WILDLIFE CONSERVATION THROUGH EDUCATION AND PARTICIPATION

**Grade Levels:** 2-12
**Time:** 45 Minutes

BREVARD ZOO

# Amazing Adaptations

***Goal:*** *Provide an introduction to adaptations using hands-on animal interaction.*

**Objectives:**

- Students will discover the difference between physical and behavioral adaptations and explore various examples of each.
- Students will understand how the environment and people effect both behavioral and physical adaptations.
- Students will recognize and explain how animal adaptations aid in their survival.
- Students will understand when habitats change, why some animals survive while others do not.

## PLANNING YOUR RESERVATION

°Fall and spring fill quickly **PLEASE REGISTER EARLY**

°Groups must register **2 WEEKS IN ADVANCE**

°Programs require a **MINIMUM OF 15 PEOPLE**

°Programs are available **ON AND OFF-SITE**

°Visit our website for **EDUCATIONAL RESOURCES**

°Proper adult supervision **REQUIRED AT ALL TIMES**

Is it survival of the fittest or just a quirk of nature? Students will discover the adaptations needed to escape hungry predators, become ultimate hunters or survive and thrive in the harshest climates.

## Curriculum Alignment:

*SC.2.N.1.3; SC.2.L17.1; SC.2.L.17.2; SC.3.N.1.6; SC.3.L.17.1; SC.4.N.1.3; SC.4.N.1.4; SC.4.L.16.2; SC.4.L.16.3; SC.4.L.17.4; SC.5.L.14.2; SC.5.L.15.1; SC.5.L.17.1; SC.6.N.1.5; SC.6.N.2.2; SC.7.L.15.2; SC.7.L.17.3; SC8.N.4.1; SC.912.L.15.3; SC.912.L.17.1; SC.912.L.17.6; SC.912.L.17.8; SC912.L.17.16*

## *Where education and conservation collide!*

This program, presented by Brevard Zoo Education staff, is an enhanced experience of the distinct and unique wildlife habitats found at Brevard Zoo. Students delve into the concept through fun, interactive activities, questions and participatory responses, hands-on animal encounters, and animal meet and greets. Programs are designed to supplement in-class learning. Depth and structure vary depending on grade and age range.

**Keywords:** Adaptation, Behavioral Adaptations, Physical Adaptations, Structural Adaptations, Defensive, People Effect, Environmental Effect, Carnivore, Herbivore, Omnivore, Predator, Habitat, Environment,

## What are adaptations?

Adaptations are any changes in structures, behaviors or physiology which helps an organism, such as a plant or animal, survive in its environment. Adaptations can help us to understand animals. The flat molars of the deer, for example, tell us that it is a plant-eater, or herbivore.

Physical adaptation are physical parts of the body that increase an animal's chances for survival. The toucan, for example, has a beak that is adapted to plucking fruit from the rainforest canopy. The coloring of many animals help them camouflage within their habitats.

Adaptations can also be behavioral. Behavioral is a response to the environment. Migration is an example of a behavioral adaptation which helps animals survive as the weather or environment changes. Many birds puff up their feathers while sleeping so that an attacking predator may only end up with a mouthful of feathers. Opossums, actually, pass out with fright when approached by a predator. This act of "playing dead" often causes predators to lose interest.

Adaptation often occurs as a result of mutation and/or natural selection. Natural Selection is the process by which some genes and gene combinations in a population of a species are reproduced more than others are when the population is exposed to an environmental change or stress. In this way, individual organisms are replaced by individuals whose genetic traits allow them to better cope with the change or stress. These better-adapted individuals then reproduce and pass their traits onto their offspring.

ACCREDITED BY THE ASSOCIATION OF ZOOS & AQUARIUMS

**For more information or to book a program email EDREGISTRAR@BREVARDZOO.ORG or call 321.254.9453 X219**