



# ARCTIC MISSION

AN INTERACTIVE  
ADVENTURE

## STUDY GUIDE

*The impact of climate change on Arctic wildlife*

**FOR AGES 9 TO 12**

**Arctic Mission** is a scientific and filmmaking expedition through the fragile but treacherous Arctic ice – a breathtaking environment on the front lines of climate change.

This **interactive adventure** enables youngsters to join mission chief Jean Lemire and his crew on *Sedna IV*.

The quiz is an exciting educational game offering students an interesting way to learn.

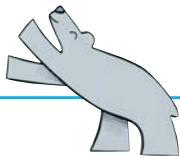
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# 1

## Links with curricula



A number of educational aims can be achieved:

a) **Become more aware of environmental problems**

The theme of the game encourages children's sense of responsibility toward the environment. Through play, they become familiar with the animal world and environmental problems.

b) **Better understand the living world**

The interactive adventure highlights characteristics of Arctic wildlife and the interaction between living organisms and their environment.

c) **Exercise critical thinking**

Students are helped to understand the issues involved in a particular situation and to discern values and principles on which to base their judgment.

d) **Solve problems**

Students are challenged to recognize the defining aspects of a problem, think of possible solutions and put into practice the one they feel is the most appropriate.

e) **Engage in interdisciplinary learning**

Students will practise acquired skills while having fun.

The **interactive adventure** will introduce students to such techniques as using geographic reference points, using a compass, orienting a map, and finding geographic information in a document.

### Reinvestment

Giving students a written assignment after they have played the game will provide them with an opportunity to express their ideas and improve their writing.

# 2

## Theme

The main theme of the game is the impact of climate change on Arctic wildlife. It is explored through subjects such as:

- The Arctic, a living environment
- How Arctic animals adapt to the situation
- The food web or chain
- Climate change and greenhouse gases
- Ways to reduce the impact of human activity on climate

### 3

## Using the game in class: three options

Game time: approximately 40 minutes

### Option A

The class is divided into two teams. Students are allowed a moment to consult before they give their final answer.

### Option B

The class is divided into two teams. The game is played "Reach for the Top" style. Whoever gives the right answer chooses where to go next in the game.

### Option C

Students vote on answers by raising their hands. When they have found the right answer, the entire class chooses where to go next in the game.

**Note to teachers:** Award a polar bear token to the team or student who answers correctly. The one with the most polar bear tokens at the end wins.

### Suggestions for classroom use

The **interactive adventure** can be used in various ways, for instance:

- a) as a discussion starter on environmental protection
- b) as a wrap-up activity for a specific project

#### a) Discussion starter

During Environmental Awareness Week, students decide whether they are for or against certain human activities that affect climate, such as driving cars or building fossil-fuel power plants. The *Arctic Mission* game can provide ideas for the discussion or debate.

*Suggested simulation:* Smog alert

#### b) Wrap-up activity

Each team chooses an endangered animal species and researches it. The team then creates a comic strip about the species' habitat, ecological niche, predators, main problems and possible solutions. Then the whole class gets together to present and discuss the findings of the different teams.



# 4

## Evaluation

### Peer evaluation

At the end of the game, students can evaluate their classmates individually or as a team using a list of questions drawn up by the class.




### Self-evaluation

At the end of the game, each student can perform a self-evaluation using a list of questions drawn up by the teacher.

Below is a sample list of questions that allow students to assess their ability to exercise critical judgment.



**KEY: 1 bear: With difficulty**  
**2 bears: Sometimes**  
**3 bears: Yes**

<b>RATE YOURSELF</b>			
1. I can check the accuracy of my information on climate change.			
2. I can check the accuracy of my information on habitats.			
3. I can explore various solutions to an environmental problem.			
4. I can take a position and defend it.			
5. I can communicate my point of view on a controversial subject.			
6. I can support my point of view in a discussion or debate.			
7. I can adjust my opinion based on new facts.			
8. I am willing to reconsider my opinion when presented with convincing arguments.			

**For more information on the Arctic Mission series, visit the NFB Web site <[www.nfb.ca/arcticmission](http://www.nfb.ca/arcticmission)>.**

**To purchase the series on VHS or DVD, call the toll-free number 1 800 267-7710.**



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