



**Wildlife Rescue** is an exhibition about real animals and the people who have dedicated their lives to helping them survive. This traveling exhibit involves visitors in compelling stories of animal rescue and restoration, the passionate people who are dedicating their lives to taking action, and the science behind their efforts. The exhibit showcases interesting and unique species from around the world. **Wildlife Rescue** presents topics and themes important to the health of habitats and the ecosystems of our planet. It imparts the message that we, as individuals, can make a difference.

**Wildlife Rescue** covers a broad range of themes relating to life science, earth science, history of science, geography, and the scientific process. These themes align with Georgia Performance Standards in Science, Social Studies and English & Language Arts. Following are some key correlations between the exhibition and curriculum standards by grade level.

Please contact us at [justforeducators@fernbankmuseum.org](mailto:justforeducators@fernbankmuseum.org) if we can provide further assistance as you integrate the exhibit's content into your curriculum.

### **K-8 Characteristics of Science Correlations: Habits of Mind and Nature of Science**

**Wildlife Rescue** provides a perfect introduction to the scientific method and the characteristics of science. As students journey through **Wildlife Rescue**, they will experience many steps of the scientific method, from observation to hypothesis to experimentation to reporting results. Students will better understand that science involves a lot of data collection, testing of hypotheses, repetition of experiments, and keeping accurate records. Habits of mind are also emphasized, including the importance of curiosity, honesty, openness and skepticism in science, raising questions about the world around you, and using your five senses to make observations.

### **Kindergarten**

**SKP1. Students will describe objects in terms of the materials they are made of and their physical properties.**

- a. Compare and sort materials of different composition (common materials include clay, cloth, paper, plastic, etc.).
- b. Use senses to classify common materials, such as buttons or swatches of cloth, according to their physical attributes (color, size, shape, weight, texture, buoyancy, flexibility).

**SKL2. Students will compare the similarities and differences in groups of organisms.**

- a. Explain the similarities and differences in animals. (color, size, appearance, etc.)
- c. Recognize the similarities and differences between a parent and a baby.

**Grade 1**

**S1L1. Students will investigate the characteristics and basic needs of plants and animals.**

- b. Identify the basic needs of an animal.

- 1. Air
- 2. Water
- 3. Food
- 4. Shelter

- d. Compare and describe various animals—appearance, motion, growth, basic needs.

**Grade 2**

**S2E3. Students will observe and record changes in their surroundings and infer the causes of the changes.**

- a. Recognize effects that occur in a specific area caused by weather, plants, animals, and/or people.

**S2L1. Students will investigate the life cycles of different living organisms.**

- a. Determine the sequence of the life cycle of common animals in your area: a mammal such as a cat or dog or classroom pet, a bird such as a chicken, an amphibian such as a frog, and an insect such as a butterfly.

**Grade 3**

**S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.**

- d. Explain what will happen to an organism if the habitat is changed.

**Grade 4**

**S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.**

- c. Predict how changes in the environment would affect a community (ecosystem) of organisms.
- d. Predict effects on a population if some of the plants or animals in the community are scarce or if there are too many.

**S4L2. Students will identify factors that affect the survival or extinction of organisms such as adaptation, variation of behaviors (hibernation), and external features (camouflage and protection).**

- a. Identify external features of organisms that allow them to survive or reproduce better than organisms that do not have these features (for example: camouflage, use of hibernation, protection, etc.).
- b. Identify factors that may have led to the extinction of some organisms.

## **Grade 5**

**S5L1. Students will classify organisms into groups and relate how they determined the groups with how and why scientists use classification.**

- a. Demonstrate how animals are sorted into groups (vertebrate and invertebrate) and how vertebrates are sorted into groups (fish, amphibian, reptile, bird, and mammal).

**S5L2. Students will recognize that offspring can resemble parents in inherited traits and learned behaviors.**

- a. Compare and contrast the characteristics of learned behaviors and of inherited traits.

## **Grade 7**

**S7L1. Students will investigate the diversity of living organisms and how they can be compared scientifically.**

**S7L3. Students will recognize how biological traits are passed on to successive generations.**

- a. Explain the role of genes and chromosomes in the process of inheriting a specific trait.
- c. Recognize that selective breeding can produce plants or animals with desired traits.

**S7L4. Students will examine the dependence of organisms on one another and their environments.**

- c. Recognize that changes in environmental conditions can affect the survival of both individuals and entire species.
- d. Categorize relationships between organisms that are competitive or mutually beneficial.
- e. Describe the characteristics of Earth's major terrestrial biomes (i.e. tropical rain forest, savannah, temperate, desert, taiga, tundra, and mountain) and aquatic communities (i.e. freshwater, estuaries, and marine).

**S7L5. Students will examine the evolution of living organisms through inherited characteristics that promote survival of organisms and the survival of successive generations of their offspring.**

- a. Explain that physical characteristics of organisms have changed over successive generations (e.g. Darwin's finches and peppered moths of Manchester).
- b. Describe ways in which species on earth have evolved due to natural selection.

## High School

### Biology

**SB2. Students will analyze how biological traits are passed on to successive generations.**

**SB4. Students will assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.**

- a. Investigate the relationships among organisms, populations, communities, ecosystems, and biomes.
- b. Explain the flow of matter and energy through ecosystems by  
Arranging components of a food chain according to energy flow.  
Comparing the quantity of energy in the steps of an energy pyramid.  
Explaining the need for cycling of major nutrients (C, O, H, N, P).
- c. Relate environmental conditions to successional changes in ecosystems.
- d. Assess and explain human activities that influence and modify the environment such as global warming, population growth, pesticide use, and water and power consumption.
- f. Relate animal adaptations, including behaviors, to the ability to survive stressful environmental conditions.

**SB5. Students will evaluate the role of natural selection in the development of the theory of evolution.**

- d. Relate natural selection to changes in organisms.
- e. Recognize the role of evolution to biological resistance (pesticide and antibiotic resistance).

### Ecology

**SEC3. Students will explore and analyze community interactions.**

- b. Explore ecological niches and resource partitioning.
- c. Identify dominant, keystone, foundation, and endangered species and their roles in ecosystems and communities, locally and globally.
- d. Analyze species diversity as it relates to the stability of ecosystems and communities.

**SEC5. Students will assess the impact of human activities on the natural world, and research how ecological theory can address current issues facing our society, locally and globally.**

- c. Evaluate the causes and impacts on ecosystems of natural and anthropogenic climate change.
- d. Explain the consequences of habitat fragmentation and habitat loss on biodiversity in relation to island biogeography, and apply island biogeography theory to the design of parks and nature preserves.

## **Environmental Science**

**SEV5. Students will recognize that human beings are part of the global ecosystem and will evaluate the effects of human activities and technology on ecosystems.**

a. Describe factors affecting population growth of all organisms, including humans. Relate these to factors affecting growth rates and carrying capacity of the environment.

## **Zoology**

**SZ4. Students will assess how animals interact with their environment including key adaptations found within animal taxa.**

a. Discuss morphological and physiological adaptations relative to ecological roles.

b. Relate animal adaptations, including behaviors, to the ecological roles of animals.

**SZ5. Students will evaluate the relationships between humans and other animals.**

a. Describe the effects of human activities such as habitat destruction, over hunting, introduced species, and pollution on animal biodiversity.

c. Compare and contrast how humans can preserve animal diversity in captive and natural environments with regard to habitat creation and conservation, research, legislation, animal enrichment, diet, medical, breeding programs and management of genetic diversity at local and global levels.

d. Investigate how moral, legal, societal, political, and economic decisions impact animal diversity with short-term and long-term effects.