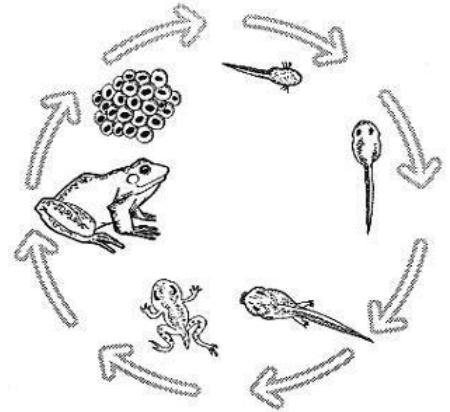

Frog Life Cycle Board Game



Objective

Students will be able to identify the main stages of the frog life cycle (egg, tadpole, metamorphosis, adult).

Students will be able to examine the physical and behavioral differences between each stage.

Materials

Provided in Kit:

- Samples of lifecycle stages
- Game board (4 pieces)
- Directions
- 6 Game Pieces
- Yellow (EGG) cards
- Green (TADPOLE) cards
- Blue (METAMORPHOSIS) cards
- Trivia cards

Not Provided:

- Paper and pencils

Appropriate Grade Level: 4th – 6th

Time Required: 1 Hour

**NGSS and Common Core
Standards: 3-LS-1**

Background Information

Frogs are amphibians. They begin life in the water and then change into a land-dwelling adult. Each stage of life faces new challenges and requires different strategies to survive.

Frogs lay eggs in fresh calm water. One mother can lay hundreds or thousands of eggs at a time. The eggs are “glued” together in a jelly-like substance. The jelly helps eggs float at the surface of the water, where it is oxygen-rich and warm. Eggs are almost defenseless against predators such as fish.

About one week later, the eggs hatch into tadpoles. Tadpoles have gills, a strong swimming tail, small eyes, and a small mouth. Tadpoles mostly feed on algae. To avoid predators, tadpoles swim and find a place to hide. Camouflage, the ability to blend in, is essential for tadpole survival.

Over the next few months, the tadpole will change dramatically in a process called metamorphosis. The mouth widens to the width of the tadpole’s head. Gills disappear and lungs develop. The tadpole grows hind legs, then front legs. Eventually the tadpole begins to reabsorb its tail. Although bigger, the tadpole still suffers from many predators such as birds, fish, and other frogs. He still relies heavily on swimming and camouflage. With a bigger mouth, the tadpole’s diet changes to insects.

By the end of the metamorphosis, the tadpole has become an adult frog. The frog leaves the water and lives on land until it is time to mate. Adult frogs breathe by lungs and through their skin. They also drink water through their skin. Frogs have muscular legs that jump and a long tongue that catches prey. Prey mostly consists of insects. In order to escape predators such as snakes and turtles, frogs jump, call out, and hide. Eventually, the frog returns to the water to mate, lay eggs, and start the cycle again.



Activity

1. Ask students, “Frogs are amphibians. Amphibian means “two modes of life.”
How does a frog have two modes of life?”
2. Show students samples of frog life cycle stages (egg, tadpole, metamorphosis, adult).
3. Exploration questions: Why is there jelly surrounding the eggs? What color are the tadpoles and frogs? Why? Why are the frog legs so long? Where would you find each stage (water, land)?
4. Play the board game. Please see the provided directions.
5. Closing questions:
 - a. What are the major stages in the frog’s life cycle? (egg, tadpole, metamorphosis, adult)
 - b. Why do you think the board game is a circle? (life is a cycle)
 - c. What differences did you notice between each life stage? What similarities?
 - d. Why don’t adult frogs have gills? Why are eggs the only stage surrounded by jelly? Why do tadpoles have a tail instead of legs?

