



5-Minute Refresher: Animal Adaptations

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Animal Adaptations – Key Ideas

- *Adaptation* is the term used to describe the changes an animal makes in existing or new environmental conditions in order to survive.
- Animal adaptations include changes in physical features as well as changes to behavior.
- Adaptations may be necessary due to changes in climate, a need to escape from predators as well as the need for food.
- As animals have adapted to changing and existing conditions, species have evolved. The features that are fit for survival have enabled that particular animal to continue to exist and therefore those features remain.

Animal Adaptations – Key Ideas

- Examples of Climate and Environmental Adaptations
 - Animals using migration to move to appropriate climate regions
 - Body features such as fur, long hair to protect from cold temperatures
 - Specific body features such as a camel having long lashes to protect its eyes from sand in desert regions

Animal Adaptations – Key Ideas

- Examples of Adaptations to Escape Prey
 - Birds using wings for flight to escape prey
 - Animals using camouflage
 - Animals living in communal groups to defend against predators
 - Animals altering physical features such as a puffer fish doubling its size to escape being eaten

Animal Adaptations – Key Ideas

- Examples of Using Adaptations for Food and Survival
 - Animals living in communal groups to gather food in a community
 - A monkey having long arms to hold onto branches while simultaneously holding food
 - An ant having mandible (jaws) to grab and crush its food

Animal Adaptations – Prior Knowledge

- Students may know that animals use certain physical features to move and eat, but not be aware that each specific condition is relevant to the animal's particular environment and used for its survival in that environment.
- Students will know that animals use features to defend against predators such as using camouflage, teeth or physical strength.
- Students will know that animals have body parts such as fur to keep them warm in cold climates.

Animal Adaptations – Learning Objectives for Grades K-3

- Describe two or more ways how animals adapt due to conditions in the climate.
- Diagram how animals' bodies help them retrieve foods in their habitat.
- Describe and diagram ways in which specific animals use physical adaptations to escape predators.

Animal Adaptations – Learning Objectives for Grades 4-6

- Describe two or more ways in which animals use their body to adapt to and survive in a named environment (Ex. Rainforest, Desert or Aquatic).
- Describe two or more ways in which animals behave or change behavior in order to survive in a named environment. (Ex. Rainforest, Desert or Aquatic)
- Describe and diagram ways in which specific animals use physical adaptations to escape predators.

Animal Adaptations – Common Misconceptions

- Animals are no longer are evolving.
Reality: Animals are still evolving and changing in order to survive in a certain habitat. The evolution occurs at slow rates and is tracked by scientists over years.
- Adaptation of physical changes in a species can continue to occur in animals until the animal is perfect.
Reality: An animal will continue to adapt, but this is limited to the genetic make-up of that animal.

Animal Adaptations – Additional Information

- Animal adaptation can cause an increase or decrease in the population of a specific animal or a trait of that animal. One example is the colored feathers of the *Tawny Owl*. This type of owl comes in two colors-pale brown or grayish brown. The grayish color helps it to blend it with snowy trees to hide from predators. Because of the decrease in snow in certain climates, there has been an increase in brown feathered owls in the past half century.