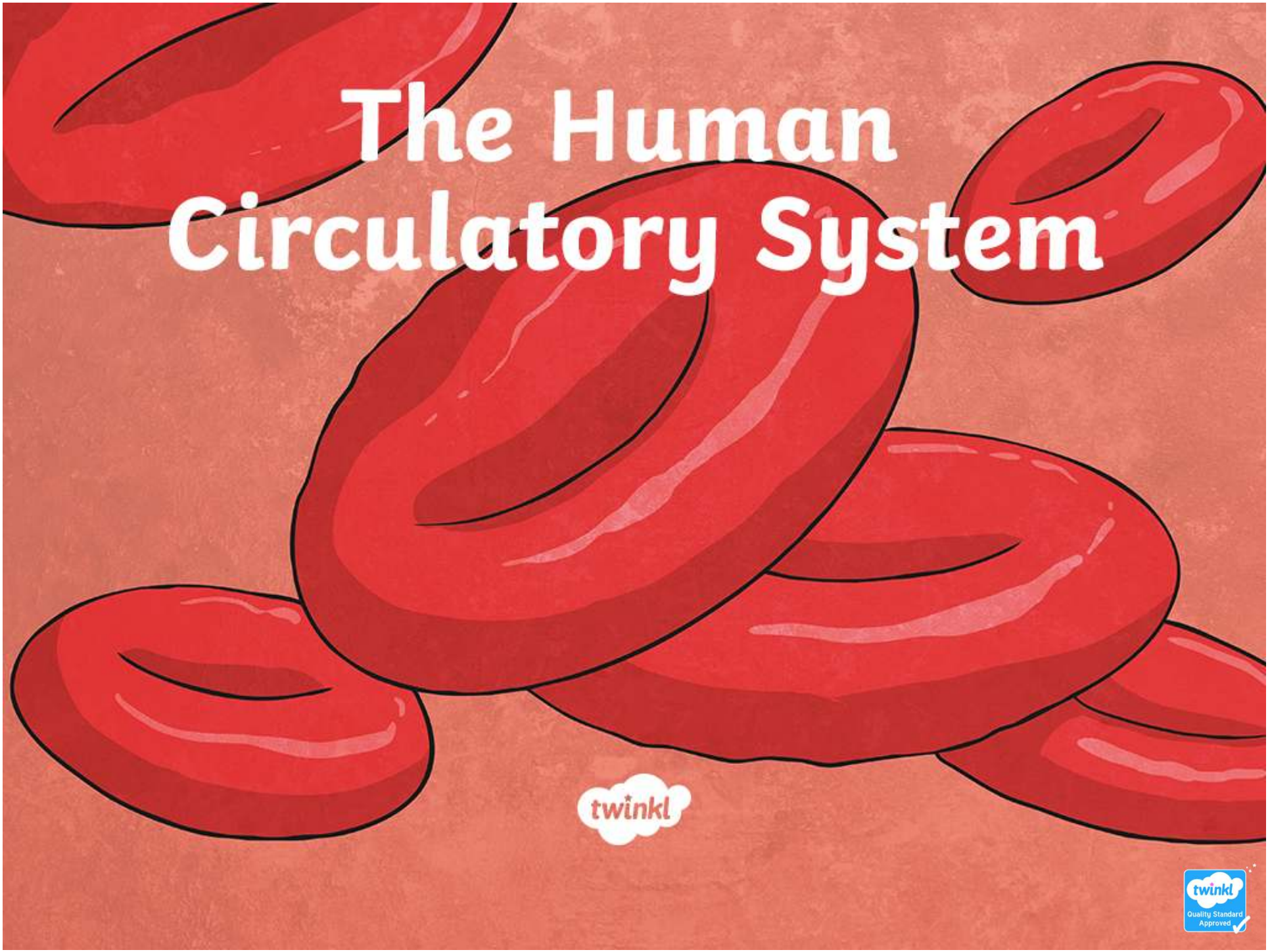
The Human Circulatory System
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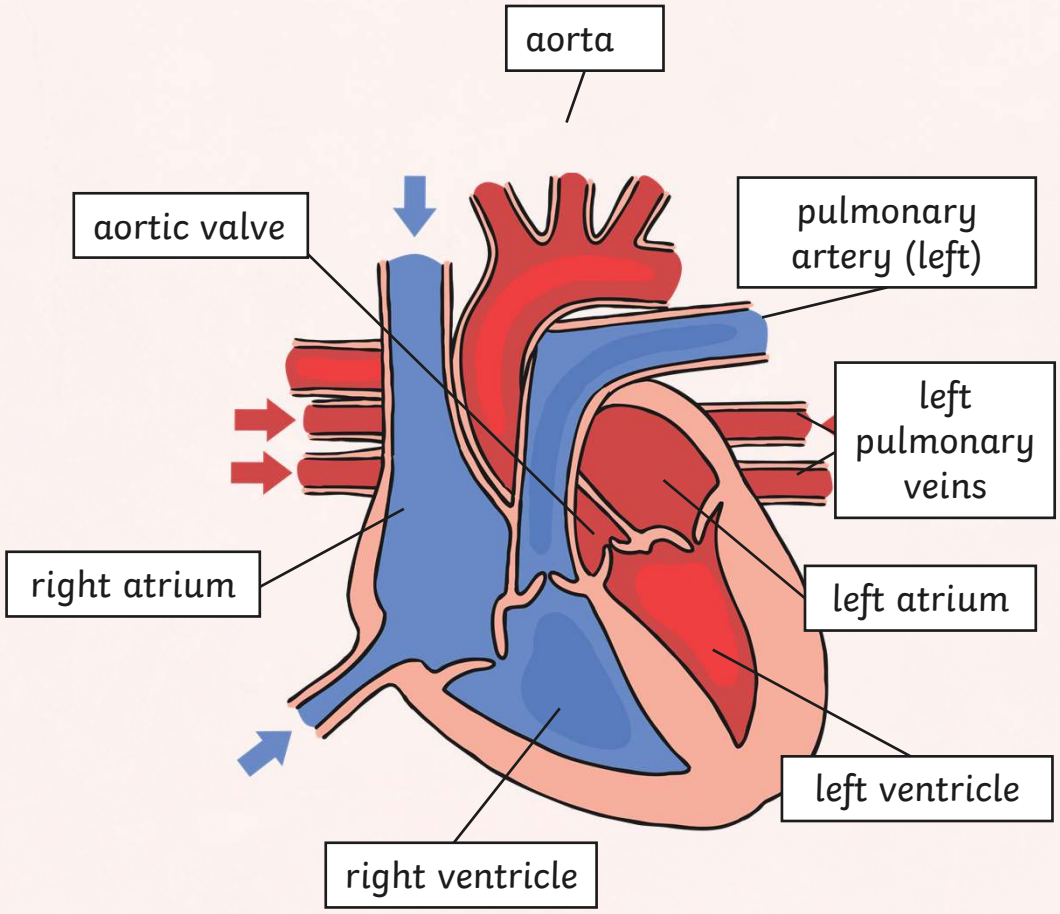
The Function of the Heart

