

Habitats of Virginia

VIRGINIA STANDARDS OF LEARNING CORRELATION

GRADE 1

- 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 animals can be classified based on a variety of characteristics.
- 1.8 The student will investigate and understand that natural resources can be used responsibly. Key ideas include:
- a) most natural resources are limited;
 - b) human actions can affect the availability of natural resources; and
 - c) reducing, reusing, and recycling are ways to conserve natural resources.

GRADE 2

- 2.5 The student will investigate and understand that living things are part of a system. Key ideas include:
- a) plants and animals are interdependent with their living and nonliving surroundings;
 - b) an animal's habitat provides all of its basic needs; and
 - c) habitats change over time due to many influences.
- 2.7 The student will investigate and understand that weather patterns and seasonal changes affect plants, animals, and their surroundings. Key ideas include:
- a) weather and seasonal changes affect the growth and behavior of living things;
 - b) wind and weather can change the land; and
 - c) changes can happen quickly or slowly over time.

GRADE 3

- 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.
- 3.5 The student will investigate and understand that aquatic and terrestrial ecosystems support a diversity of organisms. Key ideas include:
- a) ecosystems are made of living and nonliving components of the environment; and
 - b) relationships exist among organisms in an ecosystem.
- 3.8 The student will investigate and understand that natural events and humans influence ecosystems. Key ideas include:
- a) human activity affects the quality of air, water, and habitats;
 - b) water is limited and needs to be conserved;
 - c) fire, flood, disease, and erosion affect ecosystems; and
 - d) soil is a natural resource and should be conserved.

GRADE 4

- 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.
- 4.3 The student will investigate and understand that organisms, including humans, interact with one another and with the nonliving components in the ecosystem. Key ideas include:
- a) interrelationships exist in populations, communities, and ecosystems;
 - b) food webs show the flow of energy within an ecosystem;
 - c) changes in an organism's niche and habitat may occur at various stages in its life cycle; and
 - d) classification can be used to identify organisms.

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VIRGINIA STANDARDS OF LEARNING CORRELATION CONTINUED

LIFE SCIENCE

- LS.6 The student will investigate and understand that populations in a biological community interact and are interdependent. Key ideas include:
- relationships exist between predators and prey and these relationships are modeled in food webs;
 - the availability and use of resources may lead to competition and cooperation;
 - symbiotic relationships support the survival of different species; and
 - the niche of each organism supports survival.
- LS.7 The student will investigate and understand that adaptations support an organism's survival in an ecosystem. Key ideas include:
- biotic and abiotic factors define land, marine, and freshwater ecosystems; and
 - physical and behavioral characteristics enable organisms to survive within a specific ecosystem.
- LS.8 The student will investigate and understand that ecosystems, communities, populations, and organisms are dynamic and change over time. Key ideas include:
- organisms respond to daily, seasonal, and long-term changes;
 - changes in the environment may increase or decrease population size; and
 - large-scale changes such as eutrophication, climate changes, and catastrophic disturbances affect ecosystems.
- LS.9 The student will investigate and understand that relationships exist between ecosystem dynamics and human activity. Key ideas include:
- changes in habitat can disturb populations;
 - disruptions in ecosystems can change species competition; and
 - variations in biotic and abiotic factors can change ecosystems.

BIOLOGY

- BIO.8 The student will investigate and understand that there are dynamic equilibria within populations, communities, and ecosystems. Key ideas include:
- interactions within and among populations include carrying capacities, limiting factors, and growth curves;
 - nutrients cycle with energy flow through ecosystems;
 - ecosystems have succession patterns; and
 - natural events and human activities influence local and global ecosystems and may affect the flora and fauna of Virginia.