration is correct?
- A It generates glucose for energy.
 - B It only takes place at high temperatures.
 - C It releases less energy from each glucose molecule than aerobic respiration.
 - D It uses carbon dioxide instead of oxygen.
- 7 Which equation represents anaerobic respiration in yeast?
- A $C_6H_{12}O_6 \rightarrow 2C_2H_5OH + 2CO_2$
 - B $C_6H_{12}O_6 \rightarrow 2C_3H_6O_2$
 - C $C_6H_{12}O_6 + 6O_2 \rightarrow 6H_2O + 6CO_2$
 - D $6H_2O + 6CO_2 \rightarrow C_6H_{12}O_6 + 6O_2$
- 8 What happens when you breathe out?
- A Diaphragm muscles and external intercostal muscles both contract.
 - B Diaphragm muscles and external intercostal muscles both relax.
 - C Diaphragm muscles contract and external intercostal muscles relax.
 - D Diaphragm muscles relax and external internal intercostal muscles contract.
- 9 What do goblet cells do?
- A absorb carbon dioxide
 - B make antibodies
 - C produce cilia
 - D secrete mucus
- 10 Why do you continue to breathe faster after finishing strenuous exercise?
- A to deliver extra glucose to the muscles
 - B to keep the heart beating strongly
 - C to supply oxygen to break down lactic acid
 - D to supply tired muscles with extra energy