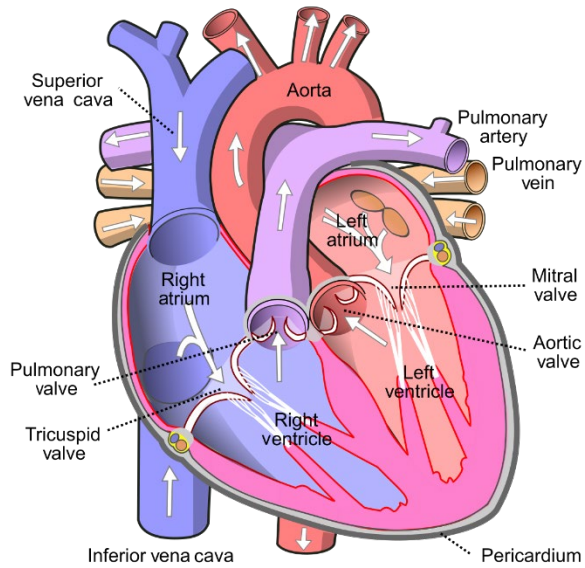
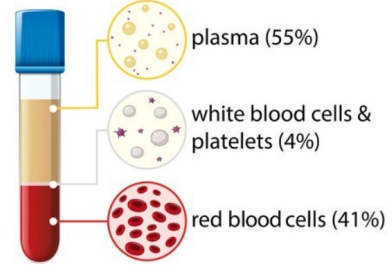


THE CIRCULATORY SYSTEM



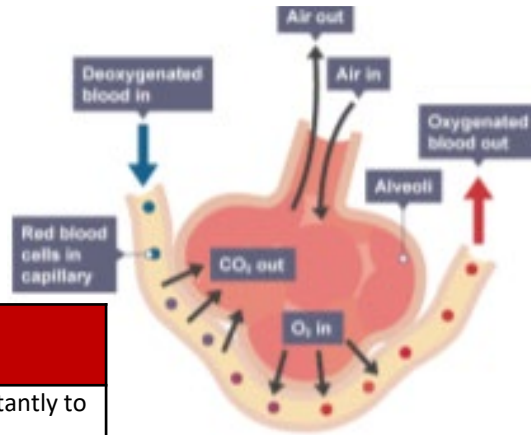
The circulatory system allows blood to circulate and transport nutrients, oxygen, hormones and blood cells to and from the cells in the body to provide nourishment and help fight diseases.

Composition of Blood



Blood is made up of four parts:

- **Red blood cells** – carry oxygen
- **White blood cells** – fight off infections
- **Platelets** – causes wounds to clot
- **Plasma** – liquid that the blood cells travel in



Artery

Blood vessel that carries blood away from the heart.

Vein

Blood vessel that carries blood towards the heart.

Capillary

Blood vessel that connects arteries and veins.

Atria

Smaller top chambers of the heart.

Ventricle

The larger bottom chambers in the heart.

Valves

Prevent back flow of blood. Allows blood to only flow the correct way.

The Heart

- The circulatory system is centred on the heart, a muscle 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 (left and right), each of which have an atrium (at the top) and a ventricle (at the bottom).
 - The job at the atria (two atriums) is to fill with the blood returning to the heart, pushing it to the ventricles.
 - The left atrium receives blood from the lungs (oxygenated) and the right atrium receives it from the body (deoxygenated).
 - The job of the ventricles is to push the blood out of the heart. The left ventricle pushes blood to the lungs to collect oxygen and the right ventricle pushes blood to the body to deliver oxygen.
1. Blood arrives in the right atrium from the body via the vena cava - it is deoxygenated as it has delivered all its oxygen to muscles/organs in the body. It has collected waste (carbon dioxide).
 2. It is pumped by the right ventricle to the lungs via the pulmonary artery where it collects oxygen (O₂) and the lungs breathe out carbon dioxide (CO₂).
 3. It returns to the heart into the left atrium via the pulmonary vein.
 4. It is pumped to the rest of the body from the left ventricle by the aorta.

PREVIOUS LEARNING LINKS

- Human bodies Y3

Diet, Exercise and Drugs

- 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.
- Regular exercise helps our bones and muscles to become stronger. It also helps the heart and lungs to become healthier.
- A drug is a chemical that has an effect on your body.
- Alcohol is a depressant. Alcohol can cause damage to the liver and brain. Cigarettes contain nicotine, which is a stimulant, and is addictive. Cigarettes can cause damage to the lungs and heart.

HEALTHY LIFESTYLE

