

Details



Completion Time: About one period

Permission: Download, Share, and Remix

Swan Savvy

Overview

As part of a migratory bird study conducted with my bilingual second graders in Washington, DC, the students in my elementary science class spent four weeks getting to know all about birds! We initially focused on birds that migrate from our Mid-Atlantic forests to the tropical forests of Central America (an area where many of them are from). During a discussion about why our birds migrate south, some students began to wonder about birds that spend the winter in our area as an escape from worse winter conditions elsewhere. After consulting Mike Petrula, a biologist with Alaska's Department of Fish and Game, I chose the tundra swan for my students to study. The students participating in this lesson had already "adopted" local birds to become experts on. They had already mapped these birds' journeys south. This lesson built upon that prior knowledge and brought together previous studies of nesting behavior, migratory flyways and the morphology of birds.

Objectives

- Students will be able to list three defining characteristics of tundra swans.
- Students will be able to describe the migratory habits of tundra swans as well as draw their migration path on a map of North America.

Lesson Preparation

1. Prepare materials for "You...a swan!" (Gather sticks, spread moss around room...)
2. Prepare construction paper for kids to cut feet, beaks and lore spots.
3. Trace swan bodies.

Procedure

Hook:

Have students listen to swan vocalizations. Ask them to imagine where they might hear these kinds of calls. Is it

Materials

- Computer with access to the Internet
- LCD projector
- Moss and sticks
- Ping-pong balls (optional)
- Shells and plant material
- Construction paper (yellow, black and white), glue, scissors, white card stock, white feathers
- Large map of North America
- Evaluation Sheet (attached)
- Clue cards for interactive migration mapping activity (attached)

a large bird or small bird?

<http://animals.nationalgeographic.com/animals/birds/tundra-swan/>

Hints:

They migrate in groups. They live in the Arctic. The story of The Ugly Duckling is about a cousin of this kind of bird. Ask for students to share prior knowledge.

Information:

Read National Geographic Kids information about swans as a group, using LCD projector.

<http://kids.nationalgeographic.com/kids/animals/creaturefeature/tundra-swans/>

Active Engagement:

You...a swan! Use your swan savvy to now live the life of a tundra swan.

- Pair up! Swans mate for life (Students get together in pairs).
- Pick a spot to nest. Build a nest from sticks and moss.
- Look for food to bring back to your nest (Students should search around room for shells that represent shellfish, small potatoes that represent tubers and corn).
- Lay babies (Put ping-pong balls in the nest). Students (acting as parents) should then stand guard for foxes.
- Time to migrate! Group with the whole class and form a V.
- Land and rest on the carpet. Tuck your bills under your wings to keep warm.
- Migration Mapping! You swans have now started to migrate. But if you were a swan, where would you go? Track a tundra swan. Use a floor-sized map of the US/North America. Give the kids stopover cards in groups to read. Where do these swans come from and where do they go? Using the clues on the cards, students should add a place-marker to the map indicating a stopover. Students can interactively map the migration path a flock might take (See attachment for clue cards). <http://tundraswanmigration.org/migration.htm>
- Watch video about swans. <http://kids.nationalgeographic.com/kids/animals/creaturefeature/tundra-swans/>
- Look at photograph of a tundra swan. Identify defining characteristics. Make a pet swan to take home. Cut out traced swan bodies, include webbed feet, bill, lore spot (identifying characteristic of a tundra swan)

Extension

Play "Musical Migration". Place pictures of good stopover spots around room. Have students play musical chairs acting as migrating birds. When the music stops, they must find a good resting spot. As game progresses, replace woods and lakes with housing development and shopping mall-type pictures. Discuss: How can development be hard on migratory birds? What can we do to help?

Good music choice: Fly Away by Lenny Kravitz

Resources

Mike Petrula, Alaska Department of Fish and Game

<http://animals.nationalgeographic.com/animals/birds/tundra-swan/>

<http://kids.nationalgeographic.com/kids/animals/creaturefeature/tundra-swans/>

<http://kids.nationalgeographic.com/kids/animals/creaturefeature/tundra-swans/>

<http://tundraswanmigration.org/migration.htm>

Assessment

Assessment worksheet (attached)

What makes a tundra swan special? List three things.

Where do tundra swans live in winter? In summer?

Map the journey a tundra swan might make from Alaska to the Chesapeake Bay.

Credits

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National Science Education Standards (NSES):

Content Standards, Grades K-4

Content Standard C: Life Science

- a. Characteristics of organisms
- b. Life cycles of organisms
- c. Organisms and environments

Content Standards, Grades 5-8

Content Standard C: Life Science

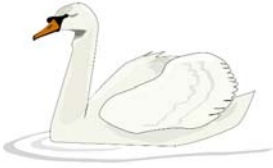
- d. Populations and ecosystems
- e. Diversity and adaptations of organisms

Content Standards, Grades 9-12

Content Standard C: Life Science

- f. Behavior of organisms

Name:



Terrific Tundra Swans

1. What makes a tundra swan special? List three things

2. Where do tundra swans live in winter? In summer?

Summer _____

Winter _____

Map the route that migrating tundra swans take from Alaska to Chesapeake Bay.



Clue cards for interactive migration mapping activity...

- **And they're off! Tundra swans begin a 4.000 mile journey each Fall across the frozen lands of Alaska and Canada making their way to the Chesapeake Bay. Different flocks take different routes. Let's follow a group of tundra swans and see where they might land on their way. Their first stop is in the Northwest Territories. By the time they arrive it is late and they are hungry. They land in Great Bear Lake near Yellowknife. They dive for shellfish and eat roots in the lake's bottom.**

- **The next morning they take off again. Males and female swans are called cobs and pens. This group rests in a park in Regina, Saskatchewan a few days later. Here they munch on plants and rest up, they've still got a long way to go!**

- **Look right above North Dakota to find the tundra swans' last stop before entering the United States. They've made a long journey already, over tundra, forests and cities. When they left Alaska, the brutal winter was setting in. They are about halfway now. They're last Canadian stop is in Lake Winnipeg near the city of Winnipeg.**

- **Welcome to the United States! A farmer in North Dakota looks out on his field to see the swans eating leftover corn from the harvest. Yummy! They are happy for a good snack!**

- **Minnesota is the next stop for these swans! People who live in Minneapolis know that winter is coming when they hear the whistling sound that the flapping wings of the tundra swans make. Minnesota is known as the “Land of 10,000 Lakes”. They should have no problem finding a stopping place here!**

- **An early winter storm grounds the swans for a few days. Luckily they have found a pond with lots of grassy places to sleep and pondweed for munching. They are near Lake Winnebago in Wisconsin now.**

- **In between Michigan and Pennsylvania, the swans find a great stopping place in huge Lake Erie. They rest for a day here before taking off on their final flight before the Chesapeake!**

- **Finally, the journey is over! The swans arrive with a splash in Chesapeake. They will stay here all winter long before returning on the same journey north to have babies. They'll be back next year though!**