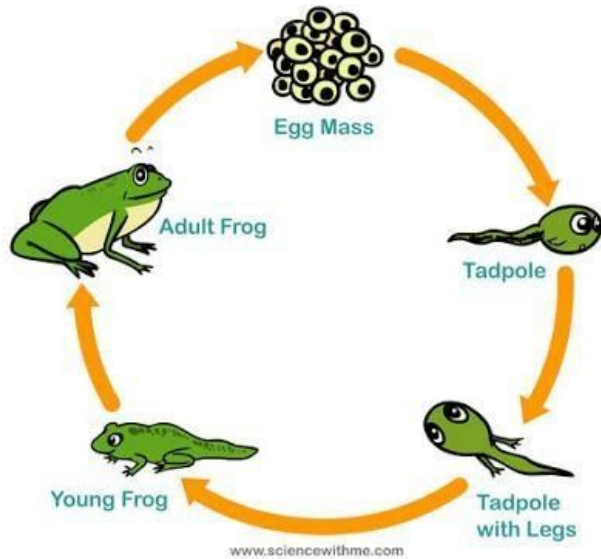


The Frog Life Cycle		Kindergarten Biology
Lesson Plan		Safety Notes Caution when using boiling water. Adult involvement required.
Description How do frogs go from being an egg to an adult frog and why do frog eggs look so different from chicken eggs? In this lesson students will learn about what types of animals lay eggs, what different types of eggs look like, and do a hands on activity to explore the frog life cycle.		
Materials <ul style="list-style-type: none"> - Egg (chicken) - playdough - printouts - crayons - glue stick - crayons - 2 paper plates - 1 brad fastener 		To make playdough <ul style="list-style-type: none"> ● 1.5 cups flour ● ½ cup salt ● 1 cup boiling water ● 2 tbsp oil ● 2 tsp cream of tartar
Science Background <p>Many animals lay eggs including birds, amphibians (toads, frogs and salamanders), insects, slugs, snakes, fish and even the platypus. Eggs come in all sorts of shapes and sizes. Bird eggs typically have a hard outer shell and they are laid in a nest. Some insects lay very small soft-shelled eggs in clumps on the leaves of plants or underground. Amphibians lay jelly like egg masses that need to stay in water so they do not dry out. Frogs lay their eggs in a clump and toads lay their eggs in a line.</p> <p>A life cycle describes the stages of life all animals go through from birth to adulthood that repeats for each generation. Some animals like frogs and butterflies go through very large changes in their life cycle, where the young animals look very different from the adults. This large change is called metamorphosis. The frog life cycle is: egg mass - tadpole - tadpole with 2 legs - young adult - adult frog.</p> <p>Egg Mass: Frogs lay eggs in the water in a large jelly like clump.</p> <p>Tadpoles: Tadpoles hatch from the eggs and look very similar to fish. They live completely in the water and use gills to breathe. They will eat plants and algae and continue to grow for several weeks.</p> <p>Tadpole With Two Legs: As the tadpole grows it will start to develop two back legs and lungs. It still lives in the water and has a long tail</p> <p>Young Adult Frog: The young frog has now developed its two front legs and its tail continues to get shorter. As the tail shrinks the frog absorbs nutrients from it. A frog is an amphibian which means it</p>		

can live in the water and on dry land. The young frog can now go on dry land for the first time although it is still very small.

Adult Frog: The adult frog now eats insects it can catch on land and no longer has a tail. The adult frog will lay eggs in the water and the cycle starts again.



The Bringers of Spring:

In some First Nation cultures frogs are the "deciders" or "bringers" of spring. You can hear them making their calls and some stories are halted when the frogs sing their first songs. For the Ontario Green Frog they can lay eggs as late as August. They usually lay their eggs in clusters on waterside moss. When winter comes the eggs change into tadpoles and grow much bigger swimming under the ice. When spring rolls around the tadpoles turn into frogs and begin their singing. The cycle starts all over again when summer comes.

Activity Procedure

What is an egg?

- 1) Take a (chicken) egg from the fridge and observe it. What can you tell about the egg? How does it feel? What color is it? What do you think is inside of it?
- 2) Try to predict what animal an egg comes from. Can you think of other animals that lay eggs? Do you think all animal eggs look the same?
- 3) Frogs also lay eggs, find a picture of frog eggs to see what those look like. Unlike chicken eggs, frog eggs do not have a hard shell and have to stay in the water to keep them hydrated.

Making Playdough

For the next activity we will need some playdough you can use playdough you already have around your house or make your own using the recipe below.

- 1) Mix 1.5 cups of flour, 1/2 cup salt, 2 tsp cream of tartar (optional but will help the playdough last longer) in a bowl
- 2) Boil 1 cup of water. Once it is boiled add a few drops of food coloring
- 3) Once the dry ingredients are mixed, add in 2 tbsp oil and 1 cup boiling water.
- 4) Knead it a few times until it becomes smooth.

The Frog Life Cycle

- 1) You will be using the playdough to make the frog life cycle.
- 2) Start by making eggs. You can make one big egg or roll multiple pieces of playdough into small balls. Arrange them in a clump to make the egg mass.
- 3) Take another piece of playdough and make a tadpole with a long tail.
- 4) Take off some of the playdough from the tail and make a tadpole with 2 legs.
- 5) Take off some more playdough from the tail and make 2 more legs so you have a young frog with 4 legs and a small tail.
- 6) Finally take off the tail completely and add the playdough to the body of the frog to make an adult frog.

