



Are You Mine?

LESSON

GRADE LEVEL Grade 2-6

CATEGORY Plants, Animals, & Habitats

TOPIC Amphibian Lifecycle

TIME

45 minutes

MATERIALS

- Pictures of adult and baby humans/animals
- Pictures of the stages of the lifecycle of a frog
- Lifecycle pictures (see resource section)

GROUP SIZE

3-4 students per group

SUBJECTS

Science, Social Studies

SETTING

In classroom, clusters of desks (4-5 seats)

SKILLS

Analysis, comparison, contrasting, cooperation, observation, reflection

KEYWORDS

Lifecycles, tadpoles, frog, eggs

Overview

Through a hands-on activity, students will learn to recognize some of the young stages of aquatic animals, and match them with their corresponding adult stages. This introduces the concept of life cycles and teaches your group about the life cycle of pond breeding amphibians.

Objectives

Students will be able to:

- identify various stages in the lifecycle of frogs
- demonstrate knowledge that amphibians live on land and in water

Background

Amphibians are an interesting group of animals that often begin life as an egg in a water body. Eggs laid in the spring develop into tadpoles with gills for breathing and a long flat tail for swimming. The tadpole grows over the summer and transforms into a juvenile form when the gills and tail are absorbed and legs are fully developed. The amphibian is ready to leave the pond at this stage and it may take a few years to mature into a breeding adult to complete its lifecycle.

Procedure

1. Ask students to bring two pictures from home – one of a person as a baby and one as that same person as an adult. For example, the pair of pictures could be a parent. Have several sets of young-adult animal photos printed or cut out of magazines representing animals that have live young and some that lay eggs (chicken and egg, bear sow and cub, (***)Variation: If there is no time to have students bring pictures from home, you can cut out pictures of baby animals and adult animals from a nature magazine or the internet.)
2. Have the students at each station place their pairs of pictures on the table and mix them randomly. Once the adult-young pictures are mixed at each table, have the groups rotate stations, so there will not be anyone at the tables where their own pictures are placed.
3. Have the groups try to match the pairs of pictures.

4. When students have matched the pictures, have them move to their original places. Discuss: Are the matches correct? Have the students fix any that are incorrect. Start talking about animals that deliver young that resemble adults and animals that lay eggs. Discuss how all types of animals have to grow and develop to become adults. Brainstorm changes that occur in pond breeding amphibians as they develop from an egg to an adult that lives in and out of water.
5. Have students do a similar activity with the pictures of the lifecycle of frogs. (Photocopy the various stages of the frog lifecycle. Cut these up and have one package ready for each group of 3-4 students.)
6. Explain to students that they each have a jigsaw of an animal's lifecycle. It is up to the students to try to figure out how the lifecycle of the animal might progress. Give the students time to put together the stages in the correct sequence.
7. Debrief about the lifecycles that the students were able to construct.
 - Tadpoles swim like a fish and breathe through gills
 - Frogs need to grow legs to move about on land
 - By the end of summer, gills and tail are absorbed as a frog develops lungs and breathes through its skin.

Assessment

Have students create their own pictures of baby and adult amphibians (frog, salamander, or toad) that they are likely to find in their area to use for the title page for an amphibian portfolio. Have the students label each picture to identify the type of amphibian. Finally, have the students list a few identifying features on each amphibian (stripe, spots, ear, eye, feet, nostril).

Extensions

- Have 2 pictures of amphibian habitat (water and then land). Have them ready to stick onto the board, have students match the various phases of the lifecycle with the appropriate habitat where that phase takes place.
- Provide students with a timeline and have them label spring on the left, summer in the middle, and fall on the right. Have students glue on the frog lifecycle phases in the appropriate order.
- Provide students with a hand-out of the different phases in an amphibian's lifecycle and ask them to number them in the correct order.
- Have the students research a BC amphibian (frog, toad, or salamander) and discover what type of growth the animal must undertake to develop from one form to another. They could research their organism's lifecycle including its duration and the setting or habitat that it takes place in.

Additional Resources

www.enchantedlearning.com/coloring/amphibians.shtml

www.saczoo.org/page.aspx?pid=442

www.kidzone.ws/animals/dragonflylifecycle.htm

Find your local amphibians here:

www.env.gov.bc.ca/wld/frogwatch/whoswho

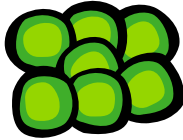
Colouring Book Images – Click on the images at:

[www.env.gov.bc.ca/wld/frogwatch/publications/](http://www.env.gov.bc.ca/wld/frogwatch/publications/funfrogs)

funfrogs to download colouring book pages of frogs, toads, salamanders, and even turtles

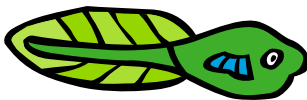


Frog Life Cycle



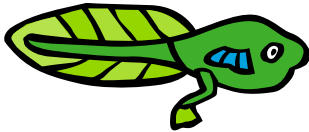
Stage 1 – Egg

Tiny frog eggs are laid in masses in the water by a female frog. The eggs hatch into tadpoles.



Stage 2 – Tadpole

Tadpoles can also be called pollywogs. This stage hatches from the egg. The tadpole spends its time swimming in the water, eating and growing. Tadpoles breathe using gills and have a tail.



Stage 3 – Tadpole with Legs

In this stage the tadpole sprouts legs (and then arms), has a longer body, and has a more distinct head. It still breathes using gills and has a tail.



Stage 4 – Froglet

In this stage the almost mature frog breathes with lungs and still has some of its tail.



Stage 5 – Adult Frog

The adult frog breathes with lungs and has no tail because it has been absorbed by the body.

