Faces

Wild About Alaska

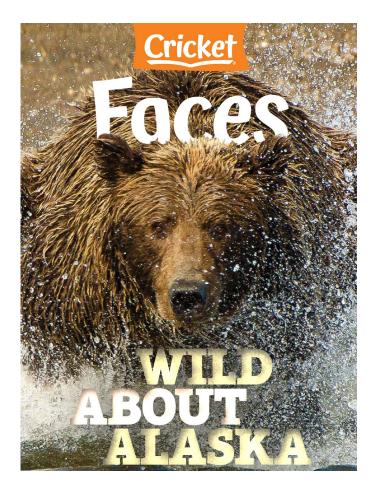
This month's issue of FACES magazine takes an indepth look at the state of Alaska, and celebrates the ability of its people and wildlife to adapt to a rapidly changing environment.

CONVERSATION QUESTION

Why is Alaska such a unique state?

TEACHING OBJECTIVES

- Students will learn about the great state of Alaska.
- Students will learn how climate change is affecting the Arctic.
- Students will learn about Alaska's national parks.
- Students will examine physical and cultural characteristics of a region.
- Students will analyze how environmental changes influence specific aspects of a region.
- Students will study environmental impacts in a specific region.
- Students will create a brochure for Alaska.
- Students will use a mathematical process to solve a theme-based word problem.
- Students will write brief descriptions about the national parks of Alaska.



In addition to supplemental materials focused on core Social Studies skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and crosscurricular activities.

SELECTIONS

- Welcome to Alaska: The Last Frontier Expository Nonfiction, ~1080L
- Climate Change in the Arctic
- Expository Nonfiction, ~1150L
- Nature's Majesty
- Expository Nonfiction, ~1170L

Welcome to Alaska: The

Last Frontier

pp. 8–11, Expository Nonfiction

The largest state in the Union, Alaska is a region rich in resources and history. This article explores why this state is appropriately nicknamed "the Last Frontier."



RESOURCES

 Welcome to Alaska: Examining Characteristics

OBJECTIVES

- Students will learn about the great state of Alaska.
- Students will examine physical and cultural characteristics of a region.
- Students will create a travel brochure for Alaska.

KEY VOCABULARY

- contiguous (p. 9) sharing a common border
- permafrost (p. 10) a layer of soil that is always frozen in very cold regions of the world
- expedition (p. 11) a journey taken by a group of people for a particular purpose
- *indigenous* (p. 11) produced, living, or existing naturally in a particular region or environment

ENGAGE

Conversation Question: Why is Alaska such a unique state?

Help students to understand the size of America's largest state by displaying this statement: "With a land area of 571,951 square miles . . . the state of Alaska could fit more than 420 Rhode Islands inside of it." Have students locate both states on a map for a visual comparison. Then instruct the class to use a mathematical process to calculate the approximate size of Rhode Island in square miles.

INTRODUCE VOCABULARY

Review the vocabulary words and definitions. Then display the sentences below. Have students use the vocabulary words to complete them. Remind students to look for these words as they read the article.

- 1. Rising global temperatures are causing _____ to melt.
- 2. The Aleut people are _____ to Alaska.
- 3. Alaska and Hawaii are not _____ with any other states.
- 4. The research ______ set off to explore the Great Barrier Reef.

READ & DISCUSS

Reinforce comprehension of the concepts presented in the article by using the following questions to direct discussion.

- 1. Why are many people unfamiliar with Alaska?
- 2. Where is Alaska located? List its land and sea borders.
- 3. What factors contribute to Alaska being the most sparsely populated state in the country?
- 4. What was Vitus Bering's role in Alaskan history? What was William Seward's role?
- 5. Why is Alaska called "the Last Frontier"?

CONCEPT/SKILL FOCUS: Examine Characteristics

INSTRUCT: The article presents detailed information regarding the physical and cultural characteristics of Alaska. Distribute the *Welcome to Alaska: Examining Characteristics* graphic organizer and tell students that they will be using information from the article about the physical and cultural characteristics of Alaska to complete the chart.

ASSESS: Review the chart and evaluate individual answers to the "Think Tank" question.

