

Staying Healthy

LESSON 1: WB 8.6.20

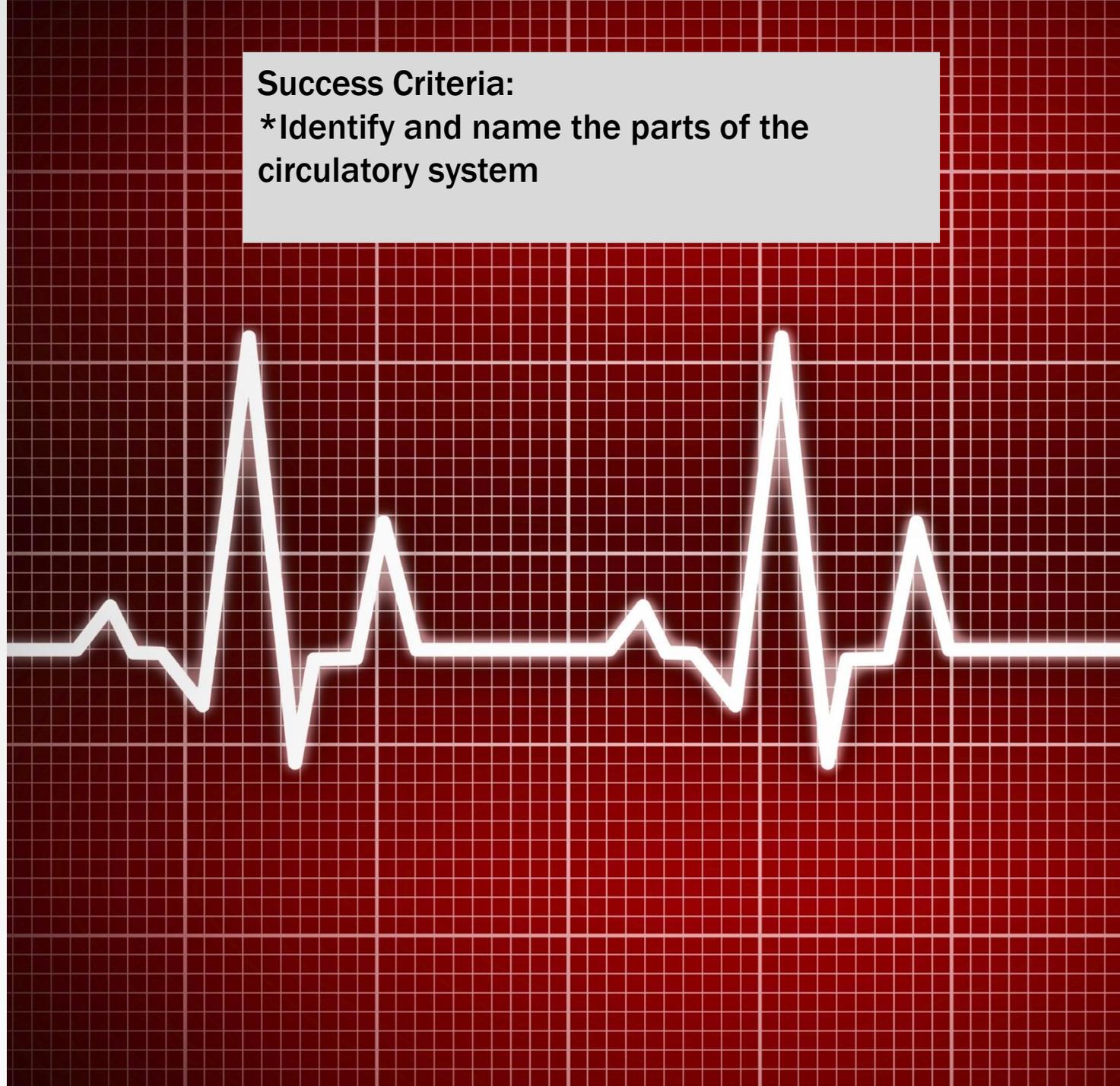
I CAN RECOGNISE THE PARTS OF THE CIRCULATORY SYSTEM.

Key Vocab:

System, human, body, circulatory, circulation, skeletal, muscular, digestive, organs, parts, heart, lungs, blood vessels, aorta, atrium, ventricle, artery, vein, pulmonary, superior vena cava, inferior, pulmonic, aortic valve, trachea, bronchus, bronchiole, diaphragms, air sacs, alveoli, capillary, intercostal muscles and ribs

