



# Frog Spawn Relay

## LESSON

### GRADE LEVEL

K-3

### CATEGORY

Animals, Plants & Habitats

### TOPIC

Life Cycles

### TIME

15 minutes

### MATERIALS

- 5 or 6 Tadpole Tails (pieces of fabric or scarves)
- Markers for two 'finish' lines

### GROUP SIZE

Large group

### SUBJECTS

Science, Physical Education

### SETTING

Large space indoors or outdoors

### SKILLS

Communication, cooperation, observation, physical activity, fair play, safety, reflection

### KEY WORDS

Spawn, tadpole, frog, life stages, life cycle, metamorphosis

## Overview

In this activity, students will act out some of the stages in the life cycle of a frog and then participate in a relay to demonstrate the metamorphic process of the frog's life cycle. All the students begin as eggs, but only a few will develop into tadpoles, and only two of those will develop into frogs.

## Objectives

Students will be able to:

- Identify various stages in the life cycle of frogs
- Demonstrate the stages of frog metamorphosis

## Background

In each stage of the frog life cycle the animal has a very different form, adapted to its environment. A significant change, from being able to breathe under water to breathing in air, happens while the tadpole is growing. This is not part of the relay but could be brought up in the discussion afterwards.

The stages of growth are generally described as:

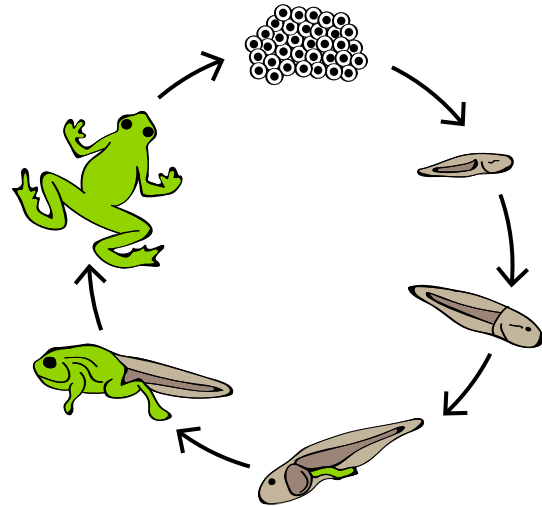
- **Eggs** (6-21 days) - or sometimes referred to as spawn and is a large mass of eggs. Depending on the species, these egg masses can be made up of several hundred eggs!
- **Tadpole** (7-10 days found clinging to underwater vegetation, 4 weeks loses gills, 6-9 weeks grows legs) - within a few days, the eggs develop into tadpoles. Tadpoles can be found clinging to vegetation and live completely underwater for around two weeks.
- **Tadpole with legs**
- **Froglet** (12 weeks, has stubby tail) - the tadpole's gills have disappeared, and its lungs have enlarged so it is ready to leave the water and live on land.
- **Adult frog** (12-16 weeks) - loses its tail

## Procedure

Before you begin:

- Mark two lines parallel to each other about 5 metres apart: line 1 and line 2. Space the Tadpole Tails along line 2. The game begins on line 1 and ends when the second set of frogs cross line 2.
- Gather the students where they can see the two lines. Ask students if they know the 5 stages of development for a frog: egg, tadpole, tadpoles with legs, froglet, adult frog.

All students will begin as spawn, which is a mass of eggs deposited by an adult frog. The egg mass is covered in a jelly to keep them from drying out. Show the students an example of frog spawn if available. The students are going to develop from frog eggs, but not all of them will survive to be an adult frog.



## The relay

In the relay students will act out 3 of the stages: egg, tadpole and frog. They will complete two life cycles.

Ask for a volunteer to act out the first two stages.

1. The egg stage will be acted by crawling on their hands and knees from line 1 to line 2.
2. There are not enough tails for all the eggs to develop into tadpoles. Most of the eggs will wait on line 2. The first eggs that get there will get a tail and hold it behind them as they pretend to swim back to the line 1.

Choose two more volunteers to act out the frogs.

3. The first two tadpoles to cross line 1 will become adult frogs.
4. Frogs will leapfrog back to line 2 where the other students are waiting.

Describe the remainder of the relay.

5. While the frogs are leapfrogging the remaining tadpoles should space the tails along the line 1. (Then they will move to the sidelines to observe the remainder of the relay.)
6. When the two adult frogs cross line 2, the waiting students are eggs again and will somersault to the opposite line where some of them will become tadpoles. Repeat steps 3 and 4.

Ask the student-eggs to spread out along line 1. And signal the beginning of the relay!

7. Debrief the activity and discuss the following:

- In nature why do you think only two of the eggs might survive to become adults? (What dangers?)
- What would happen if every egg developed into an adult?
- What else happens to the tadpole when it becomes a frog?

## Assessment

Have students draw and label the stages of the frog life cycle. Describe the changes occurring at each stage.

Adapted from: [www.hctfeducation.ca/wp-content/uploads/2016/06/Grade2-Grow\\_as\\_You\\_Go.pdf](http://www.hctfeducation.ca/wp-content/uploads/2016/06/Grade2-Grow_as_You_Go.pdf)