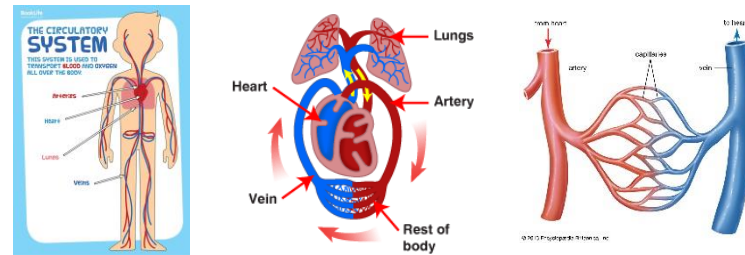


| Key Vocabulary            |                                                                                                                                                                                                          |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Circulatory System</b> | A system which includes the heart, veins, arteries and blood transporting substances around the body.                                                                                                    |
| <b>Heart</b>              | An organ which constantly pumps blood around the circulatory system.                                                                                                                                     |
| <b>Alveoli</b>            | Tiny air sacs in the lungs where gas exchange takes place                                                                                                                                                |
| <b>Gas exchange</b>       | The process by which oxygen enters the bloodstream from the lungs and the lungs receive carbon dioxide from the blood to breathe out. This process happens in the alveoli and the capillaries around it. |
| <b>Nutrients</b>          | Substances that animals need to stay alive and healthy.                                                                                                                                                  |
| <b>Kidneys</b>            | Organs which filter blood and make urine from waste and excess water.                                                                                                                                    |
| <b>Liver</b>              | An organ which processes waste from the blood and produces bile.                                                                                                                                         |
| <b>Drug</b>               | A substance containing natural or man made chemicals that has an effect on your body when it enters your system.                                                                                         |
|                           |                                                                                                                                                                                                          |
|                           |                                                                                                                                                                                                          |
|                           |                                                                                                                                                                                                          |

## The Circulatory System



Your heart keeps all the blood in your circulatory system flowing. The blood travels through a network of blood vessels to everywhere in your body. It carries useful materials like oxygen, water and nutrients and removes waste products like carbon dioxide.

Your heart is a very strong muscle and plays an important part in being healthy. It keeps all the blood in your circulatory system flowing.

Your heart first pumps blood to your lungs. Here, the blood picks up oxygen from the air that you have breathed in. The blood (carrying oxygen) then travels back to your heart. The heart gives the blood a second push. This time, it's sent all around the body to the various organs and tissues. The blood travels back to the heart and it all begins again.

Gas exchange takes place in the alveoli in the lungs.

Blood vessels are a series of tubes inside your body. They move blood to and from your heart. Arteries carry oxygenated blood away from the heart. After the oxygen has been used up, veins carry de-oxygenated blood back to the heart where it is pumped to the lungs to pick up new oxygen again.

Capillaries are the smallest blood vessels in the body and it is here that the exchange of water, nutrients, oxygen and carbon dioxide takes place.

## 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 amount of nutrients in the right amounts.

Drugs, alcohol and smoking have negative effects on the body. They affect how well your heart and lungs work, how likely you are to suffer from conditions such as diabetes, how fit and well you feel and how clearly you think.

