

# Respiration and Breathing in Living Organisms

Biology · Answer Key · 20 Questions

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**1. What is the process of taking in oxygen-rich air into the body called?**

- A) Exhalation
- B) Respiration
- C) Inhalation**
- D) Breathing

**2. What is the process of giving out air with more carbon dioxide called?**

- A) Inhalation
- B) Breathing
- C) Respiration
- D) Exhalation**

**3. What are inhalation and exhalation collectively called?**

- A) Respiration
- B) Gas exchange
- C) Breathing**
- D) Energy release

**4. What is respiration defined as?**

- A) The release of carbon dioxide
- B) The process of using oxygen to break down food and release energy**
- C) Taking in oxygen-rich air
- D) Giving out carbon dioxide-rich air

**5. Why is respiration also called the universal chemical process?**

- A) Because it only occurs in plants
- B) Because every living cell respire to survive**
- C) Because it is a physical process
- D) Because it is only extracellular

**6. Which of the following is NOT a characteristic of respiration?**

- A) Release of energy
- B) Intracellular process
- C) Breakdown of digested food
- D) No release of energy**

**7. Which of the following is a characteristic of breathing?**

- A) Release of energy
- B) Intracellular process
- C) Extracellular process**
- D) Biochemical process

**8. In which animals does gas exchange take place through the skin?**

- A) Birds
- B) Fish
- C) Earthworms and leeches**
- D) Mammals

**9. What allows gaseous exchange in the skin of earthworms?**

- A) Scales
- B) Hair follicles
- C) The skin walls and blood vessels**
- D) Feathers

**10. Where does respiration primarily take place in the body?**

- A) Outside the cells
- B) In the lungs only
- C) Inside the cells**
- D) In the blood vessels

**11. What is the primary function of oxygen inhaled during breathing?**

- A) To release carbon dioxide
- B) To break down food and release energy**
- C) To cool the body
- D) To increase the volume of air inhaled

**12. What are the byproducts of respiration mentioned in the text?**

- A) Oxygen and water
- B) Carbon dioxide and water**
- C) Glucose and oxygen
- D) Nitrogen and carbon dioxide

**13. What is the main difference between respiration and breathing regarding energy?**

- A) Respiration releases energy, breathing does not**
- B) Breathing releases energy, respiration does not
- C) Both release energy
- D) Neither releases energy

**14. How is breathing described in terms of its location?**

- A) Intracellular
- B) Extracellular**
- C) Both intracellular and extracellular
- D) In the bloodstream

**15. What type of process is respiration?**

- A) Physical
- B) Chemical**
- C) Mechanical
- D) Atmospheric

**16. What type of process is breathing?**

- A) Biochemical
- B) Chemical
- C) Physical**
- D) Metabolic

**17. What does the blood transport in earthworms related to gas exchange?**

- A) Food particles
- B) Waste products
- C) Gases**
- D) Water

**18. What is the role of the slimy surface of the skin in earthworms and leeches for respiration?**

- A) To absorb water
- B) To prevent drying out
- C) To allow gaseous exchange**
- D) To store food

**19. Which of the following is vital for the survival of living things according to the text?**

- A) Digestion and excretion
- B) Breathing and respiration**
- C) Movement and reproduction
- D) Growth and development

**20. In earthworms, the skin is rich in what to aid in gas transport?**

- A) Nerves
- B) Muscles
- C) Blood vessels**
- D) Cartilage