The Bringers of Spring

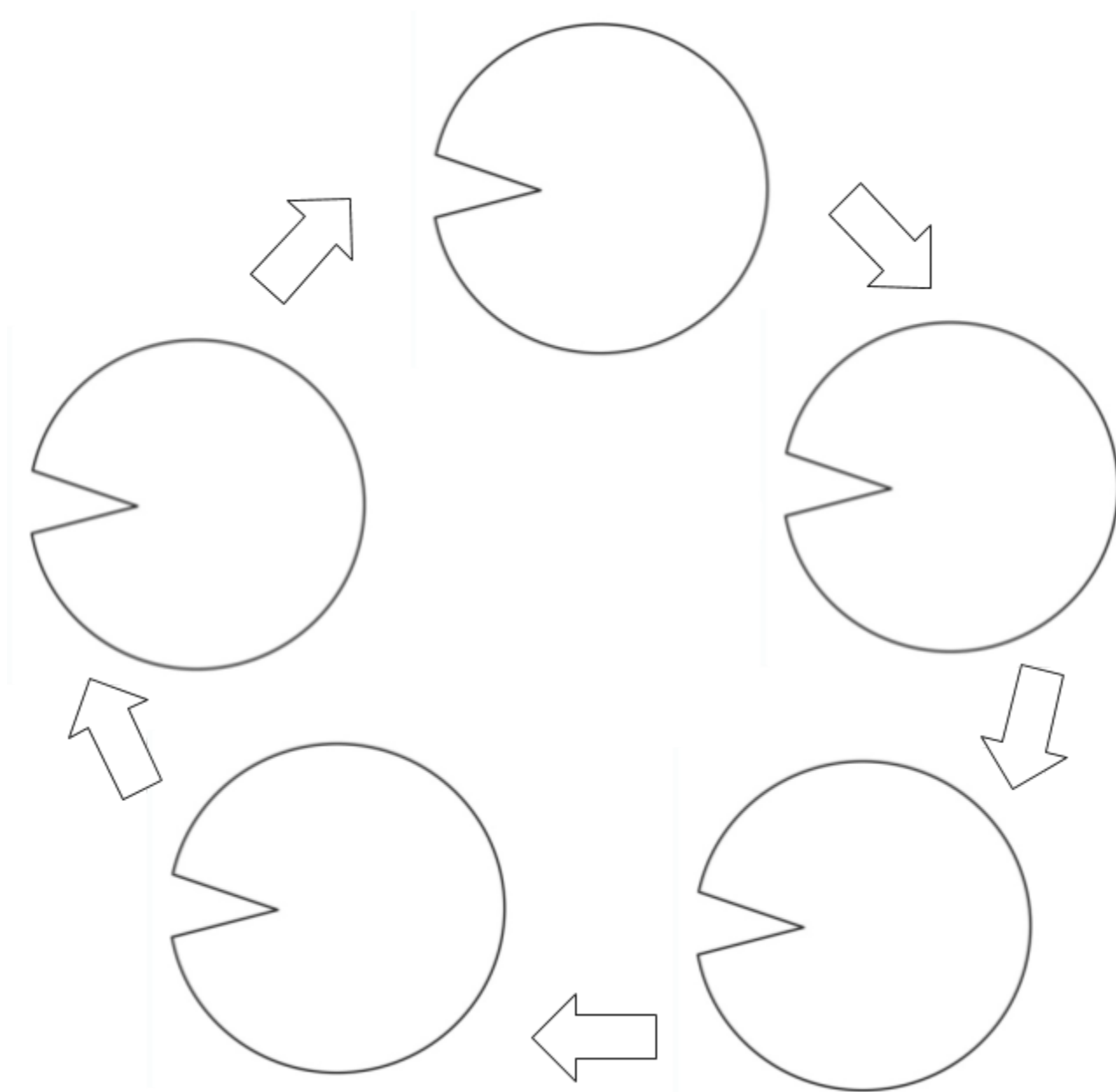
- 1) Color in the bringers of spring print out
- 2) Glue the print out to one of the paper plates
- 3) Cut a window out of the other paper plate about the same size of one segment of the frog life cycle
- 4) Place the paper plate with the window on top of the one with the bringers of spring print out and secure in the middle with a brad fastener
- 5) Spin the plate with the window to reveal each part of the frog life cycle and read the explanation of the Bringers of Spring above.

Debrief

Go on a walk to a nearby stream, pond or marsh. Can you spot any frog eggs, tadpoles or frogs? Can you find other eggs in your backyard or other outdoor spaces? Can you find any animals outside that lay eggs? Remember that lots of insects lay eggs.

Handout

Cut out each stage of the frog life cycle and glue them in the correct order:





Adult Frog



Frog Eggs



Tadpoles



Young Adult
Frog



Tadpole with
Two Legs

Handout Answers

Cut out each stage of the frog life cycle and glue them in the correct order:



1. Frog Eggs



2. Tadpoles



5. Adult Frog



4. Young Adult Frog



3. Tadpole with Two Legs