

Investigation Nine - Bird Study

Standard V Students will understand the physical characteristics of Utah's wetlands, forests, and deserts and identify common organisms for each environment.
Objective 4 Observe and record the behavior of Utah animals.
Intended Learning Outcomes 1. Use science process and thinking skills

Standard
V
Objective
4

Background Information

Birds are a group of animals with very specific characteristics. They are warm blooded, have feathers, hollow bones, and lay eggs. All birds have wings, but not all birds fly. They all have beaks, but often different types of beaks, determine the kind of food it eats.

Common birds in Utah include the red-tailed hawk, barn owl, lark, robin, pinyon jay, magpie, and crow. There are also many other birds that live here. There are the thousands that migrate through Utah on their journeys to warmer climates, or those returning north in the spring. This activity not only helps students learn about specific bird characteristics, but also make them more aware of the ecosystems that support each bird. Students will practice using binoculars and identifying various birds by color, size, and physical characteristics.

Pre-Assessment/Invitation to Learn

Play "What Am I?" to introduce this activity. Give a description of a locally common bird, one part at a time, and have the students try to guess what you are describing. Don't tell them that you are describing a bird (e.g., "The chin is black," "The chest is yellow," "Favorite food is sunflowers," "Enjoys winter in South American").

Instructional Procedure

1. Discuss the characteristics all birds share and what types of ecosystems they live in.
2. If possible, provide each student with a pair of binoculars (see additional resources). Have students take the binoculars out of the cases and experiment with how they work. Show them how to focus the image. Encourage peer teaching if some students have used binoculars previously. After investigation, each student should be able to adjust the eyepiece and focus. Emphasize that these are expensive pieces of equipment and help the class develop a set of rules for using the binoculars and penalties for misusing them.

Materials

- Chart of a bird with labeled parts
- Binoculars
- Numbered flash cards for teacher
- Pictures of Utah birds

3. Use a set of cards with small letters and numbers printed on them to have binocular speed quizzes. To pass the quiz, a student must take a pair of binoculars that is out of focus and set for a wrong eye width and adjust them so that they can read the card in five seconds or less. This activity can go very quickly if a relay game is set up. It is also a good time to practice the proper precautions in handling the binoculars.
4. Discuss some of the variety of bird species that are found in your area. Show pictures of these birds and discuss their behavior. (Use pictures from the sources given.)
5. Show the pictures one at a time and have the students practice focusing the binoculars on the bird and identifying its name. As each is named, review the colors, and beaks that help identify the bird.
6. Repeat the last activity, but this time have the birds fly through the air. (Take each card and have it pass in an arc through the air for about five seconds.) This will help students learn to focus their binoculars quickly. Most birds are constantly moving to stay away from predators and look for food, so this behavior will occur when students move to the neighborhood for practice.
7. Now we are ready to stalk those birds! With permission from your principal and prior arrangements, begin direct observation and recording of birds and their behavior. Be sure to set up ground rules for behavior and respect for people's property. If students know that the class will come in immediately if these rules are broken, behavior is much more appropriate.
8. After several days of bird walks, take a special mapping walk. Help students draw a map of the area by providing them with a handout with the blocks around the school outlined. As you walk, draw in landmarks and use symbols to show the locations of birds and nests that you have found in the area. Keep the map up-to-date by adding newly discovered nests and birds by recording the activity in and around the same area. Develop a map key to use on this sheet.

Curriculum Extensions

Math-

- Create maps of neighborhood bird recording activity. (Standard III, Objective 2)
- Place bird feeders in areas around the school that are visible to students and have them record species and number of birds that visit. (This can be done very successfully with the Cornell Feeder Watch Program.) (Standard V, Objective 1)

Science-

- Visit a nearby habitat and practice identifying birds. If possible, visit two different ecosystems, such as a freshwater wetland and the Great Salt Lake. Compare the birds that live in each. Do they have different adaptations to survive in that environment? Do they eat the same food? (ILOs 1,4)

Assessment Suggestion

- Have cooperative learning groups create posters of bird characteristics or species. Use a rubric that will outline information students need to have for their poster. Have each group share in the creation and presentation of the poster. Display them in the classroom.

Resources

There are several agencies that have sets of binoculars available for checkout in many areas of the state. Some of these are:

- Utah Society for Environmental Education (USEE) 328-1549
- Utah Audubon Society
- Division of Wildlife Resources/Project Wild
- National Park Service
- Forest Service
- Bureau of Land Management

Websites:

- www.nhm.org/birds - has many lessons, ideas and worksheets on birds.

Homework and Family Connections

- Have students take home a handout so that they can teach their parent about birds.
- Encourage families to practice the proper behavior for bird watching together at home. Take a “quiet” walk and see how long they can go without talking. Sit and record ten things they hear in nature and ten things they hear that are man-made.

Word Map

What is it?

What is it like?

Examples?

Word Map

What is it?

What is it like?

Examples?