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| --- | --- | --- |
| **Structure** | **Function** | **Features of the structure that allow it to perform its function** |
| **Heart** | To pump blood around the body. Deoxygenated blood to the lungsOxygenated blood to the cells/tissues | The heart is made up of cardiac muscle The heart has 2 separate sides (left and right) to avoid mixing of blood. For this reason we have four chambers. |
| **Arteries** | To take blood away from the heart. To the lungs or cell/ tissues.  | Thick muscular and elastic walls to withstand high pressure  |
| **Veins** | To take blood towards the heart. From the lungs or cells/tissues. | Have valves which help to prevent backflow (keep blood travelling in one direction) which may result due to lower pressure than arteries. |
| **Capillaries** | To exchange gases, deliver nutrients and remove wastes to/from the cells and tissues.  | Capillaries are arranged in a network on the tissues. The walls of the capillaries are very thin so that substances can easily travel into/out of the blood.  |
| **Blood** | Transports substances around the body so they can be used (by cells) or removed. | Contains red blood cells which carry oxygen and carbon dioxideContains white blood cells to fight infectionContains platelets to assist in blood clottingContains plasma which is the fluid substance in which some nutrients and wastes will be transported.  |

**Cardiovascular System**

On the diagram below colour in the locations you would find **oxygenated** and **deoxygenated** blood. Indicate which vessels are **arteries, veins and capillaries**. You may need to use arrows to help you.

