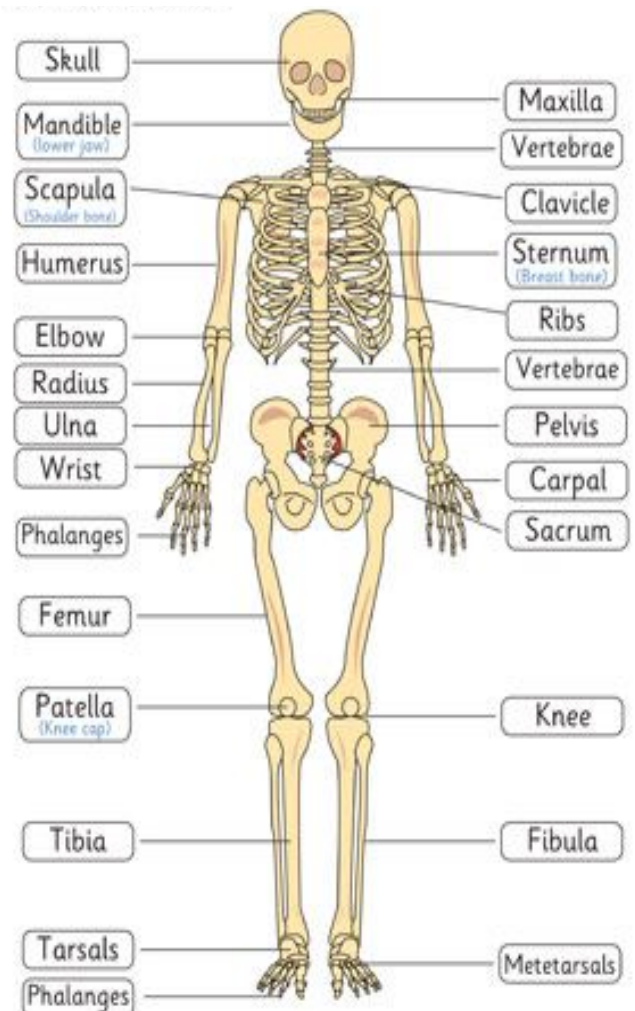


Knowledge Organiser – Science: Animals Including Humans

Tier 3 vocabulary	
Arteries	Muscular-walled tubes that transport blood from the heart to other parts of the body.
Blood	Red liquid that circulates in arteries and veins, carrying oxygen to and carbon dioxide from tissues of the body.
Blood vessel	A tubular structure carrying blood through the tissues and organs.
Bones	Hard whitish tissue making up the skeleton in humans and other vertebrates.
Circulatory system	The system that circulates blood through the body, including the heart, blood vessels and blood.
Heart	A hollow muscular organ that pumps the blood through the circulatory system.
Lungs	Pair of organs situated within the ribcage where oxygen can pass into the blood and carbon dioxide be removed.
Muscles	A band or bundle of fibrous tissues that have the ability to contract, producing movement in or maintaining positions of parts of the body.
Nutrients	A substance that provides nourishment essential for the maintenance of life and for growth.
Organs	Part of an organism that is typically self-contained and has a specific vital function (e.g. the heart and lungs).
Veins	Tubes forming part of the blood circulation system of the body, carrying mainly oxygen-depleted blood towards the heart.
Vitamins	Organic compounds essential for normal growth and nutrition.



A healthy and balanced diet and regular exercise is important in helping the body to function.

HEALTHY LIFESTYLE



Smoking, Alcohol and Illegal drugs are very harmful to the body. They can cause illnesses like cancer or cause problems with internal organs.

