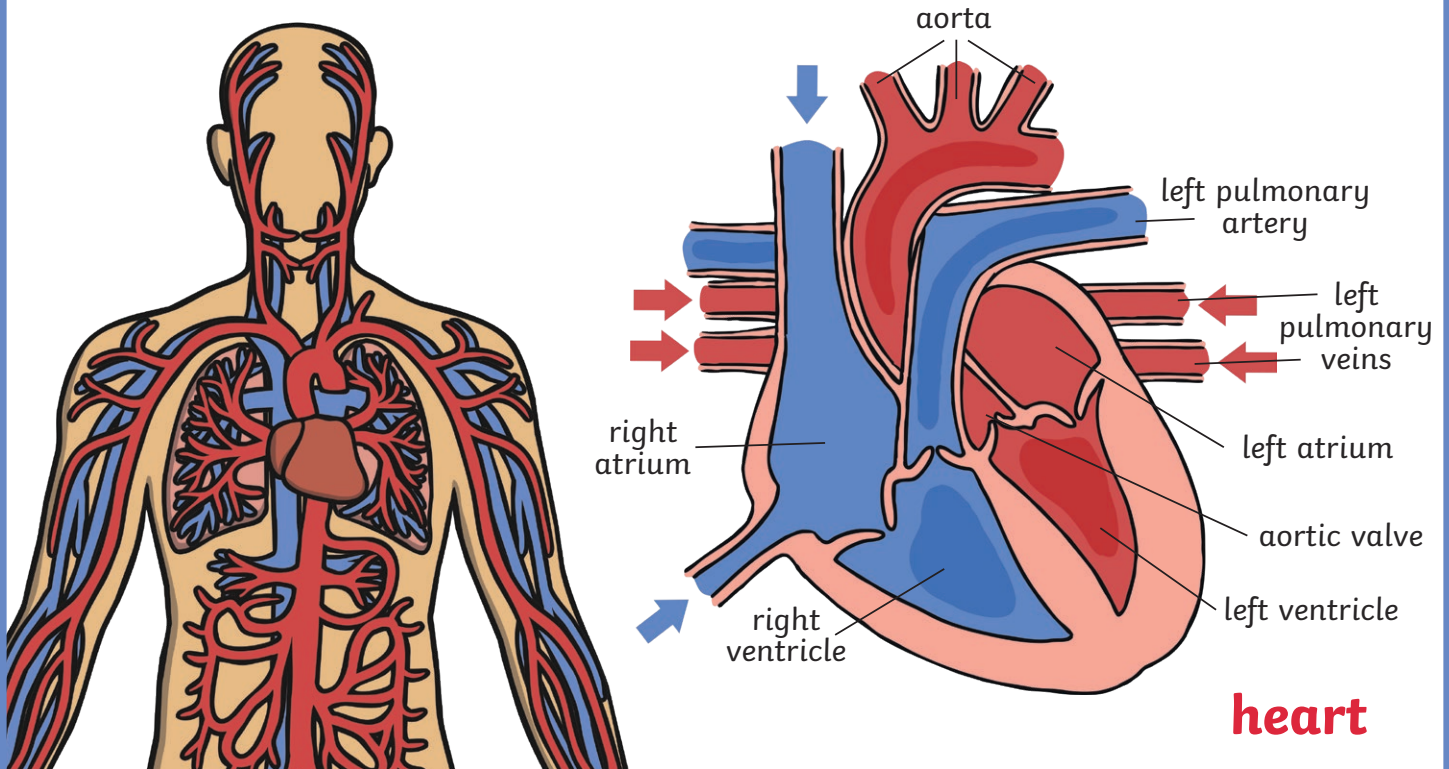
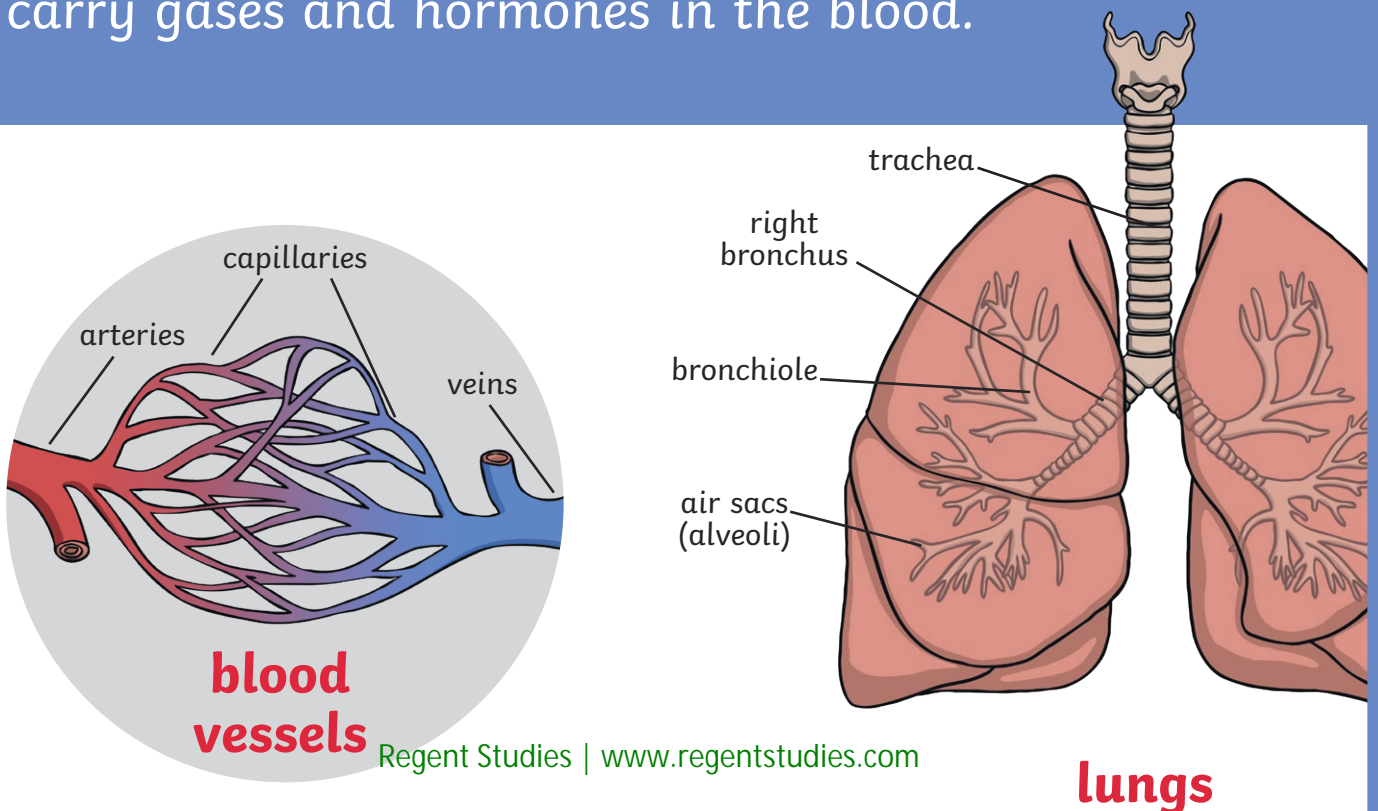


The Human Circulatory System



The circulatory system is a network of blood vessels throughout the body. They carry gases and hormones in the blood.



THE Alveoli

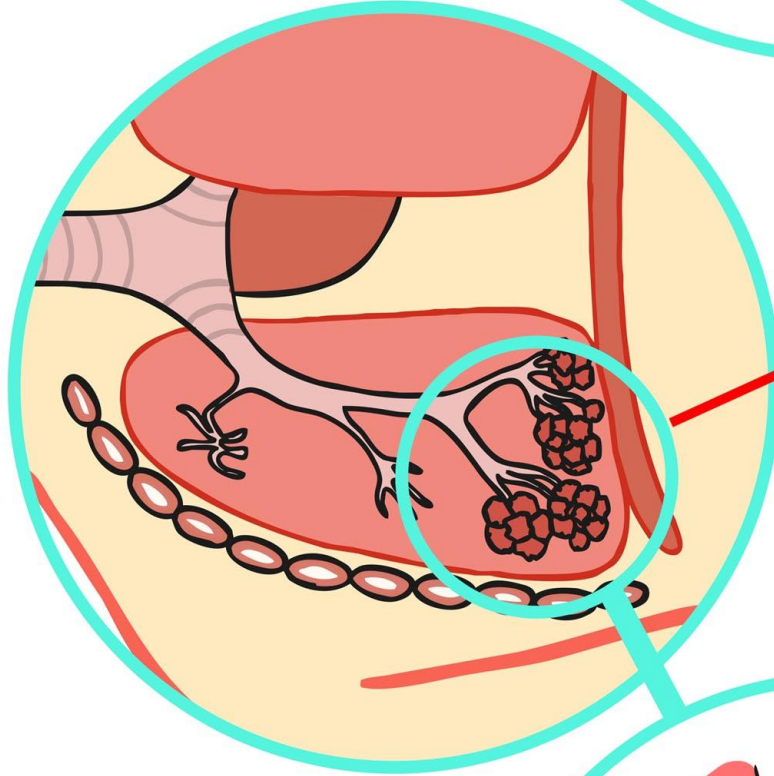
How it all Works

Capillary Blood Flow

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.