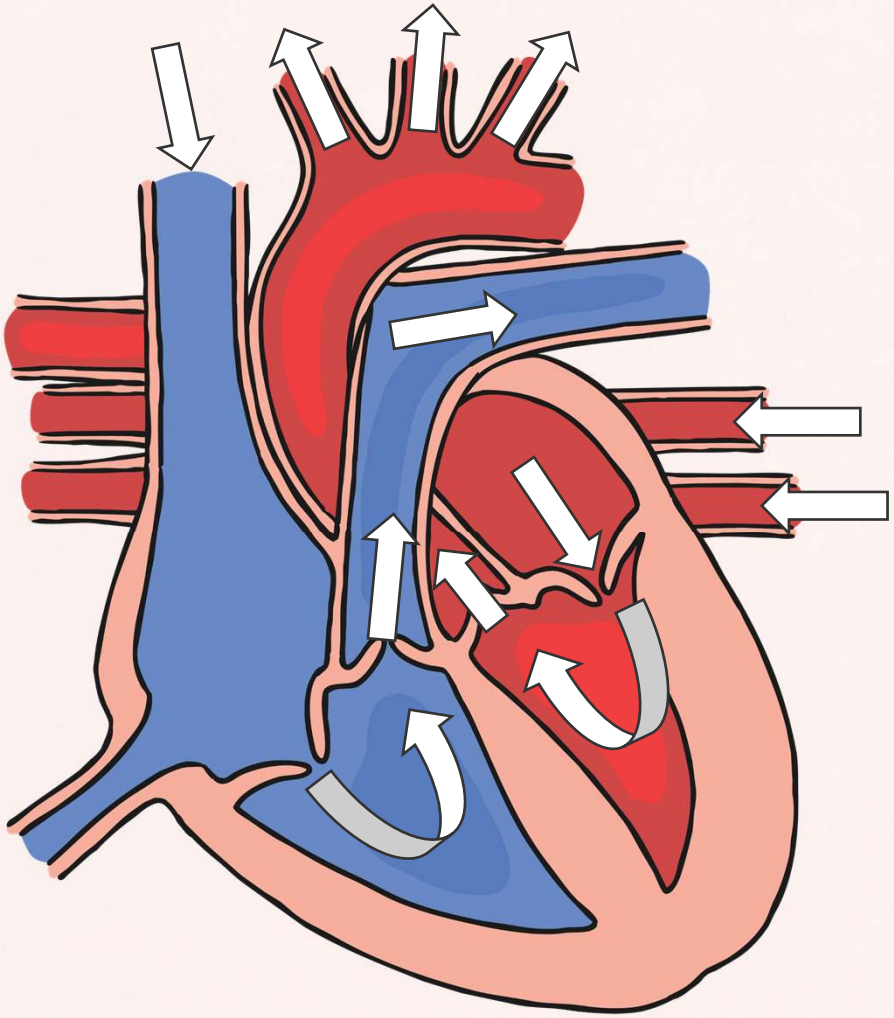
The heart is a powerful muscle that is situated between your lungs, protected by the ribcage.

