

AQA Biology

Mass transport

Specification reference	Checklist questions	
3.3.4.1	Can you explain that the haemoglobins are a group of chemically similar molecules found in many different organisms?	<input type="checkbox"/>
3.3.4.1	Can you explain that haemoglobin is a protein with a quaternary structure?	<input type="checkbox"/>
3.3.4.1	Can you describe the role of haemoglobin and red blood cells in the transport of oxygen?	<input type="checkbox"/>
3.3.4.1	Can you describe the loading, transport and unloading of oxygen in relation to the oxyhaemoglobin dissociation curve?	<input type="checkbox"/>
3.3.4.1	Can you describe the cooperative nature of oxygen binding to show that the change in shape of haemoglobin caused by binding of the first oxygen makes the binding of further oxygen easier?	<input type="checkbox"/>
3.3.4.1	Can you describe the effects of carbon dioxide concentration on the dissociation of oxyhaemoglobin (the Bohr effect)?	<input type="checkbox"/>
3.3.4.1	Can you explain how many animals are adapted to their environment by possessing different types of haemoglobin with different oxygen transport properties?	<input type="checkbox"/>
3.3.4.1	Can you describe the general pattern of blood circulation in a mammal?	<input type="checkbox"/>
3.3.4.1	Can you describe the structure of the human heart?	<input type="checkbox"/>
3.3.4.1	Can you describe the pressure and volume changes and associated valve movements during the cardiac cycle that maintain a unidirectional flow of blood?	<input type="checkbox"/>
3.3.4.1	Can you describe the structure of arteries, arterioles, and veins in relation to their function?	<input type="checkbox"/>

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3.3.4.1	Can you describe the structure of capillaries?	<input type="checkbox"/>
3.3.4.1	Can you explain the importance of capillary beds as exchange surfaces?	<input type="checkbox"/>
3.3.4.1	Can you describe the formation of tissue fluid and its return to the circulatory system?	<input type="checkbox"/>
3.3.4.1	Can you analyse and interpret data relating to pressure and volume changes during the cardiac cycle?	<input type="checkbox"/>
3.3.4.1	Can you analyse and interpret data associated with specific risk factors and the incidence of cardiovascular disease?	<input type="checkbox"/>
3.3.4.1	Can you evaluate conflicting evidence associated with risk factors affecting cardiovascular disease?	<input type="checkbox"/>
3.3.4.1	Can you recognise correlations and causal relationships?	<input type="checkbox"/>
3.3.4.1	Can you dissect an animal or plant gas exchange system or mass transport system or of organ within such a system?	<input type="checkbox"/>
3.3.4.2	Can you describe xylem as the tissue that transports water in the stem and leaves of plants?	<input type="checkbox"/>
3.3.4.2	Can you explain the cohesion-tension theory of water transport in the xylem?	<input type="checkbox"/>
3.3.4.2	Can you describe phloem as the tissue that transports organic substances in plants?	<input type="checkbox"/>
3.3.4.2	Can you explain the mass flow hypothesis for the mechanism of translocation in plants?	<input type="checkbox"/>
3.3.4.2	Can you explain the use of tracers and ringing experiments to investigate transport in plants?	<input type="checkbox"/>

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3.3.4.2	Can you recognise correlations and causal relationships?	<input type="checkbox"/>
3.3.4.2	Can you interpret evidence from tracer and ringing experiments and to evaluate the evidence for and against the mass flow hypothesis?	<input type="checkbox"/>