

# **Lesson 12 - Respiratory system**

## **(Downloadable Student Document)**

Science - Biology - Key Stage 3

Cell, Tissues and Organs

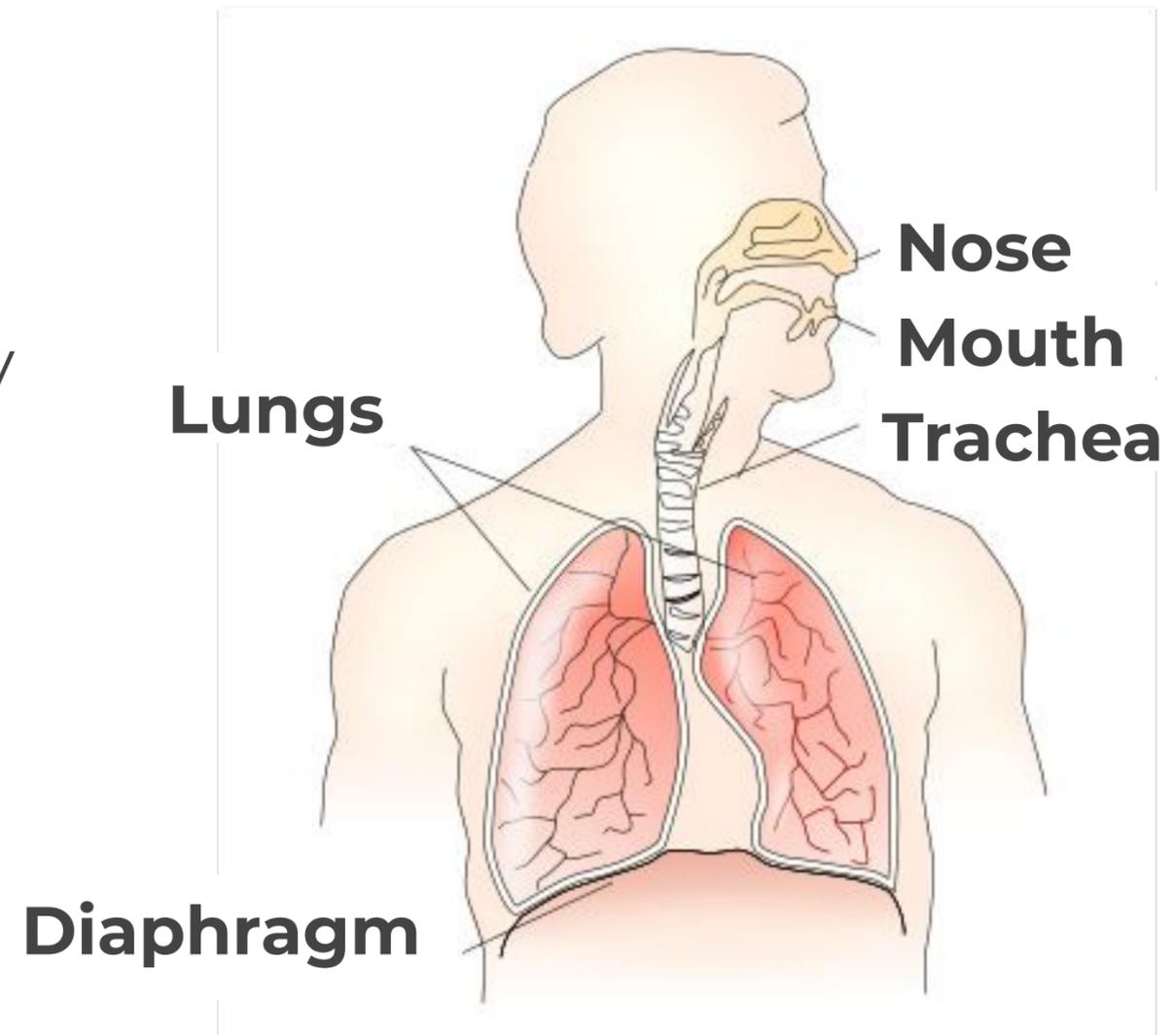
Miss Wickham