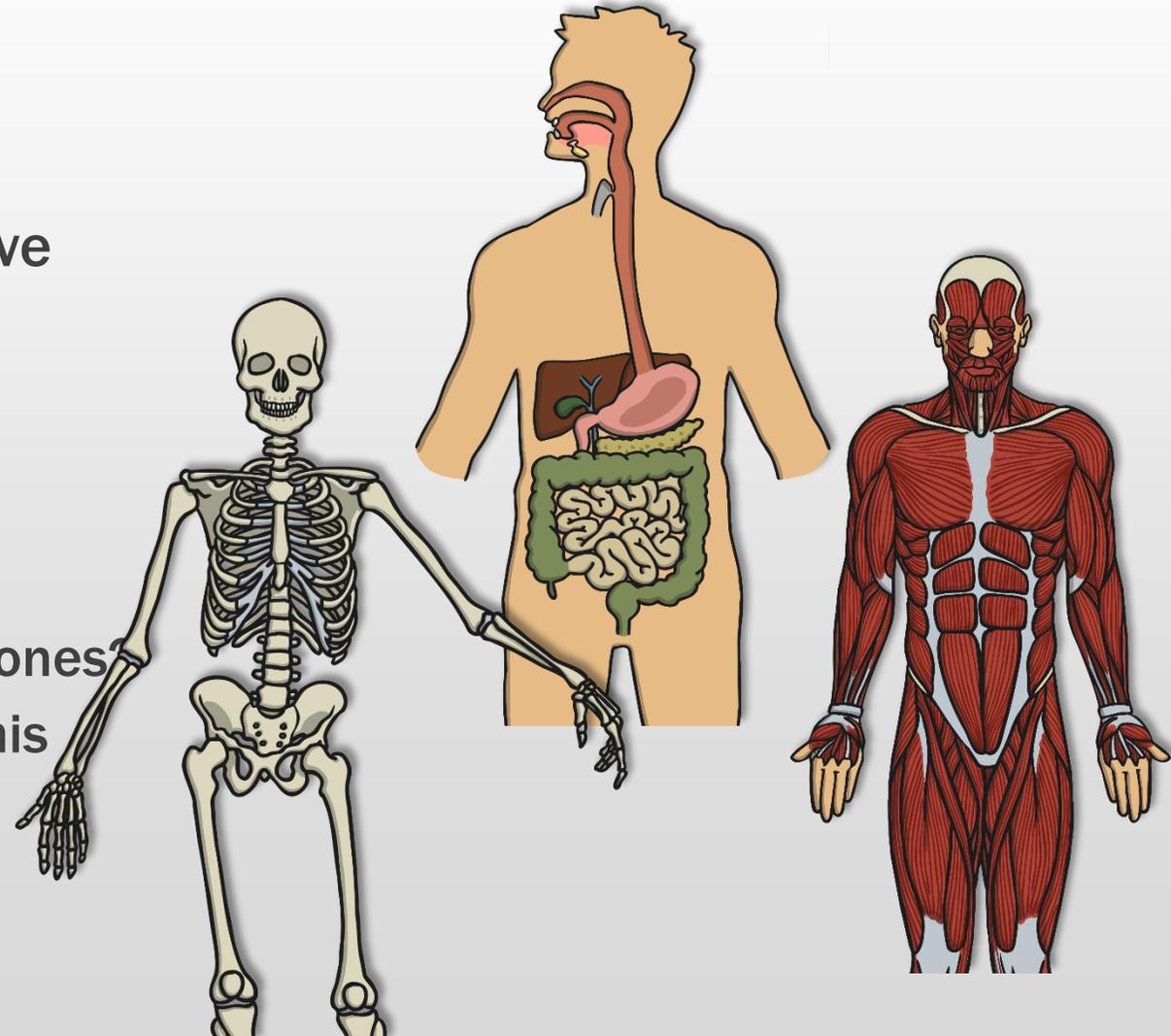
Success Criteria:

*Identify and name the parts of the circulatory system

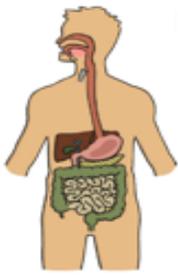


Systems in the Body: a Reminder

- In Y3/4 You learned the different systems.
- Look at the pictures and review what you have learned.
- Can you:
 - Name the three different systems?
 - Name different parts for each system
 - Do any of the systems contain organs? Which ones?
 - What is the purpose of the system? / Why is this system important?



How did you do?

Picture of the System			
Name of the System	Skeletal System	Muscular System	Digestive System
Name at least 3 different parts of the system	<p>Common bone names: skull, rib, rib cage, collar bone, ankle bones, upper arm bone, thigh bone, lower leg bone, finger bones, hand bones, shoulder blade, jaw, backbone, wrist, hips, knee cap, foot bones, lower arm bones, , toe bones, breastbone.</p> <p>Scientific bone names: cranium, vertebral column, costal, thoracic cage, sternum, clavicle, talus, tarsals, humerus, femur, tibia, fibula, phalanges, metacarpals, scapula, mandible, carpals, pelvis, patella, metatarsals, radius, ulna</p> <p>Types of joints: hinge joint, ball and socket joint, gliding joint</p>	<p>Apart from the arm muscles, children may not know the scientific names of the muscles in the body. It is enough to identify them by locating them on the body.</p> <p>Biceps, Triceps (in the arm)</p> <p>Thigh (in the leg)</p> <p>Face muscles</p> <p>Back and stomach muscles</p> <p>Any other muscle or muscle group that demonstrates knowledge of the part of the body if not the muscle name</p>	<p>Mouth, tongue, teeth, salivary glands, oesophagus, stomach, duodenum, small intestine, large intestine, gallbladder, pancreas, liver, rectum, anus.</p>
Does this system contain organs? If so, which ones?	No	No	Yes - e.g. stomach, small intestine, large intestine, liver, pancreas.
What is the purpose of the system?	<ul style="list-style-type: none"> • Support the body • Give the body shape • Protect the body • Enable movement 	<ul style="list-style-type: none"> • Allow the body to move • Give control over movement 	<ul style="list-style-type: none"> • Break down food into nutrients • Extract water from food • Excrete waste from the body

Systems in Your Body

We have just reminded ourselves about the skeletal, muscular and digestive systems in the body.

Do you know any other systems in the body?



