



WOW Program Lesson Plan Migration Challenge

Program Duration:

20 minutes

Recommended Grade**Levels:**

K-5th grades

Materials Needed:

- Dry pasta or beans in three different colors
- 2 Ribbons or other markers to signify “North” and “South” destinations
- Backyard or large room to move around in

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

- Discuss with your child the changes that fall weather brings
- Talk about the changes they observe in animals; ask them to tell you what they know about migration
- Ask them why they think that birds migrate
- Ask them what challenges they think the birds might face
- Ask them how the bird knows what direction to fly

Background

Fall is a favorite season for many, known for its changing leaves, spooky activities, and traveling birds. Migration describes the process that they go through when they fly from colder Northern regions to warmer Southern regions. Birds migrate for many different reasons including availability of food, type of weather, and type of habitat. They fly at high speeds, with some of them reaching up to 55mph! But migration is not always smooth sailing—birds face plenty of difficulties along the way, and some never make it to their destination.

Introduction

If you look outside, you will notice that your yard looks very different than it did in the spring or the summertime. It is more than just leaves that change—animals go through seasonal changes too! Notice that there are fewer birds out and about than there were earlier in the year. That is because many of them are in the process of migrating South for the winter. Birds know which direction to fly because of a few different reasons. Some of those are the earth’s magnetic pole, the sun and the stars, and landmarks. During this process you will go through your own version of migration just like a bird does!

Activity

1. Separate beans or pasta out by color: one will represent food, one will represent water, and one will represent danger or things in the environment that are dangerous to the migratory birds.

2. Using ribbon or tape, mark which side of the yard or room is “North,” and which is “South.”
3. Set up stopover points along the journey with piles of beans or pasta on plates; make sure that there aren’t too many of “food” or “water” because in real life these resources are limited
4. Have participants (the more the merrier for this activity) start at the North end of the space, “flying” from stopover point to stopover point to gather food and water. They should avoid the danger-colored beans.
5. Once they reach the South, have them reverse and travel back to the start. Notice that there are fewer resources now than there were the first time around.

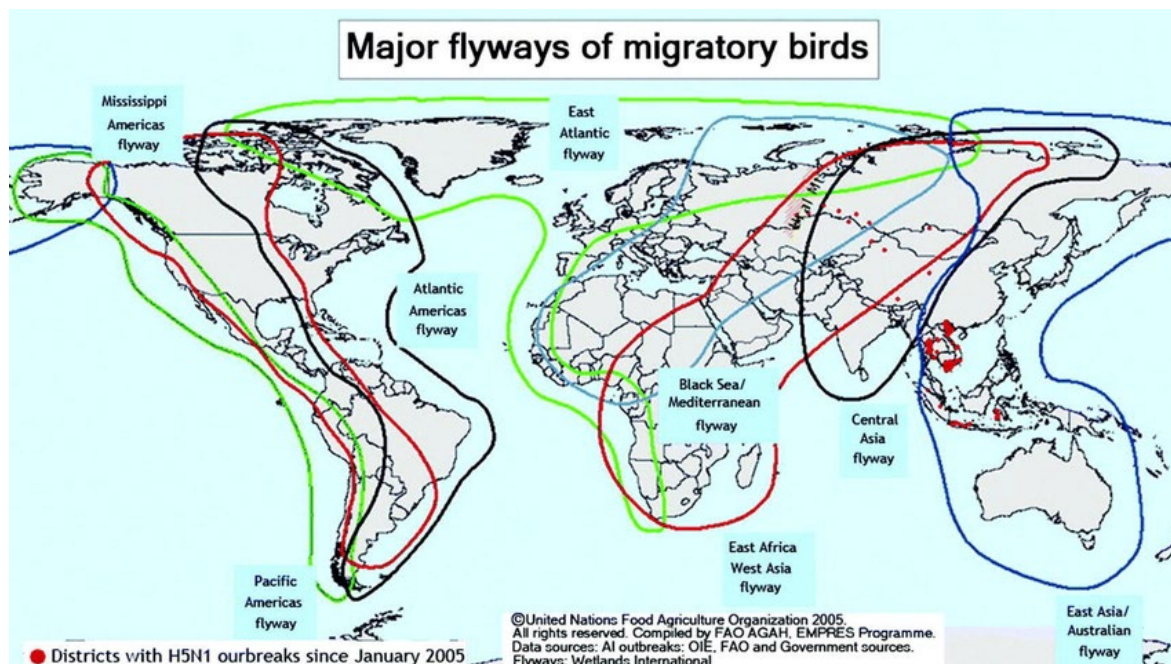
Questions

1. What happened to resources like food and water the second time you passed a stopover point?
2. Based on the game, what makes a good stopping point for a migrating bird?
3. How could you make your own city a better place for migratory animals?

Summary

Every fall when the weather cools, we notice birds migrating South for the wintertime. As mentioned above, this can happen for a combination of reasons including food availability, weather, and habitat needs. The migration experience of every bird is different; some go to further distances and others fly at different altitudes. They encounter challenges along the way like scarcity of resources and manmade obstacles (power lines, predators, too many people around). Today you learned just how difficult a migratory journey is for a bird, and how exciting it can be to make it back home!