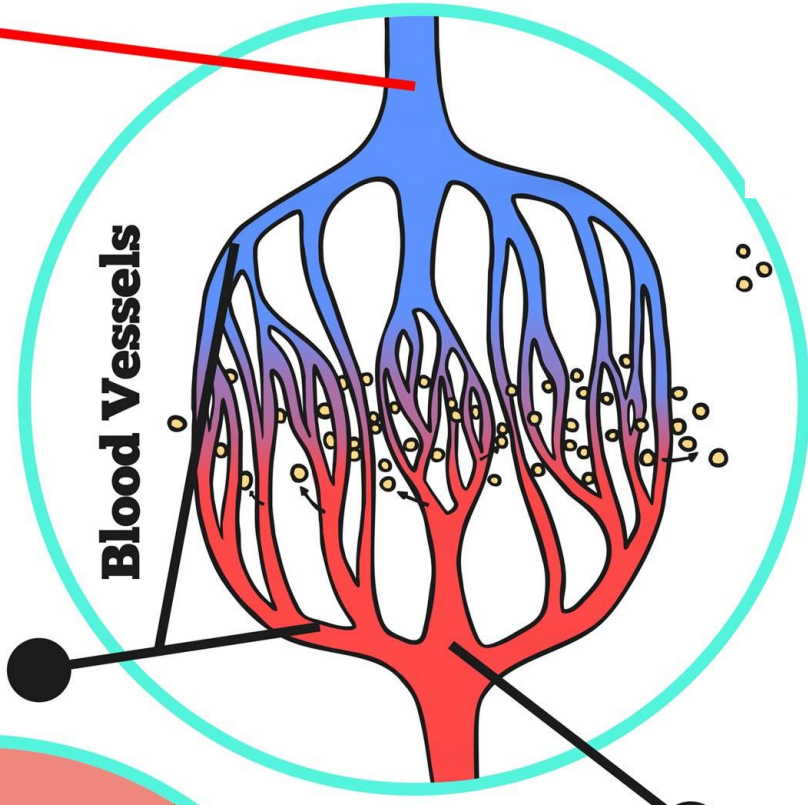
Veins: carry blood from capillaries back to the heart to be pumped to the lungs to be re-oxygenated.

Capillaries: enable exchange of oxygen with body

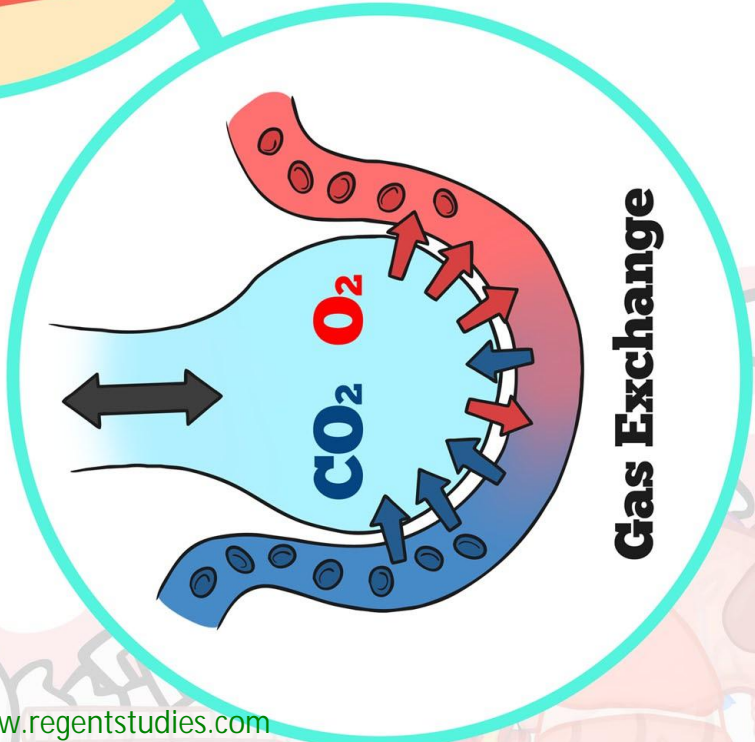


air sacs (alveoli)

Arteries: carries oxygenated blood away from the heart



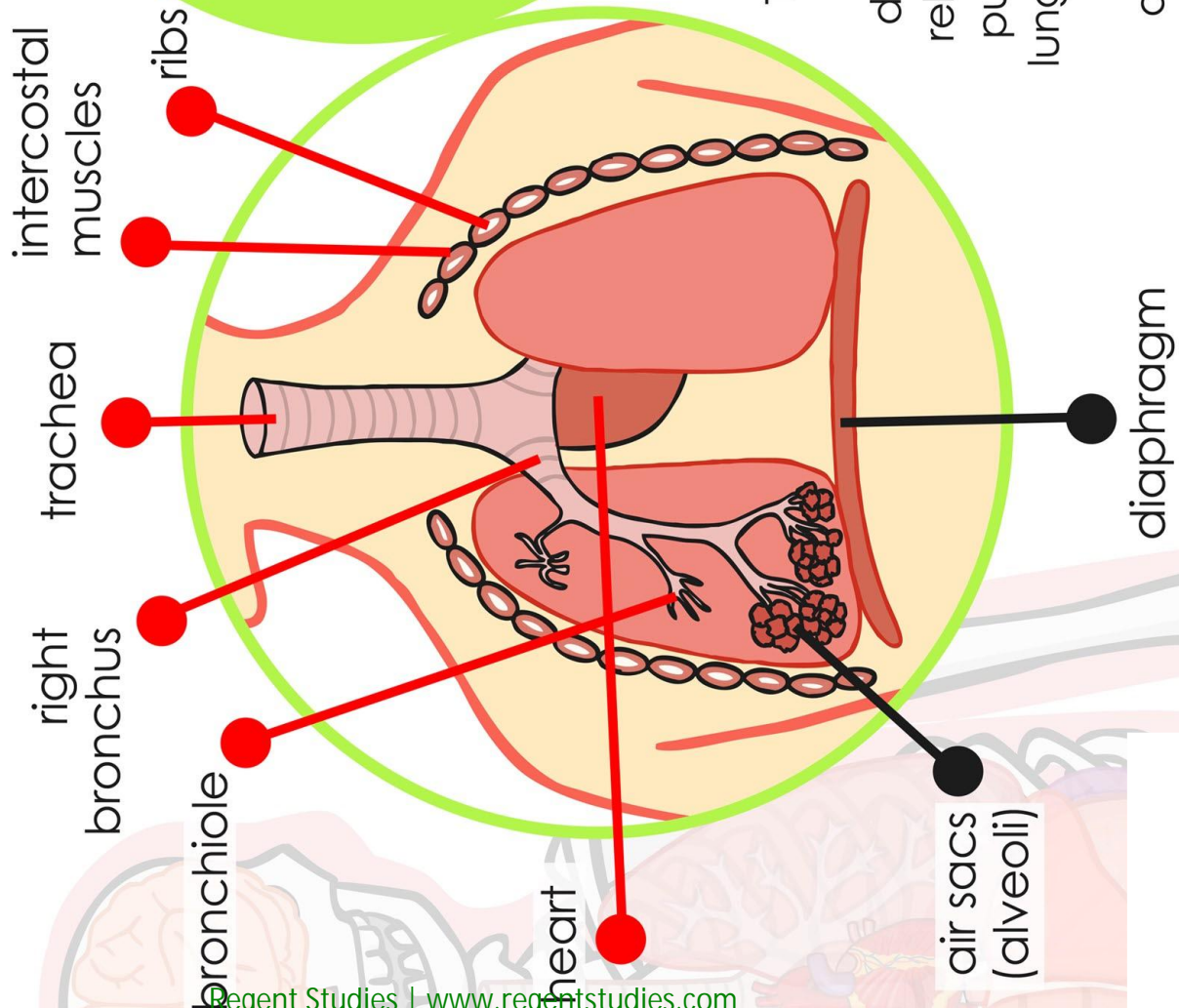
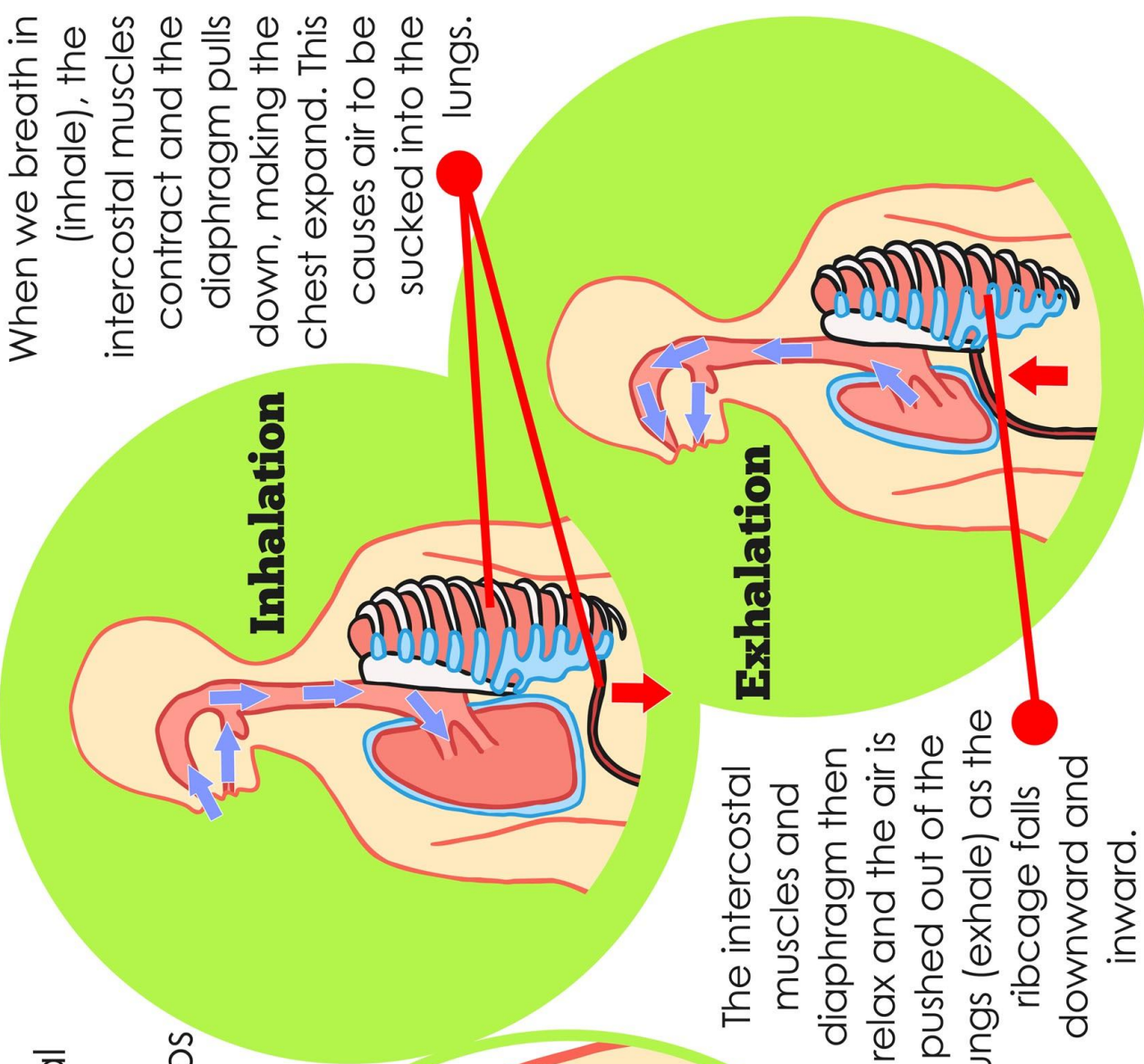
Blood Vessels



