

Science: Biology

Life Science

Structure and Function

- 1 Explain how different organs of the body carry out essential functions of life. [A.S.10.1](#)
 - 2 Use a model to illustrate the organization and interaction of major organs into systems (e.g., circulatory, respiratory, digestive, sensory) in the body to provide specific functions. [A.S.10.2](#)
 - 3 Collect data from an investigation to show how different organisms react to change (e.g., heart rate increases with exercise, pupils react to light). [A.S.10.3](#)
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Matter and Energy in Organisms and Ecosystems

- 4 Use models to describe the energy transfer from the sun to producers to consumers. [A.S.10.4](#)
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Interdependent Relationships in Ecosystems

- 5 Use graphical representations to explain changes over time in the population size of an animal species including those on the endangered list. [A.S.10.5](#)
 - 6 Use graphical representations to explain an animal's dependence on its ecosystem (e.g., competition with other organisms, challenges due to climate, availability of land, food, water, shelter). [A.S.10.6](#)
 - 7 Evaluate a strategy to protect a species. [A.S.10.7](#)
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Inheritance and Variation of Traits

- 8 Use a model to illustrate how growth occurs when cells multiply. [A.S.10.8](#)
 - 9 Explain why reproduction may or may not result in offspring with different traits. [A.S.10.9](#)
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Natural Selection and Evolution

- 10 Explain how the traits of particular species allow them to survive in their specific environments. [A.S.10.10](#)
 - 11 Interpret data sets to identify an advantageous heritable trait. [A.S.10.11](#)
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Engineering, Technology and Applications of Science

Engineering Design

- 12 Generate and compare multiple possible solutions to a real-world problem based on how well each is likely to meet the criteria and constraints of the problem. [A.S.10.12](#)
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Science Literacy

Reading: Key Ideas and Details

- 13 Follow procedures when taking measurements or carrying out experiments. [A.S.10.13](#)
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Reading: Craft and Structure

- 14 Identify the meaning of symbols, key terms, and other domain-specific words. [A.S.10.14](#)
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Reading: Integration of Knowledge and Ideas

- 15 Express information visually (e.g., in a flowchart, diagram, model). [A.S.10.15](#)
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Writing: Text Types and Purposes

- 16 Compare and contrast discipline-specific content using domain-specific vocabulary to explain the topic. [A.S.10.16](#)
- 17 Provide an explanation of discipline-specific content using domain-specific vocabulary to explain the topic. [A.S.10.17](#)