



*Western Upper Peninsula Center
for Science, Mathematics and Environmental Education*

A partnership of

Copper Country & Gogebic-Ontonagon Intermediate School Districts and Michigan Technological University
Serving schools and communities in Houghton, Baraga, Gogebic, Ontonagon and Keweenaw Counties

Birds in Spring!

Grade 5

Duration: 1-2 hours

Summary: Spring is a busy time for birds. They are migrating North, mating, building nests, eating lots of food and sharing it with their young. Students will listen and look for birds, learn to identify some common birds, and play two games---one on migration obstacles and the other on bioaccumulation.

Objective: Students will be able to:

1. Identify 10 common birds found in the Copper Country.
2. Demonstrate how birds help cycle nutrients through ecosystems and how poisons in the food chain affect predators
3. Describe some obstacles to migrating birds.

Materials:

Bird ID data sheet

Clipboard

Pencil

Binoculars

Stuffed Birds (make bird sounds)

Field Guides for Michigan Birds

Food Chain Toxic Tag poker chips

Migration Obstacle signs – cell phone tower, loss of resting/stopover places due to housing or commercial development

ACTIVITIES

Bird ID by Sight (30 minutes)

How many different bird species (in the area) can you name? There are over 300!
Have the students name different bird species until they get at least 10.

Pass out stuffed animal birds, one per group. Have the students look up the bird in an ID book and fill out the ID data sheet.

Explain the importance of being descriptive. After the students fill out the form, collect them, and place the birds together in a central area where they can be seen by everyone. Pass the data sheets out, giving them to different groups. The groups should use the data form to match it up with the bird it belongs to. The more descriptive the data sheet, the easier this will be.

Bird ID by Sound – 10 Common Bird Songs

Mourning Dove “cooo, cooo, coo,” sounds mournful

Black-capped Chickadee “chick-a-dee-dee-dee; chick-a-dee-dee-dee ‘

White-breasted Nuthatch “yank, yank”, very nasal

Eastern Phoebe “fee-be” nasal

Eastern Wood Pewee “pee-a-wee”

American Robin cheer-up, cheerily, cheerily, cheer-up”

Ruby-crowned Kinglet “see'see'see*see, here'here'here, look-at-me, look-at-me, look-at-me”

Yellow Warbler “sweet, sweet, sweet, summer, sweet”

White-throated Sparrow “O sweet Canada, Canada, Canada” or “ol Sam Peabody, Peabody, Peabody”

Ovenbird * tea-cher-tea-cher-tea-cher-teach” rising in volume

Bird Walk (10 minutes)

Teach students how to use the binoculars.

Lead the students on a walk to observe and listen for birds.

Students will work in pairs, taking turns with the clipboards and binoculars.

Food Chain Tag/Bioaccumulation Game (20 minutes)

Insects, fish, small birds ► Birds ► Hawks or owls

The bioaccumulation game uses a game of tag to demonstrate how birds and other animals at the top of food chains are often the species most affected by toxins in the environment.

1. Select two students who are ‘it’ to represent ‘predatory birds,’ such as hawks or owls. The rest of the students are “prey,” for example, insects, fish, or smaller birds.
2. Give each “prey” student a token or checker to hide in their hand or pocket. Start by giving most of the students “normal” tokens (green and blue). Explain that there are also “poisoned” tokens (yellow), and that a “predator” “dies” after collecting too many of them. Select an amount of “toxic” tokens and tell students what that number is.
3. When “prey” are tagged, they must give their tokens to the predator. They can return to the game only after they get a new token from you.
4. As “prey” return to the game, introduce “poisoned” tokens. Gradually increase the number of “poisoned” tokens as the game progresses.
5. Make certain to set a consumption rate for the “predators” –a certain number of times they need to “eat” per minute. When predators get a certain number of “poisoned” tokens, they must “die” and leave the game.
6. Tell students to observe how predator birds ingest so much poison that they become sick and die.

Bird Migration Obstacle Game

Brockway Mountain in the Keweenaw and Hawk Ridge near Duluth are migration hotspots funneling thousands of birds each spring and fall. Each fall, Hawk Ridge averages over 82,000 migrating raptors from 1991 to 2010. Not all birds survive migration. Why? Brainstorm a list of potential obstacles.

1. Line students up one edge of the playing field. Tell them that they are migrating birds. Their mission is to safely migrate to the other side of the playing field.
2. Select two students to be obstacles to migration (they will wear the migration obstacle signs). If a student is tagged by a migration obstacle they have to go back to the starting line and wait until the next year for migration.
3. Repeat the game (a new year) adding more migration obstacles each time.

Learning Assessment

1. How are predators affected by toxin accumulation?
2. Explain how DDT affects birds' eggs.
3. Name 10 birds that live in this area?
4. What are some obstacles to migration?