Systems in Your Body

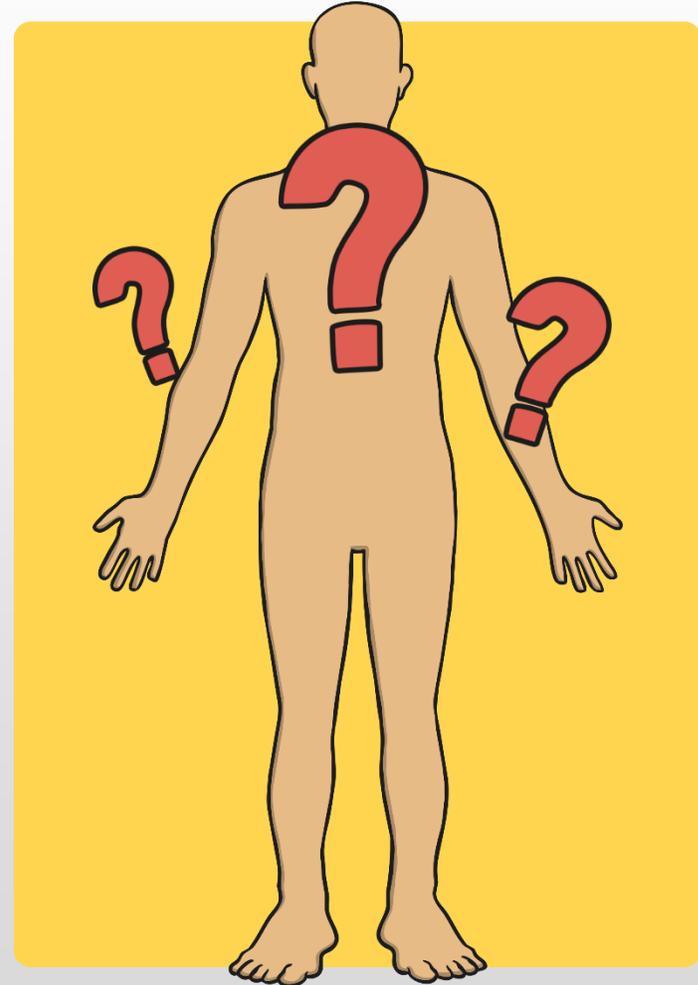
The system we will look at for the rest of this lesson is called the:

'Circulatory System'.

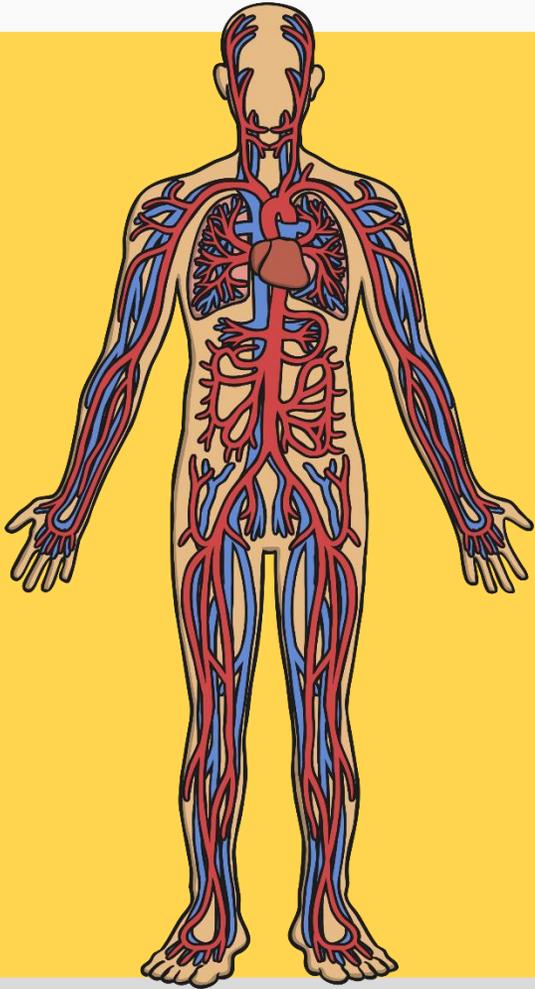
The word circulation means 'the movement to, from or around something'.

What does the system do?

What are the parts of the system?



The Circulatory System



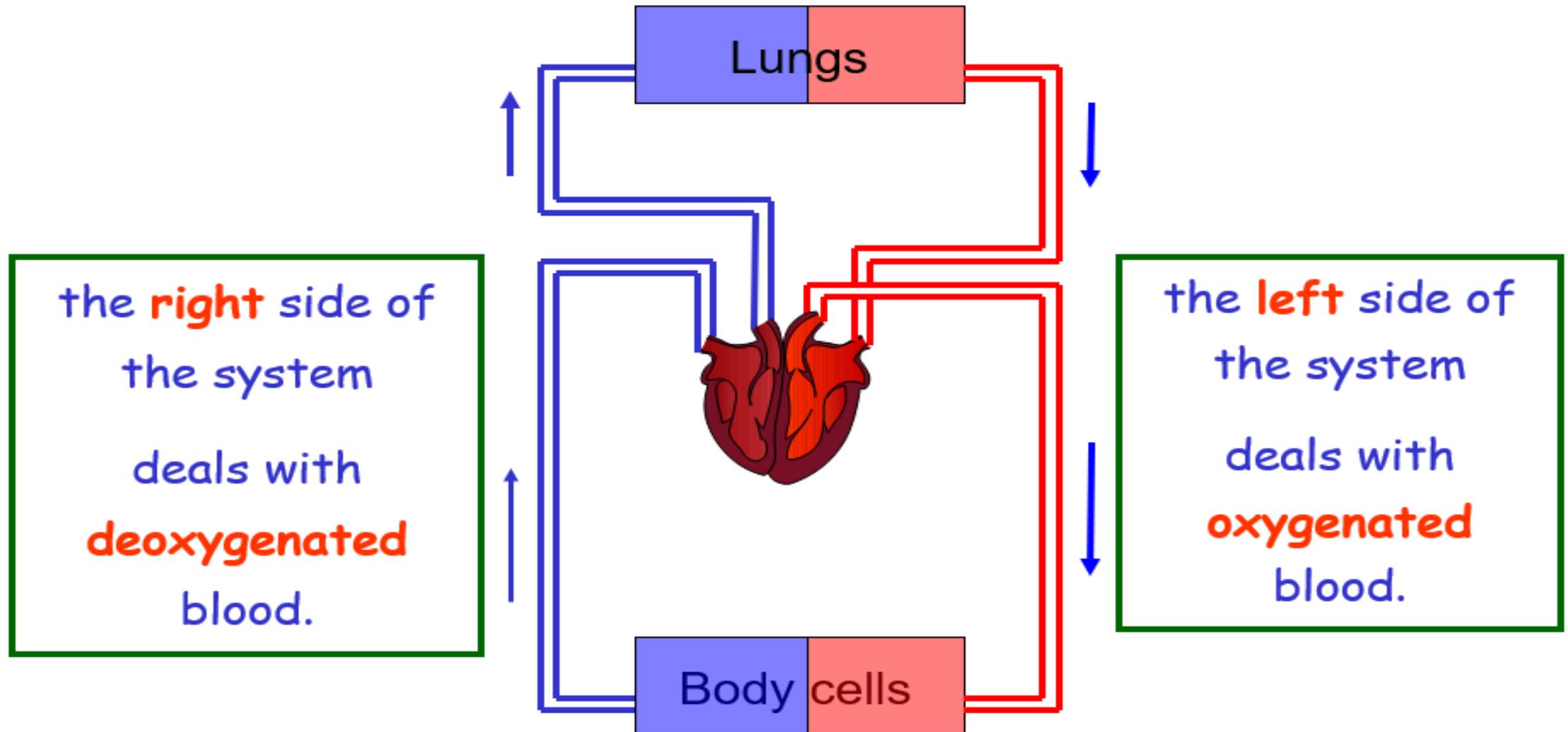
Have a think about these questions.
Discuss them with an adult if you can.

