



Frog Life Cycle Survival

Suggested Curriculum links (Grade 2)

Life Science: Animal Growth and Changes

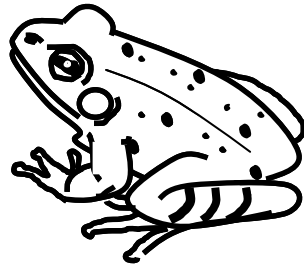
- 101-7 observe and describe changes in the appearance and activity of an organism as it goes through its life cycle
- 102-6 identify constant and changing traits in organisms as they grow and develop
- 102-7 describe features of natural and humanmade environments that support the health and growth of some familiar animals
- 100-16 describe changes in humans as they grow, and contrast human growth to that of other organisms

Language Arts

- Students will be expected to use a range of strategies to develop effective writing and media products to enhance their clarity, precision, and effectiveness.

Materials

- Frog life cycle cards
- Paper
- Crayons/Markers
- Pencils
- Bristol board
- Glue



Overview

Frogs' basic needs for food and shelter change as they go from tadpole to adult. In this activity, students will compare their needs through drawings and descriptions.

Objectives

- To compare the basic needs of adult frogs and tadpoles with adult humans and babies.

Background

Frogs are amphibians meaning they live partially in the water and partially on land. The tadpole stage is mainly aquatic whereas the adult stage is mainly terrestrial. Over the course of a year (in Newfoundland), eggs laid in the water metamorphose (change) into tadpoles, which metamorphose into adults.

Eggs: Amphibians (including salamanders and toads) lay their eggs in the water. The water and jelly coating keeps the eggs from drying out. At this stage the eggs rely on nutrients from the yolk sac.

Tadpole: They hatch into tadpoles which have gills to breath underwater and a big tail fin for swimming. They live in the water and hide among the floating weeds and grasses from predators like fish. They mainly eat aquatic plants and algae.

Froglet: A froglet is a young frog that is no longer a tadpole. It has four legs, eyes that raise out from its head and a short tail. At this point they develop lungs and move between land and water. Their diet also switches from plants to insects.

Adult frogs: Adults have fully reabsorbed their tail and are fully carnivorous eating worms, insects and eggs of other frogs. They live mainly on land, but are not usually far from water.



At the Fluvarium

Join us for *Cycles of Life!* Spring is a time of change. As this season of renewal begins, Cycles of Life focuses on growth and development of some common freshwater animals. Outdoors, students will explore the area surrounding The Suncor Energy Fluvarium and make observations about the animals that are naturally present. Inside, students observe and describe the changes in freshwater invertebrates, fish and amphibians.

Procedure

- ❖ Make copies of the **Frog Life Cycle Cards** ahead of class.
- 1. *Introduce and/or review the topic of life cycles*
Ask the students about the names of “baby” stages of various animals (baby cat is a kitten, baby butterfly is a caterpillar). Ask the students what happens as they grow. (The kitten gets bigger and becomes an adult cat, or caterpillars change into pupa and eventually adult butterflies). Ask the students to define a life cycle. (In a life cycle, animals are born, they grow up, produce more baby animals before they eventually die. You may review life cycles by drawing some on the board (butterfly, fish, Caddisfly).
- 2. *Put together a frog life cycle.*
Pass out sets of Frog Life Cycle Cards out to groups of students. Have them place the cards in order. Discuss and review each of the stages.
- 3. *Discuss the needs of frogs to survive.*
All animals need food, shelter, and air to survive. Discuss how these needs change with the various stages of the life cycle just as it does in humans (Babies sleep in a crib, eat baby food and drink milk whereas the students sleep in a bed and eat whole foods.) Discuss the needs of the frog during its life cycle.
- 4. *Draw a picture describing the frogs’ needs.*
Have students in each group choose a life cycle stage to describe. Ask the students to draw on paper their frog life stage and the environment they live in (keeping in mind the basic needs of that life cycle stage).
- 5. *Display the pictures as a life cycle.*
Have each group paste their life cycle pictures they drew in order on a piece of Bristol board.

