

Animal Adaptations

VIRGINIA STANDARDS OF LEARNING CORRELATION

1.5 The student will investigate and understand that animals, including humans, have basic life needs that allow them to survive. Key ideas include:

- a) animals need air, food, water, shelter, and space (habitat);
- b) animals have different physical characteristics that perform specific functions; and
- c) animals can be classified based on a variety of characteristics.

3.4 The student will investigate and understand that adaptations allow organisms to satisfy life needs and respond to the environment. Key ideas include:

- a) populations may adapt over time;
- b) adaptations may be behavioral or physical; and
- c) fossils provide evidence about the types of organisms that lived long ago as well as the nature of their environments.

4.2 The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive. Key ideas include:

- a) the survival of plants and animals depends on photosynthesis;
- b) plants and animals have different structures and processes for obtaining energy; and
- c) plants and animals have different structures and processes for creating offspring.

5.1 The student will plan and conduct investigations in which

- a) planning and carrying out investigations
 - collaboratively plan and conduct investigations to produce data
 - identify independent variable, dependent variables, and constants
 - determine data that should be collected to answer a testable question
 - take metric measurements using appropriate tools
 - use tools and/or materials to design and/or build a device that solves a specific problem

LS.7 The student will investigate and understand that adaptations support an organism's survival in an ecosystem. Key ideas include:

- a) biotic and abiotic factors define land, marine, and freshwater ecosystems; and
- b) physical and behavioral characteristics enable organisms to survive within a specific ecosystem.

BIO.6 The student will investigate and understand that modern classification systems can be used as organizational tools for scientists in the study of organisms. Key ideas include:

- a) organisms have structural and biochemical similarities and differences;
- b) fossil record interpretation can be used to classify organisms;
- c) developmental stages in different organisms can be used to classify organisms;
- d) Archaea, Bacteria, and Eukarya are domains based on characteristics of organisms;
- e) the functions and processes of protists, fungi, plants, and animals allow for comparisons and differentiation within the Eukarya kingdoms; and
- f) systems of classification are adaptable to new scientific discoveries.