What can you see?

Is this what you expected?

Are there parts you did not expect to be in the circulatory system?

Our circulatory system is a double circulatory system.
This means it has two parts.



Parts of the Circulatory System: Heart

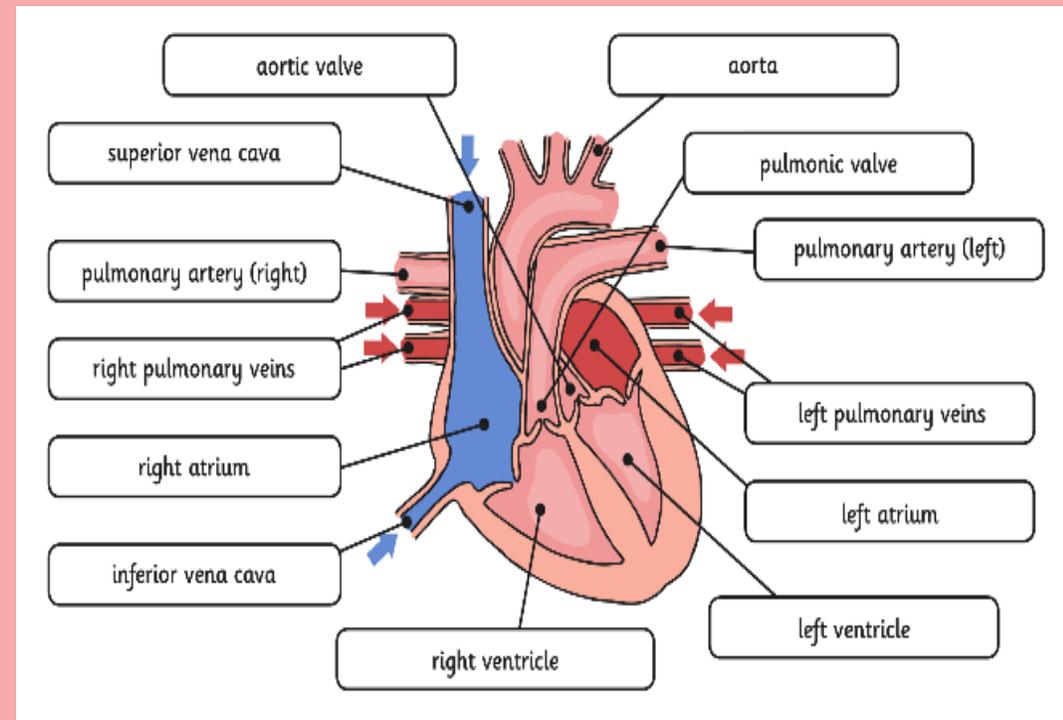
The heart is a powerful organ that is situated between your lungs and protected by the ribcage.

