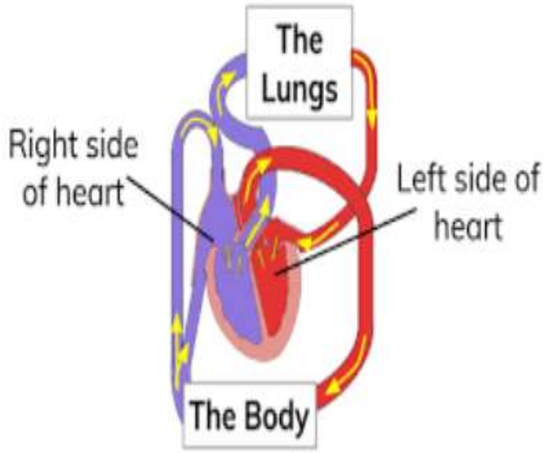
Blood, Sweat and Tears.

What is the circulatory system?

Made up of the **heart, blood and blood vessels**, the circulatory system is your body's delivery system. It keeps all the blood in your circulatory system flowing. This system is responsible for transporting materials throughout the entire body:
It **delivers nutrients, water, and oxygen** to your billions of body cells and **carries away waste** such as **carbon dioxide** that body cells produce. It is a double system of loops which involves the lungs.



Blood.

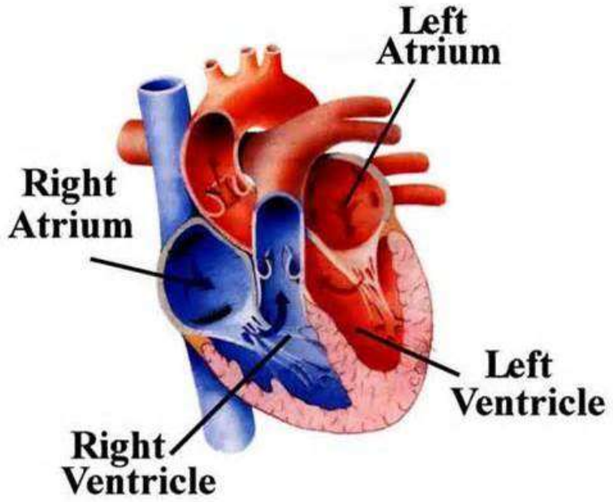
Blood transports materials around the body and protects against disease. It is composed of **red blood cells** (carry oxygen); **white blood cells** (protect against disease); **platelets** (enable our blood to clot) and **plasma** (the liquid which carries these cells).

Blood vessels.

Blood vessels are a series of tubes inside your body. **Arteries** carry **oxygenated** blood away from the heart; **veins** take **deoxygenated** blood back to the heart. **Capillaries** enable exchange of oxygen with the body.

The heart.

Your heart is a very strong **muscle** that **pumps** blood around your body; it is around the size of your fist and sits between your lungs and your chest where it is protected by your rib cage. Blood moves around the heart's **four chambers** in a figure of eight pattern. Your **heart rate** is a measure of how many times a minute your heart beats.



Plan, do, review.

When you **investigate how exercise affects heart rate,** you will need to identify the different **variables** including**:** the **independent** variable (the one you change); the **dependent variable** (the one you measure) and ensure all the other variables are **controlled** to ensure a **fair test.**

Using data.

You can use **spreadsheets** to show data and draw a variety of graphs **including line graphs.** By inputting data into **cells, columns and rows** on a worksheet, you can insert a line graph which can be used to show trends which is ideal for **tracking heart rate over a time period.**