

TEACHER GUIDE

to

ANIMAL BEHAVIOR

PASS for Grade 7 Life Science

Standard 4 All organisms must be able to grow, reproduce, and maintain stable internal conditions while living in a constantly changing external environment. Behavioral response is a set of actions determined in part by heredity and in part by experience.

Text for the Bellringer

Behavior is the way an organism responds to its environment. An animal's survival depends upon its behavior. There are two kinds of behavior: innate and learned.

Innate behavior comes from an animal's heredity. An animal's instincts are examples of its innate behavior. For example, migrating birds use innate behavior to know when to begin their migration and the route that they should follow.

Learned behavior comes from watching other animals and from life experiences. By watching their mother, baby ducks learn how to avoid danger and to know what is good to eat. This is an example of learned behavior.

All of the following animals live in Oklahoma. As you watch them, can you tell which of their behaviors are innate and which behaviors are learned?

Learned Behavior

Young prairie dogs provide an example of learned behaviors. By observing adult prairie dogs, young prairie dogs quickly learn to always be watchful for predators. They learn to recognize the warning call of adult prairie dogs and to dive into the safety of their burrow when danger is near.

Young coyotes provide another example of learned behaviors. Young coyotes learn the skills of a predator by hunting with adult coyotes. They also learn how to behave as a member of a pack.

Innate Behavior

The following are examples of innate behavior. These behaviors are instinctive and are part of the animal's heredity.

Each spring and fall, monarch butterflies travel across Oklahoma. Many monarch butterflies spend the winter in mountain forests near Mexico City. Each spring these butterflies catch a breeze and fly north, returning to the United States. Soon another generation of butterflies continues the journey across the Great Plains.

Through instinct, or innate behavior, this new generation of butterflies often returns to the same fields and meadows where their parent butterflies lived the previous summer.

Using instinct, many species of birds migrate from those places where they breed and raise their young, to other habitats where they spend the winter. Migrating birds use innate behavior to know when to begin migration and the route that they should follow.

During the breeding season, male prairie chickens gather in one place, called a booming ground, where they try to attract the attention of potential mates. Their foot-drumming, "hooting" sounds, and feather-rattling are examples of innate behavior.

Using innate behavior, American white pelicans instinctively know how to open wide their mouths to capture fish. By using learned behaviors, white pelicans often swim in an organized group as they hunt for fish. Pelicans learn that they are most successful catching fish when they hunt as a group. Sometimes their hunting technique is to scare a school of fish into shallow water where they can more easily be caught. Another method is for a group of pelicans to stick their heads into the water at the same time, making it tougher for a school of fish to escape their open mouths.

Using innate behavior, the rattlesnake is rattling its tail as a warning, for it wants to be left alone. Rattlesnakes, like most snakes, first try to move away from trouble. When they are cornered and cannot escape, rattlesnakes will often rattle their tail, which is their way of saying, "you had better back off." If tail-rattling does not work, the rattlesnake will strike at the person or thing that it believes is a threat to its safety.

Summary

In summary, the wildlife that live in Oklahoma provide us with many examples of innate and learned behavior. Because of their fascinating behaviors, it is always fun to watch wildlife.

Reference Life Science, Glencoe/McGraw-Hill, 1999