An anatomical illustration of a human heart, showing the four chambers (right and left atria and ventricles) and the major blood vessels (superior and inferior vena cava, aorta, and pulmonary arteries and veins). The heart is rendered in a realistic style with detailed shading and texture, set against a dark red background.

# **Circulatory System Functions**

# Aim

- I can describe the functions of the main parts of the circulatory system.

# Success Criteria

- I can explain the main functions of the heart, blood and blood vessels.
- I can describe the functions of parts of the heart and blood.

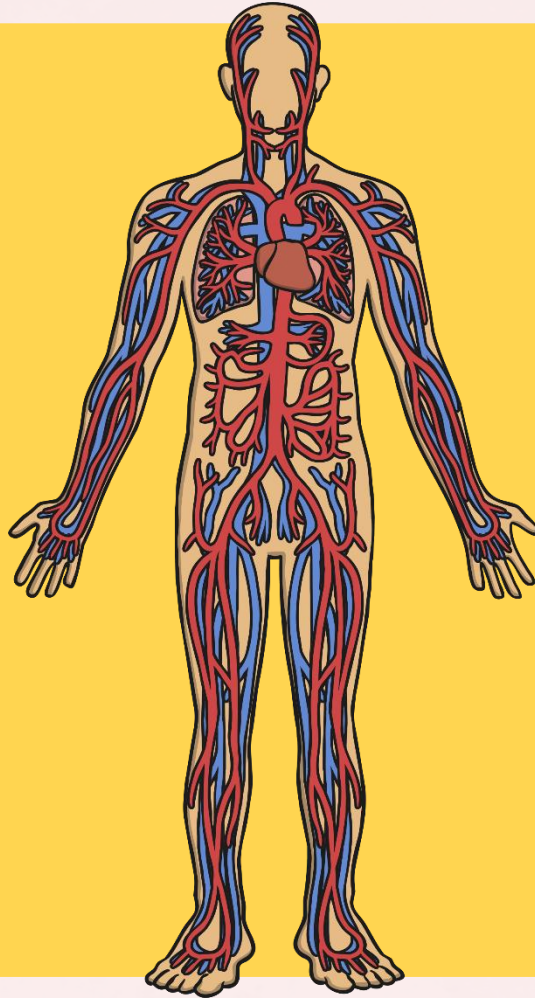
# The Circulatory System

Can you label these  
three main parts of the  
circulatory system:

Blood vessels

Heart

Blood



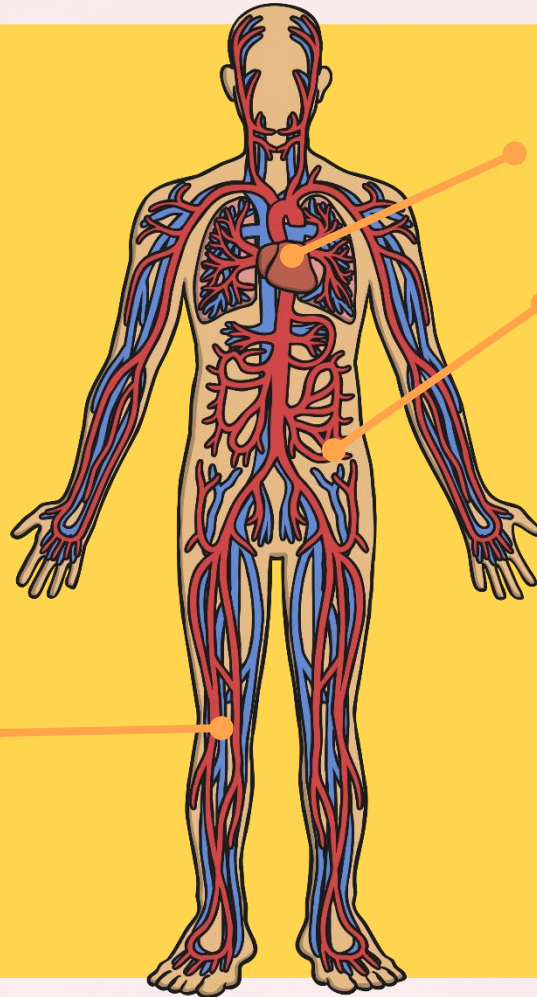
# The Circulatory System

Can you label these three main parts of the circulatory system:

