

Rappin' with Raptors

Welcome to the natural world of Fontenelle Forest and Neale Woods Nature Centers! Below is a guide to pre and post field trip activities that you can do with your students either indoors or on your school grounds. These activities will greatly enhance your students' field trip experience and are also a lot of fun!

We look forward to your students' arrival and are excited to provide them with a fun and educational experience. If you have any questions, please call us at 731-3140.

Suggested Grade Level(s): 3rd-6th, potentially Junior High

Program Objectives:

- Students will be introduced to the term "raptor" and will learn about a raptor's physical characteristics.
- Students will be introduced to the different categories of birds classified as raptors.
- Students will get an opportunity to meet live raptors and learn about their specific traits and habits.

Pre- and Post-Trip Activities

Create-A-Bird

Concept: Students will learn about bird adaptations by creating an imaginary bird, defining its physical adaptations (type of beak, claws, coloration, etc.) and behavioral adaptations (what it eats, how it eats, how it moves, how it reproduces, etc.).

Suggested Timing: Pre-Trip

Time: 1 hour

Location: Indoors

Materials: Various craft material—the more variety the better (construction paper, yarn, pipe cleaners, markers, crayons, glue, toothpicks, crepe paper, pompoms, and paper lunch sacks). If you are creative in the materials you choose, the students will be creative too!

Procedure: Define physical adaptation and behavioral adaptation for your students.

- **Physical Adaptation:** special parts of an organism's body that help it to survive in its habitat (color, shape, body coverings).
- **Behavioral Adaptation:** special ways in which an organism behaves to survive in its habitat (running, flying, hunting, nest building).

Have the students list specific types of physical and behavioral adaptations of birds. On a board, create two columns (Physical Adaptations and Behavioral Adaptations) and list their responses. Answers might include feathers, flying, beaks, claws or talons, hunting, good eyesight, webbed feet and camouflage. How does each of these help the bird survive?

Explain that the students, either as individuals or in small groups, will create their own original bird. The bird must be properly adapted to its environment. Remember this does not need to be based on a real bird or a real type of habitat. Let the students be creative! Each student, or group, should decide:

- Where the bird will live
- What it will eat
- How it moves

- Its gender
- How it raises its young

Have the students list the adaptations their bird will need to survive. Using this list, students will create their own bird by drawing or creating a 3-Dimensional art piece. The students should write a short description of their bird, including its name, food sources, habitat, and lifestyle. For each description, add a list of adaptations, the reasons for these adaptations, and the advantages provided by the adaptations, which help the bird succeed in its habitat.

A Bird's Eye View

Concept: Students will understand the importance of depth perception.

Suggested Timing: Post-Trip

Time: 30 minutes

Location: Indoors

Materials: tennis balls or Frisbees, empty plastic bottles (one-liter size), pictures of prey (ie. fish, rabbit, other birds, etc.), tape

Procedure: Define the term Raptor to the students.

- Raptor: also known as a Birds of Prey, these birds have strong feet with sharp claws (talons) used for piercing flesh and curved beaks used for tearing meat.

Explain to the students that all birds have excellent eyesight, two to three times better than we do, but raptors have up to eight times better eyesight than us! Raptors also have great depth perception which enables them to tell exactly how close or far away their prey is. A predator's depth perception is made possible by its binocular vision.

- Binocular Vision: seeing an object with both eyes at the same time.

Most prey animals have monocular vision. (Their eyes are on the side of their head, seeing the world one eye at a time, and therefore they do not have very good depth perception. This does however enable them to see almost all the way around them, therefore keeping an "eye out" for predators.)

Part I: Depth Perception

Tell the students to shut their right eye. Now have them hold up a finger at arms length so that it is covering an object across the room. Without moving the finger, they should open their right eye and shut their left. What happened? Did the finger look like it changed positions? Most people say "yes." Finally, they should open both eyes when looking at their finger. When they see their finger with both eyes, they are seeing its true location due to their sense of depth perception.

Part II: "Eye" See You

Prep Work: Create targets that students will aim for when throwing a ball or Frisbee. Targets can be made out of plastic (1-liter bottles). Tape a picture of prey (ie. fish, rabbit, other birds, etc.) onto the side of the bottle. Tape a line on the floor to use as your throwing line. If you want to make it more challenging have the bottles at varying distances.

1. Ask the students to stand at the line.
2. Have each student pick what kind of raptor they want to be.
3. Tell the students that they are hungry and must catch their meal. They do not eat unless they are successful in hitting it!
4. After the students have all had a chance, you can make the game more challenging, and show how important depth perception is, by telling them to close one eye and throw the ball or Frisbee.

Resources

Cornell Lab of Ornithology. Home page. 14 January 2008 <<http://www.birds.cornell.edu/>>.

Cornell Lab of Ornithology. Bird Sleuth. 14 January 2008
<<http://www.birds.cornell.edu/birdsleuth>>.

Peregrine Falcon Watches in Nebraska:

Woodmen of the World. Falcon Watch. 14 January 2008

<<http://www.woodmen.org/falcons/pages/woodmenfalcons.cfm>>. (Omaha, NE)

Nebraska Game and Parks Commission. Peregrine Falcons at Nebraska's State Capitol Building. 14 January 2008 <<http://www.ngpc.state.ne.us/wildlife/falcon.asp>> (Lincoln, NE)

Raptor Recovery Nebraska, Inc. Home Page. 14 January 2008
<<http://www.raptorrecoverynebr.org/>>

Laubach, Christyna M. and René, and Charles W. G. Smith. Raptor!: A Kid's Guide to Birds of Prey. North Adams, MA: Storey Books, 2002.