**School closure work Year 12 Biology – Phase 2**

* Read each page linked to the PLC and make detailed notes including definitions for all the keywords
* Complete all questions in the book and mark them
* Complete the associated biozone pages and mark them
* Watch each video and make summary notes

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| **Spec point** | **PLC** | **Textbook pages** | **Biozone pages** | **Video link** |
| **4.4 Circulation (4.3 in the text book)** | Know the structure of the heart, arteries, veins and capillaries. | 254-255 & 257 | 255-259  261-264  268 | <https://www.youtube.com/watch?v=PTFb7ZDv-a8&list=PLkocNW0BSuEHHgfx9NNfmKeiyCqxT-3ZJ&index=50&t=0s>  <https://www.youtube.com/watch?v=jfsnUFpwqhQ>  <https://www.youtube.com/watch?v=X9ZZ6tcxArI> |
| Understand the advantages of a double circulatory system in mammals over the single circulatory systems in bony fish, including the facility for blood to be  pumped to the body at higher pressure and the splitting of oxygenated and deoxygenated blood. | 246-247  250-251 | 253-254 | <https://www.youtube.com/watch?v=pNBFpBeTiTc> |
| Know the sequence of events of the cardiac cycle.  Understand myogenic stimulation of the heart, including the roles of the sinoatrial node (SAN), atrioventricular node (AVN) and bundle of His. | 260-262 | 265-266 | <https://www.youtube.com/watch?v=xamYVlNF5Zo>  <https://www.youtube.com/watch?v=7K2icszdxQc> |
| Know the structure of blood as plasma and blood cells, to include erythrocytes and leucocytes (neutrophils, eosinophils, monocytes and lymphocytes). | 248-249 | 269270 | <https://www.youtube.com/watch?v=HQWlcSp9Sls> |
| Know the function of blood as transport, defence, and formation of lymph and tissue fluid. | 270-271 | 271  260 | <https://www.youtube.com/watch?v=I7orwMgTQ5I>  <https://www.youtube.com/watch?v=ib8-t7oENWw> |
| Understand the role of platelets and plasma proteins in the sequence of events leading to blood clotting, including:  ● platelets form a plug and release clotting factors, including thromboplastin  ● prothrombin changes to its active form, thrombin  ● soluble fibrinogen forms insoluble fibrin to cover the wound. | 250-253 |  | <https://www.youtube.com/watch?v=UIvU-OuZHww> |
| Understand the stages that lead to atherosclerosis, its effect on health and the factors that increase the risk of its development. | 263-269 | 272-275 | <https://www.youtube.com/watch?v=g3kDdg8r6NY>  <https://www.youtube.com/watch?v=z1_P4kX3FaI> |