Blood vessels

Heart

Blood



Heart

Blood

Blood vessels

# 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.

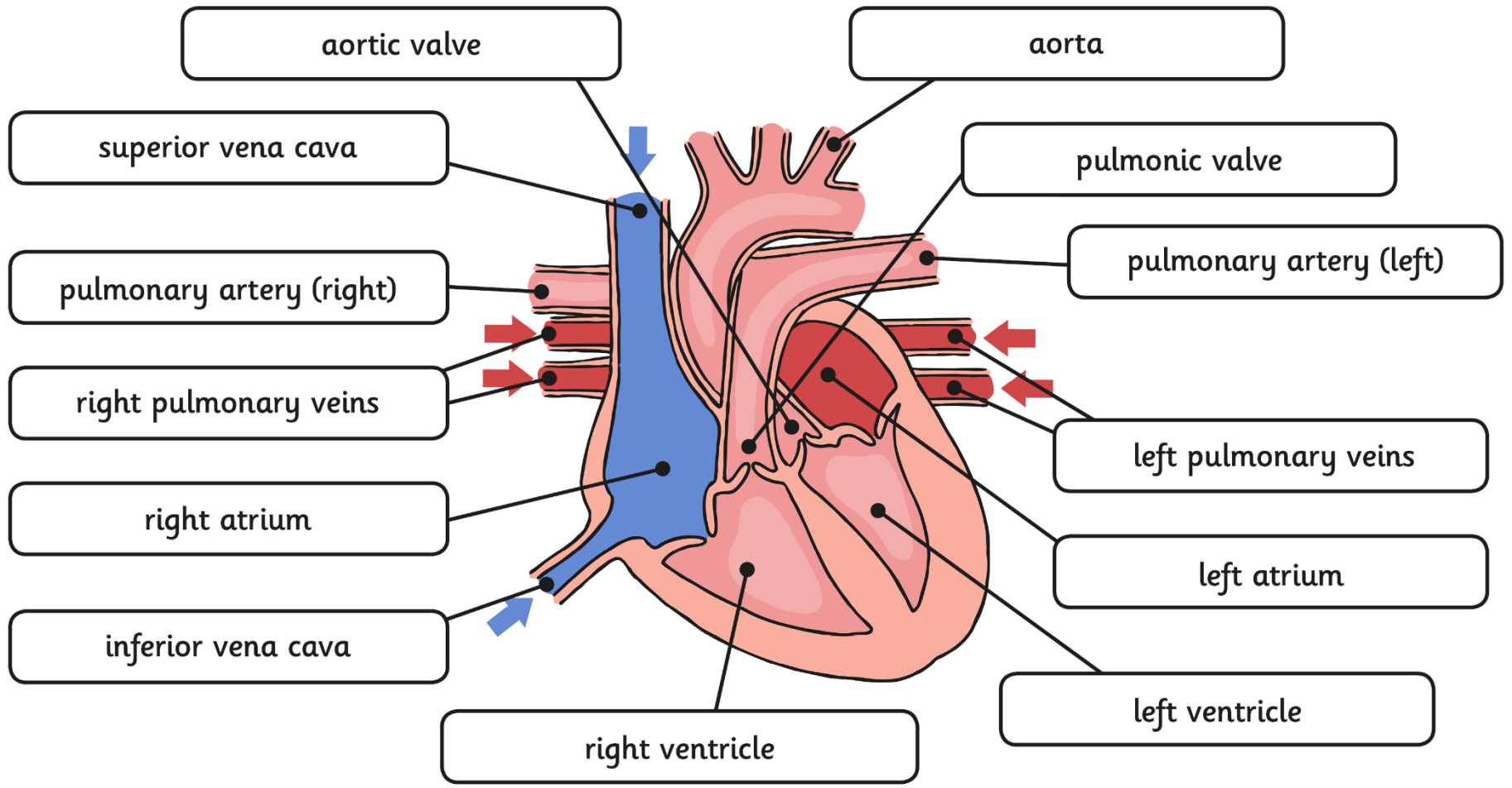
The heart then pumps this oxygenated blood around the body.

The heart is split between the left and right side.

As you can see, it consists of many parts!



Each part of the heart has a special name. You don't need to memorise all of these but we thought you might like to look at them!