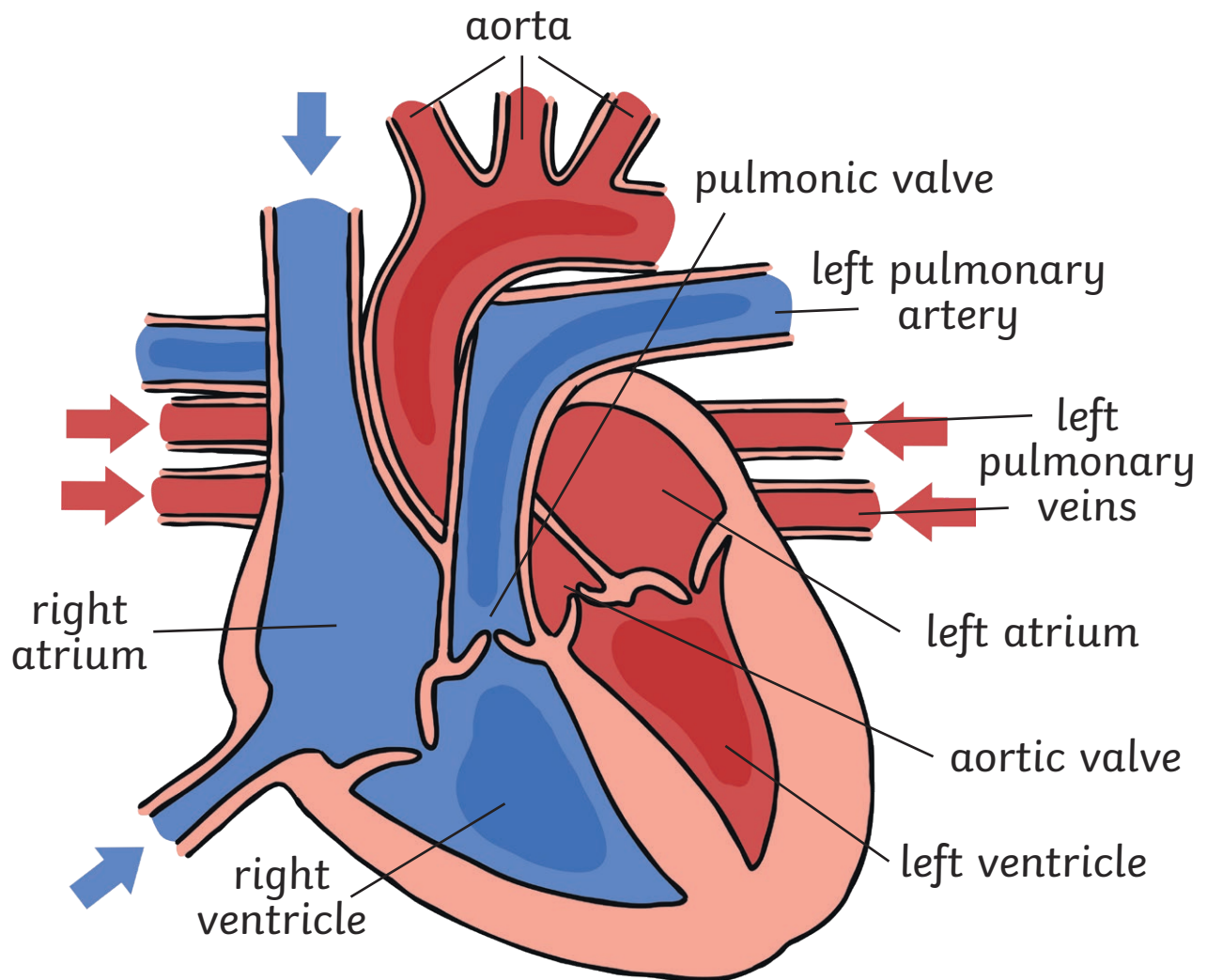
Gas Exchange

THE Lungs

How Breathing Works



The Human Heart



How it Works

Our hearts pump blood out to the lungs to oxygenate it. The oxygenated blood is then pumped back into our heart and out to the rest of the body.



deoxygenated blood



oxygenated blood

Date _____

Name _____

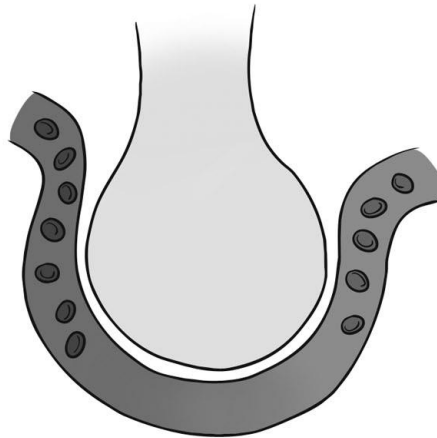
The Air Sacs (Alveoli) of the Lungs

Fill in the blanks.