EXTEND

Geography Have students locate Alaska on a world map. Instruct them to fold a piece of paper into thirds to create a travel brochure. (Alternatively, many computer programs will have easy-to-use templates.) Using information from the article and other resources, students should include the following: location, climate, historic sites, recreation, culture, and interesting facts. Encourage attractive graphics.

Welcome to Alaska

Examining Characteristics Consult the article to explain how each of the elements listed below contributes to the uniqueness of the state of Alaska.

Element	Defining Characteristics
Geographical Features	
History	
Inhabitants	
Language(s)	
Resources	

Think Tank: On the lines below, describe another aspect of Alaska that is a defining feature of the state.

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Climate Change in the Arctic

pp. 12–15, Expository Nonfiction

This article begins by informing readers that the Arctic is warming twice as fast as the rest of the planet. Students will learn about the significant changes taking place in this region as a result.



RESOURCES

 Climate Concerns: Influence of Environmental Changes

OBJECTIVES

- Students will learn how climate change is affecting the Arctic.
- Students will analyze how environmental changes influence specific aspects of a region.
- Students will use a mathematical process to solve a theme-based word problem.

KEY VOCABULARY

- habitat (p. 12) the natural home or environment of an animal, plant, or other organism
- tundra (p. 12) a large area of flat land in northern parts of the world where there are no trees and the ground is always frozen
- *glacier* (p. 14) a very large area of ice that moves slowly down a slope or valley or over a wide area of land

ENGAGE

Conversation Question: Why is Alaska such a unique state?

Display the Arctic Food Chain graphic on page 15. Give students a few minutes to discuss the cycle with a partner. Next, post the title of the article, "Climate Change in the Arctic," and have pairs predict how climate change might cause disruptions in the food chain. After reading the article, have students revisit their predictions.

INTRODUCE VOCABULARY

Post and discuss the key terms and the title of the article. Be sure that students understand the definitions before reading the article. As a post-reading activity, have students use the four vocabulary words to summarize the article in one paragraph.

READ & DISCUSS

Preview the questions below. Then read the article aloud, pausing for discussion when answers to the questions are revealed.

- 1. Why are regions around the North Pole "ground zero" for climate change?
- 2. What is the main concern of local leaders and conservationists regarding the shipping lanes through the Northwest Passage?
- 3. Why are many people in Arctic coastal cities moving their homes inland?
- 4. Why do female seals give birth to their pups in snow caves?

CONCEPT/SKILL FOCUS: Influence of Environment

INSTRUCT: This article teaches students that as the environmental conditions in a region change over time, they greatly influence the wildlife and population in specific areas. Distribute the *Climate Concerns: Influence of Environmental Changes* graphic organizer and instruct students to use information from the article to record the changes (and predicted changes) that Arctic regions are currently working to manage.

ASSESS: Circulate as students are working and have content-related mini-conversations. Remind students to list specific details in their answers.

