



WOW Program Lesson Plan Migration Game

Program Duration:

5-10 minutes

Recommended Grade Levels:

3-5th grades (more reading involved on the cards – younger grades can play if an adult reads the cards)

Materials Needed:

- Die
- Print outs of the migration game squares
Bird Migration Game Squares:
<http://www.birdday.org/pdf/migrationgame.pdf>

Learning Objectives

1. Students will be able to understand the migration process of birds
2. Students will learn what kinds of challenges birds face when they migrate

Preparation

- Visit www.allaboutbirds.org to research birds that migrate
- Visit <https://ebird.org/home> to see migration and distribution of birds from all around the world. eBird is a citizen science project where you can upload your bird species observations. This helps scientists see where birds are distributed and where they migrate

Background

At least 4,000 of 10,000 species of birds are regular migrants (which makes up about 40% of the total number of birds worldwide). In North America, more than 350 species travel to the tropics each fall. The Arctic Tern has the longest migration of any bird in the world – they fly more than 49,700 miles in a year, making a round trip between the Arctic and Antarctic! Migration is a very taxing on birds – it requires a lot of energy and a lot of time to prepare for the journey by consuming a lot of food.

Introduction

Not all birds survive migration, so the question is why do birds migrate to begin with? This is not as easily answered as not all birds migrate. The main reason birds migrate is because of food availability – when winter comes, food is more sparse and hard to find. Migrating to a warmer location will help the birds find food and survive. However, some birds will migrate by instinct without a cue of food or weather – they are called obligate migrants. Other migrants, facultative migrants, will migrate in response to food availability or weather changes. Interestingly enough, if food is available or the weather is not as harsh, the facultative migrants will not actually migrate! An example of this is a Mallard Duck. Chances are, you might have seen them here in Ohio during the winter months for this very reason!

Activity

1. To illustrate how tiring migration can be, have your child (and others in the household) stand in place and practice flapping your “wings” (arms) for 20 seconds. Talk about how that felt. If you had to flap your wings all the way home, could you do it?

Now try standing up and holding your “wings” up for 20 seconds to pretend you are soaring. Was it easier to soar or flap?

2. Alright, now time to see the challenges of migration: Begin by having your child and others in the household who want to play choose a bird they will be on their migratory journey
3. Briefly discuss the birds selected – in the wild, what would it take for that bird to survive migration? (Birds must eat a lot before migrating. Smaller birds might have to make several stop overs to have enough energy to survive the long flight. Some larger birds might not flap their wings as much to conserve energy)
4. To start the journey, have each participant roll the die and begin on the card with the number he or she rolls.
5. Follow the instructions on each card. When conditions are favorable, the card will tell you to move ahead. When you encounter a hazard, you may be delayed or have to go back. Sometimes, you will need to roll a die.
6. *Remember* Not all birds survive migration – so this might be shown in the game. Some will live, and some will die. Fill out the chart at the end of the journey (and if needed, start over if you die early on) to track what bird species survived and which birds did not.

Questions

1. What were some challenges you faced in the game?
2. Did you survive or were you not successful?
3. Why do birds migrate if not all of them survive?

Summary

Bird migration is a regular seasonal movement, often happening from north to south along a flyway between breeding and wintering grounds. Bird migration is considered one of the most astonishing feats in the natural world! As shown by the migration game, the journey of migration can be quite risky, but it is worth the risk for many species. If time is available, the group can talk about some amazing bird migration stories.

Additional Resources & Exploration

Basics of Migration: <https://www.allaboutbirds.org/the-basics-how-why-and-where-of-bird-migration/>

Free downloads from Cornell Lab K-12 Education: <https://www.birds.cornell.edu/k12/free-resources/>

Free resources from the Environmental for the Americas:
<https://www.birdday.org/educate/download-materials>