Knowledge Organiser – Year 5 and 6 - The Circulatory System

| Subject Specific V | ocabulary | | Sticky Knowledge |
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| Heart | A muscular organ that pumps blood around the body. | Aorta | The circulatory system includes the heart, veins, arteries and blood transporting substances around the body. |
| Oxygenated blood | Blood coming away from the lungs that is carrying oxygen. | Right atrium Left atrium | Blood transports gases, nutrients and waste products around the body. |
| Deoxygenated Blood | Blood that returns to the lungs from the rest of the body that has no oxygen. | | Regular exercise helps strengthen the heart as it is a muscle. |
| Veins | The blood vessel that carries deoxygenated blood back towards the lungs. | Right ventricle——Left ventricle | Mammals have hearts with 4 chambers (see diagram) |
| Capillaries | The smallest blood vessels. This is where the exchange of water, nutrients, oxygen (O2) and carbon dioxide (CO2) takes place. | Important Facts | The colours on the diagrams are used to show oxygenated blood (red) and deoxygenated blood (blue) - they aren't really these colours! |
| Arteries | The largest blood vessels that carry oxygenated blood away from the heart. | Animals of different sizes have different sized hearts as the blood has to pump different distances. | As you exercise your heart rate changes as more oxygen is needed in the muscles. |
| Plasma | The liquid part of the blood that contains water and protein. | The beating sound of your heart is made by the valves opening and closing. | capillaries veins blood vessels |
| Platelets | These are present in blood and help you stop bleeding when you are hurt. | Your pulse is felt when the blood moves through your arteries. | |
| Red blood cells | These are the cells in blood that carry oxygen throughout the body. | Human hearts are about the same size as a fist. | |
| White blood cells | These are cells in blood that help to fight infection. | | |
| Nutrients | Substances that animals need to stay alive and healthy | | |