

Lesson 4: How are animals classified?

Vocabulary

vertebrates animals that have a backbone

invertebrates animals that do not have a backbone

Animals with Backbones

Scientists divide the animal kingdom into two groups. All the animals in one group have backbones. They are called **vertebrates**. There are five groups of vertebrates: fishes, amphibians, birds, mammals, and reptiles.

Most fish are covered with scales. They live in water and breathe with gills. Most fish are also cold-blooded. This means that their body temperature changes as their environment changes. Fish lay eggs.

Amphibians have wet skin. They can live on land and in the water. Amphibians breathe with lungs, gills, or both. They are cold-blooded. Most amphibians lay eggs.

Birds are covered with feathers. They usually live on land. Birds breathe with lungs. They are warm-blooded. This means their body temperature usually stays the same. Birds also lay eggs.

All mammals have hair or fur. Most live on land, but some live in water. They breathe with lungs. Mammals are warm-blooded. Most mammals give live birth.

Reptiles have dry skin and are covered with scales or plates. Most reptiles live on land. Some live in water. They breathe with lungs. Reptiles are cold-blooded. They usually lay eggs instead of giving live birth. Alligators, crocodiles, snakes, and turtles are reptiles.

Life Cycle of a Reptile

The Burmese python is a long, thick snake. It can grow up to 6 meters (about 20 feet) and weigh up to 91 kilograms (about 200 pounds). It squeezes its prey and swallows it whole.

A python's life begins as an egg. After mating, a mother python can lay as many as

100 eggs. She wraps herself around the eggs for 6 to 8 weeks to keep them warm. When the eggs hatch, they are about 51 centimeters (20 inches) long and weigh about 113 grams (4 ounces). The pythons grow to be adults and reproduce. They can live up to 25 years.

Invertebrates

Most animals are **invertebrates**. They do not have a backbone. Jellyfish, worms, insects, spiders, and lobsters are invertebrates. Snails and clams have soft bodies inside hard shells. Jellyfish and worms do not have shells.

Arthropods are the largest group of invertebrates. They have jointed legs. Their bodies have a hard outer skin called an exoskeleton. It protects the arthropod. Insects, spiders, crabs, and shrimp are arthropods.

Mollusks are the second largest group of invertebrates. Clams, octopuses, snails, sea slugs, and squids are mollusks. Most live in water, but some live on land in damp places.

Mollusks

A snail is a mollusk. Most snails have a shell. They move with a foot. It releases a slimy liquid that makes it easier for the snail to move. Snails usually lay eggs during warm, damp weather.

A brown garden snail's life cycle begins as an egg. A mother snail can lay up to 85 eggs at one time. They hatch in 2 to 4 weeks. Baby snails must find their own food. They become adults in about 2 years. The snail's shell grows as the snail grows. Snails can live up to 10 years.

Lesson 4 Checkpoint


1. What are the five divisions of vertebrates?

2. What happens to a Burmese python egg after the mother has kept it warm for six to eight weeks?

3. Name some animals that are classified as arthropods.

4. Are there more vertebrates or invertebrates on Earth?

5. Name the largest group of invertebrates.

6.  **Compare and Contrast** the life cycles of Burmese pythons and brown garden snails.
