

Pye Bank CE Primary DSAT Knowledge Organiser

YEAR 6

Biology: How do our choices affect how our body works?

SCIENCE

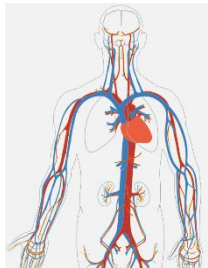
KEY VOCABULARY

Aorta: the biggest artery in the body. It starts at the heart's left ventricle and runs down into the abdomen.

Artery: a blood vessel that carries blood away from the heart.

Blood: a fluid that transports substances around the body. Blood circulates oxygen, carbohydrates, other nutrients and chemicals to all the body's cells, and carries away waste products such as carbon dioxide. Its red colour is due to the red blood cells it contains. These cells are suspended in a liquid called plasma.

Circulatory System: the group of organs that transport essential nutrients, gases, chemicals and blood cells around the body. The circulatory system includes the heart and blood vessels (arteries, veins and capillaries).



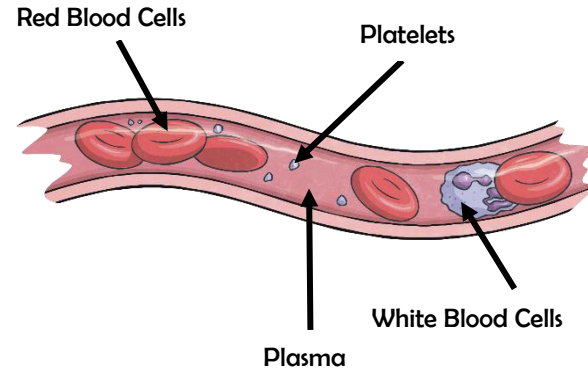
Heart: a large muscular organ that pumps blood around the body.

Lungs: the main organs of the respiratory system, responsible for breathing. Lungs take in air and allow oxygen to be absorbed into the bloodstream.

Vein: a blood vessel that carries blood towards the heart.

KEY CONCEPT - Blood

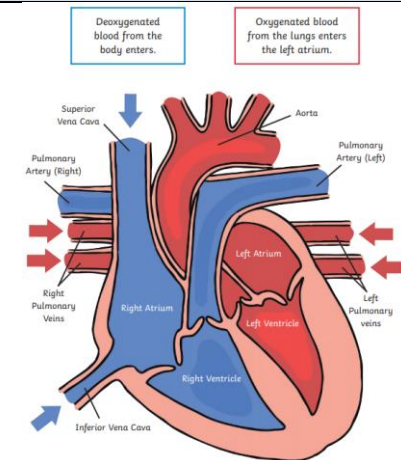
Blood is mainly made up of four elements: red blood cells, white blood cells, platelets and plasma.



STICKY KNOWLEDGE

1. The heart is made up of four chambers.
2. Deoxygenated blood is pumped to the lungs where it becomes oxygenated.
3. Platelets help the blood to clot.
4. White blood cells protect the body from infection.
5. Red blood cells carry oxygen around your body.
6. Plasma contains nutrients as well as red blood cells, white blood cells and platelets.
7. Calories give humans energy in order to function.
8. The recommended daily calorie intake for men is 2500 calories and for women, it is 2000 calories.
9. There are seven main types of nutrients that the body needs: fat, protein, fibre, vitamins, minerals, water and carbohydrates.
10. Heart rate is recorded as BPM (Beats per minute).
11. Smoking can have a harmful effect on our bodies which include cancer, wrinkled skin and lung damage.

KEY CONCEPT – The Heart



KEY CONCEPT – Impact of diet and exercise

Diet

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

Carbohydrates are used by the body to create glucose, the body's main energy source. Fat is also helpful for energy, but too much fat in a person's diet causes them to gain weight. Protein helps to build and repair muscles, but too much can cause indigestion and intestinal problems.



Exercise



As we exercise, our muscles need more oxygen. So, we breathe quicker, helping our lungs to take in more oxygen. Our heart needs to pump blood more quickly to get all of the oxygen around the body. In order to do this, our heart rate increases. Regular exercise helps our bones and muscles to become stronger. It also helps the heart and lungs to become healthier.