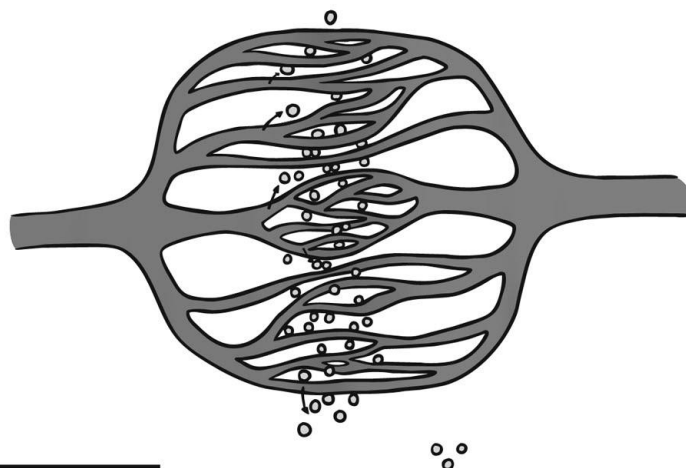
Gas Exchange

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 _____.

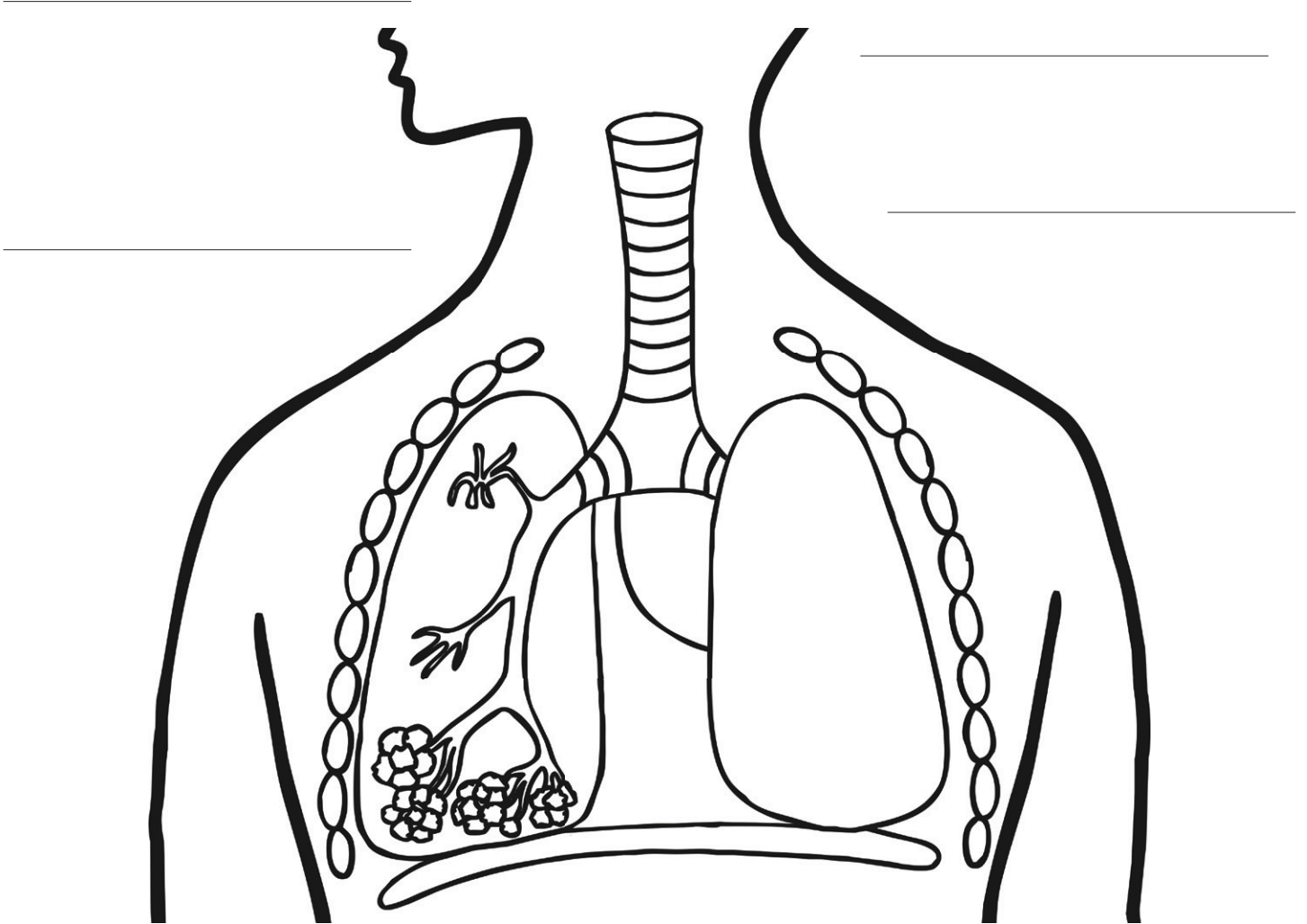


Now draw some different coloured arrows onto the diagram above to show the exchange of gasses in the alveoli. Then label the diagram of a blood vessel below.



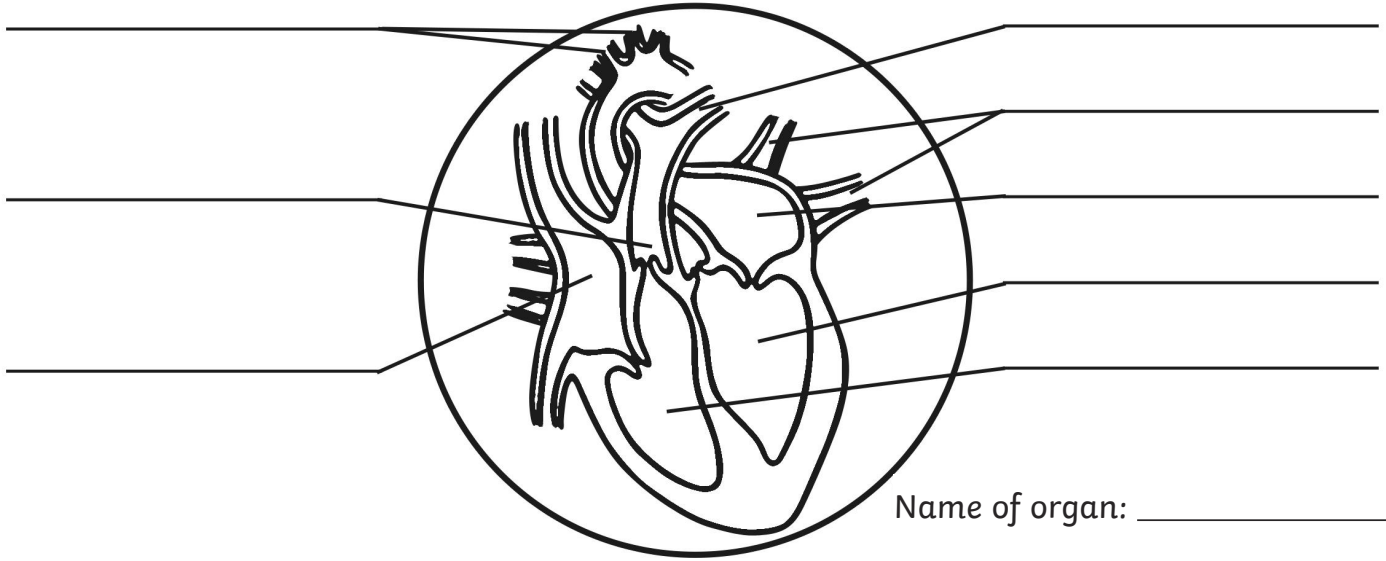
The Human Lung System

Label the parts of the lung system.



