

Wetland Band

TRACKING FROGS

Frogs and toads find each other by calling, and each species makes a unique call. They use these calls during the breeding season to find a mate. Most frogs and toads call at night when they are protected from the sun and can hide from predators. Scientists listen to the calls to collect information on how frog and toad populations are doing.

SMART START:

Research the frog and toad species that live in your area (aza.org/states-and-territories) and obtain their calling sounds either online or on a CD. (Check with your state natural resource department.)

Here's how:

1. Introduce frog and toad calling.

Brainstorm reasons that animals make noises (warning others, defending territory, finding a mate, communicating with parent or child, keeping track of their social group). Share some frog and toad calls from your area and talk about how frogs and toads use calling to attract a mate.

Watch SciGirls learn the calls of their local frogs and toads on the *SciGirls Participate* DVD. (Select **Frog Whisperers: Research.**)



You'll Need:

45
min.

- CD or website with frog and toad calls
- 1 empty glass or plastic bottle
- speakers
- optional: *SciGirls Nature Nurture* journal

For each small group

- small rocks
- marbles
- small bells
- small plastic comb
- rubber bands
- small plastic cup
- balloon
- zipper
- whistle
- optional: amphibian field guide





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2. Brainstorm. Listen to the calls of some frogs and toads from your area. Introduce the **SciGirls Challenge:** Create an instrument that will mimic a frog or toad call.⁴ Demonstrate this by playing the American bullfrog call and then blowing across the top of an empty plastic or glass bottle. Examples of instruments:

- ★ green frog – strum a rubber band
- ★ western chorus frog – run your finger over a comb
- ★ spring peeper – shake some bells
- ★ southern leopard frog – run your finger over an inflated balloon
- ★ Blanchard’s cricket frog – knock small rocks together
- ★ spotted chorus frog – open and close a zipper
- ★ American toad – blow a whistle



POINTER: Make sure girls have access to listening stations so they can compare their instruments’ sounds with the actual frog and toad calls.

3. Create. Give groups plenty of time to create and fine-tune their instruments so they work consistently.⁶ Make sure each girl has an instrument. (It’s OK to have multiples in a group.)



FrogWatch USA™

**FROG
WATCH** USA™

FrogWatch USA™ is a citizen science program of the Association of Zoos and Aquariums (AZA). Community volunteers help scientists collect information on frogs and toads throughout the United States. Volunteers visit local wetlands during specified times and seasons to listen to the toads and frogs calling. They identify individual species, rate their calling intensities, and submit observations to a national database. Data dating back to 1998 are available online for analyses to support the conservation of amphibians and their wetland habitats.

aza.org/



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4. Play. Bring the whole group together and have everyone play their instruments at the same time. It's a lot of noise! Have everyone play their instrument again, this time closing their eyes (with adults acting as monitors) and trying to find their same species of frog or toad. Can the same species find each other?

POINTER: If you have a large group you can split it in half, but make sure that everyone has a match in their half.



5. Discuss. Was it hard to find another frog or toad of the same species? How do you think scientists use frog and toad calls to monitor the population's health?

6. Challenge. Have two girls leave the room. (They will be the citizen scientists.) The rest select the number and types of frogs or toads that will be calling. Invite the citizen scientists back into the room, blindfold them, and then play the chosen frog and toad calls. Can the citizen scientists identify the species, number of individuals calling and assign calling intensities to each species? What methods did they use for identification?



Watch Laura and the SciGirls look for frogs and toads on the *SciGirls Participate DVD*. (Select **Frog Whisperers**: Mentor Moment.) ⁷

Mentor Moment

Laura Seger works in environmental education at the St. Louis Zoo. When she was young, she spent her free time searching for toads, helping injured birds, and building elaborate crayfish cities. Laura loves spending time in nature and has even taken two groups of teen volunteers to the rainforest for a week. Her favorite animals are the ones that are often feared or disliked (sharks, bats, and snakes). She's on a mission to see every reptile and amphibian species in Missouri.



1-7 See **SciGirls Seven** strategies on page 3.