The heart pumps blood to the lungs to get oxygen.

The heart pumps the oxygenated blood to the rest of the body.



How the Heart Works



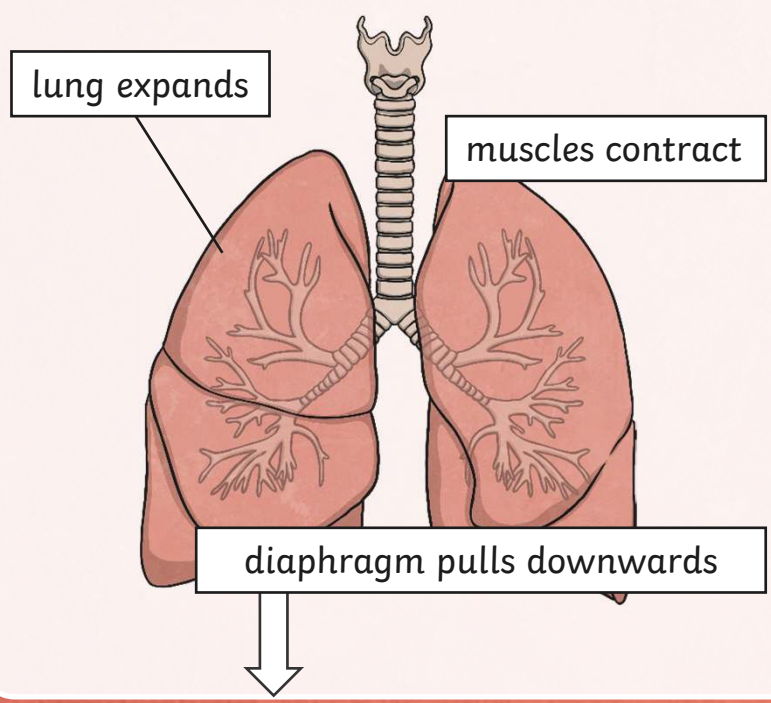
Click to go through each stage of the process.