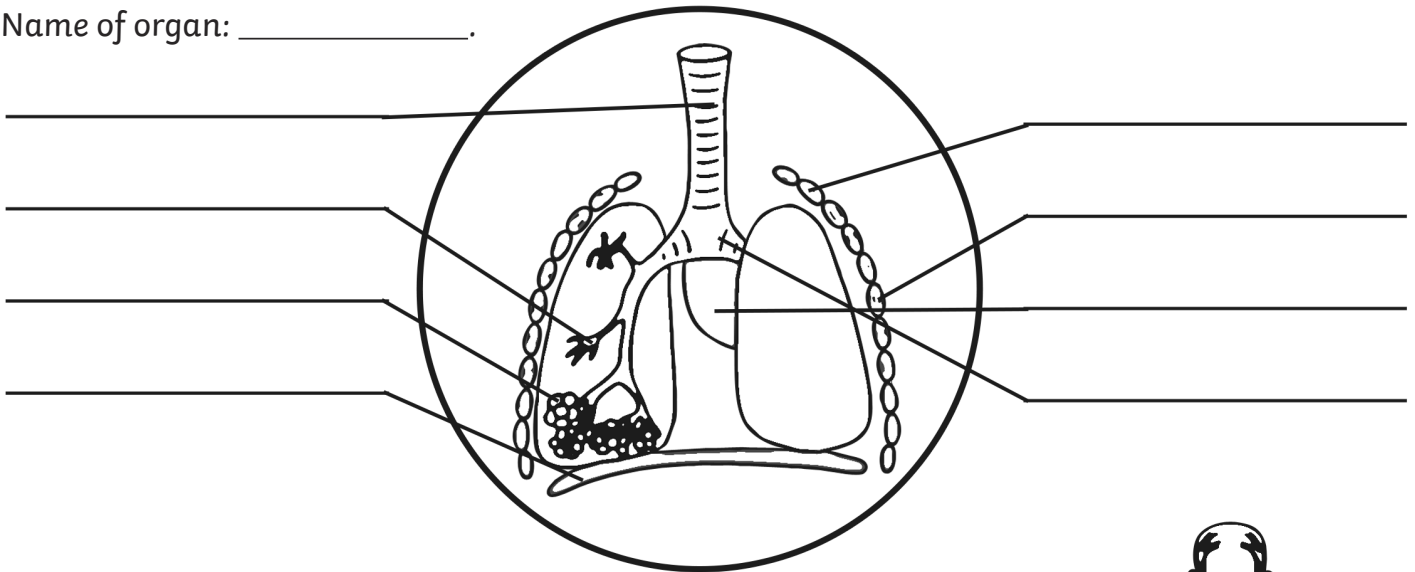
The Human Circulatory System

Label the parts of the circulatory system.

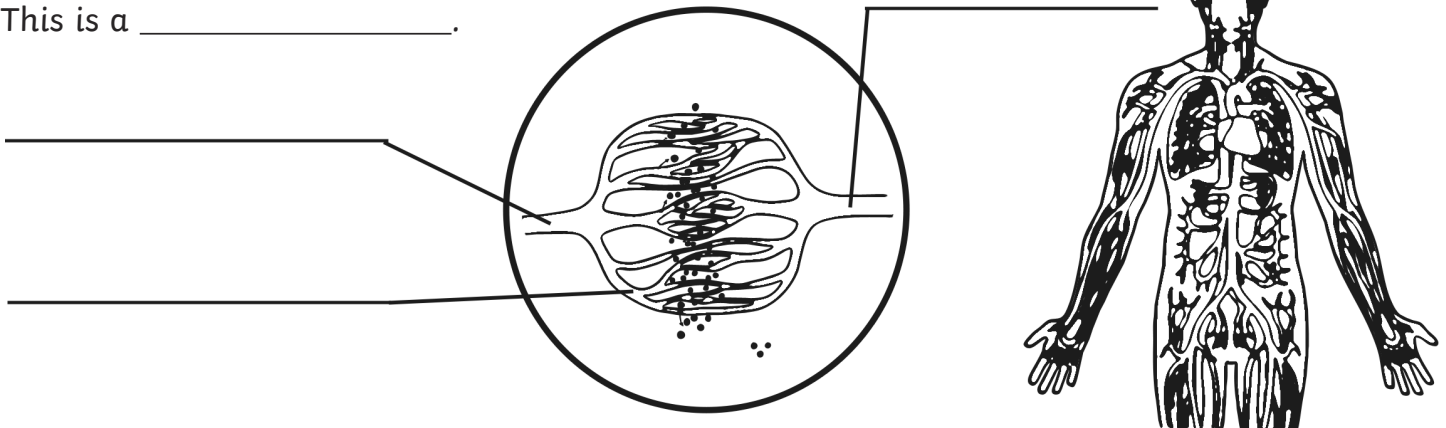


Now draw arrows onto the heart to show the direction of oxygenated and deoxygenated blood.

Name of organ: _____.

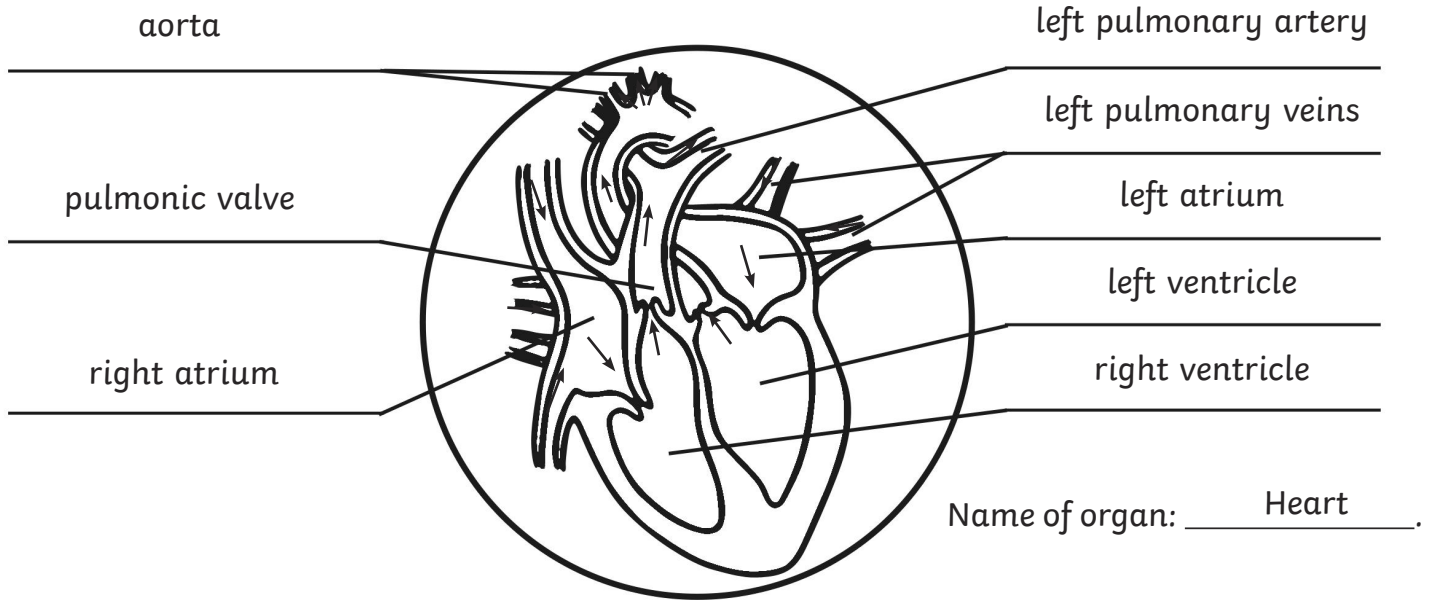


This is a _____.



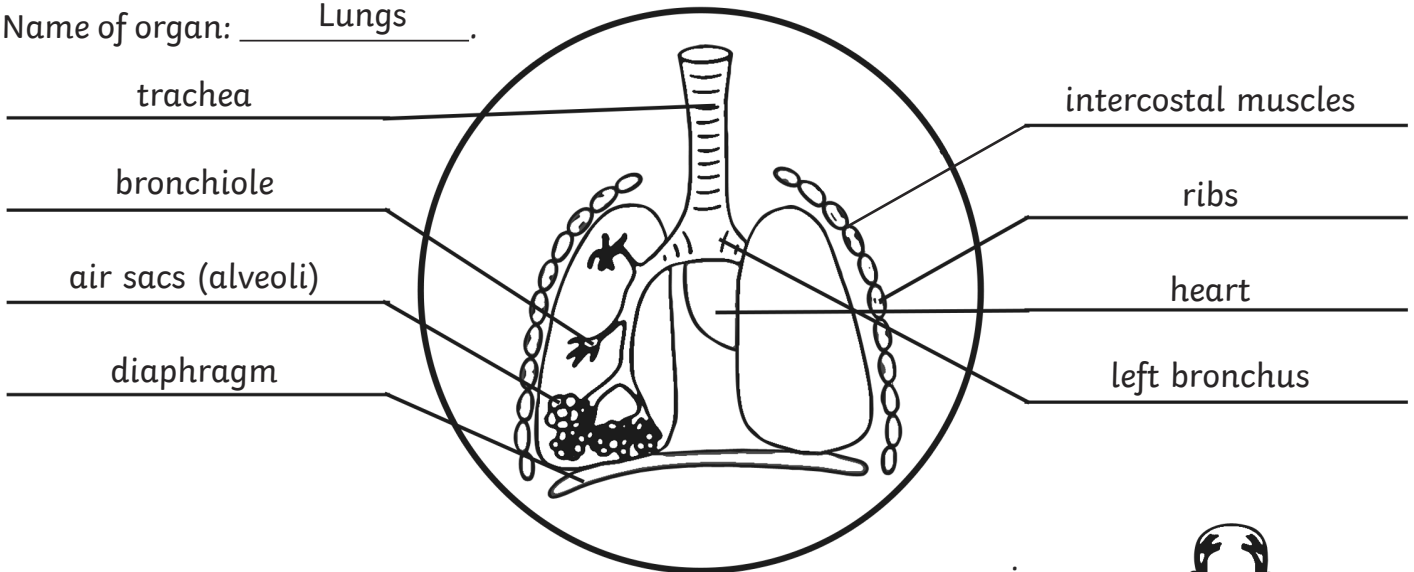
Answers

Label the parts of the circulatory system.

