

**Urbana Park District  
Anita Purves Nature Center**

NATURALIST IN THE CLASSROOM: **WHO-O-O KNOWS?**

**TEACHER'S GUIDE**

Grades: **any**

Program Length: **1 Hour**

**Focus Concept:** *Owls are birds that are specialized for hunting and fill an important ecological niche.*

**OBJECTIVES:** Students will

1. Distinguish the difference between owls and other birds.
2. Describe at least two adaptations which help owls survive.
3. Define owls as predators.

**Common Core Standards Correlated**

Area	Strand	Standard	Standard Numbers
English Language Arts	Speaking/Listening	Comprehension/Collaboration	1.SL.1,3,6 2.SL.1,3,6 3.SL.1,3,6 4.SL.1,2 5.SL.1,2
English Language Arts	Language	Conventions of Standard English	1.L 1 2.L 1 3.L 1 4.L 1 5.L 1
Mathematics	Measurement & Data	Math Content	2.MD A

**Next Generation Science Standards Correlated**

Physical Science	Life Science	Earth & Space Science
	1-LS-1, 1-LS3-1 3-LS4 4-LS1-1	

**Illinois Learning Standards Correlated**

Learning Area	Goal	Standard	Benchmark
Science	11	A	1b
	12	A	1a,1b
		B	1a,1b,2a,2b

**OUTLINE OF ACTIVITIES:**

- Owl/blue jay comparison
- Meet the screech owl
- Owl sizes
- Owl calls
- Owl sound-off

## Owl sense comparison

**PROGRAM NOTES:** Please have a yardstick or meter stick available for the owl sizes activity.

The activities listed below are intended to provide ideas to be used before and after the program presented by Nature Center staff. Some are more appropriate for older or younger students. Feel free to adapt activities to match your students' ability level.

### SUPPLEMENTAL ACTIVITIES

1. Read books about owls. Read books to the class, or have students select books to read.
2. For younger students, review the characteristics of birds. The naturalist will be discussing how these characteristics are specialized to fit the owl's role in nature.
3. Tell the students that there are many species of owls living in a variety of habitats and filling an important role there. Have each student choose an owl to research and prepare a report. Compare and contrast the different owls chosen.
4. Have students take on the character of an owl and write a story from the owl's point of view. Or have them write poems or plays to act out.
5. For older students, discuss the fate of owls, such as the spotted owl, in the face of logging interests. Debate both sides of the issue. Should logging companies be allowed to continue cutting down the forests, thus providing employment to many people? Or should the forests be protected for the owls and other wildlife and plants? Is there a compromise?
6. Collect pictures of owls, owlets, and owl nests and create a mural or bulletin board. If desired, include other raptors (hawks, eagles) for comparison.
7. **Owl Pellets:** Have the students dissect an owl pellet to determine what the owl ate. Owl pellets are undigested balls of fur and bones which an owl coughs up about 12 hours after consuming a meal. Although they have not passed through the owl's digestive system, pellets are clean of all flesh and virtually odorless. After a short drying period, they can be easily and safely handled. The bones, once separated from the pellet, can be sorted and laid out to form as complete a skeleton as possible, and glued to a posterboard for display (see [Project WILD](#), "Owl Pellets"). Owl pellets are available for classroom study from Carolina Biological Supply, and from Creative Dimensions, P.O. Box 1393, Bellingham, WA 98225.
8. **Quick Frozen Critters** (See [Project WILD](#), "Quick Frozen Critters"): This activity illustrates some of the dynamics of predator-prey relationships. You will need a large playing area or gym. Designate one end of the area as the "permanent shelter". Designate the other end as the "food token area". Spread 50 poker chips, dry pasta pieces, or small squares of paper in the food token area. Place several hula hoops or carpet squares in the middle, representing "temporary shelter". Choose several students to be owls. The remaining students are mice. The mice begin at their permanent shelter. They must run down to the food token area, pick up **one** food token at a time, and return to their permanent shelter without being tagged by an owl, who is roaming in the area between the

food tokens and the permanent shelter. Mice are safe from being tagged if they are in a temporary shelter or if they “freeze” and don’t move a muscle. However, mice must collect three food tokens in order to survive, so they can’t stay in shelter or frozen forever. Owls must tag two **moving** mice to survive. Captured prey are removed to the sidelines to wait for the end of the round.