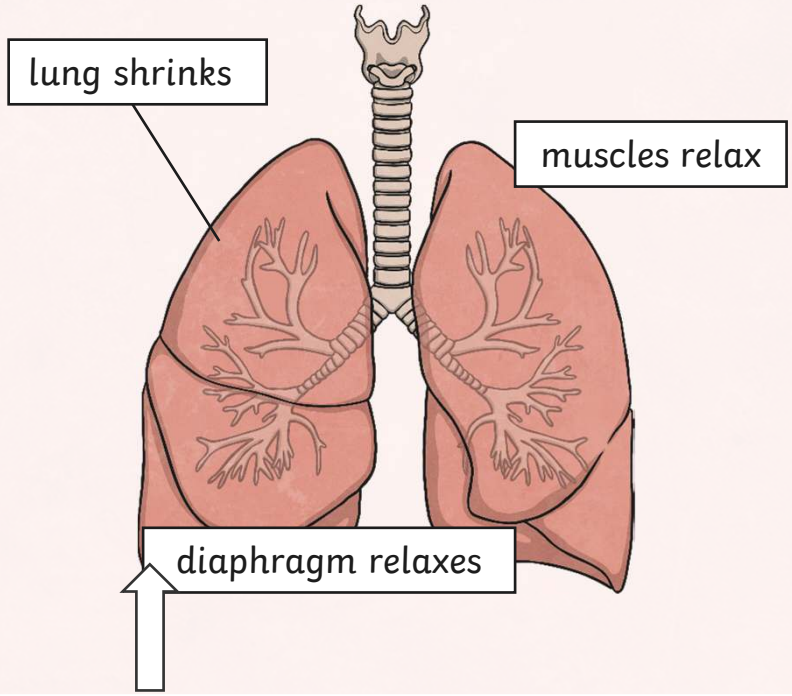
- right atrium
- right ventricle
- pulmonic valve
- pulmonary artery (left)
- left pulmonary veins
- left atrium
- left ventricle
- aortic valve
- aorta

The Function of the Lungs

When we breathe in (inhale), the intercostal muscles contract and the diaphragm pulls down, making the chest expand. This causes air to be sucked into the lungs.