# The respiratory system

## Recap question

1. What is the job of the respiratory system?
2. Name the gases involved in the respiratory system.



# The respiratory system

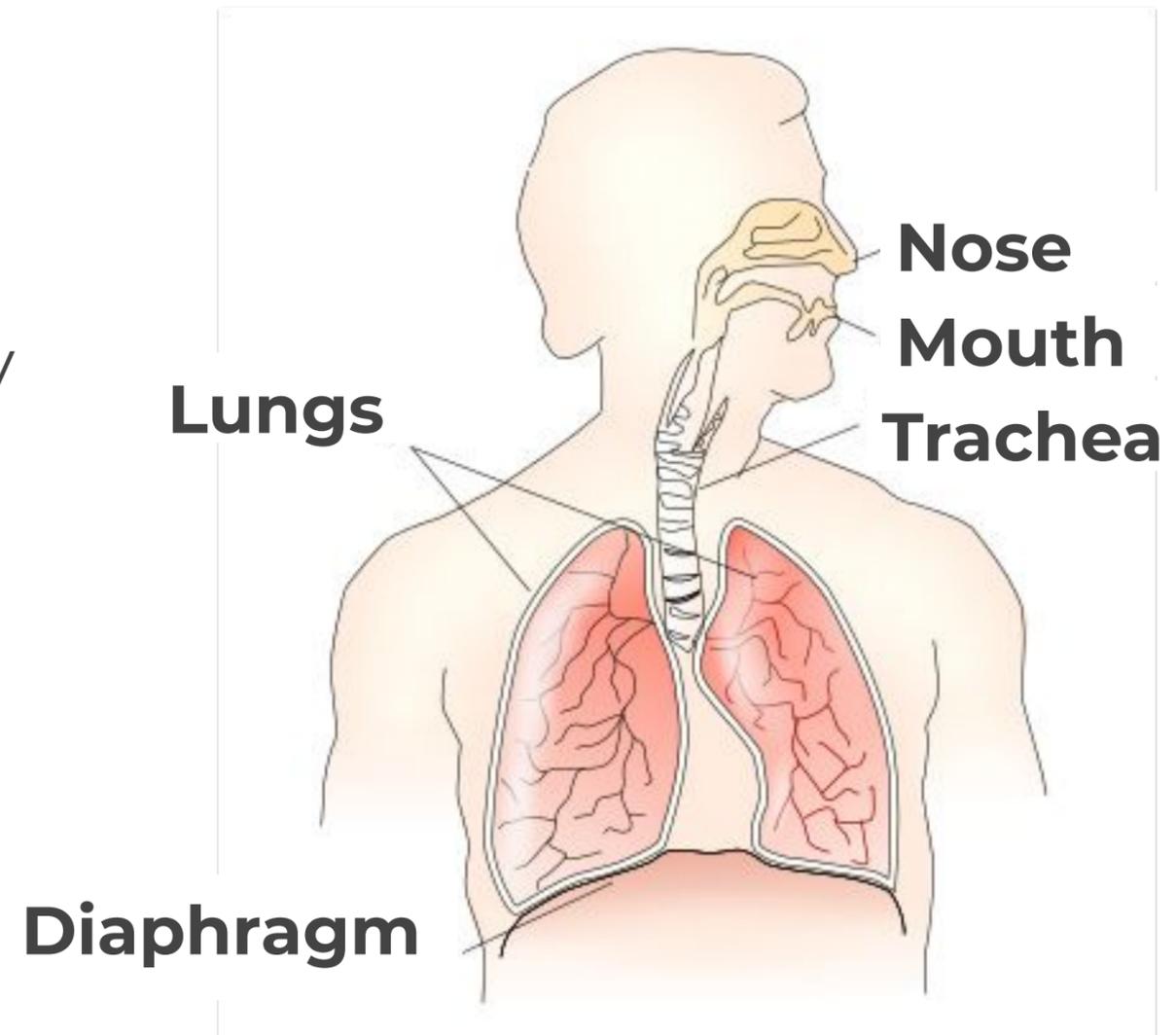