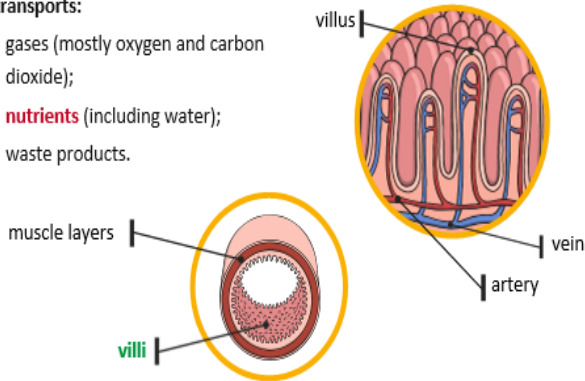
### Inside the Small Intestine

The **nutrients** pass through the **villi** and are absorbed into the blood vessels.

Water is absorbed in the small intestine in exactly the same way as other

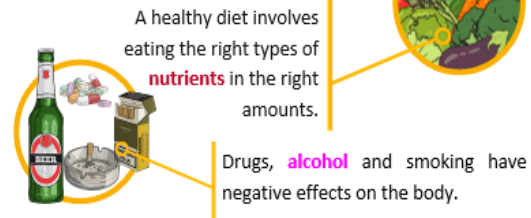
**Blood transports:**

- gases (mostly oxygen and carbon dioxide);
- nutrients** (including water);
- waste products.



### Regular exercise

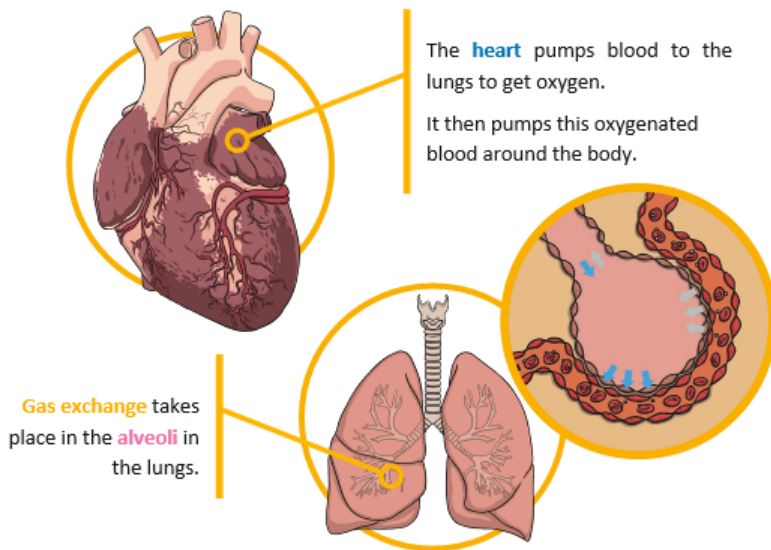
- strengthens muscles including the heart muscle;
- improves circulation;
- increases the amount of oxygen around the body;
- releases brain chemicals which help you feel calm and relaxed;
- helps you sleep more easily;
- strengthens bones.



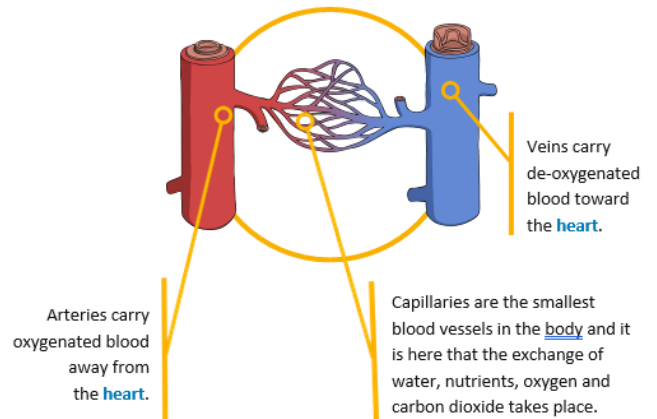
A healthy diet involves eating the right types of **nutrients** in the right amounts.

Drugs, **alcohol** and smoking have negative effects on the body.

### The Circulatory System



### Blood Vessels



### Working Scientifically

#### Research

How are smoking, drinking and drugs harmful?

#### Fair Testing

Investigating heart rate