Edexcel iGCSE Biology 4BI0 Learning Plan

|  |  |  |
| --- | --- | --- |
| **Section B5: Blood and Circulation** | | |
| Specification | Resources | Assessment |
| 2.49 understand why simple, unicellular organisms can rely on diffusion for movement of substances in and out of the cell  2.50 understand the need for a transport system in multicellular organisms  2.57 describe the composition of the blood: red blood cells, white blood cells, platelets and plasma  2.58 understand the role of plasma in the transport of carbon dioxide, digested food, urea, hormones and heat energy  2.59 explain how adaptations of red blood cells, including shape, structure and the presence of haemoglobin, make them suitable for the transport of oxygen  2.60 describe how the immune system responds to disease using white blood cells, illustrated by phagocytes ingesting pathogens and lymphocytes releasing antibodies specific to the pathogen  2.61 understand that vaccination results in the manufacture of memory cells, which enable future antibody production to the pathogen to occur sooner, faster and in greater quantity  2.62 understand that platelets are involved in blood clotting, which prevents blood loss and the entry of micro-organisms  2.63 describe the structure of the heart and how it functions  2.64 explain how the heart rate changes during exercise and under the influence of adrenaline  2.65 describe the structure of arteries, veins and capillaries and understand their roles  2.66 understand the general structure of the circulation system to include the blood vessels to and from the heart, the lungs, the liver and the kidneys. | Video: Biology Section 2 Lesson 5 – beginning to 02.55; 13.28 to end  Powerpoint: Biology Section 2 Lesson 5 – slides 5 to 13; slides 56 to 103  Textbook:  Page 53 – Chapter 5: Blood and circulation  Page 53 – The need for circulatory systems  Page 56 – The structure and function of the human heart  Page 58 – Arteries, veins and capillaries  Page 60 – The composition of blood  Page 63 – Chapter Checklist  Edexcel iGCSE Biology Checklist Section B5.doc  DVD Revision check list  <http://biology-igcse.weebly.com/summary9.html>  <http://biology-igcse.weebly.com/the-circulatory-system.html>  <http://biology-igcse.weebly.com/structure-and-function-of-the-heart.html>  <http://biology-igcse.weebly.com/effect-of-exercise-on-heartbeat-and-causes-of-a-coronary-heart-disease.html>  <http://biology-igcse.weebly.com/arteries-veins-and-capillaries---structure-and-functions.html>  <http://biology-igcse.weebly.com/blood-composition-and-plasma.html>  <http://biology-igcse.weebly.com/blood-cells---structure-and-functions.html> | Textbook  Page 63 to 64  Textbook Answers (PDF)  DVD Multiple choice test  Section B5 Blood and Circulation - exam question - pdf  Section B5 Blood and Circulation - exam question mark scheme – pdf  Talking paper video – Section B5 Blood and Circulation |

Videos – www.igcsesciencecourses.com

Textbook Ref: Edexcel International GCSE Biology Student Book - Pearson (Bradfield and Potter)

DVD Video Clips – see resource DVD in textbook.