

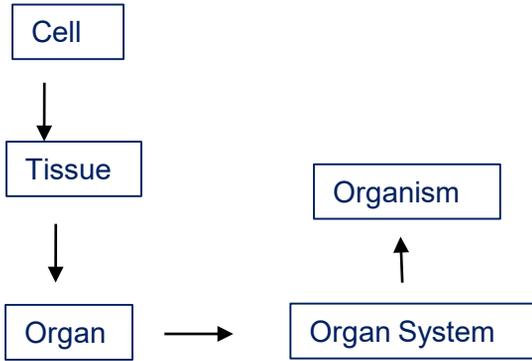


# Knowledge Organiser: Science

## Does inequality affect someone's happiness?

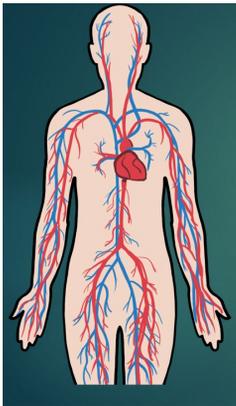


### Organs in the human body



### The Circulatory System

**Circulatory** – describes the process of blood moving around the body.



Our circulatory system is responsible for transporting **nutrients**, water and oxygen to billions of body cells.

It also carries away waste such as carbon dioxide that body cells produce.

Blood delivers oxygen to all the body's **cells**. Without oxygen, these cells would die.

An average-sized adult carries about **5 litres of blood**.

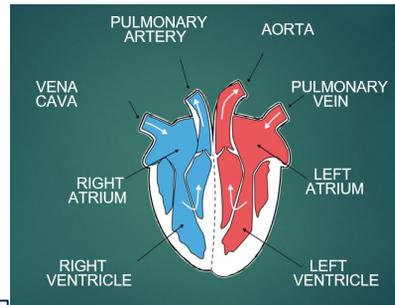
Approximately 2.5 million red blood cells are lost and replaced every second!



### The Heart

The **function** of the heart is to keep all the blood moving around the circulatory system.

- The heart is a very strong muscle.
- It is about the size of your fist.
- It is protected by your rib cage.



### Pulse Rate Investigation

**Pulse** is a steady beat. You can measure it by counting the number of beats per minute.

What can we do to make our heart rate increase?  
Which exercise increases your **heart rate** the most?

Working Scientifically:

How do we make sure our test is fair.

What is our independent variable (changes) and our dependent variable (controlled)?

Aim:  
Prediction:  
Variables:  
Method:  
Results:

### Vocabulary Tier 3

- Heart
- Blood
- Blood Vessels
- Circulatory System
- Cells
- Carbon Dioxide
- Pulse rate
- Deoxygenated blood
- Oxygenated blood
- Artery
- Capillaries
- Veins

### Vocabulary Tier 2

- Nutrients
- Water
- Oxygen
- Function
- Organ