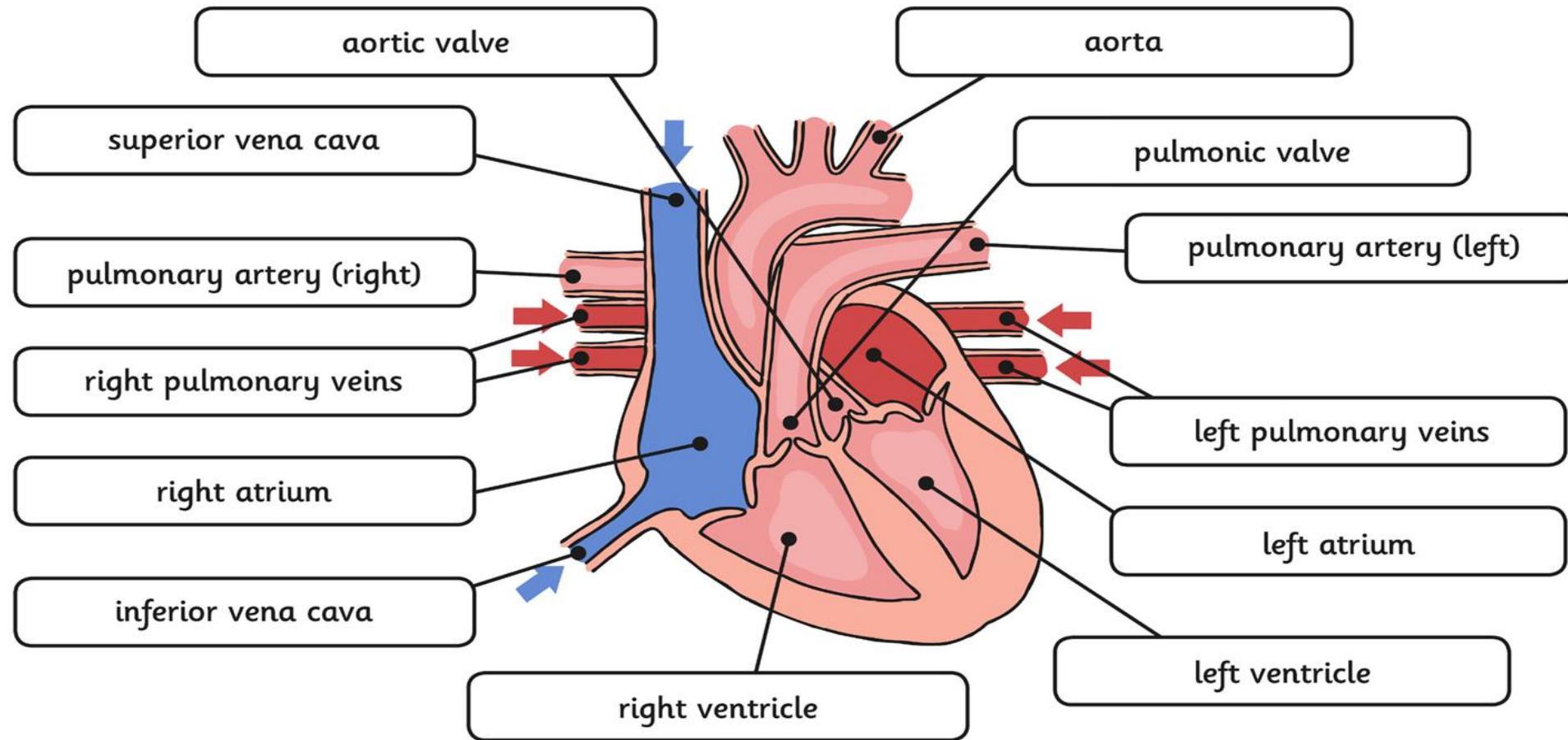
The heart pumps blood to the lungs to get oxygen.

The heart then pumps this oxygenated blood around the body.

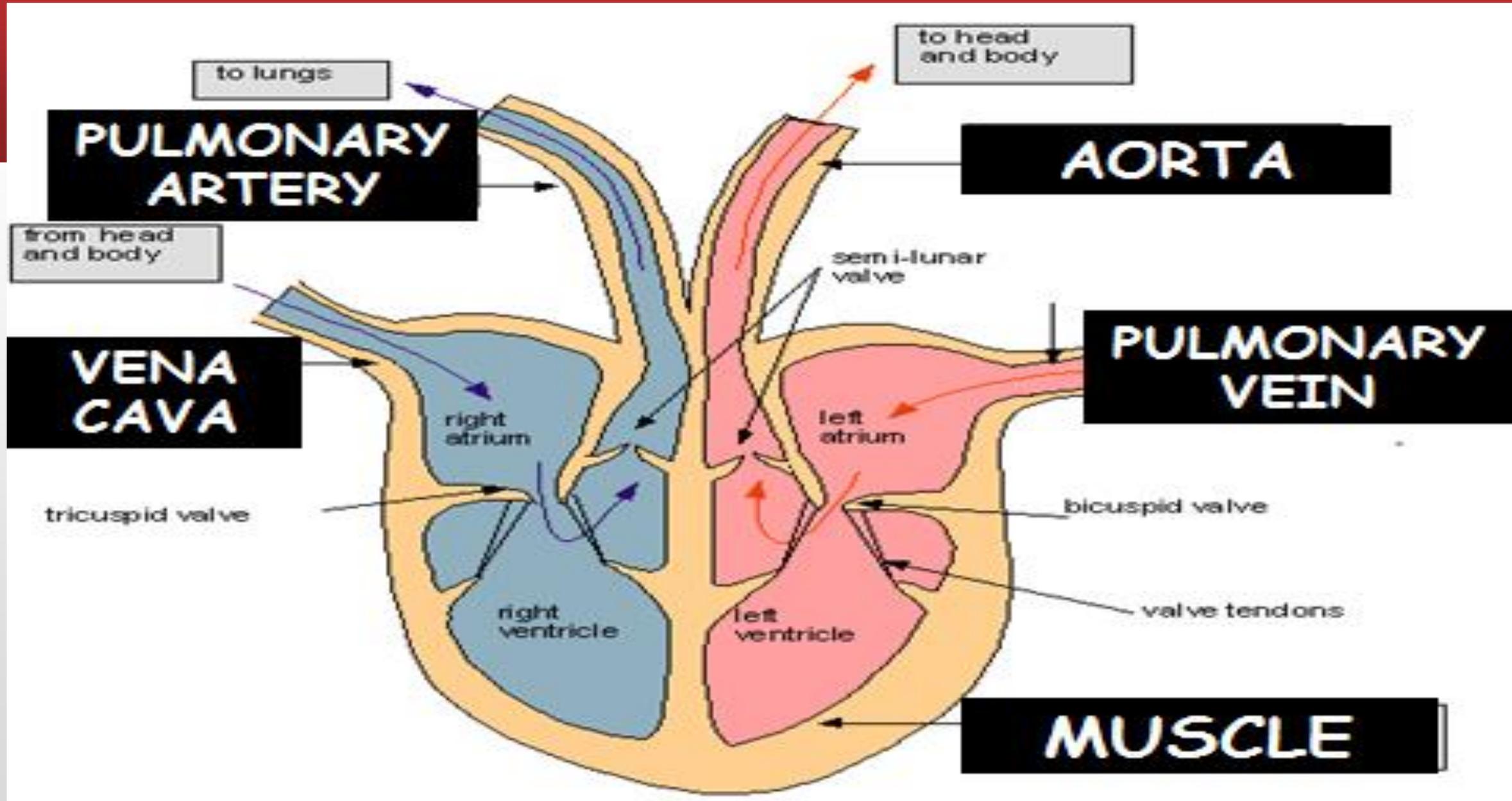
The heart is split between the left and right side.