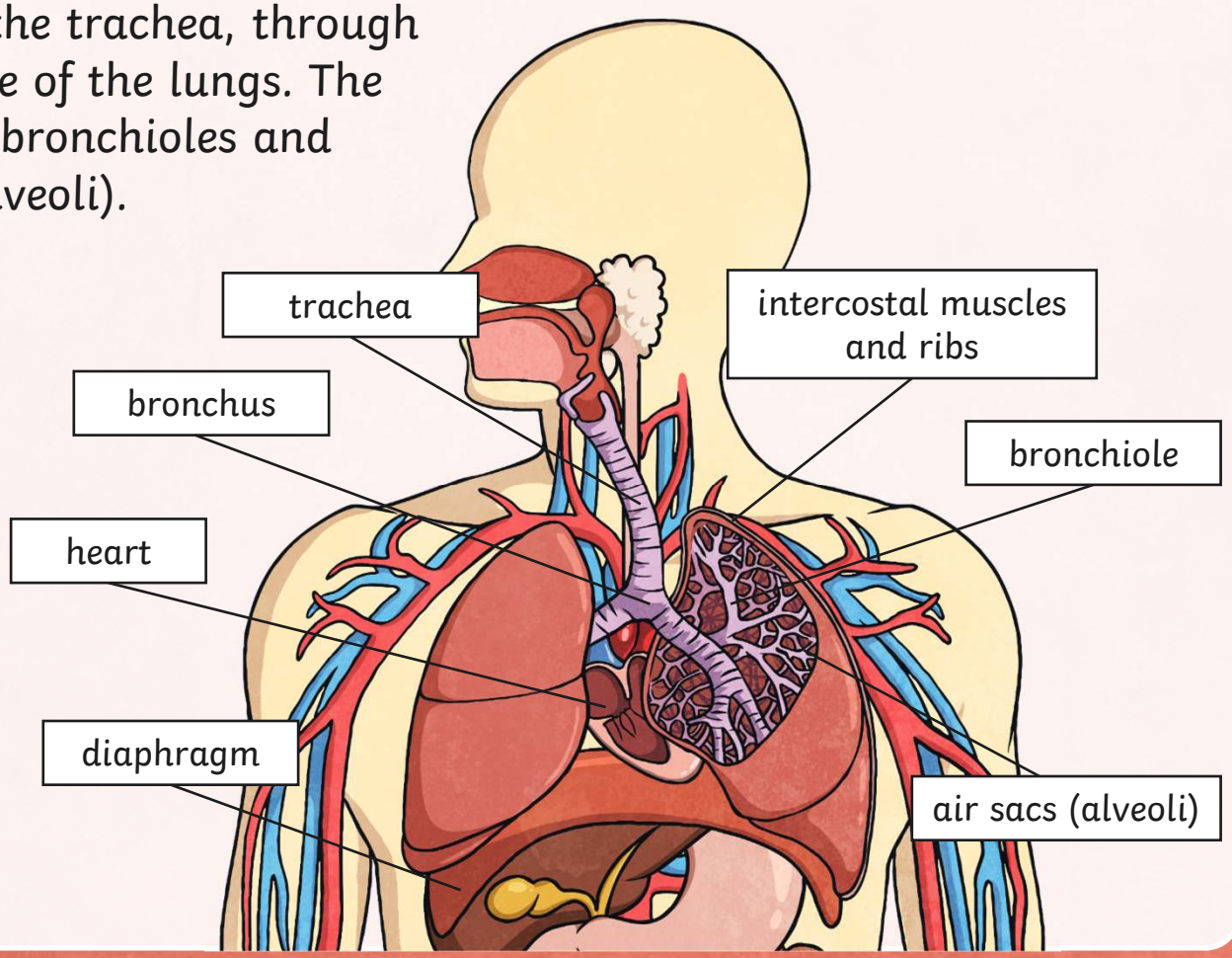
The intercostal muscles and diaphragm then relax and the air is pushed out of the lungs (exhale) as the ribcage falls downward and inhale.





