

# Knowledge Organiser - Science - Year B - Animals including humans - circulatory system - (UKS2 Unit) - Summer 2

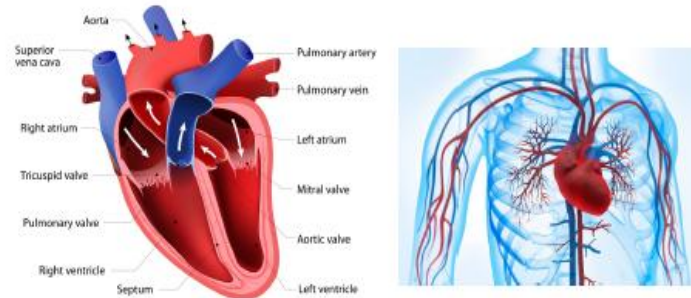
## Sticky Learning - What I already know

- I know that my body has different parts and they all do different jobs
- I know that I need food, water and air to stay alive
- I know how to keep my body healthy
- I know that my skeleton holds me up and my muscles help me to move
- I know that my body breaks down food to give me energy
- I can observe, talk about and record what I find out



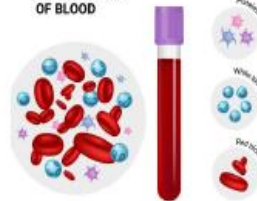
### The Heart

The **heart** pumps **blood**, carrying nutrients and oxygen, around every part of the body.



The red vessels are **arteries** and the blue vessels are **veins**. **Arteries** have thick, muscular walls and carry **oxygenated** blood from the **heart** to the rest of the body. **Veins** carry **deoxygenated** blood back to the heart and have thinner walls. **Capillaries** are microscopic vessels which link the veins and arteries together.

#### COMPOSITION OF BLOOD



**Red blood cells** carry **oxygen**. **White blood cells** fight infection as part of the immune system. **Platelets** help to clot (thicken) the blood and form a scab. **Plasma** is the fluid part of the blood, which transports

### Looking After Our Heart



To keep our **heart** and body healthy, we need to:

- eat a balanced diet (not too much sugar or fat);
- exercise regularly;
- drink approximately 2 litres of water a day;
- limit alcohol intake, in adults;
- get approximately 8 hours of sleep.



Drugs, including alcohol, can cause liver damage, poor sleep, high blood pressure, and different types of cancer. Drugs can be classified into four groups – painkillers, stimulants, depressants and hallucinogens.

### Core Learning



1. Understand the function of the heart and its role in the circulatory system



2. Identify and compare blood vessels



3. Explore blood



4. Learn how the body transports water and nutrients



5. Investigate what affects your heart rate



6. Learn about the impact of drugs and alcohol on the body



**Knowledge Organiser: Year 6 - Animals, including humans**  
*Before and After Test*



What is the function of the heart?

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Tick the type of blood an artery carries.

- Deoxygenated
- Oxygenated

Where do veins take the blood to?

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Name 2 ways to look after your heart:

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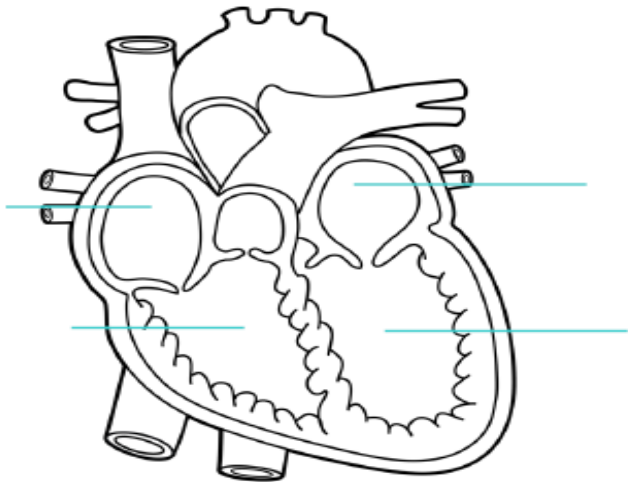
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Label the diagram of the heart with the following:

**left atrium   right atrium   left ventricle   right ventricle**



Draw lines to match the blood component to its function:

- |                   |                                   |
|-------------------|-----------------------------------|
| platelets         | carry oxygen                      |
| red blood cells   | the fluid carrying the components |
| plasma            | fights infection                  |
| white blood cells | clot blood                        |



Name 2 effects that taking drugs can have on the body :

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### Rocket Words

	<b>circulatory system</b>	the system that controls the flow of blood around the body
	<b>BPM</b>	beats per minute measuring heart rate
	<b>diet</b>	the kind of food an animal usually eats
	<b>pulse</b>	the rhythmical throbbing of the arteries as blood is pumped through them
	<b>oxygenated</b>	containing oxygen
	<b>deoxygenated</b>	not containing oxygen
	<b>atrium</b>	the upper chambers of the heart
	<b>ventricle</b>	the lower chambers of the heart
	<b>vessel</b>	tube which circulates the blood through the body
	<b>valve</b>	flaps which open and close to allow blood flow
	<b>diffusion</b>	diffusion is the movement of all liquids and gases
	<b>osmosis</b>	osmosis is the movement of water only