Extensions

- Have the students in groups each make a clay model of a different stage of a frog’s life cycle. Have each group make a diorama with their models showing where each stage lives in a wetland.
- Have students conduct the same activity with other kinds of animals.





Resources

Websites

Adopt-a-pond

<http://www.torontozoo.com/adoptapond/index.asp>

Find information about Canadian amphibians, lizards and turtles.

The Suncor Energy Fluvarium

<http://www.fluvarium.ca>

Find information about local amphibians and fish.

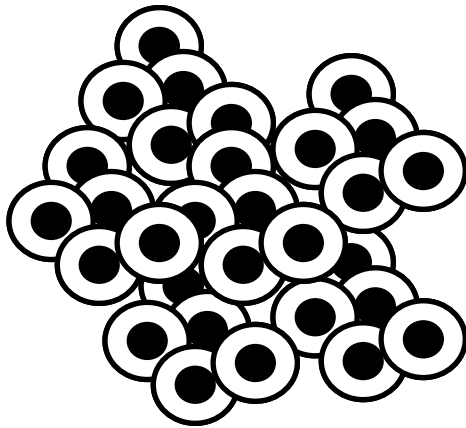
Books

Fish is Fish. Lionni, Leo. Dragonfly Books. 1974.

Frog (Life cycle of a). Royston, Angela. Heinemann Library. 1999.

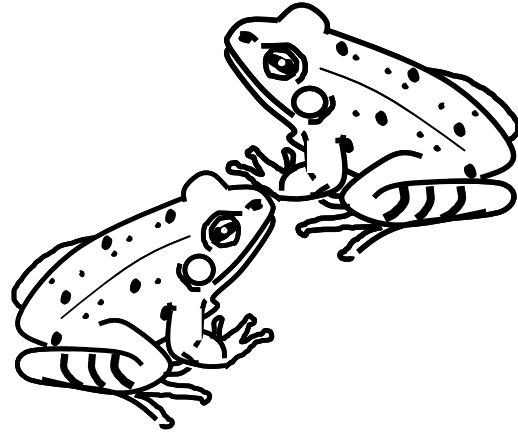


Frog Life Cycle Cards



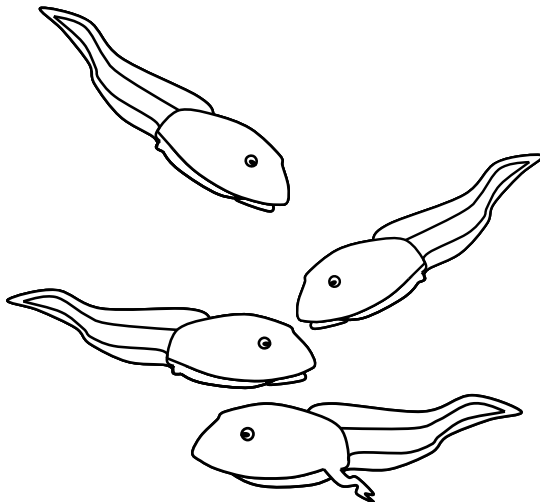
Frog Eggs

We like to live in water.
We get food from our yolk sac.



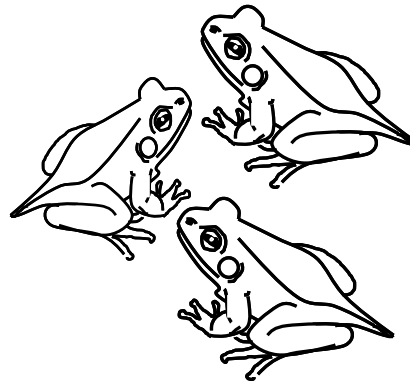
Adult Frogs

We live mainly on land.
We like to eat bugs, worms and fish.



Tadpoles

We like to live in water around plants.
We like to eat plants.



Froglets

We like to live on land and in water.
We like to eat bugs.