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| AP Biology | | **Standards-Based Education Priority Standards** |
| **12th Grade** | | |
| *Evolution* | | |
| EVO-1 | Evolution is characterized by a change in the genetic makeup of a population over time and is supported by multiple lines of evidence. | |
| EVO-2 | Organisms are linked by lines of descent from common ancestry. | |
| EVO-3 | Life continues to evolve within a changing environment. | |
| *Energetics* | | |
| ENE-1 | The highly complex organization of living systems requires constant input of energy and the exchange of macromolecules. | |
| ENE-2 | Cells have membranes that allow them to establish and maintain internal environments that are different from their external environments. | |
| ENE-3 | Timing and coordination of biological mechanisms involved in growth, reproduction, and homeostasis depend on organisms responding to environmental cues. | |
| ENE-4 | Communities and ecosystems change on the basis of interactions among populations and disruptions to the environment. | |
| *Information Storage and Transmission* | | |
| IST-1 | Heritable information provides for continuity of life. | |
| IST-2 | Differences in the expression of genes account for some of the phenotypic differences between organisms. | |
| IST-3 | Cells communicate by generating, transmitting, and responding to chemical signals. | |
| IST-4 | The processing of genetic information is imperfect and is a source of genetic variation. | |
| *Systems and Interactions* | | |
| SYI-1 | Living systems are organized in a hierarchy of structural levels that interact. | |
| SYI-2 | Competition and cooperation are important aspects of biological systems. | |
| SYI-3 | Naturally occurring diversity among and between components within biological systems affects interactions with the environment. | |
| *Science Practices and Literacy* | | |
| Practice 1 | Concept Explanation: Explain biological concepts, processes, and models presented in written format. | |
| Practice 2 | Visual Representations: Analyze visual representations of biological concepts and processes. | |
| Practice 3 | Questions and Methods: Determine scientific questions and methods. | |
| Practice 4 | Representing and Describing Data: Represent and describe data. | |
| Practice 5 | Statistical Tests and Data Analysis: Perform statistical tests and mathematical calculations to analyze and interpret data. | |
| Practice 6 | Argumentation: Develop and justify arguments using evidence. | |
| 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. | |