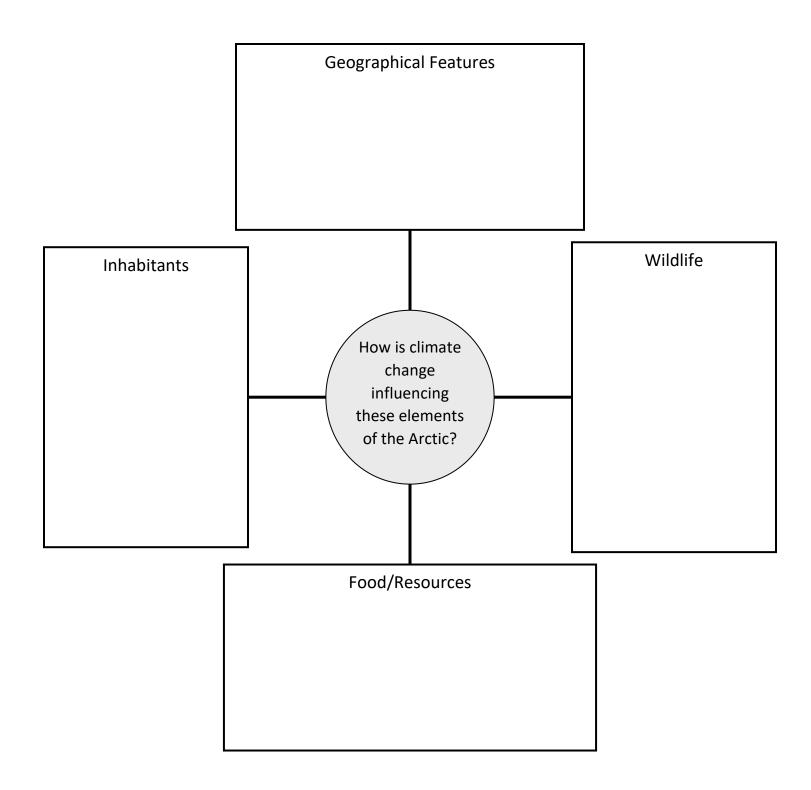
EXTEND

Mathematics Remind students of this fact from the article: "Summer sea ice in the Arctic shrank by nearly 40% between 1978 and 2007." This fact and the prediction that sea ice will continue to melt rapidly are of great concern because Arctic sea ice keeps the polar regions cool and helps moderate global climate. Have students demonstrate a mathematical process to solve the following word problem: If the sea ice in the Arctic covered roughly 7 million square kilometers in 1978, approximately how many miles did it cover in 2007?

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Climate Concerns

Influence of Environmental Changes Reread the article and record how different facets of the Arctic are being affected by climate change.



Nature's Majesty

pp. 32–33, Expository Nonfiction

Journey to Alaska and discover some of the world's most spectacular national parks. Visitors are encouraged to hike, kayak, fish, ski, and embrace views of the wildlife and vegetation.



RESOURCES

 National Treasures: Environmental Impact

OBJECTIVES

- Students will learn about Alaska's national parks.
- Students will study environmental impact in a specific region.
- Students will write brief descriptions of the national parks of Alaska.

KEY VOCABULARY

- ecosystem (p. 32) everything that exists in a particular environment, including living things such as plants and animals, and things that are not living, such as rocks, soil, sunlight, and water
- caribou (p. 32) a large type of deer that lives in northern parts of the world
- transients (p. 33) people or animals who stay in a place for only a short time before going somewhere else

ENGAGE

Conversation Question: Why is Alaska such a unique state?

Inform students that a national park is an area of land set aside by the national government for the preservation of the natural environment. The national parks in the United States tend to focus on the protection of both land and wildlife. Ask students to share experiences visiting a national park. Show short video clips, if possible. Ask students how the environment influenced their activities and sightings there. (Students may also answer the same questions about a state park.)

INTRODUCE VOCABULARY

Post the key words and discuss the definitions. Then display the following prompts and have students discuss responses with a partner.

- Why is it important to protect all the components of an ecosystem?
- **Caribou** belong to a class of mammals that have antlers. What other animals would be included in this category?
- What might be the advantages and disadvantages of being a **transient** animal?

READ & DISCUSS

Read the article aloud with the class. Have students reread the article in small groups to answer the questions below. Discuss responses.

- 1. What animals could you encounter in Alaska's Denali National Park?
- 2. Why do you think that this article is titled "Nature's Majesty"?
- 3. What events formed the main areas of Kenai Fjords National Park?
- 4. What is particularly unique about Harding Icefield?

CONCEPT/SKILL FOCUS: Environmental Impact

INSTRUCT: Explain how weather, climate, and other environmental characteristics affect people's lives in a particular region. They can have a negative effect, or—as in the case of national parks—can be a wonderful source of enjoyment and pride. Have students consider how the environment and climate in Alaska contribute to visitors' appreciation of its parks. Have students discuss the topic in small groups and record their thoughts on the *National Treasures: Environmental Impact* graphic organizer.

ASSESS: Meet with groups as they are contemplating how the environment plays a role in our recreational activities and in our everyday life.

EXTEND

Language Arts Have students compose a tweet bragging about their day at one of Alaska's national parks. Students must limit their description to 280 characters. In their tweet they should include comments about the animals they saw and the activities they enjoyed. Have students share their tweets with the class.

National Treasures

Environmental Impact Explain how the environment and climate in Alaska affect the sightings and activities in national parks. Then consider the same question with regard to your local or state park. Discuss with a partner and record ideas below.

