

Frog Chorus



SUGGESTED GRADE LEVEL: 4

SUBJECT: Science

SKILLS: comparison, observation

CORRELATION TO NEXT GENERATION SCIENCE STANDARDS: 4-LS1-1

Objectives

Students will: 1) identify frog and toad species by their call; and 2) describe the adaptive advantages of frog and toad calls.

Method

Students become “frogs” to participate in a frog call chorus.

Background

Most frogs and toads reproduce in the spring. Males usually arrive at the breeding site before the females. Male frogs attract females to breeding sites by calls that are specific to their species. When there are many frogs calling from a breeding site at the same time, the sound produced can be tremendous.

Frog calls can help humans to identify the frogs present in an area, too. Because the calls are species-specific, observers can estimate the numbers and types of frogs in an area during the breeding season just by following a predetermined route and listening to the chorus. It is much easier, and less disturbing to the frogs, to estimate frog populations in this manner than it would be by trying to find the actual frogs to count.

Materials

plastic combs, marbles and inflated balloons

Procedure

1. Conduct a general discussion about the frogs that are native to Illinois. Use resources such as the *Illinois Frogs and Toads* poster and the *Illinois' Natural Resources' Trading Cards Sets #1-5* from the Illinois Department of Natural Resources as well as the *Field Guide to Amphibians and Reptiles of Illinois* from the Illinois Natural History Survey for information, sounds and photos of the native species.

2. Talk with the class about why frogs produce sounds and that the sounds are species-specific.
3. Divide the class into seven groups (eight if you are including mosquitoes). Assign one of the following species to each group. Have the students practice one group at a time so that all of the students become familiar with all of the calls. Mosquitoes are included because they are a food source for frogs and are wetland inhabitants, so their sounds are a part of the natural chorus.

chorus frog – To imitate this call, drag your fingernail along the teeth edges of a plastic comb.

cricket frog – Hitting two marbles together will replicate the "glick, glick, glick" sound of this species.

crawfish frog – The call sounds like a loud, long snore.

bullfrog – The bullfrog's call is "jug-o-rum, brr-um."

leopard frog – This call can be replicated by dragging the bottom of your thumb across an inflated balloon. It works best if the thumb is dipped in water before you start. Change balloons each time a different child participates so each has a clean balloon.

Fowler's toad – The call is a loud, long "waaaaaahaaa."

spring peeper – A high-pitched "peep, peep, peep" will imitate this call.

optional: mosquito – The mosquito makes a high-pitched whine.

4. Tell the class that they are going to pretend to be frogs (and one of their prey items) in a wetland area during the spring. As you say the name of each frog (or insect), that group of students should begin to make the call. Students should continue repeating the calls until all the frogs (and insects) are calling.

NOTE: Chorus frogs usually call first in the spring, so you may want to start with them. Add spring peepers and cricket frogs next. Their sounds are sometimes drowned out by those of the larger frogs.

5. Review with the students the importance of calling to frogs and toads. Ask students if they think the time that frogs are calling is a dangerous time for them. How might the frog calls affect the frogs' predators? Could predators be attracted by the noisy frogs, too?

Extensions

1. Have each student or a group of students research one of the species and present a report to the class. The report should include a description of the frog's call.
2. Ask the students to compare what they know about frog calls with what they know about bird songs. How are they alike? How are they different?
3. Have the students draw a picture to represent each of the frog calls.
4. Ask the students to find information about organizations that train volunteers to monitor frog calls. How are these groups important? Your class may want to participate in frog call-monitoring activities.

Evaluations

1. Have each student write a paragraph describing what frog calls are and why they are important.
2. Have students research the status of frogs and toads in Illinois. How many are endangered or threatened? What has caused the endangered/threatened status? What are some actions the students can take to aid frogs and toads in Illinois?



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