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| **Minor Award Name** | **Human Biology** |
| **Minor Award Code** | **4N2910** |
| **Level** | **4** |

**Suggested resources to support delivery:**

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| **Theme/Topic** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Features of Living Organisms | Website | Highlights and identifies the characteristics of living organisms.  | Science Learn New Zealand | <http://sciencelearn.org.nz/Science-Stories/Earthworms/Characteristics-of-living-things> |
| Structures of the human body | Video | Analyses the complexity of the Human organism from atoms to systems. | Principles of Health Science | <https://youtu.be/Ui3FbyWFv1Q> |
| Cell Structure and Function | Interactive Animation | This Interactive learning tool facilitates an understanding of the common denominators and the differences between plant and animal cells. The construction of a cell task promotes a greater awareness of the cell components.  |  Interactive Concepts in BiochemistryWiley.com | <http://www.wiley.com/legacy/college/boyer/0470003790/animations/cell_structure/cell_structure.htm> |
| Human Digestion | Video | A quick visual overview of the process of digestion within the body. | [Apollo Hospitals Dhaka](https://www.youtube.com/user/ApolloDhaka) | <https://youtu.be/b20VRR9C37Q> |
| Human Digestion | Work sheets | A series of four work sheets that provides different entry points into the subject of human digestion  | Boggles World | <http://bogglesworldesl.com/digestivesystem.htm> |
| Physical and Chemical Digestion | Video | A stage by stage description of the phases of digestion and a detailed explanation of the differing chemical inputs during its journey through the body.  | Meghan Trenholm | <https://youtu.be/TP-KpqJQUoU> |
| Balanced Diet | Booklet | An introduction into the food pyramid which is designed to make healthy eating easier. Healthy eating is about getting the correct amount of nutrients – protein, fat, carbohydrates, vitamins and minerals you need to maintain good health. The student can easily follow the food pyramid and determine the mechanics of healthy eating and a balanced diet. | Department of Health and Health Service Executive | <https://www.healthpromotion.ie/hp-files/docs/HPM00796.pdf>  |
| Circulatory System structure, diseases & gaseous exchange | Booklet | A fully inclusive booklet which illustrates the complete spectrum of the circulatory system from the mechanism of the heart, circulation of blood through to gaseous exchange. The booklet also highlights the impact of diseases and the consequent malfunction of the components concerned. | My Science 8 | <http://www.myscience8.com/human_biology/circulatory_system_lab.pdf> |
| Aerobic Respiration | Website | A simple explanation of the three stages of aerobic respiration, an expansion of the detail at this level is not required only an awareness of the stages. The links on the bottom left of the page facilitates further reading and investigation. | Biology Discussion | <http://www.biologydiscussion.com/biology/aerobic-cellular-respiration-3-importance-stages-of-aerobic-respiration-biology/1848> |
| Overview of the Respiratory System | Video | The video describes the structure and pathway of the air through to the lungs and its wider relationship into the generation of energy to the body. |  Classroom Video | <https://youtu.be/hc1YtXc_84A> |
| Structure & Function of the Urinary System | Booklet | A comprehensive and detailed examination of the Urinary system and although in parts very detailed and expansive it provides a good platform for the delivery of this subject. | Pearson Higher Education | <https://www.pearsonhighered.com/amerman-1e-info/assets/pdf/amerman-sample-chapter24.pdf> |
| Male & Female Reproductive Systems, structure & function | Presentation  | An excellent explanation of both structure and function of the reproductive systems, also towards the end of the presentation examines, infertility, birth control and assisted reproductive technologies.  | Mark Sussman PHd | <http://heart.sdsu.edu/~website/Biology_307/Lectures/pdfs/9_human_systems.pdf> |
| Female Reproductive System | Booklet | A more detailed analysis of the menstrual cycle and the events that occur from fertilisation to birth. | Human Physiology | <http://www.saylor.org/site/wp-content/uploads/2010/11/The-Female-Reproductive-System.pdf> |
| Genes: inheritable & non-inheritable characteristics | Website | A guided discovery through the complexity of the gene pool and the characteristics of heredity and environment. | BBC Schools Information | <http://www.bbc.co.uk/schools/gcsebitesize/science/ocr_gateway/understanding_organisms/variation_inheritancerev1.shtml> |
| The Nervous System | e-Book | An in depth text providing a critical understanding of the nervous system and its contribution to homeostasis.  | The Human Nervous System Structure and Function Sixth EditionCharles R. Noback, PhDNorman L. Strominger, PhDRobert J. DemarestDavid A. Ruggiero, MA, MPhil, PhD | <http://basijcssc.ir/sites/default/files/The%20Human%20Nervous%20System.pdf> |
| The Nervous System part 1 | Video | Basic introduction linking structure to function within a visual context. | Michael Chin: Mr Hussey Grade 12 Biology | <https://youtu.be/4M82WwFACLg> |
| The Nervous System part 2 | Video | This video illustrates a more expansive look at the peripheral nervous system with linkage to the “fight or flight “ responsive mechanism | Michael Chin: Mr Hussey Grade 12 Biology | <https://youtu.be/PE2b5go7V_0> |
| The Endocrine System and Function  |  Website  | The website provides an in depth detail on the multiple gland structure which formulates the endocrine system. The 2D & 3D interactive tools illustrates gland location from multiple angles.  |  Inner Body | <http://www.innerbody.com/image/endoov.html> |
| The difference between the nervous and the endocrine systems.  | Website | Clear and concise explanation of the differences between the two structures and an explanation of their integration between the sympathetic and parasympathetic nervous systems. | Charles StangorIntroduction to Psychology, v. 1.0 | <http://catalog.flatworldknowledge.com/bookhub/reader/127?e=stangor-ch03_s04> |
| Human Systems |  Website | Provides an explanation regards the integration of all the humans systems and a further breakdown summary of all of the functions of the individual components. |  MAN-anatomy  | <http://www.mananatomy.com/body-systems>  |
| Human Biology7th Series | Quiz | A series of quizzes on the components of the programme which can be used post completion of each topic and or preparation for the exam. | Daniel D Chiras | <http://biology.jbpub.com/chiras/7e/quizzes.aspx> |

**Useful Organisations:**

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| **Name** | **Contact Information** |
| Quality and Qualifications Ireland | <http://www.qqi.ie/>  |
| Further Education Support Service | <http://www.fess.ie/>  |

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| **MOOCs (Massive Online Open Courses)** |
| Free access to online coursesSearch regularly for new courses and new start dates | <https://www.mooc-list.com/><https://www.class-central.com/university/yale><https://www.edx.org/school/harvardx><https://www.mooc-list.com/university-entity/open-university?static=true> |