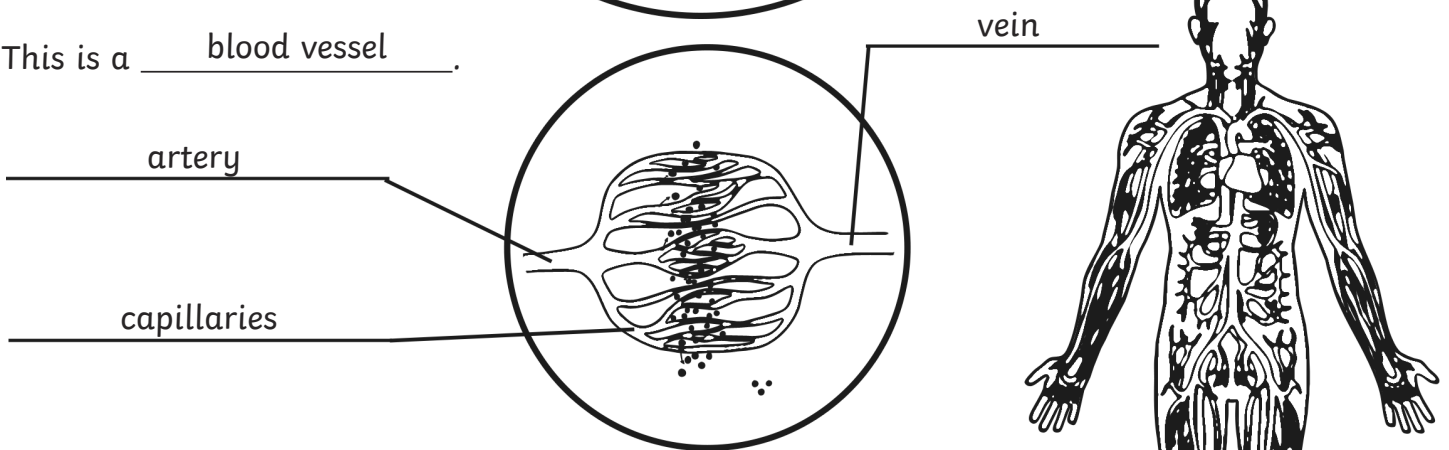


Now draw arrows onto the heart to show the direction of oxygenated and deoxygenated blood.

Name of organ: Lungs.

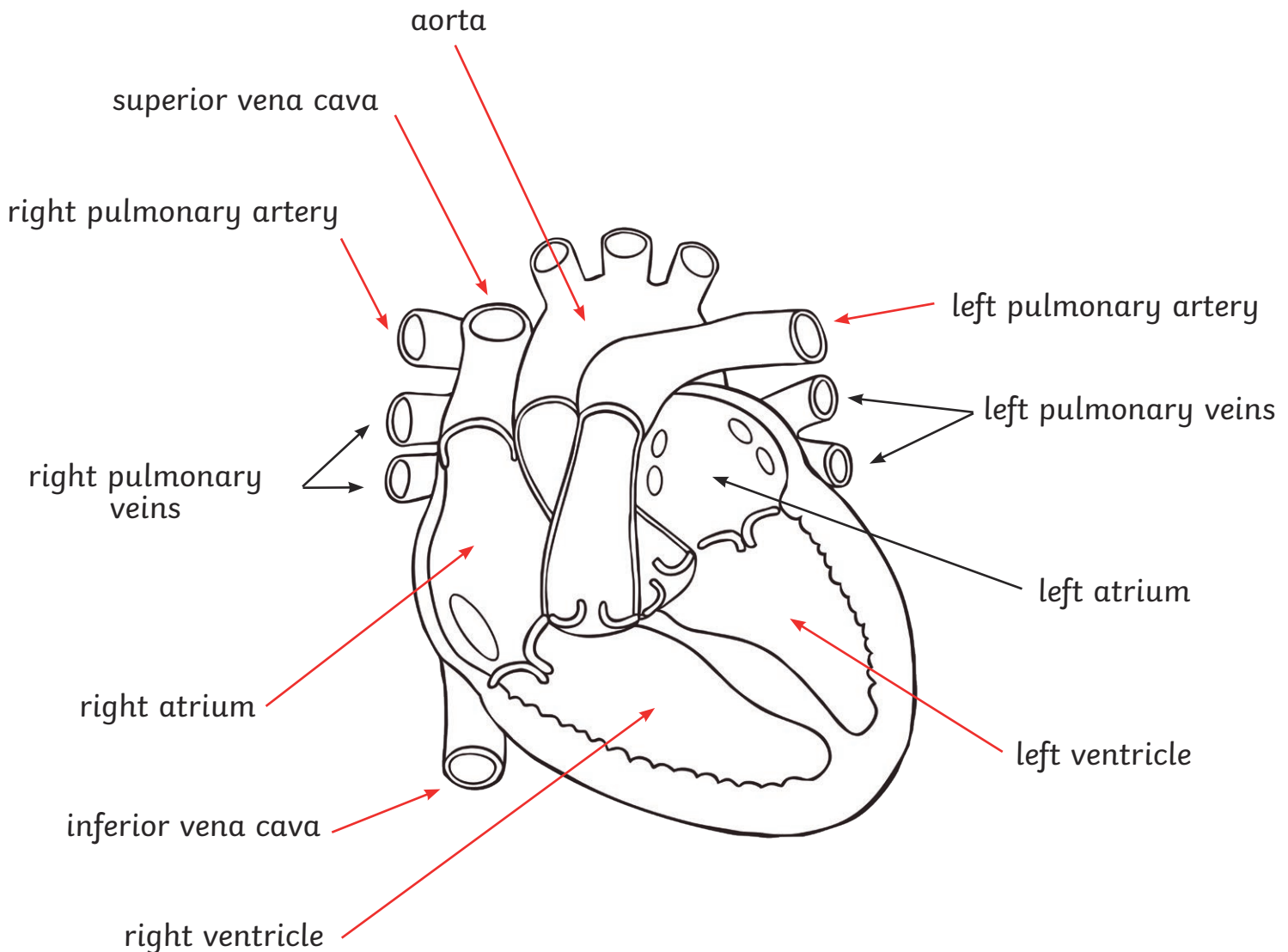


This is a blood vessel.



The Human Heart System Answers

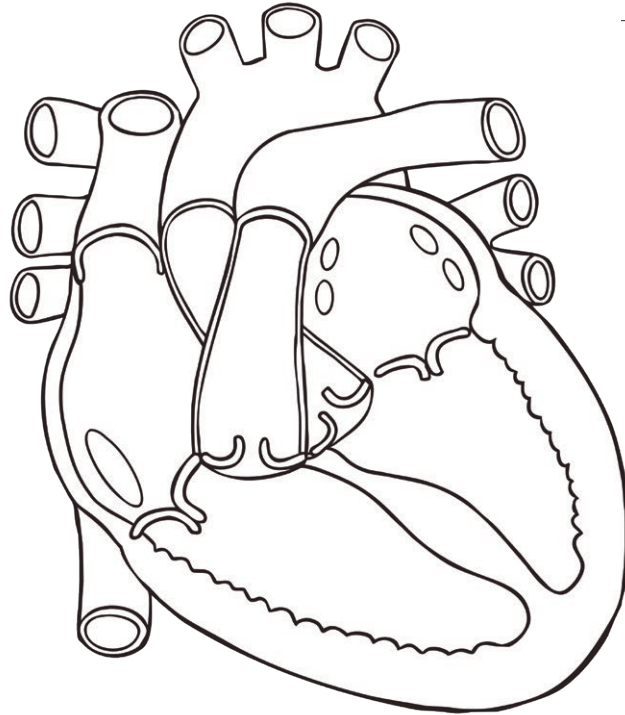
Label the parts of the heart system.



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 Heart System

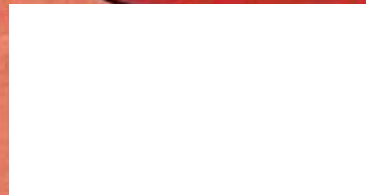
Label the parts of the heart system.



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

The background of the slide is a textured, reddish-brown color. Scattered across this background are several stylized, 3D-rendered red blood cells. Each cell is depicted as a biconcave disc, with a darker red center and a lighter red outer rim, giving them a three-dimensional appearance. The cells are arranged in a way that some are in the foreground, partially overlapping others in the background.