As you can see, it consists of many parts!

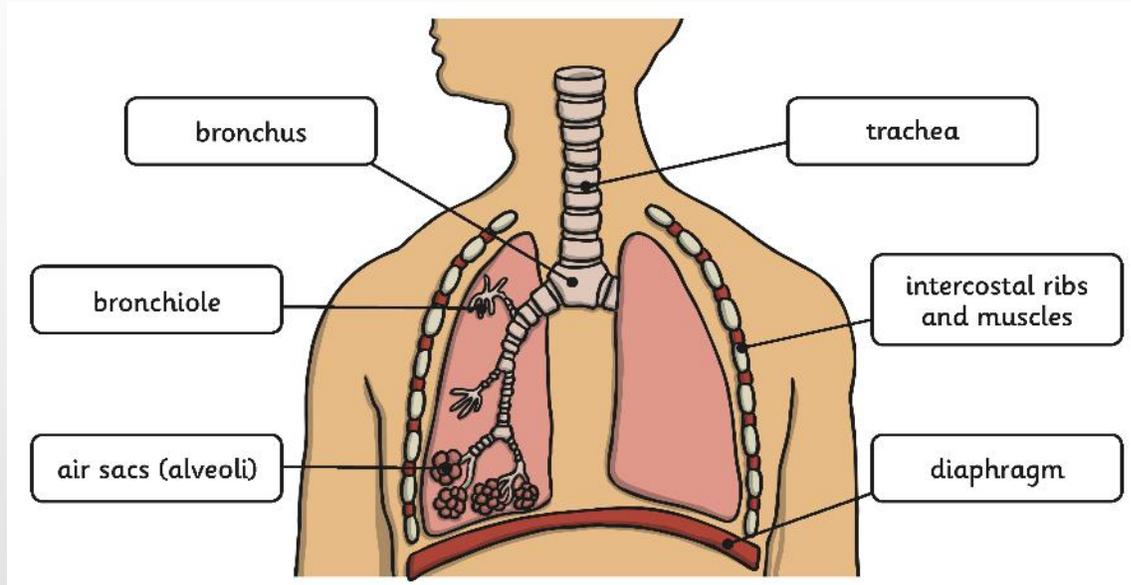




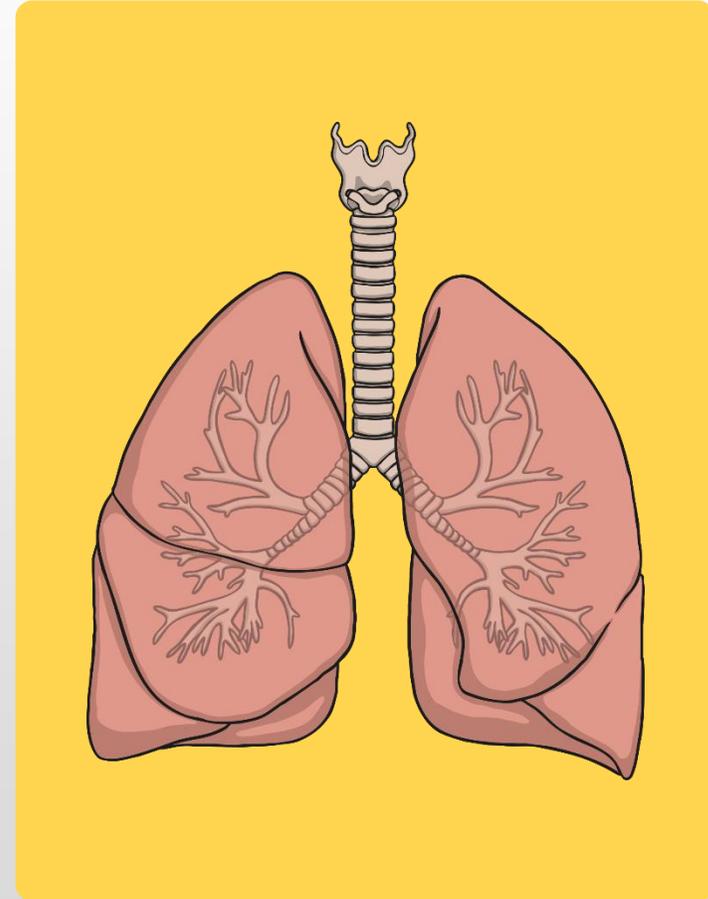
<p>Arteries Carry oxygenated blood away from the heart except for the pulmonary and umbilical arteries, which carry de-oxygenated blood.</p>	<p>Veins: Carry de-oxygenated blood toward the heart except for the pulmonary and umbilical veins which carry oxygenated blood to the heart. Veins are less muscular than arteries and are often closer to the skin. Most veins contain valves to prevent back-flow.</p>	
<p>Elastic Arteries: Elastic arteries contain filaments of collagen and elastin which gives them the ability to stretch in response to a pulse. The pulmonary arteries and the aorta are examples of elastic arteries. They receive their own blood supply unlike smaller vessels which are supplied by diffusion.</p>	<p>Venae Cavae: These are the two largest veins in the body and which carry blood into the heart.</p>	
<p>Distributing Arteries: Distributing arteries are medium sized arteries that draw blood from an elastic artery. They branch into resistance vessels including small arteries and arterioles. These arteries are made of smooth muscle. The splenic artery which supplies oxygenated blood to the spleen is an example of this type of artery.</p>	<p>Large collecting blood vessels: Examples of these types of veins include the jugular and renal vein. The jugular veins bring de-oxygenated blood from the head back to the heart. The renal veins carry out a similar function for the kidneys.</p>	
<p>Arterioles: These small blood vessels extend from the artery to the capillary.</p>	<p>Capillaries: These are the smallest blood vessels in the body and it is here that the exchange between water, nutrients, oxygen and carbon dioxide takes place.</p>	<p>Venules: Are the opposite of arterioles – they branch out from the capillary bed to drain into veins. Venules unite to form a vein.</p>