9. **Oh, Deer** (See [Project WILD](#), "Oh, Deer!"): Adapt this game to focus on an owl's need for food, water and shelter in order to survive. You will need some graph paper to visually chart the population of owls. Begin with 1/4 of the class acting as the owls, and the remainder of the class acting as the three essential components of habitat. Mark two parallel lines on the floor/ground, 10-20 yards apart. The owls stand behind one line and the habitat components face them, standing behind the other line.

For each round of the game, each owl will decide if he/she will seek food, water or shelter; each habitat component will decide to become food, water or shelter. All students turn their backs to the opposite group, and place their hands in a position to show their choice:

**Food:** hands over stomach

**Water:** hands over mouth

**Shelter:** hands over top of head

Count the number of “owls” at the beginning of the first round and mark this number on graph paper.

At the leader's signal, students turn to face one another, and the owls walk or run to the habitat line to get their needed component. ***The owls and the habitat may not change their hand position after turning to face each other.*** If an owl's hands are in the same position as those of a habitat component, the owl may tag that person and take him/her back to the owls' line (that owl survived and multiplied). Any owls who cannot match up with a habitat component “die” and stay in the habitat line. When more than one owl reaches a habitat component, the one who gets there first survives. Count the number of owls at the end of round one and mark this on the graph paper.

Play several rounds (many groups of students will maintain enthusiasm through 15 rounds!), and graph the owl population over the “years” to show that it will fluctuate depending upon drought, food abundance, overly high population, etc.

10. **Owls and Crows** (See [Sharing Nature with Children](#)): This is a running game which serves as a review of the facts learned about owls after the program. Divide the group into two equal teams, the Owls and the Crows. (In the natural world, crows sometimes mob owls and drive them away, great-horned owls sometimes catch and eat crows.) Line up the two teams facing each other, about four feet apart. About 15 feet behind each team, draw another line for that team's Home Base. The leader makes a statement aloud and if the statement is true the Owls chase the Crows, trying to tag them before they reach home base. If the statement is false, the Crows chase the Owls as the Owls attempt to reach their Home Base. Anyone caught must join the other team. When the action after each statement has calmed down, the leader can reveal the correct answer if some students are unsure. Play until all players are on one team or until you wish to stop.

11. **Guided Imagery: “The Night Hunt”:** (Read Slowly, allowing students time to imagine.)

We are ready to begin...Get in a comfortable position in your seat and don't worry about who is sitting near you...You will all have your eyes closed. Do your best to imagine the things I will describe.....Okay, close your eyes.

You are a great horned owl...You are standing on a branch close to the trunk of a tall pine tree...Your brown and gray feathers blend in with the color of the bark...The sharp claws on your feet help you to grip tightly to the branch as your large, golden eyes stare down into the darkness...You have not eaten in four days and you are very hungry...

It is a cold December night, and an inch of snow lies on the ground...Your thick feathers keep you warm...You stand perfectly still on the branch, listening for any sound in the quiet night...Suddenly, you hear a soft rustle on the ground...Your hearing is so good that you know just where the sound is coming from...You lift your broad wings and silently take off from the branch...Your wings make no noise at all as you fly toward the sound on the ground. As you fly closer you see the quick movements of a small animal...You stretch your strong feet and claws out in front of you and reach toward the animal.....

Imagine what happens next...You may open your eyes.

(Discuss the students' experiences. Find out what kind of animal they attacked, and how many were successful. Talk about how the students feel about animals who are predators.)

#### **ADDITIONAL RESOURCES:**

The Nature Center has available two Birds Educational Loan Boxes. These boxes are filled with books, pictures, specimens and an Activity Guide. Birds 1 is for K-2<sup>nd</sup> and Birds 2 is for 3<sup>rd</sup>-5<sup>th</sup>. A Bird Nest loan box is also available. Call us at 384-4062 for more information.

#### **BIBLIOGRAPHY**

##### **Activity Resource Books**

Braus, Judy, editor. Ranger Rick's Naturescope: Birds, Birds, Birds. Washington, DC: National Wildlife Federation, 1985.

Cornell, Joseph Bharat. Sharing Nature With Children. Nevada City, CA: Ananda Publications, 1979.

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##### **Science and Natural History Information**

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Parnall, Peter. The Daywatchers. New York: McMillan Publishing Co., 1984.

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Many additional children's books about owls are available at the  
Champaign and Urbana Public Libraries

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