The Human Circulatory System

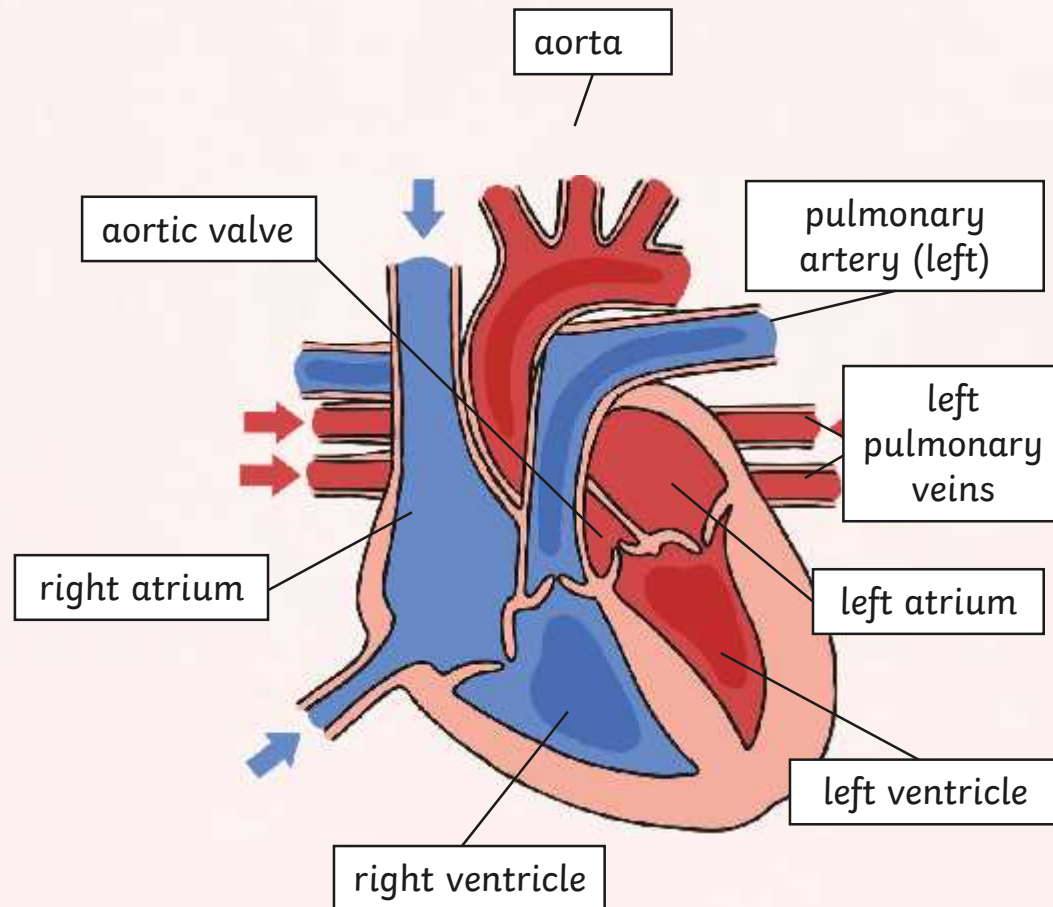


The Function of the Heart

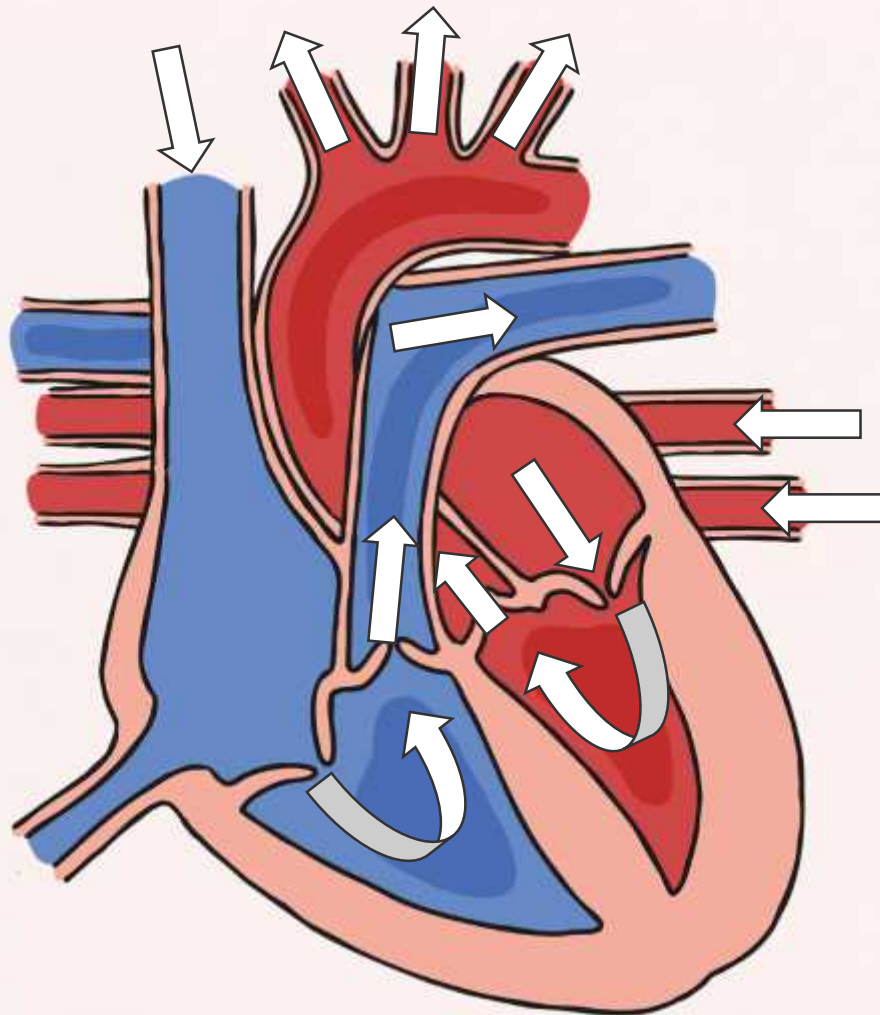
The heart is a powerful muscle that is situated between your lungs, protected by the ribcage.

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

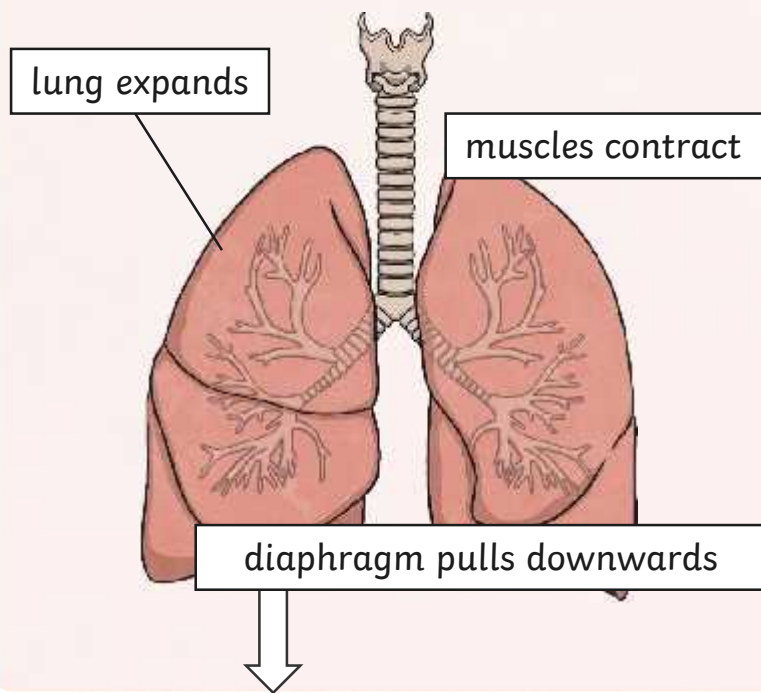
left ventricle

aortic valve

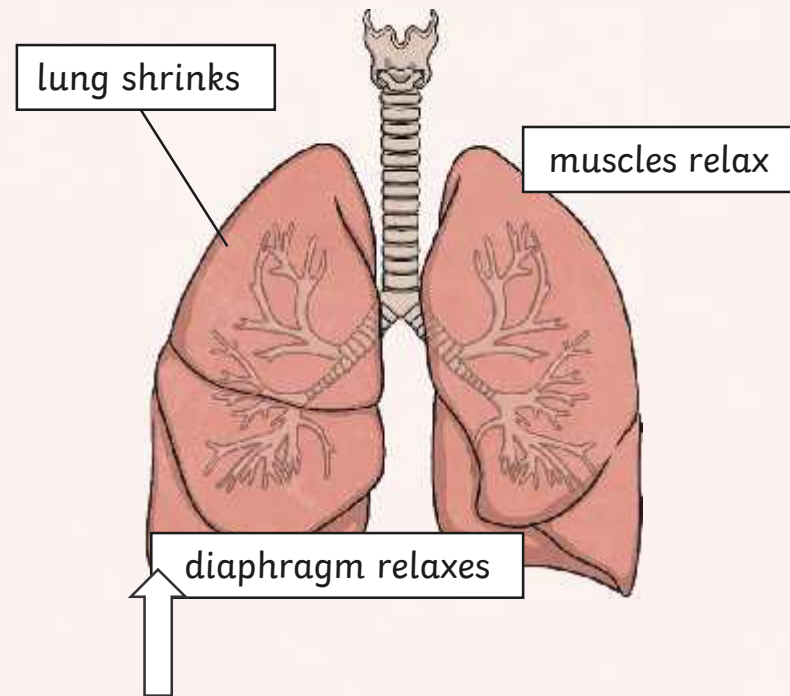
aorta

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.