## Recap question

1. What is the job of the respiratory system?

**Gas exchange**

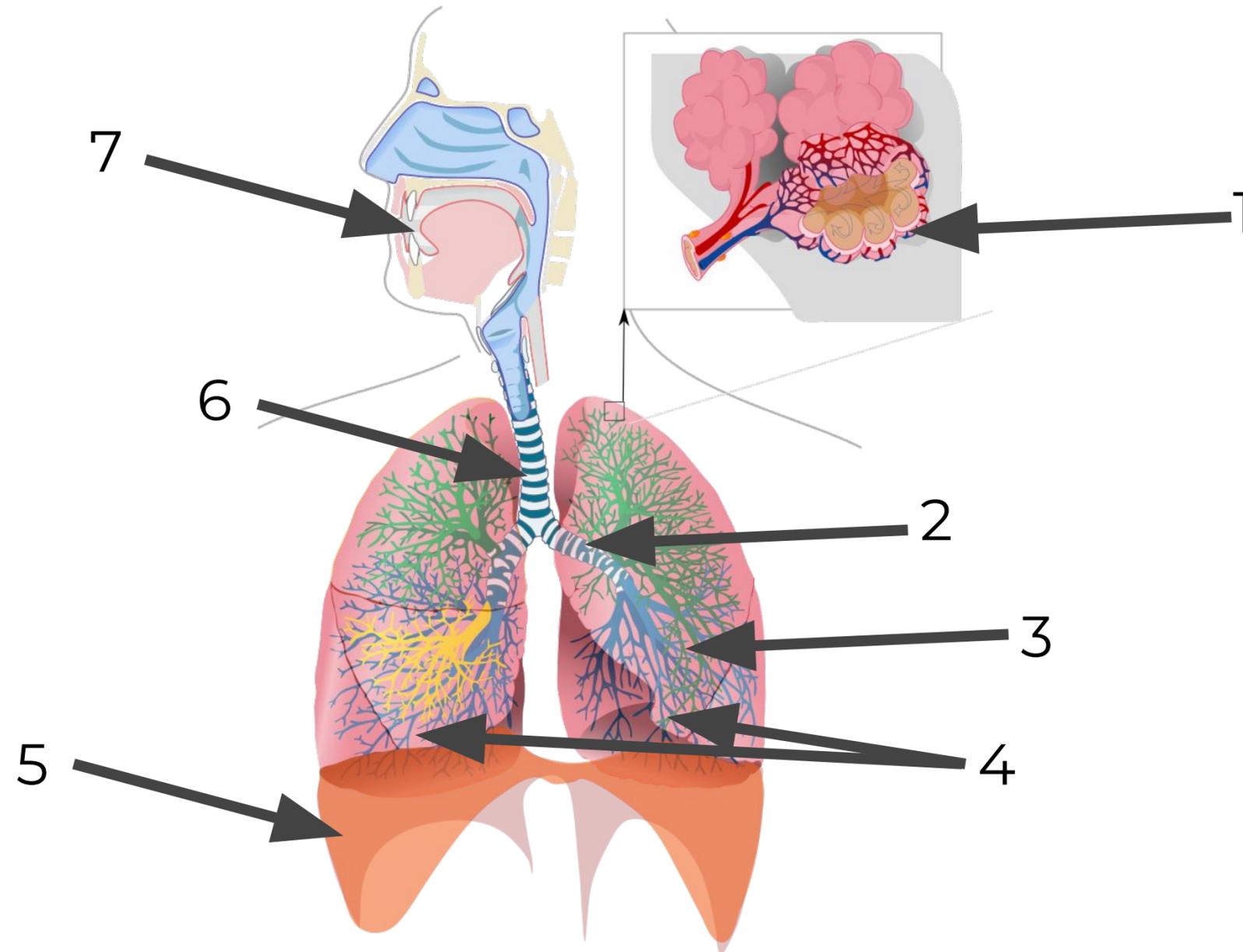
2. Name the gases involved in the respiratory system.

