Migration of the “Canadian Snowbirds”

Lesson Overview:
Students will examine the seasonal migration of tourists, or “Canadian Snowbirds”, to the southern United States in order to learn about the collection and use of travel statistics.

Grade Level:
Grade 6-8 (Middle School)

Time Required:
80 -100 minutes (Two periods)

Curriculum Connection (Province and course):
Ontario Curriculum for History and Geography Gr. 8 – Migration

Link to Canadian National Geography Standards:
Essential Element #4: Human Systems
  - Human migration patterns (forced / voluntary)

Essential Element #5: Environment and Society
  - Limits and opportunities of the physical environment for human activities

Geographic Skill #4: Analyzing Geographic Information
  - Use statistics and other quantitative techniques to evaluate geographic information

Geographic Skill # 5: Answering Geographic Questions
  - Make generalizations and assess their validity

Link to Statistics Canada data source:
Students will be required to access the tables at the StatCan website to test their predictions.

Additional Resources, Materials and Equipment Required:
  - Student worksheet “Migration of the Monarch Butterfly”
  - Computers and access to an Internet connection in a lab or at home

Learning Outcomes:
By the end of the lesson, students will be able to:
  - Recall the two meanings of ‘migration’ in geography
• Explain the meanings of ‘push’ factors, ‘pull’ factors and ‘barriers’ in migration
• Access the EStat database to obtain statistics

The Lesson:

<table>
<thead>
<tr>
<th>Teacher Activity</th>
<th>Student Activity</th>
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<tbody>
<tr>
<td><strong>Introduction</strong></td>
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<tr>
<td>Open the lesson by asking students to discuss the movie “March of the Penguins”. What is the term used to describe animals that travel from place to place seasonally? (Elicit the response – migration)</td>
<td>Recount the scenes from the movie and generate the term ‘migration’.</td>
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<tr>
<td>Hand out the sheet “Migration of the Monarch Butterfly”</td>
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<td><strong>Lesson Development</strong></td>
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<tr>
<td>Use the handout sheet as a beginning for discussing migrations.</td>
<td>Read and respond to questions on the handout sheet.</td>
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<tr>
<td>Use the teacher sheet on Canadian Snowbird Migration to develop the lesson – a parallel between the butterflies and the snowbirds.</td>
<td>Attempt to develop the push factors, pull factors and barriers to snowbird migration.</td>
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<tr>
<td>Elicit predictions as to snowbird destinations.</td>
<td>Make predictions.</td>
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<tr>
<td>Direct students to find statistics to support (or refute) their predictions.</td>
<td>Use StatCan website to evaluate predictions.</td>
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<tr>
<td><strong>Conclusion</strong></td>
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<tr>
<td>Provide the student handout – Migration of the Canadian Snowbird</td>
<td>Complete an article about the Canadian Snowbird, which uses the Monarch Butterfly article as a model.</td>
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<tr>
<td>Teacher will mark the submissions according to the Four Levels of Performance rubric on Migration Lesson summary</td>
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</table>

**Lesson Extension:**
Plan an itinerary for a pair of snowbirds who are leaving your community and traveling by van to a destination in Florida. Determine the best route for them to take. Show the approximate route on a map. Calculate the total number of kilometers for the journey. Indicate places along the route where the snowbirds might rest for the night(s), if the trip is too long to complete in one traveling session. Find and list some Internet websites that help snowbirds plan such a migration route.

**Assessment of Student Learning:**
Use the following rubric to measure the students’ level of performance

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*Canadian Council for Geographic Education (www.ccge.org)*
*Statistics Canada (www.statcan.ca)*
Level 4 - Meets all requirements with a very high level of proficiency. Work is clear and carried out with unusual precision and skill. It demonstrates an in-depth understanding and analysis of the task.

Level 3 - Meets all requirements with a high level of proficiency. Work is complete and has no significant errors. It demonstrates a thorough understanding of the task.

Level 2 - Meets basic requirements at an average or slightly less than average competency level. A number of inconsistencies in thought or procedural errors exist. Work does not meet all the specifications of the task. Revision is recommended.

Level 1 - Work is at a very low competency level. It is incomplete and fails to meet basis requirements of the task. Lacks clarity and precision. Work demonstrates minimal understanding of the task. Revision is required.

Further Reading:
Lesson plans available to assist in introducing statistics at:
http://www.statcan.ca/english/kits/tgif/tgif1.htm

National Geographic Website
http://www.nationalgeographic.com/geographyaction

Optional:
Show the movie “Fly Away Home” in which Bill Lishman teaches Canadian geese to migrate using an interesting technique.
Show the movie “March of the Penguins” which demonstrates the rigors of the Antarctic and the strong genetic compulsion to migrate for survival.
Migration of the “Canadian Snowbirds” – Teacher Sheet

Many older Canadians – maybe even your grandparents – are part of a group that migrates seasonally from Canada to other places such as the southern states of America. These migrants are sometimes nicknamed “snowbirds”. For all types of migrations, there are push factors, pull factors and barriers. Let’s examine these.

