



# Y6 Science Knowledge Organiser—Animals Including Humans

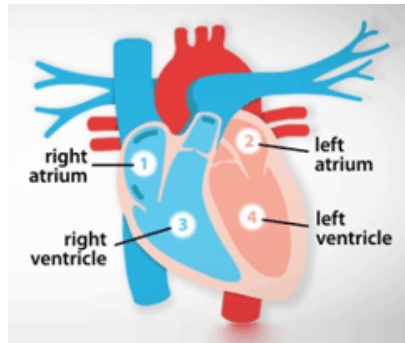


## Key Knowledge

Learn these key facts—key points in red

### Circulatory System—What Do We Need To Know?

#### Diagram—The Heart



The **heart** is composed of four chambers; the right **atrium**, the right **ventricle**, the left **atrium** and the left **ventricle**.

The rate that your heart pumps is called your **pulse**.



#### The Function of the Heart

- 1 **Deoxygenated blood** flows into the **heart** from the body through the **veins**.
- 2 This blood is pumped out of the lungs through the **pulmonary artery**
- 3 Blood is then the **oxygenated** in lungs
- 4 Blood returns to the heart through the **pul-**
- 5 The **oxygenated blood** is then pumped out of the heart through the **aorta**.
- 6 The blood travels around the body delivering **oxygen** and **nutrients** to the **organs**.

#### What is the circulatory system?

The **circulatory system** is made up of the **heart**, **lungs** and **blood vessels**.

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

**Veins** carry **deoxygenated blood** from the body to the heart.

**Nutrients**, **oxygen** and **carbon dioxide** are exchanged via the **capillaries**.



#### Key Scientist

**Barbara Casadei** - a researcher helping The **British Heart Foundation** find cures for cardiovascular conditions.

#### Healthy Diet & Lifestyle

##### Things that can harm the circulatory system

- Smoking and drinking alcohol can be harmful to our health.
- Tobacco can cause short-term effects such as shortness of breath and loss of taste and long term effects such as lung disease and cancer.
- Alcohol can cause short term effects such as addiction and long term effects such as organ damage and cancer.

##### Things that can maintain a healthy circulatory system

- Exercise helps to improve health by:**
- Removing fatty deposits from the body.
  - Toning muscles and reducing fat.
  - Increasing fitness (ability to do high intensity activities for longer).

## Key Vocabulary

Understand these key words

Word	Definition
<b>arteries</b>	tubes in your body that carry <b>oxygenated</b> blood from your <b>heart</b> to the rest of your body.
<b>atrium</b>	the part of the heart that receives blood from the veins.
<b>blood vessels</b>	narrow tubes that your blood flows through.
<b>carbon dioxide</b>	a gas produced by animals and people breathing out.
<b>circulatory system</b>	the system responsible for circulating blood through the body, that supplies <b>nutrients</b> and <b>oxygen</b> to the body and removes waste products such as <b>carbon dioxide</b> .
<b>deoxygenated</b>	blood that does not contain <b>oxygen</b> .
<b>*heart</b>	the <b>organ</b> in your body that pumps blood around the body .
<b>*lungs</b>	two <b>organs</b> in your chest which fill with air when you breathe in. They <b>oxygenate</b> the blood and remove <b>carbon dioxide</b> from it.
<b>*nutrients</b>	substances that help animals and plants grow.
<b>*organ</b>	a part of the body that has a particular purpose and performs specific functions.
<b>*oxygen</b>	a colourless gas that plants and animals need to survive.
<b>oxygenated</b>	blood that contains <b>oxygen</b> .
<b>pulse</b>	the regular beating of blood through your body. How fast or slow your pulse rate is depends on how active you are.
<b>respiration</b>	inhaling <b>oxygen</b> -rich air and exhaling air filled with <b>carbon dioxide</b> .
<b>veins</b>	a tube in your body that carries <b>deoxygenated</b> blood to your heart from the rest of your body.
<b>ventricle</b>	the part of the heart from which blood passes into the arteries.
<b>*</b>	vocabulary that I know from years 3&4. Definitions contain more complex explanations.