Edexcel International GCSE Biology 4BI1 Learning Plan

|  |  |  |
| --- | --- | --- |
|  **Unit: 2. Animal Physiology** | **Chapter: 5. Blood and Circulation** | **Hours: 10** |
| Content coverage | Learning outcomes | Resources | Assessment |
| **Section 2: Structures and functions in living organisms**h) Transport | **2.51** understand why simple, unicellular organisms can rely on diffusion for movement of substances in and out of the cell**2.52** understand the need for a transport system in multicellular organisms**2.59** describe the composition of the blood: red blood cells, white blood cells, platelets and plasma**2.60** understand the role of plasma in the transport of carbon dioxide, digested food, urea, hormones and heat energy**2.61** understand how adaptations of red blood cells make them suitable for the transport of oxygen, including shape, the absence of a nucleus and the presence of haemoglobin.**2.62** understand how the immune system responds to disease using white blood cells,illustrated by phagocytes ingesting pathogens and lymphocytes releasing antibodies specific to the pathogen**2.63B understand how vaccination results in the manufacture of memory cells, which enable future antibody production to the pathogen to occur sooner, faster and in greater quantity****2.64B understand how platelets are involved in blood clotting, which prevents blood loss and the entry of micro-organisms.****2.65** describe the structure of the heart and how it functions**2.66** explain how the heart rate changes during exercise and under the influence of adrenaline.**2.67** understand how factors may increase the risk of developing coronary heart disease.**2.68** understand how the structure of arteries, veins and capillaries relate to their function**2.69** understand the general structure of the circulation system, including the blood vessels to and from the heart and lungs, liver and kidneys. | Video: Biology Section 2 Lesson 5 – beginning to 02.55; 13.28 to endPowerpoint: Biology Section 2 Lesson 5 – slides 5 to 13; slides 56 to 103Textbook pages:70 – The need for circulatory systems71 – The circulatory systems of different animals73 – The structure and function of the human heart75 – Heart Rate76 – Arteries, veins and capillaries78 – Red blood cells79 – White blood cells80 - Platelets | Page 81 – 83 Qs. 1 to 11Textbook Answers (PDF)Chapter 5 - exam question - pdfChapter 5 - exam question mark scheme – pdfChapter 5 - Talking paper video  |

Videos – [www.igcsesciencecourses.com](http://www.igcsesciencecourses.com)

Textbook Ref: Edexcel International GCSE (9-1) Biology Student Book - Pearson (Bradfield and Potter)