

# Mighty Migrators



## Learning Objectives

Students will be able to:

- Understand that caribou, like many species of wildlife, migrate to survive winter.
- Describe possible impacts of human activities on wildlife migration patterns.



## Method

Students draw murals showing caribou migration routes and the possible consequences of a pipeline being laid across the route.



## Materials

- Drawing materials
- Large sheets of butcher or poster paper

## Background

The purpose of this activity is to help students recognize some of the problems that human activities can produce for wildlife and the environment. In this case, a pipeline laid through a caribou migration route is used as an example.

Barren ground caribou are famous for their enormous herds and long treks. They move in herds of thousands between their winter and summer ranges. Some migrations can be close to 800 kilometres long, one-way.

Around March, the herds head north to the tundra where pregnant females calve. The caribou are thin when they reach the tundra in spring but nutritious plants there (lichens, grasses, sedges, mosses and flower buds) are just what the females need to help them produce rich milk for their calves. When winter approaches, the caribou travel back to the protection of southern forests. While caribou are migrating, just about nothing will stop them. They trot through ice fields, ford wide rivers and climb up mountains.

Caribou are well equipped for life in Canada's North. Their feet are wide. They have toe-like dew claws that help support them in deep snow. They use the edges of their front hooves to dig holes in the snow to reach lichens, their main winter food. Their hooves can even adjust to different walking conditions! Their foot pads harden in winter. The dense, stiff hair that grows between their toes prevents slippage on ice and protects their pads from cuts by ice and snow crusts.

For additional resources visit:

[CanadianWildlifeFederation.ca/Education](https://CanadianWildlifeFederation.ca/Education)

## Procedure

1. Divide students into small groups. Provide each group with drawing materials and a large piece of butcher or poster paper. Ask each group to draw a mural of caribou habitat. Students could also use clay or paper mâché to make a three-dimensional mural.
  - Have them research caribou habitat (see [www.hww.ca](http://www.hww.ca)) and include a variety of environments such as tundra, ice fields, rivers and mountains in their murals.
  - Ask them to draw arrows to show the path that they think the caribou would take each year to move from their summer to winter ranges and back again.
2. Once the murals are complete, ask students to describe the features in their murals. Now tell students that a major pipeline is being planned for the area. It is to be built somewhere directly across the caribou migration path.
  - An Environmental Impact Statement has been done, which explains it is possible to build the pipeline in a way that will minimize any negative effects on wildlife and the environment. At this point, the Environmental Impact Statement is being contested in court; therefore, it is not clear whether the pipeline will actually be built.
3. Have each group discuss how to draw a pipeline on their mural in a way that is least harmful to wildlife and the environment. As each group reaches a consensus, they can add the pipeline to their murals.
  - Some points students could consider include the impact on herds during construction of the pipeline through creation of construction camps, development of access roads, hydroelectric development and increased air traffic, as well as ways to minimize erosion and impacts on permafrost.
  - Ask students to pay special attention to how the caribou can travel back and forth to their summer and winter ranges; for instance, it may be possible to bury or elevate the pipeline at critical spots, or to lay the pipeline to avoid the migration path.
4. Have each group report on what plans it made.
  - What were the consequences to the caribou, as well as to other wildlife, vegetation, soil and permafrost?
  - Discuss why planning before undertaking any industrial development is important to the health of local wildlife and their habitats.

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