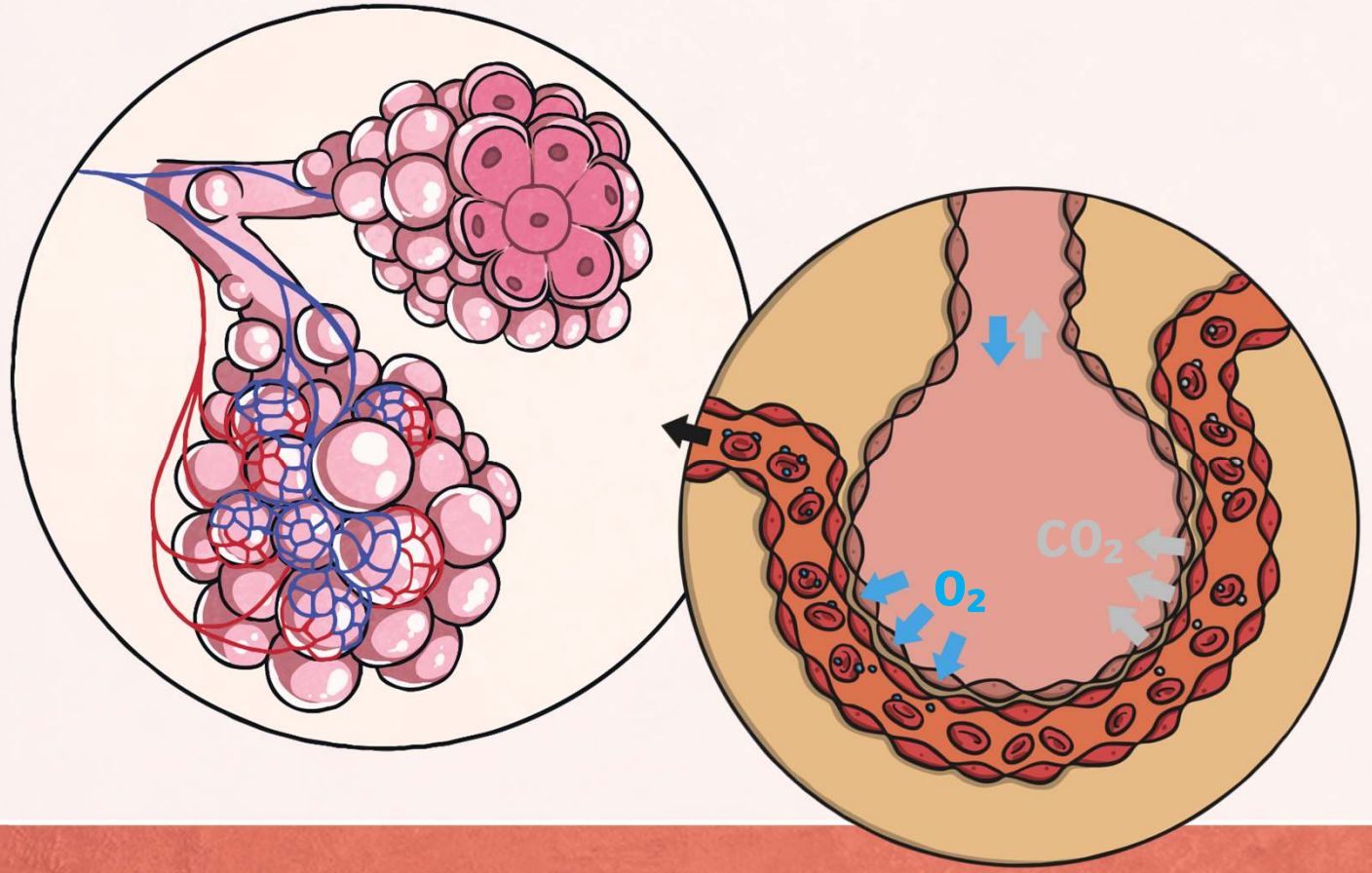
The Function of the Lungs

Air breathed in through the mouth or nose travels down the trachea, through the bronchi into one of the lungs. The air travels into the bronchioles and into the air sacs (alveoli).



The Function of the Alveoli

The oxygen is absorbed into the blood through a layer of moisture in the air sacs (alveoli). Carbon dioxide in the blood is transferred back into the air, which then travels back out of the lungs.

