



Animals Including Humans

Knowledge Organiser Y5/6

Vocabulary

circulatory system	A system which includes the heart, veins, arteries and blood transporting substances around the body.
heart	An organ which constantly pumps blood around the circulatory system .
blood vessels	The tube-like structures that carry blood through the tissues and organs. Veins, arteries and capillaries are the three types of blood vessels.
oxygenated blood	Oxygenated blood has more oxygen. It is pumped from the heart to the rest of the body.
deoxygenated blood	Deoxygenated blood is blood where most of the oxygen has already been transferred to the rest of the body.

drug	A substance containing natural or man-made chemicals that has an effect on your body when it enters your system.
alcohol	A drug produced from grains, fruits or vegetables when they are put through a process called fermentation.
nutrients	Substances that animals need to stay alive and healthy.

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.

It can even help to stop us from getting ill.



Knowledge

The **heart** pumps blood to the lungs to get oxygen. It then pumps this **oxygenated blood** around the body.

Plasma is liquid. The other parts of your blood are solid.

- Red blood cells carry oxygen through your body.
- Platelets help you stop bleeding when you get hurt.
- White blood cells fight infection when you're sick.

Blood transports:

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

The liquid part of blood contains water and protein. This is called plasma.

Sequence of Learning

1. To know the three main parts of the circulatory system (heart, blood vessels and blood) and describe the job of the heart - a muscle that pumps blood around your body.
2. To describe the important jobs of the blood vessels and blood. Blood is made up of four parts: plasma, red blood cells, white blood cells and platelets. Arteries carry blood away from the heart, veins carry blood to the heart and capillaries allow substances to move in and out of the blood.
3. Investigating heart rate.
4. To explore and understand the benefits of exercise.
5. To explain how diet and exercise affect the body.