

# What do Animals Need to Survive?

An **adaptation** is a behavior or physical characteristic that helps an organism to live in an environment. For example, the green coloring of a frog helps the frog hide from its enemies.

## Behavior Adaptations

The way an animal reacts to its environment is called behavior. **Behaviors** are all of the things an animal does. Behaviors can be instinctive or learned. An **instinct** is a behavior that an animal is born with and performs correctly the first time. For example, a spider spins its web by instinct. It does not need to learn how. Most birds build nests by instinct. **Learned** behaviors are not present at birth. They may not be performed correctly the first time. Learned behaviors usually need to be practiced. Throwing a ball and birds flying are examples of learned behaviors.

A **stimulus** is anything that makes an animal react. Hunger is a stimulus. Seeing a predator is also a stimulus. The way an animal reacts to a stimulus is a response. Eating when you are hungry is a response. An animal running from a predator is also a response. All animal behaviors are responses to stimuli. Behaviors help animals stay alive.

## Searching for Food

Animals need energy to stay alive, grow, develop, and reproduce. Animals get energy from the food they eat. Finding enough food and the right food depends on where the animal lives how they get food. Animals must live in the place where their food can be found. Some animals have claws and big teeth; others can run fast so they can get food. Some animals live in groups, while others may live alone.

## Protection

Animals also need to keep safe. Living in groups help animals stay safe from their enemies. For example, some birds live in large groups in a tree called a **roost**. With a lot of birds together in one place, many eyes can lookout for enemies. Some mammals live in herds to protect their young. Others like turtles go into hard shells when they sense danger.

Animals also need to be safe from the environment. Animals need a proper temperature to live. **Homeostasis** is a process of keeping conditions inside

an organism constant, no matter the conditions outside. The body temperature of most fishes, amphibians, and reptiles is close to the temperature of the environment. Some animals have a body temperature that changes. If they sit in the sun, their bodies get warm. If they swim in cool water, their bodies get cool. They are called **ectotherms**. Fishes, amphibians, and reptiles are ectotherms. Birds and mammals have a body temperature that stays the same. They are called **Endotherms**. Endotherms sweat or pant to keep from getting too hot. Endotherms have fur, hair, or feathers to keep them from getting cold.

### **Reproduction**

If animals have enough food and are safe they can reproduce. Some animals, such as birds and mammals care for their young. Behaviors for finding food, making a shelter, and protecting themselves are learned behaviors for many birds and mammals. The parents need to care for the babies until they have learned to survive on their own. For example, mothers of mammals fed their babies with milk that the mother makes.

Other animals are born with instincts to survive. Fish and turtles will lay many eggs in the water or land and leave. When the eggs hatch, the young must take care of themselves. These animals have instincts to help them survive when they hatch and do not need a parent to show them how to survive.