Additional Resources



Source: https://www.researchgate.net/figure/Map-showing-the-global-routes-of-migratory-birds_fig14_249057526

How Far Have You Traveled?
Different species of birds migrate different distances ranging from just a couple of miles down the road, to across continents.

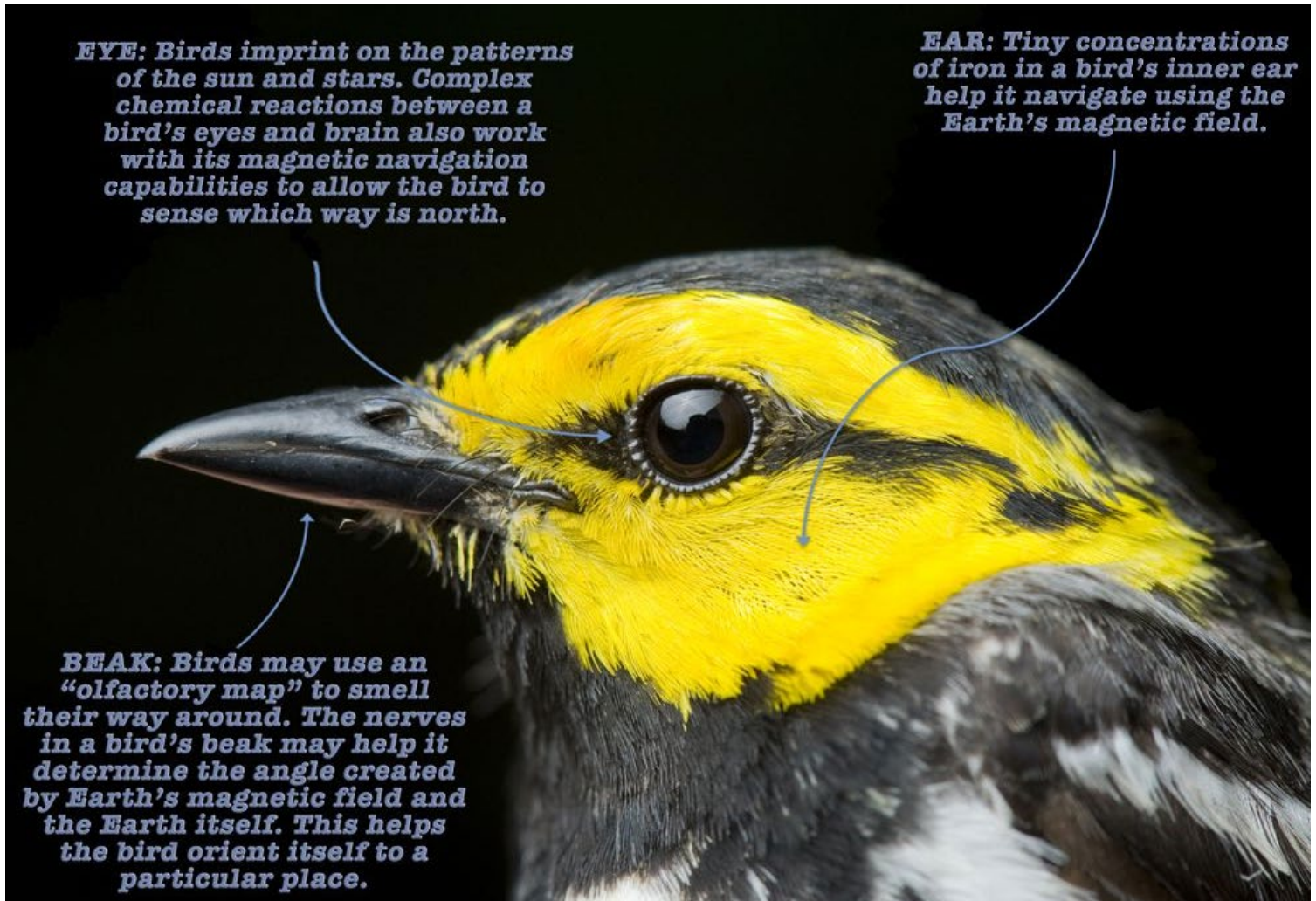
Ornithologists believe migration is triggered by a combination of changes in the

- length of the day,
- temperatures falling,
- depletion of food supplies,
- and genetic predisposition.

The Four Basic Bird Migration Types

- 1 Long Distance Migrants —** will travel distances from Canada and the United States to Central and South America.
vireos, flycatchers, ruby-throated hummingbirds, ducks, geese, swans, tanagers, Blackburnian Warblers, orioles, Arctic Terns and swallows
- 2 Nomadic/Irregular Migrants —** These birds only follow the food.
robins, blue jays, and Clark's Nutcrackers
- 3 Short Distance Migrants —** may travel a few hundred miles or only change elevation by moving up or down a mountainside.
waxwings and American Tree Sparrows
- 4 Residents —** Some birds will stick out the winter where they are, or not travel but only a few miles to reach warmer temperatures
cardinals, chickadees, Downy Woodpeckers, pigeons, doves and finches

Source: <https://pallensmith.com/2016/02/15/four-types-of-bird-migration-types/>



Source: <https://www.nationalgeographic.org/media/how-do-birds-navigate/>