## Mission Mandate/Project

## Connection:

Science and Technology/NatureSpace

## Project Skill:

Youth will learn to recognize four different species of frogs in Wisconsin by their song.

## Life Skills:

Learning to Learn

## Audience:

4-H youth of all ages

## Time:

20-30 minutes

## Supplies Needed:

- Film Canisters
- Materials to fill canisters
- Frog songs
- Plastic combs
- Rubber bands
- Jingle bells sealed in envelope
- Balloons
- Plastic jars
- CD with frog songs or link to internet http://dnr.wi.gov/org/caer/ce/eek /critter/amphibian/frogident.htm


## Do Ahead:

- Fill canisters
- Set up materials at stations
- Prepare frog pictures: http://dnr.wi.gov/org/caer/ce/ee k/critter/amphibian/frogident.ht m


## Youth Roles:

- Lead introductory activity
- Lead the "Change Game"
- Guide 4-H'ers at stations


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## BACKGROUND

It isn't necessary to be able to "name" everything to enjoy nature - it isn't even possible. Not even experts can do that! For example, in the United States alone, we have 91,000 different kinds of insects that have been named. But scientists estimate that there are 73,000 that haven't even been given names yet.

It is fun though, to understand the basics
 about different kinds of plants and animals, and to be able to identify some of the things that you come across in nature. In this lesson, we will focus on FROGS.

In Wisconsin, we have 12 species of frogs. Every year, volunteers do FROG AND TOAD SURVEYS. How do the volunteers conduct the survey? By listening to the frogs as they sing to find their mates!

The surveys are done in the spring of the year to get an idea of how the frog population is doing. Frogs have been found to be barometers of the health of an ecosystem.

This activity plan is suitable for all 4-H settings: 4-H afterschool, SET clubs, 4-H camp, and 4-H community clubs.

## WHAT TO DO

## I. Introductory activity

In this activity, youth will use their sense of hearing to pair-up with others.

To prepare for the activity, fill film canisters (in twos or fours, depending on the size of your group) with different materials: sand, tiny rocks, plastic buttons, dried beans, tiny sticks, bells, etc. Direct each camper to shake his or her canister and find ONE other youth who has the same material in his or her canister. After each youth has found their match, begin a discussion of how frogs find other frogs of the same species.

## II. Exploring Frog Songs

In this activity, there will be five activity stations. There should be one station for each type of frog, with materials at each station for $1 / 4$ of the group. Each station will have a sample of one type of frog song (one option is to have the songs on a CD), along with pictures of the amphibian. Laminate a picture of each kind of frog for its station.

To begin, demonstrate the technique in making the frog song at each station. Remind participants that all frogs of the same species "sing" the same song. Rotate stations simultaneously.

## Station ONE

Northern Leopard Frog
Call: a snoring sound - with some squeaks mixed in. (Rub your fingers across an inflated balloon/wet palm over balloon).

## Station TWO

## Western Chorus Frog

Call: This tiny frog is LOUD. (Run your thumb over the teeth of a good, quality plastic comb)

## Station THREE

## Green Frog

Call: pluck of a banjo string. (Jar banjo - cover jar mouth with balloon, secure with rubber band the LONG way around the jar, pluck rubber band so that it hits balloon)

## Station FOUR

## Spring Peeper

Call: sleigh bells (Gently shake jingle bells in an envelope)

## ENCOURAGING YOUTH LEADERSHIP

Encourage new youth leaders in the planning and setting up of this activity. Experienced youth leaders can direct the activity, and lead the processing.

## TALK IT OVER

## Reflect

- What was this activity like for you?
- What was easy about it?
- What made it difficult?


## Apply

- Each kind of FROG or TOAD has their own special sound. Why do you think that is?
- How might knowing frog and toad songs help a biologist do his or her job?


## ENHANCE THE ACTIVITY

## Name that Tune!

After completing the song stations, listen to songs as a group to see if they can recognize the songs.

## Frog Chorus

Have each youth pick a frog song, get the materials, and join the chorus. Try the chorus a few different ways --all the similar "frogs" grouped together; all mixed together.

## Frog Hunt

Take the group on a Frog Hunt - checking likely spots for frog activity. Don't forget to LISTEN! You now know how to find frogs - by their calls. Don't forget to point out other interesting things you may see along the way!

Note: Establish guidelines prior to the Frog Hunt (everyone stays together, no throwing things in the water (scares frogs!), etc.).

## The Change (Metamorphosis) Game

Background Note: Amphibian means "double life" which refers to the fact that all amphibians return to the water to lay eggs, even ones that mostly live on land like the toad. In the spring of the year, the frogs and toads return to water and start singing for a mate. The eggs are laid in the water, the tadpole hatches, and eventually turn into a frog. The tadpole stage is pretty interesting because as the tail is absorbed, the legs begin to grown and lungs develop. The intestines also change and become shorter - accommodating a frog's meat diet as opposed to a tadpole's veggie diet. This process of change is referred to as metamorphosis.

There are three levels in this game, just like in the life cycle of a Frog: Egg, Tadpole, and Frog.

Here are the basic rules: "Rock, paper, scissors" to determine WIN or LOSE. If you WIN, you metamorphose, if you LOSE, you de-grow (regress a step). How will we know what you are? You will "act" the particular stage you are in:

Egg:
Hands over head, making an egg-shaped circle
Tadpole: Hands, palms together, making swimming motion
Frog: A graceful HOP
HINT: Stop the game while everyone is still having fun!


## ENHANCE by adding an additional category:

Tadpole 2: Hops (tiny little hops) while gasping (trying out new lungs).

## Frogger

Have the group sit in a circle, with eyes closed tightly. Tap one person on the head; they are FROGGER. The FROGGER's job is to stick his or her tongue out at people and "freeze" them. Choose one camper to be DETECTIVE. It is his or her job to "catch" the FROGGER. The campers who have had the FROGGER stick his or her tongue at them, should freeze 10 seconds
after the FROGGER has stuck his tongue out at them. The DETECTIVE gets THREE tries before being replaced.

## ADDITIONAL WEB LINKS

American Indians and Frogs
Make a Cultural Connection! An American Indian legend related to frogs can be found at http://www.firstpeople.us/FP-Html-Legends/TheFrogsandtheCrane-Unknown.html

