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|  IB DP Biology 1 | **Standards-Based EducationPriority Standards** |
| **11th Grade** |
| *Ecosystems - Populations and Communities* |
| 4.1 | The continued survival of living organisms including humans depends on sustainable communities. |
| C.1/C.2 | Community structure is an emergent property of an ecosystem. Changes affect and are affected by organisms. |
| C.4 | Entire communities need to be conserved in order to preserve biodiversity. |
| C.5 | Dynamic biological processes impact population density and population growth. |
| *Ecosystems - Matter and Energy* |
| 4.2 | Ecosystems require a continuous supply of energy to fuel life processes and to replace energy lost as heat. |
| 4.3 | Continued availability of carbon in ecosystems depends on carbon cycling. |
| 4.4 | Concentrations of gases in the atmosphere affect climates experienced at the Earth’s surface. |
| C.3 | Human activities impact on ecosystem function. |
| C.6 | Soil cycles are subject to disruption. |
| *Cell and Molecular Biology* |
| 1.2 | Eukaryotes have a much more complex structure than prokaryotes. |
| 1.3/1.4 | The structure of biological membranes makes them fluid and dynamic, which allows for the control of the transport of materials in and out of the cell. |
| 2.1/2.2/2.3 | Living Organisms control their composition by a complex web of chemical reactions involving water, carbon, hydrogen, and oxygen. |
| 2.4 | Proteins have a wide range of functions in living organisms. |
| 2.5/8.1 | Enzymes regulate the metabolism of the cell in response to the cell’s needs. |
| 2.8/8.2 | Cell respiration supplies energy for the functions of life by converting energy to a usable form. |
| *Human Physiology* |
| 6.1/D.1/D.2 | Digestive systems and structures allow for the breakdown of food and absorption of nutrients. |
| 6.2/D.4 | The blood system continuously transports substances to cells and simultaneously collects waste products. |
| 6.3/11.1 | Immunity is based on recognition of self and destruction of foreign material. |
| 6.4/D.6 | The lungs are actively ventilated to ensure that gas exchange can occur passively. |
| *Literacy in Science* |
| 11-12.RST.1 | Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account. |
| 11-12.RST.3: | Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text. |
| 11-12.RST.7 | Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem. |
| 11-12.WHST.1 | Write arguments focused on discipline-specific content. |
| 11-12.WHST.4 | Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. |