

## Is it an animal?

What you'll learn:

- \*Identify the characteristics common to most animals
- \*Determine how animals meet their needs
- \*Distinguish between vertebrates and invertebrates

## Animal Characteristics

1. Made of many cells.
2. Cells have a nucleus and organelles.
3. Depend on other living things for food.
4. Digest their food.
5. Many move from place to place.
6. All are capable of sexual reproduction

## How Animals Meet Their Needs

Adaptations are the behaviors and processes that determine which individuals are more likely to survive.

### Adaptations for Obtaining Energy



Herbivores only eat plants or parts of plants.



Carnivores only eat other animals. (scavengers eat only the remains of other animals)

Omnivores eat both plants and animals.

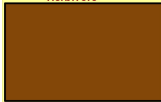


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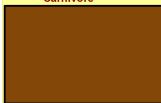


Detritivores eat decaying plant matter.

Herbivore



Carnivore



Omnivore



### Physical Adaptations

Outer coverings protect animals from predators. Ex. hard shell, plates, or quills.



Size prevents smaller predators from attacking larger prey. Ex. buffalo or moose.



Mimicry is when an animal looks like or acts like another animal. Ex. some snakes and insects



Poisonous Coral Snake



Scarlet King Snake non-poisonous

Camouflage is an adaptation that allows the animal to blend into the surroundings. Both prey and predators use camouflage, but for different reasons. Ex. chameleon and moth



### Behavioral Adaptations

Some animals use chemicals to escape predators. Ex. skunk and octopus



Speed and agility are used by both predator and prey.



Traveling in groups is used by both. Some animals hunt in a group while others use safety in numbers.



## Animal Classification

Animals can be classified into two major groups vertebrates and invertebrates. This is the first characteristic scientists look at.



Vertebrates are animals *with* a backbone.

### Invertebrates

Animals without backbones



Invertebrates are animals *without* a backbone.

The next characteristic is symmetry. Symmetry is how the body parts of an animal are arranged.



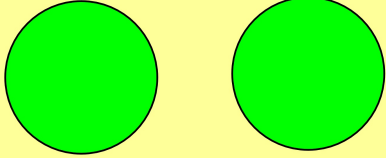
1. Asymmetrical Symmetry is when there is no definite shape.







2. Radial Symmetry is when body parts are arranged in a circle around a center point.




3. Bilateral Symmetry has body parts arranged in a similar way on both sides of the body.



**Vertebrate**                      **Invertebrate**













**Radial**









**Bilateral**









**Asymmetrical**






**Radial Symmetry**                      **Carnivore**                      **Vertebrate**

**Herbivore**                      **Invertebrate**                      **Omnivore**

**Bilateral Symmetry**

\*Animals that eat plants or plant parts     
 \*Body parts are arranged in a circle around a center point  
 \*Animals that eat only meat     
 \*Animals that eat both plants and animals and animals  
 \*Animals with a backbone     
 \*Animals without a backbone  
 \*Animals that are arranged in a similar way on both sides