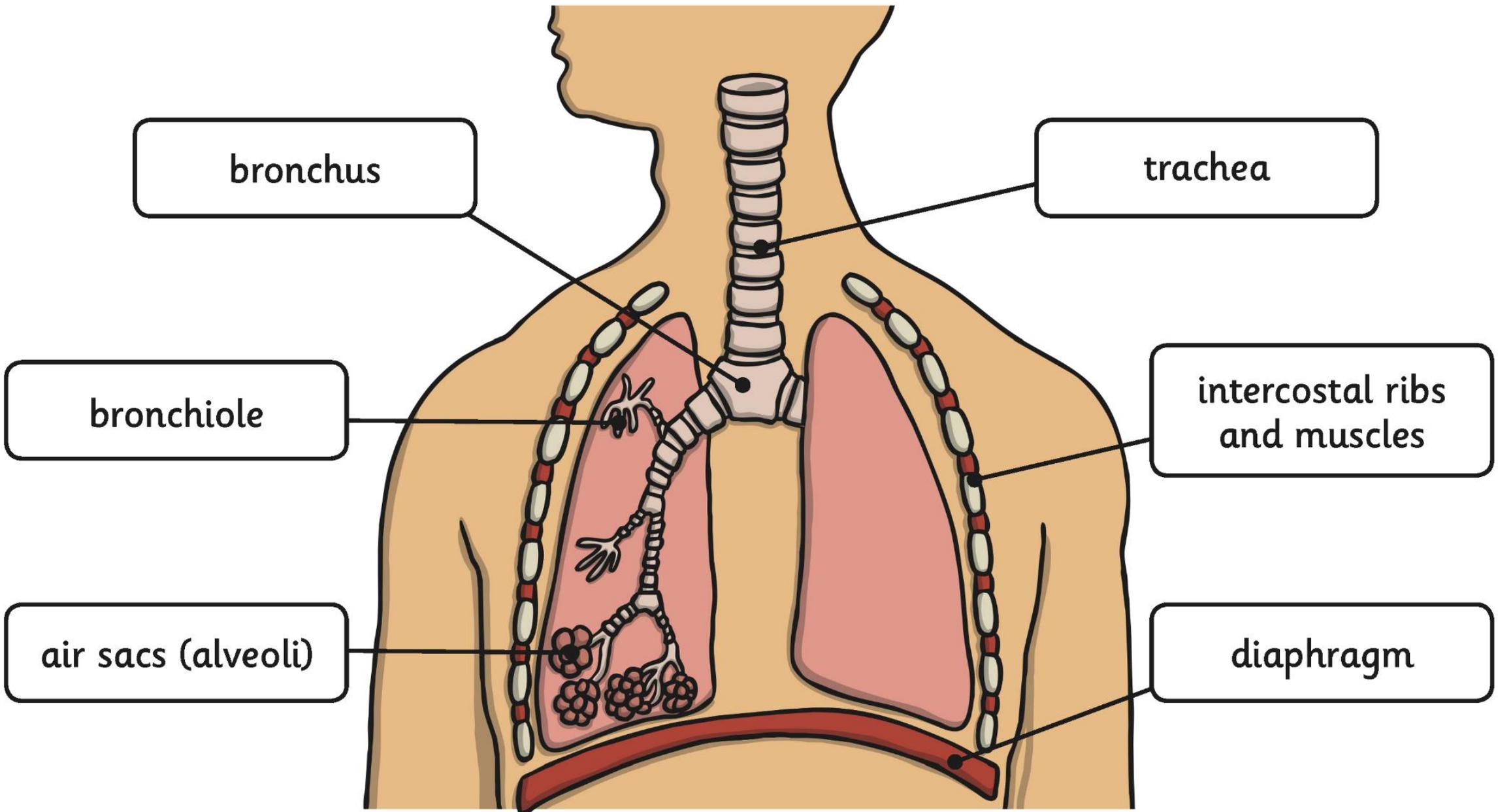


Parts of the Circulatory System: Lungs



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).





bronchus

trachea

bronchiole

intercostal ribs
and muscles

air sacs (alveoli)

diaphragm

Parts of the Circulatory System: Blood Vessels

Blood vessels can be split into three types:

Arterial blood vessels - arteries:

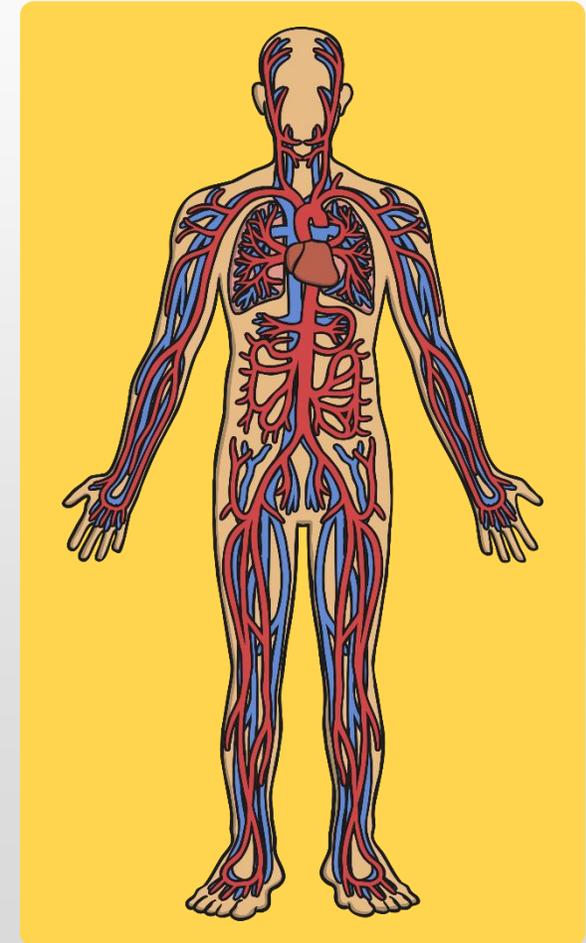
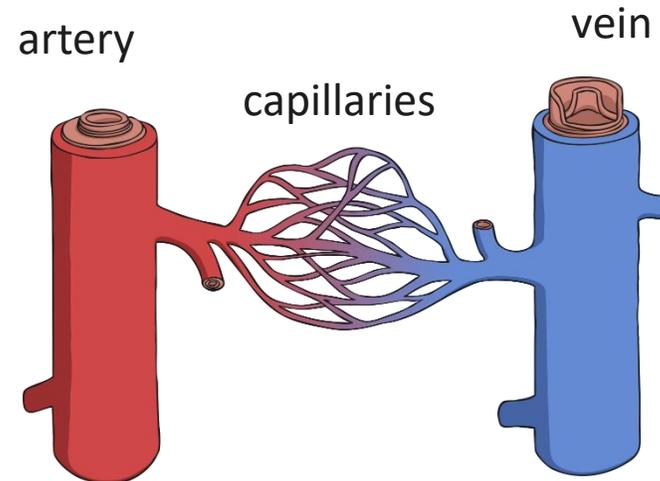
Arteries are blood vessels that carry blood away from the heart.

Venous blood vessels - veins:

Veins are blood vessels that carry blood to the heart.

Capillaries:

These are the smallest blood vessels. Capillaries connect the arteries and the veins and are the place where water and chemicals exchange in the blood.

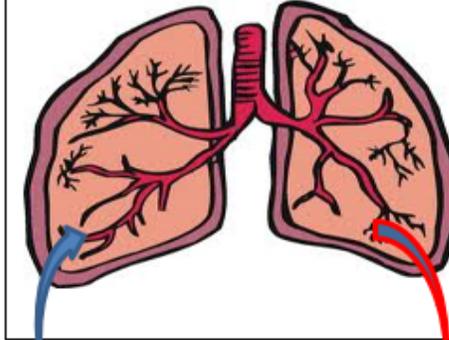


Your task:
Put the other slides away, show what you have learned!

Task

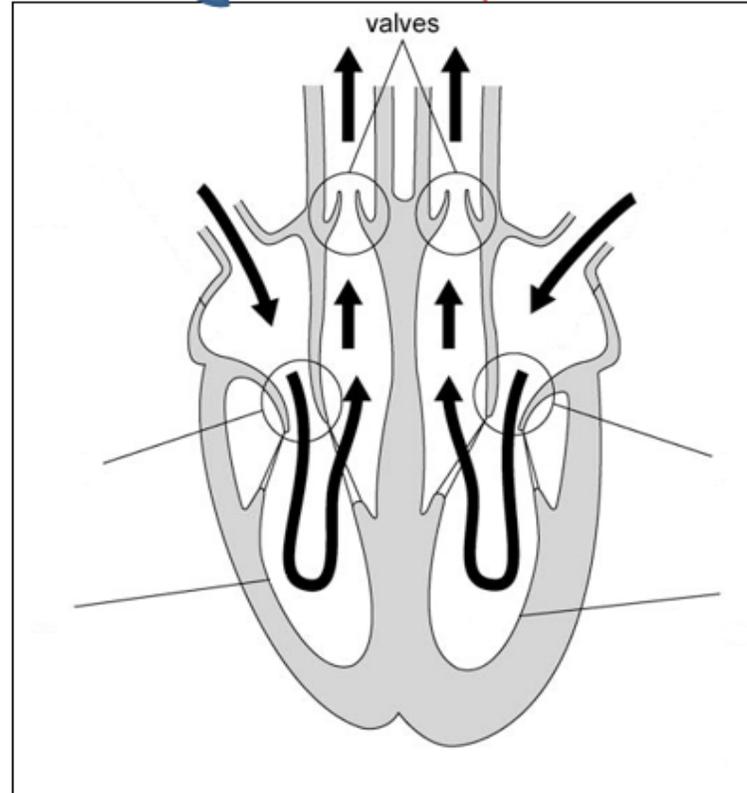
1. Label the heart.
2. Colour the valves in green.
3. Colour the left atrium and the left ventricle in red.
4. Colour the right atrium and right ventricle in blue

Why does the heart pump blood to the lungs?



Why is blood pumped back to the heart?

5. Describe where the blood flows when it enters the right atrium



Where does the blood go when it leaves the left ventricle?

As the blood travels around the body what does it do?

What do the colours red and blue represent?