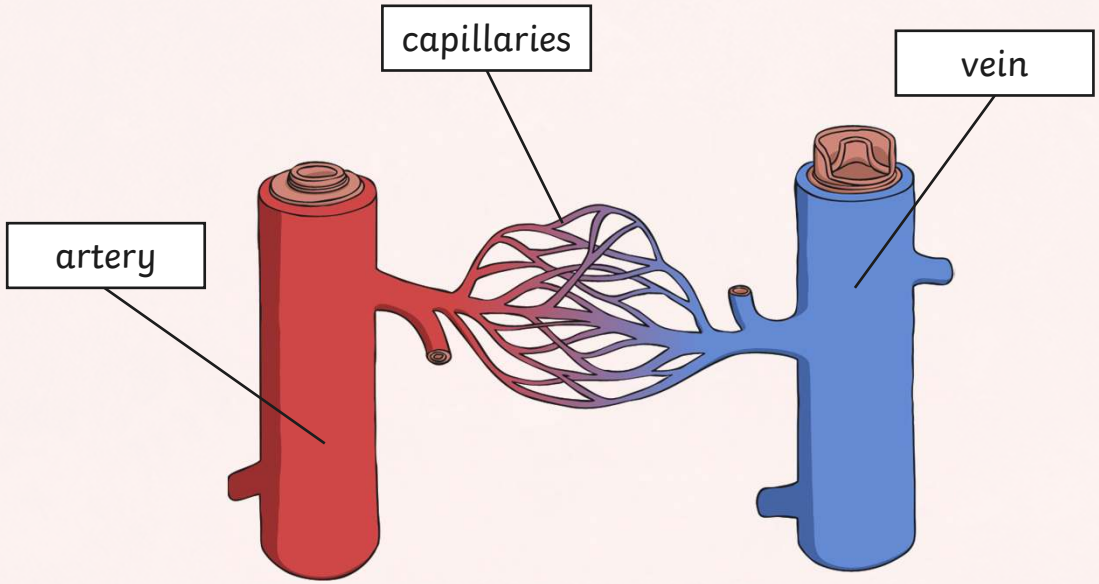


What Blood Vessels Do

Arteries – carries oxygenated blood **away** from the heart

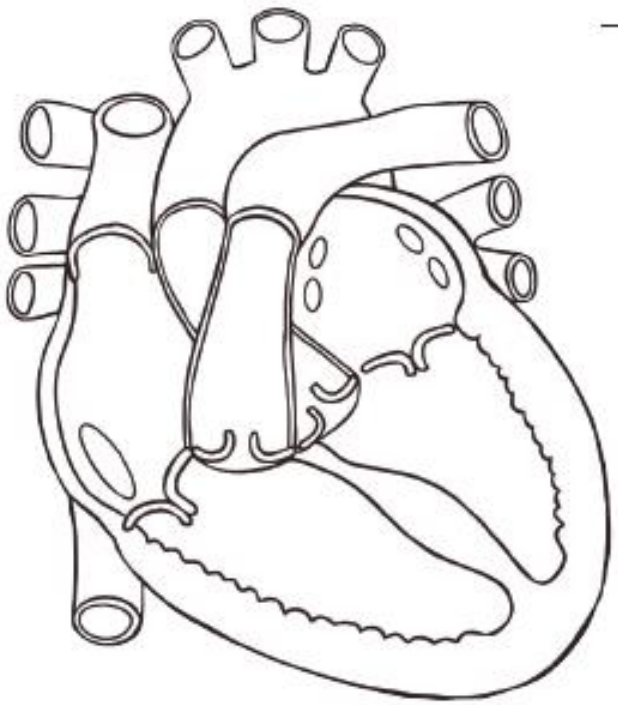
Capillaries – enable **exchange** of oxygen with body

Veins – carries blood from capillaries back to the heart to be pumped **to** the lungs to be re-oxygenated.



The Human Heart System

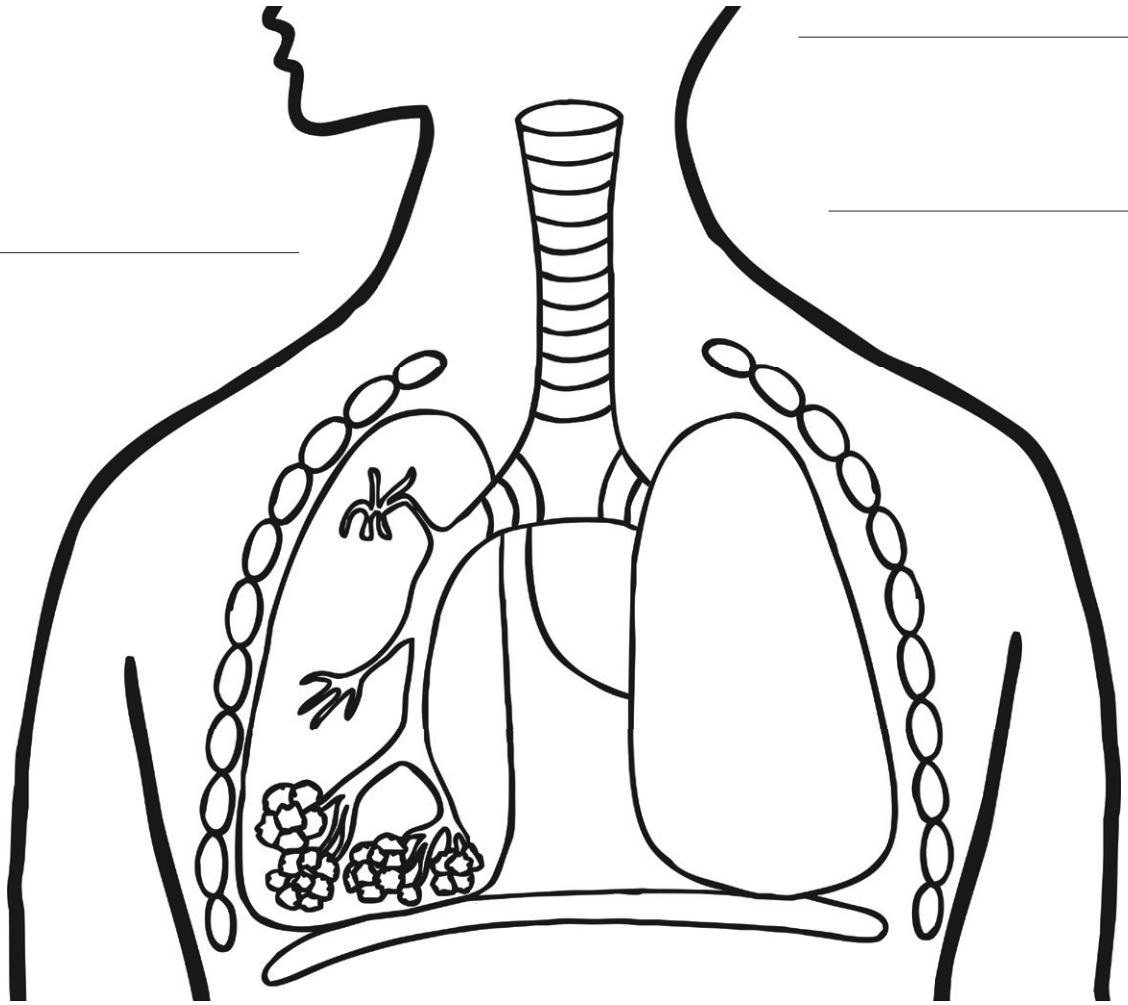
Label the parts of the heart system.



