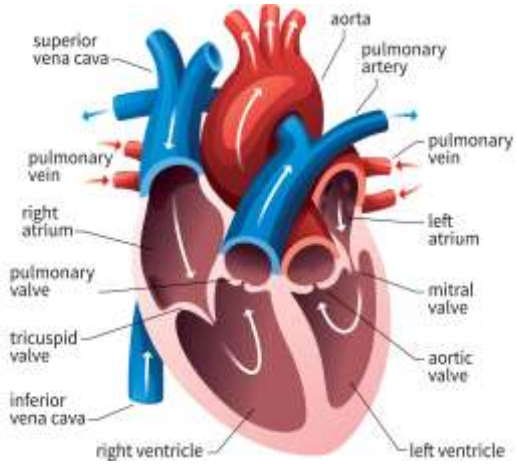
Year 6: Fitness Freaks

1. Terms	Definitions
Nutrients	Substance found in food that allows our bodies to function.
Ventricles	Each of the two main chambers of the heart, left and right.
Atriums	Each of the two upper parts of the heart from which blood is passed to the ventricles.
Platelets	They help you stop bleeding after you have a cut.
White blood cells	They fight infection when you are sick.
Red blood cells	They carry oxygen and carbon dioxide around the body.
Plasma	It is the liquid that carries the solid parts of the blood, e.g. platelets and white and red blood cells.

2. Circulatory system

- The heart pumps blood around the body.
- Oxygen goes into the blood and carbon dioxide is removed.
- Nutrients, water and oxygen are **transported** in the blood to the muscles and other parts of the body where they are needed.
- When oxygen and water are used, they produce carbon dioxide and other waste products.
- Carbon dioxide is carried by the blood back to the heart and then the cycle starts again as it is transported back to the lungs to be removed from the body.

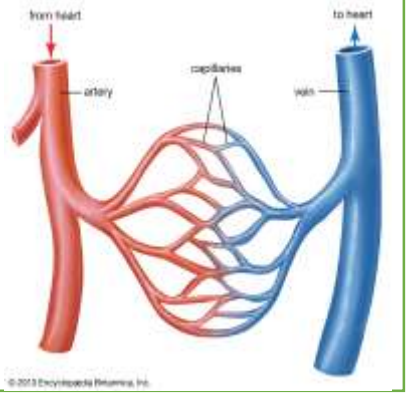


The heart

- The heart has 4 chambers.
- Blood that comes from the lung is oxygenated, whereas the blood that comes from the rest of the body is deoxygenated.
- The blue parts of the diagram show where deoxygenated blood travels; the red parts show where oxygenated blood travels.

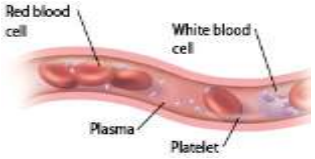
Veins, arteries and capillaries

- In general, arteries carry oxygenated blood away from the heart.
- In general, veins carry deoxygenated blood towards the heart.
- Capillaries are the smallest **blood vessels** in the body. They exchange oxygen, carbon dioxide, water and nutrients between veins and arteries.
- If you joined up all the blood vessels, capillaries, veins and arteries in the body, it would equal 60,000 miles.



3. Blood

- Blood is made up of **platelets**, white blood cells, red blood cells and **plasma.**
- It transports:
  - Gases (mostly oxygen and carbon dioxide)
  - Nutrients
  - Waste products



4. Diet, exercise, drugs and life style

- Diet, exercise, drugs and lifestyle have an impact on the way our bodies function.
- They can affect how well our heart and lungs work, how likely we are to suffer from conditions such as diabetes, how clearly we think, and generally how fit we feel.
- Exercise increases our **pulse.**
- Some conditions are caused by deficiencies in our diet e.g. a lack of vitamin C can cause scurvy.
- We need 7 types of nutrients in our bodies to