**Oxygen and carbon dioxide**



# Label the diagram

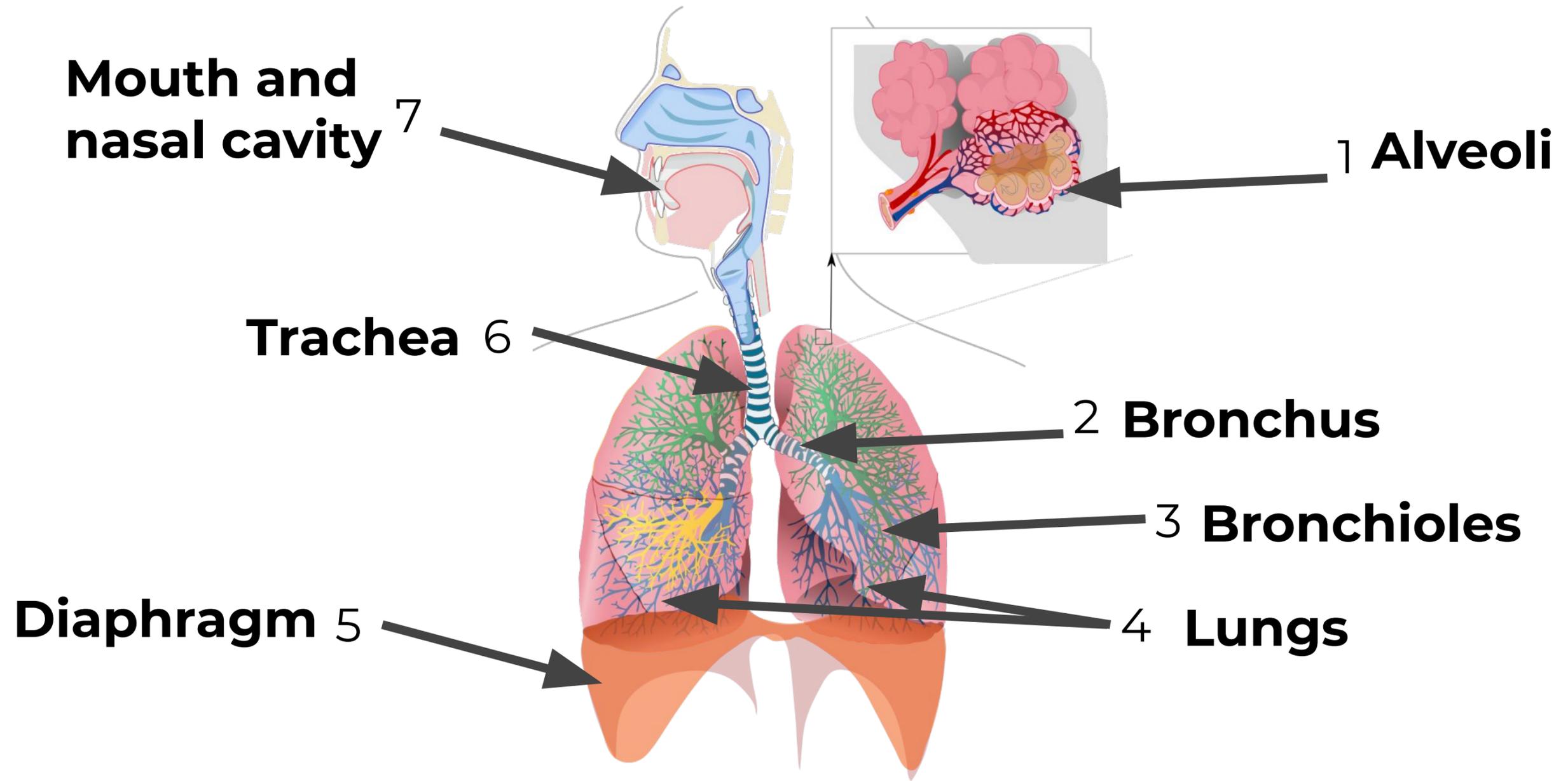
- Mouth and nasal cavity
- Bronchioles
- Bronchus
- Diaphragm
- Alveoli
- Lungs
- Trachea



Respiratory\_system\_complete\_en.svg but without labels., JMarchn [Wikimedia Commons]



# Label the diagram



**Complete the following gap fill activity:**

**The lungs are protected by \_\_\_\_\_. Our body takes in \_\_\_\_\_ and releases \_\_\_\_\_ when breathing. The process of taking in oxygen into the lungs is known as \_\_\_\_\_. The process of releasing carbon dioxide from the lungs is known as \_\_\_\_\_. Alveolus are surrounded by \_\_\_\_\_.**

**Key words: capillaries, oxygen, carbon dioxide, rib cage, exhalation, inhalation**



**Complete the following gap fill activity:**

- 1. The lungs are protected by the **rib cage**.**
- 2. Our body takes in **oxygen** and releases **carbon dioxide** when breathing.**
- 3. The process of taking in oxygen into the lungs is known as **inhalation**.**
- 4. The process of releasing carbon dioxide from the lungs is known as **exhalation**.**
- 5. Alveoli are surrounded by **capillaries**.**



**Describe how the parts of the digestive system and parts of the respiratory system work together.**

**Link to:**

- **Respiration (explain in terms of reactants and products)**
- **life processes (link to digestive and respiratory system)**
- **Give specific example of organs in each system**

The digestive system breaks down food molecules to make them small enough to diffuse into the...

The respiratory system involves inhaling oxygen...

Key words: energy, oxygen, carbon dioxide, water, glucose, inhale, exhale, alveoli



**Describe how the parts of the digestive system and parts of the respiratory system work together.**

The **digestive system** breaks down food molecules to make them small enough to **diffuse** from the **small intestine** into the bloodstream. **Glucose** is an example of a food molecule that will diffuse in the blood and be transported around the body. The respiratory system involves **inhaling oxygen**, which will diffuse into the bloodstream and be transported to cells. **Glucose** will **react** with **oxygen** in cells, producing **energy, carbon dioxide and water**. This is known as **respiration**. The carbon dioxide will diffuse from the cell into the blood, and will diffuse out of the bloodstream into the **alveoli**, into the **lungs** and will be **exhaled**. Therefore, linking the digestive system and the respiratory system as they are **reliant on one another** to fulfil the following life processes: **nutrition and respiration**.