Now draw arrows onto the heart to show the direction of oxygenated and deoxygenated blood. Use 2 different colours to show the difference.

The Human Lung System

Label the parts of the lung system.



Date_____ Name_____

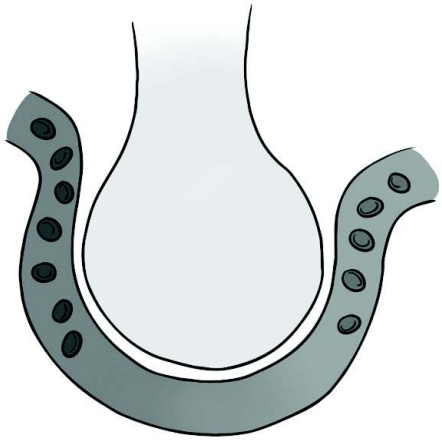
The Air Sacs (Alveoli) of the Lungs

Fill in the blanks.

Gas Exchange

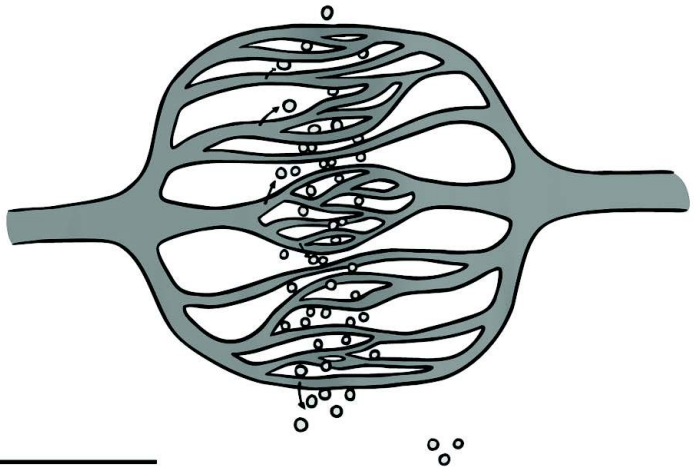
The _____ is absorbed into the blood through a layer of moisture in the _____ (alveoli).

_____ _____ in the blood is transferred back into the air, which then travels back out of the _____.



Now draw some different coloured arrows onto the diagram above to show the exchange of gasses in the alveoli. Then label the diagram of a blood vessel below.

_____ _____



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