

Fast Facts

An estimated 10 million animals—including frogs, rats, fish, turtles, birds and sharks—are cruelly killed and used in archaic dissection exercises annually. The millions of frogs used are taken out of their natural habitats and either killed for dissection or experimented on while still alive. The U.S. Department of the Interior has stated that declines in amphibian populations can be attributed, in part, to this classroom use of frogs. **But there's no reason for animal dissection—especially when there are high-quality humane options available that are just as effective at teaching biology.**



Here are some fun facts about frogs:

1. A group of frogs is called an “army.”
2. Females remember exactly where they laid their clutches of eggs and show a preference for them.
3. Frogs have been hopping around on the Earth for at least 200 million years and were contemporaries of the dinosaurs.
4. There are more than 6,000 species worldwide.
5. They have superior night vision.
6. While they're excellent **bioindicators**, they're also able to withstand extreme environmental stress by a process known as “**estivation**.”
7. Madagascar's climbing mantilla and Ecuador's little devil frog are nurturing and attentive when raising their young. Both lay just a few eggs in pools of water that collect in cupped leaves. The moms sit next to their offspring and feed the growing tadpoles until they're big enough to venture off on their own.
8. Plethodontidae, or lungless salamanders, exchange gases like oxygen and carbon dioxide primarily via a process called **cutaneous respiration**.

Define the following terms from the video:

Amphibian _____

Metamorphosis _____

Ectothermic _____

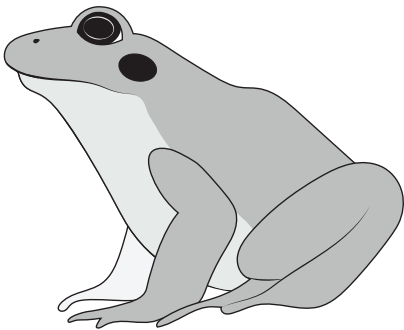
Cutaneous respiration _____

Bioindicator _____

Estivation _____

Comparative Anatomy

Frogs are classified as **amphibians**, which means that they spend a portion of their lives in the water and a portion of their lives on land. “Amphi” means “both,” and “bios” means life.” Frogs start out as fertilized eggs in the water, develop into aquatic tadpoles, then finally become either aquatic or terrestrial adults. They undergo **metamorphosis**, completely transforming their body from one form to another. They are **ectothermic**, which means that their body temperature depends on the temperature of their external environment.



Using the video of the SynFrog dissection, compare the following body systems found in amphibians (such as frogs) and in mammals (such as humans).

Body System	Amphibians	Mammals
Digestive		
Respiratory		
Circulatory		
Nervous		
Skeletal		