

RESOURCE LIBRARY | ACTIVITY : 30 MINS

The Arctic Region

Students analyze a map of the North Polar region, test their knowledge of the Arctic, and brainstorm examples of the interconnectedness of life in this region with life around the world.

GRADES

6, 7, 8

SUBJECTS

Biology, Geography, Physical Geography

CONTENTS

1 Resource, 1 PDF

OVERVIEW

Students analyze a map of the North Polar region, test their knowledge of the Arctic, and brainstorm examples of the interconnectedness of life in this region with life around the world.

For the complete activity with media resources, visit:

<http://www.nationalgeographic.org/activity/the-arctic-region/>

DIRECTIONS

1. Have students analyze a map of the North Polar Region.

Ask: *Where in the world is the Arctic?* Elicit from students that it is the northernmost region of the Earth. Go to the Polar Regions MapMaker Kit. Have students assemble the North Polar Region Tabletop Map. Make sure students understand their location in relation to the map.

Ask a volunteer to identify the Arctic region, within the Arctic Circle, and then the Beaufort Sea. Explain to students that the Beaufort Sea is part of the Arctic Ocean and a main artery of the Arctic's rich [ecosystem](#).

2. Test students' knowledge about the Arctic region.

Distribute the student worksheet The Arctic Region. Read aloud the statements to the class and ask them to mark True or False. Then review the answers with them.

- 1. False. Polar bears live in the Arctic. Penguins live in the Antarctic.
- 2. True.
- 3. False. It's not entirely frozen. Its frozen area fluctuates seasonally. The Antarctic is the coldest, driest, windiest, most uninhabited continent on earth.
- 4. False. However, some scientists believe such a pathway could be ice-free and open for travel sometime this century.
- 5. True. It has a unique environment and sensitivity to temperature change.
- 6. False. There is no land beneath the North Pole. It is a shifting pack of sea ice 6-10 feet thick that floats above the Arctic Ocean.
- 7. True. It has changed the pattern and rates of melting ice in the Arctic regions.
- 8. True. Although a harsh habitat, it supports a thriving ecosystem.
- 9. True.

3. Introduce the concept of global interconnectedness.

Explain to students that [climate changes](#) are affecting the Arctic region and its ecosystem, which in turn affects the inhabitants of the Arctic community, and ultimately all humans.

Remind students that the ocean is our global connector. Have students brainstorm how melting sea ice in the Arctic could affect life around the world. Prompt them to think about what would happen to marine habitats, ocean currents, ocean temperatures, and sea levels.

OBJECTIVES

Subjects & Disciplines

Biology

Geography

- Physical Geography

Learning Objectives

Students will:

- locate the Arctic region and Beaufort Sea on a map
- describe some characteristics of the region
- explain its importance as an indicator of global climate change

Teaching Approach

- Learning-for-use

Teaching Methods

- Discussions
- Hands-on learning

Skills Summary

This activity targets the following skills:

- Critical Thinking Skills
 - Remembering
 - Understanding
- Geographic Skills
 - Acquiring Geographic Information
 - Answering Geographic Questions

National Standards, Principles, and Practices

NATIONAL GEOGRAPHY STANDARDS

- Standard 8:

The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

NATIONAL SCIENCE EDUCATION STANDARDS

- (5-8) Standard C-4:

Populations and ecosystems

PREPARATION

What You'll Need

MATERIALS YOU PROVIDE

- Pencils
- Pens

REQUIRED TECHNOLOGY

- Internet Access: Required
- Tech Setup: 1 computer per classroom, Projector

PHYSICAL SPACE

- Classroom

GROUPING

- Large-group instruction

RESOURCES PROVIDED: HANDOUTS & WORKSHEETS

- [The Arctic Region](#)

RESOURCES PROVIDED: MAPS

- [Polar Regions MapMaker Kit](#)

BACKGROUND & VOCABULARY

Background Information

The Arctic region lies within the Arctic Circle. The Beaufort Sea is a main artery of the Arctic region's rich ecosystem. It also functions as an early warning system for global climate change, as it contributes to global ocean and climate systems.

Prior Knowledge

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Recommended Prior Activities

- [Arctic Adaptations](#)

Vocabulary

Term	Part of Speech	Definition
Arctic	<i>noun</i>	region at Earth's extreme north, encompassed by the Arctic Circle.
climate change	<i>noun</i>	gradual changes in all the interconnected weather elements on our planet.
ecosystem	<i>noun</i>	community and interactions of living and nonliving things in an area.

For Further Exploration

Interactives

- [National Geographic Crittercam: Virtual World—Arctic](#)

Websites

- [Marine Conservation Biology Institute: From Sea to Shining Sea](#)
- [NOAA: Arctic Theme Page](#)

PARTNER



