1. What is the primary function of the respiratory system?
   A) Transporting nutrients throughout the body
   B) Exchanging oxygen and carbon dioxide with the environment
   C) Producing energy for cellular functions
   D) Filtering waste from the blood

2. Which structure in the respiratory system is responsible for gas exchange?
   A) Trachea
   B) Alveoli
   C) Bronchioles
   D) Bronchi

3. Which of the following muscles plays a key role in the process of inhalation?
   A) Intercostal muscles
   B) Diaphragm
   C) Abdominal muscles
   D) Pectoral muscles

4. What prevents food from entering the trachea during swallowing?
   A) Larynx
   B) Epiglottis
   C) Vocal cords
   D) Bronchi

5. How is oxygen transported in the blood?
   A) Bound to red blood cells
   B) Dissolved in plasma
   C) Attached to white blood cells
   D) Suspended as oxygen gas bubbles

True/False Questions

1. The bronchioles are smaller branches of the bronchi that lead to the alveoli.

2. The left lung is larger than the right lung to make room for the heart.

3. Gas exchange occurs by active transport in the alveoli.

---

1. Explain the role of the alveoli in the respiratory system.

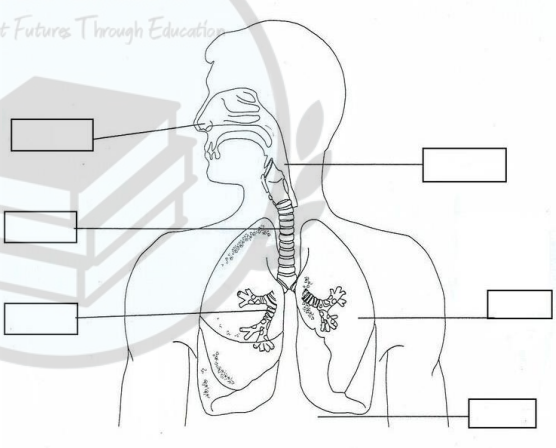
2. Describe how the diaphragm and intercostal muscles work together during inhalation.

3. What is the purpose of cilia in the respiratory tract?

Match the structure with its function:

Structure	**Function**
Trachea	A) Passage for air to enter the lungs
Larynx	B) Contains vocal cords
Alveoli	C) Site of gas exchange
Bronchi	D) Distributes air to each lung
Diaphragm	E) Main muscle involved in breathing

1. Label the following structures on a diagram of the respiratory system:
    - Trachea
    - Bronchi
    - Lungs
    - Alveoli
    - Diaphragm



2. Describe the path that air takes as it enters the body through the nose and reaches the alveoli.

---

1. Describe the process of gas exchange in the lungs and explain how oxygen and carbon dioxide are transported in the blood.
2. Compare and contrast inhalation and exhalation. Include details about the movement of the diaphragm, intercostal muscles, thoracic cavity volume, and air pressure.
3. Explain the effects of smoking on the respiratory system. Discuss its impact on structures such as the alveoli, cilia, and overall lung function.