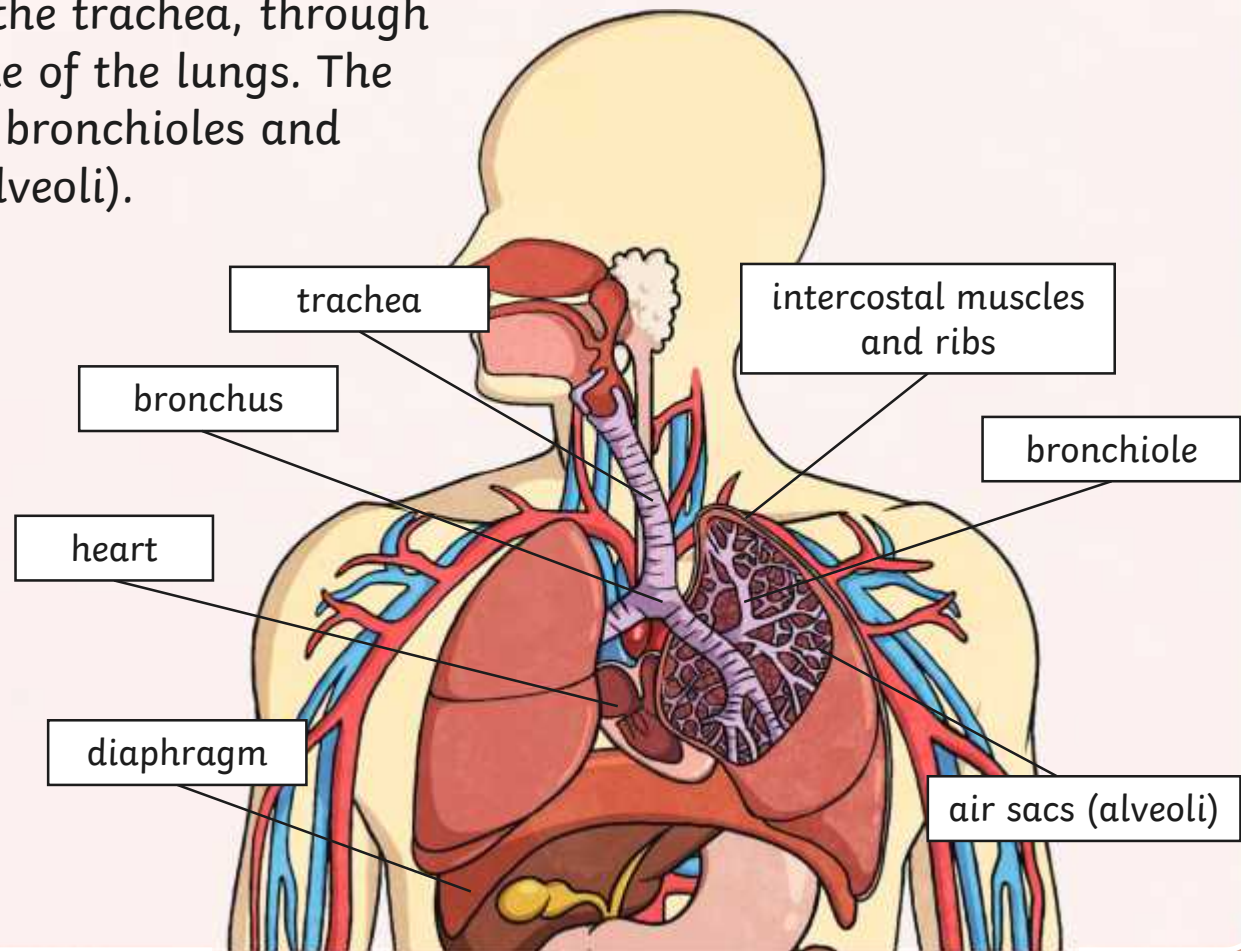


The intercostal muscles and diaphragm then relax and the air is pushed out of the lungs (exhale) as the ribcage falls downward and inhale.



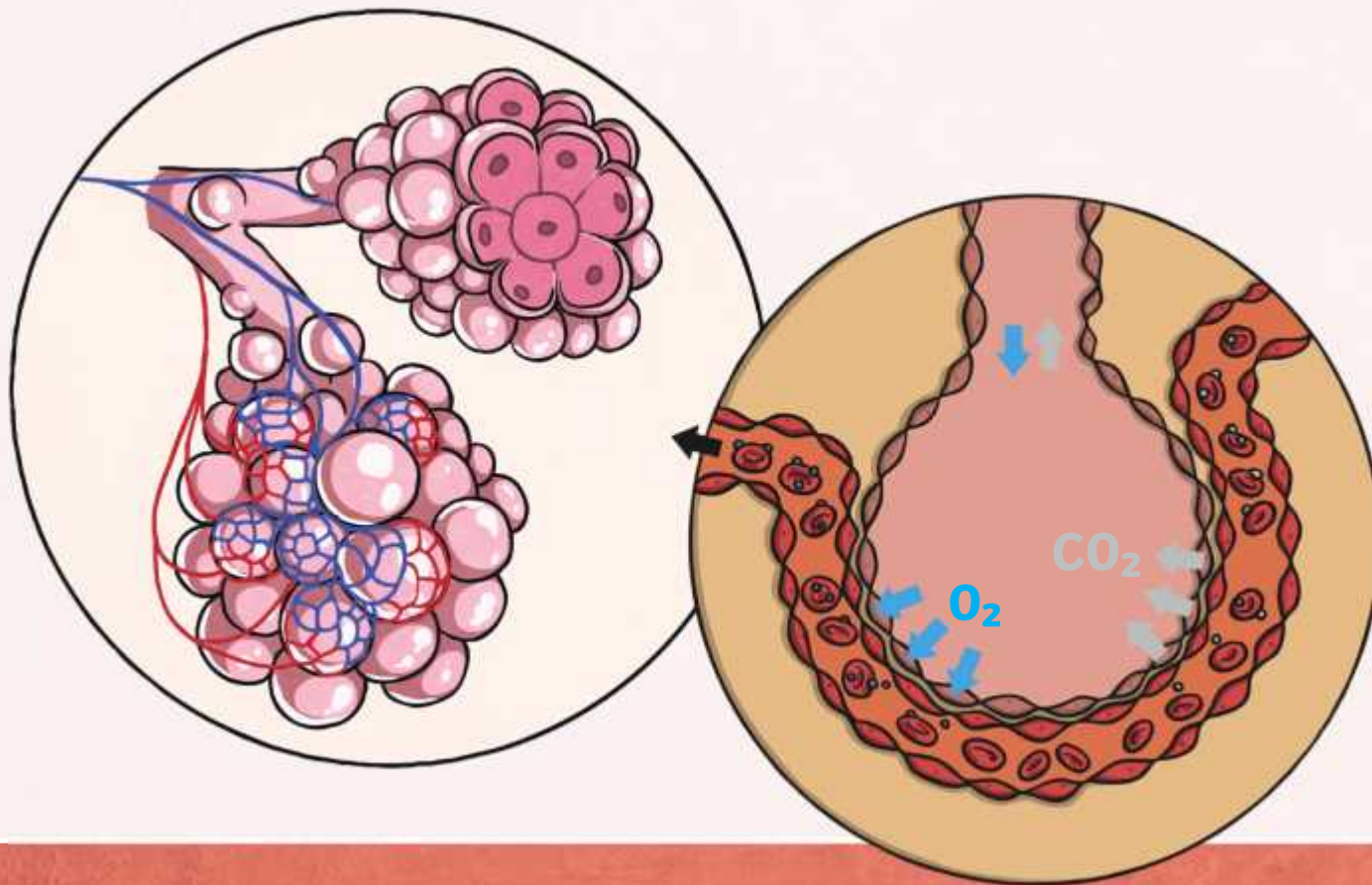
The Function of the Lungs

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.