What factors might convince ‘snowbirds’ to leave Canada during the months between Nov. and Apr.? (Push factors)
- Miserable, winter weather
- Difficulty getting around
- Need for bulky clothing

What factors might attract ‘snowbirds’ to a specific location? (Pull factors)
- Benign climate (warm, sunny, dry)
- Ease of getting to location
- Attractions such as Disney World
- Activities such as golfing, swimming, walking on the beach
- Friends in the same location
- Interesting places with familiar culture and language (e.g.) United States
- Interesting places with different cultures, and language (e.g.) Portugal, Mexico

What circumstances might exist to prevent older citizens from joining the annual ‘snowbird’ migration? (Barriers)
- Health problems
- Financial difficulties
- Transportation difficulties
- Cost of insurance
- Disasters at home or at the destination
- Family ties (e.g.) missing the children or grandchildren; missing birthdays or other special events

Ask the students to predict the most popular destination for the migration of Canadian snowbirds. Challenge them to find statistics to support their prediction.

(If students need direction in navigating the Internet to confirm their predictions using statistics, use the steps below.)

Click on Canadian Statistics button at the top of the page.
From the navigation bar along the left side, select Tables by subject.
Select Travel and tourism.
Select International travel.
Select Travel by Canadians to the United States, top 15 states visited.
Use a map of the U.S. to determine which states would likely be migration
destinations during the Canadian winter. How did you come to this conclusion?
(Obviously, northern states would have a cold climate, similar to Canada’s.)
How many nights did Canadians spend in Florida in 2004? How much money did
Canadians spend in Florida in 2004?

The default year for these statistics is 2004. Ask the students, “Do you think that
the results would be much different for other years?”

Have them check their predictions by accessing the statistics for the other years
provided in the navigation bar to the left.

This information can be written as a note:

Use of Statistics
Statistics is the science of collecting numerical data, organizing it in a database,
and then analyzing it for specific purposes. The results can be displayed as
tables, graphs or maps to share what has been learned.

Every five years, the Canadian government undertakes a national census. The
program attempts to collect information about every person living in Canada. The
information is then fed into computers for manipulation and analysis. Various
levels of government use these statistics to make decisions about everything
from social programs and education to where to locate highways and airports.
(Note – the most recent national census occurred in May 2006.)

For a comprehensive listing of statistics available on StatCan site, examine this
url:
http://www40.statcan.ca/l01/alp01/alp000a.htm
Click on each letter to see lists of available statistical information.

What other statistics are readily available for the study of migrations?
(This question may lead to the study of other interesting migrations by Canadians
or to Canada.)
Note - if students are interested in the topic of censuses, there are excellent
activities and opportunities for student involvement at the following website:

http://www.censusatschool.ca
Migration of the “Canadian Snowbirds” – Student Sheet

Snowbirds spend their summers in their homes, cottages, malls and golf courses from coast-to-coast in Canada. They are content with their daily lives during the warm days with long hours of sunshine.

However, with the arrival of fall and winter, hundreds of thousands of these snowbirds migrate to locations in … (describe destination in detail).

During the migration, the snowbirds face many problems … (indicate at least five barriers to the annual migration)

Snowbirds travel … (describe the route from where they live to where they winter)

The spring migration northward begins … (explain when, why and the route)

One explanation for the migration of the snowbirds is … (give your own reason(s) why this phenomenon occurs

1. The word “migration” has two different definitions in geography:
   a. Move from one place to settle in another
   Or
   b. Go from one region to another with the change in seasons

Which of the two definitions given above relate to the Canadian Snowbird?

2. What factors might alter this annual migration?
Migration of the Monarch Butterfly

Monarch butterflies spend their summers along the shores of Lake Ontario and Lake Erie in southern Ontario and in southern Quebec. In the fall, hundreds of thousands of these beautiful creatures migrate to a location in Central Mexico - the Oyamel forests.

During the migration, the monarchs face many dangers. Storms, strong winds, low temperatures, predators (such as birds), and collisions with vehicles cause many fatalities. Eventually, however, millions of the monarchs overcome these threats to reach the site in Mexico where they spend the winter.

Monarchs travel distances as great as 4,500 kilometers during their migration, traveling roughly 80 kilometers per day. Once they have reached their destination, large numbers cluster in a semi-dormant state in the branches of the oyamel trees. In mid-February, the monarchs become more active and mating begins.

Shortly afterward, the northward spring migration begins. The monarch butterflies return to their homes in southern Canada and the northern United States to feed on and to lay their eggs in the milkweed plant. In the fall, the seasonal migration repeats yet again.

One explanation for the migration of the monarch butterflies is that they travel to warmer climates to escape the looming cold weather and to find food. However, since they cannot predict the climate, perhaps the changing amount of light and the variability of day and nighttime temperatures set off the migration response in the monarch butterflies.

1. The word “migration” has two different definitions in geography:
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   Or
   b. Go from one region to another with the change in seasons

Which of the two definitions given above relate to the monarch butterfly?

2. List five ‘barriers’ to the migration of the monarchs.

3. What other significant Canadian seasonal migrations can you think of?

4. Group One: List at least five things that you like about the Canadian summer.
   Group Two: List at least five things that you dislike about the Canadian winter.

5. Is there any way to enjoy the pleasures of summer during the winter months?