

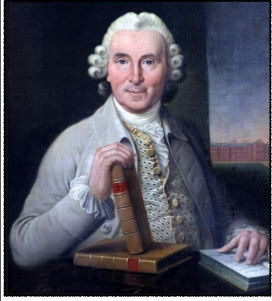
# Knowledge Organiser- Theme: Heroes and Villains

## The Circulatory System

- The circulatory system is your body's delivery system. It is made up of your heart, blood and blood vessels.
- The human body needs constant supply of blood to keep working. Blood delivers oxygen to all of the body's cells- without this, cells would die. The circulatory system gets blood (and the oxygen) all around your body.
- The heart pumps blood to the lungs via the pulmonary artery, where it picks up oxygen. It is then returned to the heart through the pulmonary vein.
- The heart then pumps the oxygenated blood to the rest of the body through the aorta and the other arteries.
- Veins are vessels that bring blood back to the heart.

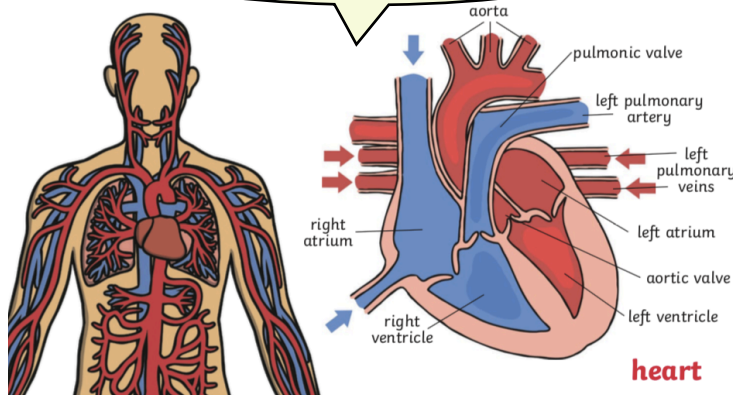
## Health Heroes

**James Lind**  
(1716-1794): Carried out experiments to discover the cause of scurvy. **Scurvy** is a disease resulting from a lack of vitamin C.



### How it works

The heart is an organ that works constantly to pump blood around the body. The heart is made up of four sections, called chambers. There are two sides to the heart each of which have an atrium and a ventricle.



Key word	Defintion	Explanation
<b>Heart</b>	a hollow organ that pumps blood through the circulatory system	
<b>heartbeat</b>	the pulsation of the heart	
<b>pulse</b>	a rhythmical throbbing of the arteries as blood travels through them, typically felt in the wrists or neck	
<b>pulse rate</b>	the number of heartbeats per minute	
<b>muscle</b>	a tissue of the body consisting of long cells that can contract and produce movement	
<b>blood vessel</b>	a tubular structure carrying blood through the tissues and organs	
<b>lung</b>	organs within the ribcage, consisting of sacs with branching passages into which breath is taken, so that oxygen can pass into the blood and carbon dioxide be removed	
<b>oxygen</b>	a colourless, odourless gas, the life-supporting component of air	
<b>oxygenated blood</b>	blood that carries oxygen from the lungs to the heart and to the rest of the body	
<b>deoxygenated blood</b>	blood that is carrying more of carbon dioxide to be removed from the body	
<b>carbon dioxide</b>	a colourless, odourless gas produced by respiration. It is absorbed by plants in photosynthesis.	
<b>circulate</b>	move continuously in a closed system or area	
<b>circulatory system</b>	The circulatory system is your body's delivery system of blood. It is made up of your heart, blood and blood vessels	
<b>organ</b>	a part of an organism which has a specific vital function	
<b>Diet</b>	the kinds of food that a person or animal habitually eats	
<b>drugs</b>	a chemical that has an effect on your body	
<b>lifestyle</b>	the way in which a person lives	
<b>body function</b>	are the <b>functions</b> of <b>body</b> systems	
<b>healthy</b>	in a good physical or mental condition; in good health	
<b>nutrients</b>	substance that provide nourishment essential for life and growth	

## Impact of Diet, Exercise and Drugs

A healthy, balanced diet can have a huge effect on a persons health. People who eat the right balance of fresh, healthy foods are less prone to chronic illnesses and diseases.



### Exercise

As we exercise, our muscles need more oxygen. So, we breathe quicker, helping our lungs to take in more oxygen.

### Drugs

Some drugs are prescribed by doctors to make people healthy. Other illegal drugs can have a dangerous effect on health.