# Parts of the Circulatory System: Blood Vessels

Blood vessels can be split into three types:

## **Arterial blood vessels - arteries:**

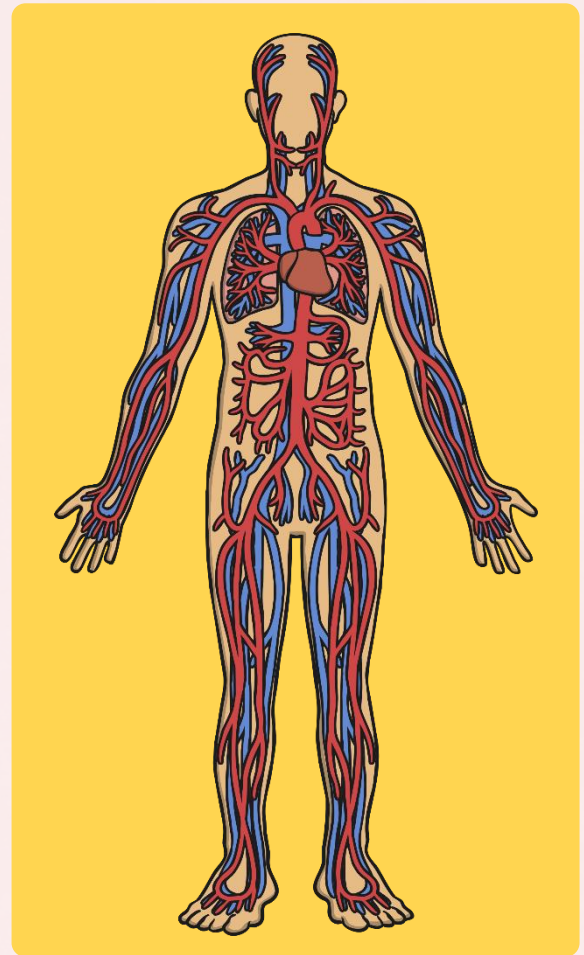
Arteries are blood vessels that carry blood away from the heart.

## **Venous blood vessels - veins:**

Veins are blood vessels that carry blood to the heart.

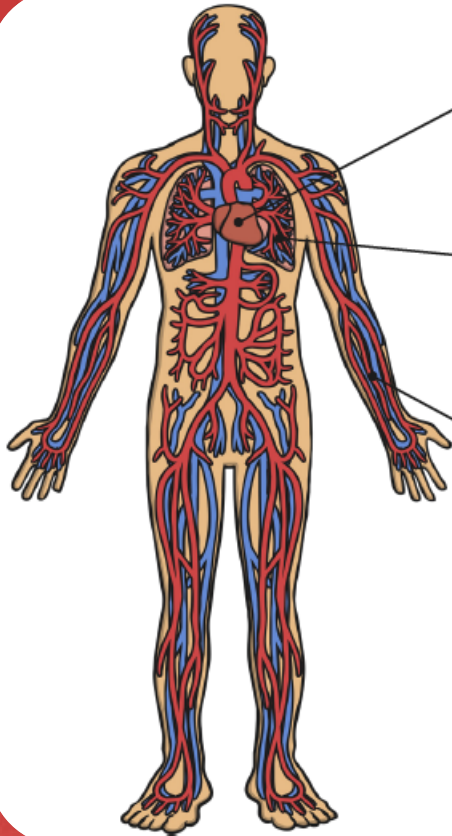
## **Capillaries:**

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.



# Functions of the Heart

Use this text to answer the questions on the next slide



There are three main parts of the circulatory system – the heart, the lungs and the blood vessels.

## **Heart:**

The heart plays an important role because it keeps all the blood flowing in the circulatory system. The process of exercising results in the body requiring more oxygen, this means that the heart has to circulate more oxygenated blood through the circulatory system. That is why your heart beats faster when you exercise.

## **Lungs:**

When we breathe, we inhale air containing oxygen into our lungs. It is in the lungs that the gas exchange between oxygen entering the blood arteries and carbon dioxide exiting the veins occurs. The carbon dioxide is released by breathing out.

## **Blood Vessels:**

Blood vessels are tubes that carry the blood around the body.

There are three main types of blood vessels:

**Arteries** – these carry oxygenated blood away from the heart to the rest of the body.

**Veins** – these carry deoxygenated blood back to the heart to be pumped to the lungs to become oxygenated.

**Capillaries** – these are blood vessels that connect to both arteries and veins. They are also connected directly to cells. Blood with nutrients and oxygen passes from the artery, through the capillary to a cell. Any waste is passed through capillary to the vein.



# Can you answer these questions

1. What are the three main parts of the circulatory system?

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2. Which is the most important part of the circulatory system? Give reasons for your answer.

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3. What is the function of the circulatory system? Explain in one sentence only.

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4. 'The capillaries just connect arteries and veins so aren't very important.' Is this statement a fact or an opinion?

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5. Why is it called the 'circulatory' system?

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There are lots of great videos on this website.

Take some time today to watch each of them

<https://www.bbc.co.uk/bitesize/topics/zwdr6yc>

