

Summary of Activity

Grades: 2 to 4

Time: 1hr

Theme: Birds, habitats, land use (soil), pollution

Description: Role-play birds migrating across wetlands.

Overview

Students will understand the importance of wetlands for bird migration and how human interaction with wetlands can affect bird populations.

Ecoliteracy learning outcomes

- Seeing how everything in nature is connected (wetlands and wildlife)
- Recognizing and minimizing people's unintended environmental consequences
- Limiting resource use and waste production
- Understanding better the complex issue of bird migration and changes in land use

Materials

- 8 pylons
- 10-15 hula hoops
- 10-15 jump ropes
- Print out of activity cards
- Small plastic bags
- Small stones/weights

Pre-activity discussion

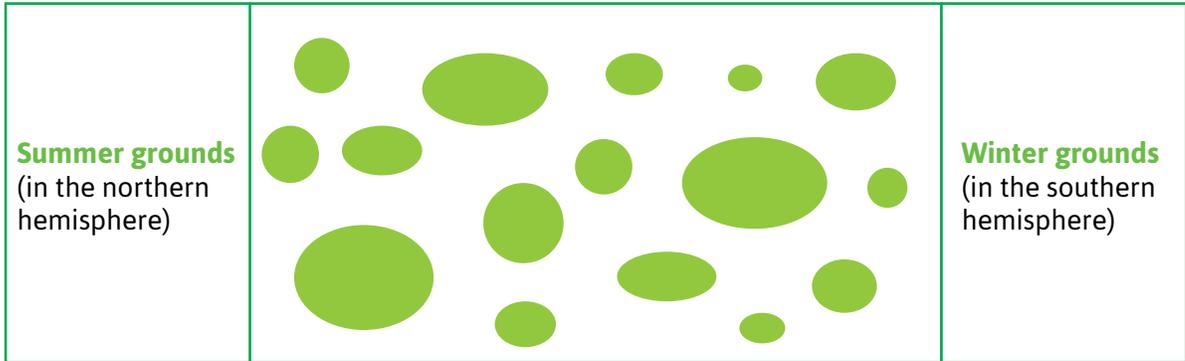
1. Ask students about any nearby wetlands.
 - A. How big are they?
 - B. How have they changed in size?
2. Discuss why wetlands are important
 - A. They are "pit stops" for migrating birds.
 - B. They are like giant sponges – they absorb and release water, which prevents flooding
 - C. They filter pollution, nutrients and toxins out of water.
 - D. They provide a habitat for many plants and animals
3. Why do birds migrate?
 - A. For food.
 - B. For a more favourable climate.

Set-up

1. You will need a large area either in the gym or on a field. Use pylons to mark out the two end-zones. One end-zone is the bird wintering ground and the other is the summer grounds. The birds must migrate from one end to the other. Place hula hoops or jump ropes in circles between the winter and summer grounds. Each circle is a wetland. Make differently sized circles to represent wetlands of varied sizes. Put one Wetland Description Card in each circle. (Note: Place in a small plastic bag to keep it dry. Use rocks or weights to stop it from blowing away.)



WETLAND BIRD MIGRATION



Rules

1. Students will pretend to be a migratory bird and navigate from summer to winter grounds and back.
2. They can only stop in the wetlands. Any other area is unsafe. (Birds that don't make it to a wetland die, because there is no food or it is too dangerous.)
3. Students can take no more than five (5) steps (equals one day of flight). The steps can be as big or as small as they want.
4. Students need to have both feet in the wetland they stop at. Each wetland (hula hoop/jump rope) can hold between one to five (1-5) students.
5. Each wetland has a card with a description of the wetland. Students read the card when instructed.

Doing the activity

Step 1: Winter to summer grounds

1. Have all the students start in the winter grounds. Line them up along the length of the play area.
2. Tell them to each take five (5) steps (no running). As the students are taking their steps, some will need to change direction because the wetlands are filling up. Students should keep track of the order they arrive in the wetlands.
3. After everyone has taken their 5 steps, any students not in the wetlands are "dead" and must line up at the side of the course.
4. In each wetland with a student, have one person read the Wetland Description Card. The students must follow the directions on the cards (some will "die" and move to the side, some can take one more/less step on their next turn).
5. When all the wetland cards have been read, the "birds" migrate again to the next wetland.
6. Repeat Steps 3 and 4 until they reach the summer grounds.

Step 2: Summer Grounds

7. The "birds" that are still alive in the summer grounds will lay two eggs. Two "students" from the sidelines rejoin the migration. "Birds" can only lay eggs once a year in the summer nesting ground.

Step 3: Summer to winter grounds

8. Once the weather changes, "birds" must migrate to the winter grounds.



9. Repeat the same steps as above. Students should start making adaptations to avoid the dangerous wetlands.

Step 4: Wrap-up

10. After the activity is over, discuss with students their patterns of migration. Talk about why they avoided certain wetlands.

11. Have the students write in their science journals about the importance of wetlands, and how their destruction can hurt birds and animals.

Follow-up questions

1. How did you change your migration pattern? (Avoid bad wetlands, aim for good wetlands.)
2. Are there things you can do to protect wetlands?

Extensions

Do the activity again, but this time keep detailed records of the bird population with each migration. Have students write their own wetland cards after researching other ways that wetlands can be affected by both human and natural circumstances.



Earth Day[®]
CANADA

Natural death

A coyote lies hidden in the brush. The third bird in this wetland is eaten.

Natural death

The last bird in this wetland is eaten by a predator.

Climate change

A longer rainy season has greatly increased the number of insects. Eat as much as you like. You may take an extra step on your next turn.

Climate change

There have been very heavy rains in this area and the wetland is flooded. There is some food, but not a lot. The last two birds to arrive find no food and die.

Human development

A new mall is right next to your wetland. The second bird here gets tangled up in a plastic bag and dies.

Human development

The government has decided to build a highway through this wetland. This wetland is destroyed and all the animals in this wetland are killed.

Pollution

The wetland is polluted with toxins. You eat toxic insects and get sick. Take only 3 steps on your next turn.

Pollution

This popular marshy wetland has become polluted by chemicals from the fertilizers local farmers used. It is no longer a safe stopover site. All birds die.

Healthy wetland

There is an abundance of food in this wetland. You may take an extra step on your next turn.

Human activity

You are shot by hunters. The first three in the wetland are dead.

Human development

There is a golf course where this wetland was, and only a small lake remains. The first three birds can land in this area. All other birds die.

Human conservation

You land in a wildlife conservation area. There is plenty of clean food. Take an extra step on your next turn.