

Chapter

27

Oceania and Antarctica



**The World
and Its People**

NATIONAL
GEOGRAPHIC



To learn more about the people and places of Oceania and Antarctica, view ***The World and Its People* Chapter 28** video.



Social Studies Online

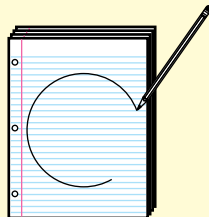
Chapter Overview Visit ***The World and Its People*** Web site at twip.glencoe.com and click on **Chapter 27—Chapter Overviews** to preview information about Oceania and Antarctica.

FOLDABLES™

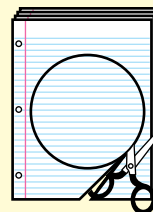
Study Organizer

Summarizing Information Make this foldable and use it to help you summarize what you learn about Oceania and Antarctica.

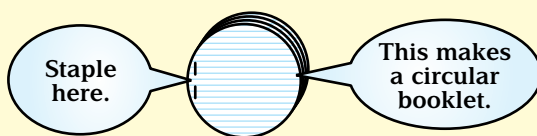
Step 1 Stack four sheets of paper, one on top of the other. On the top sheet of paper, trace a large circle.



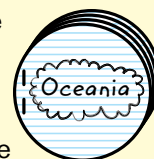
Step 2 With the papers still stacked, cut out all four circles at the same time.



Step 3 Staple the paper circles together at one point around the edge.



Step 4 Label the front circle **Oceania** and take notes on the pages that open to the right. Flip the book over and label the back **Antarctica**. Take notes on the pages that open to the right.



Reading and Writing As you read the chapter, write facts about the people and geography of Oceania and Antarctica in the appropriate places of your circular foldable booklet.

▲ Houses on stilts in Moorea Lagoon, Tahiti

Why It Matters

A World of Water

The water world of the Pacific Ocean covers one-third of the earth. It is larger than all the world's land areas combined. Tens of thousands of islands lie in this remote part of the globe. As technology shrinks the world, many societies of this region are struggling to maintain their cultural identities.

Guide to Reading

Main Idea

Oceania is made up of thousands of Pacific Ocean islands organized into countries and territories.

Terms to Know

- cacao
- copra
- pidgin language
- high island
- low island
- atoll
- phosphate
- trust territory

Reading Strategy

Create a chart like this one. In the right column, write two facts about each region.

Region	Facts
Melanesia	
Micronesia	
Polynesia	

Section

1

Pacific Island Cultures and Economies

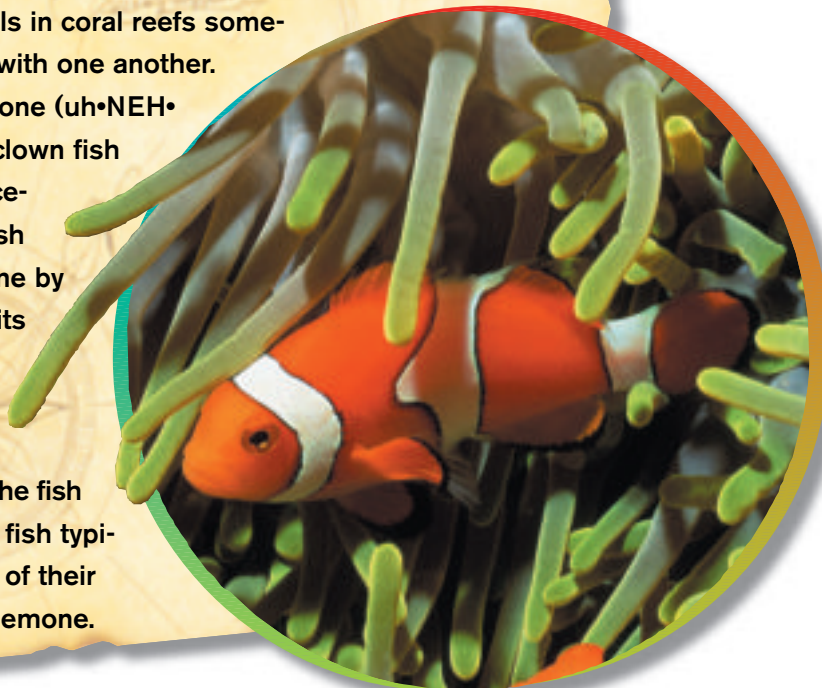


Exploring our World

Plants and animals in coral reefs sometimes cooperate with one another.

Here a sea anemone (uh•NEH•muh•nee) and a clown fish

live together peacefully. The clown fish helps the anemone by eating debris on its tentacles and by driving predators away. In turn, the anemone offers the fish protection. Clown fish typically spend most of their lives inside an anemone.



Oceania is a culture region that includes about 25,000 islands in the Pacific Ocean. Geographers group Oceania into three main island regions—**Melanesia**, **Micronesia**, and **Polynesia**.

Melanesia

The islands of Melanesia lie across the **Coral Sea** from Australia. The largest country is **Papua New Guinea** (PA•pyu•wuh noo GIH•nee). Slightly larger than California, the country's 5.5 million people also make it Oceania's most populous island. Southeast of Papua New Guinea are three other independent island countries: the **Solomon Islands**, the **Fiji** (FEE•jee) **Islands**, and **Vanuatu** (VAN•WAH•TOO). Near these countries is **New Caledonia**, a group of islands ruled by France.

Rugged mountains and dense rain forests cover Melanesia's islands. Narrow, fertile plains hug the coastlines. Most of Melanesia has a tropical climate with temperatures between 70°F (21°C) and 80°F (27°C).

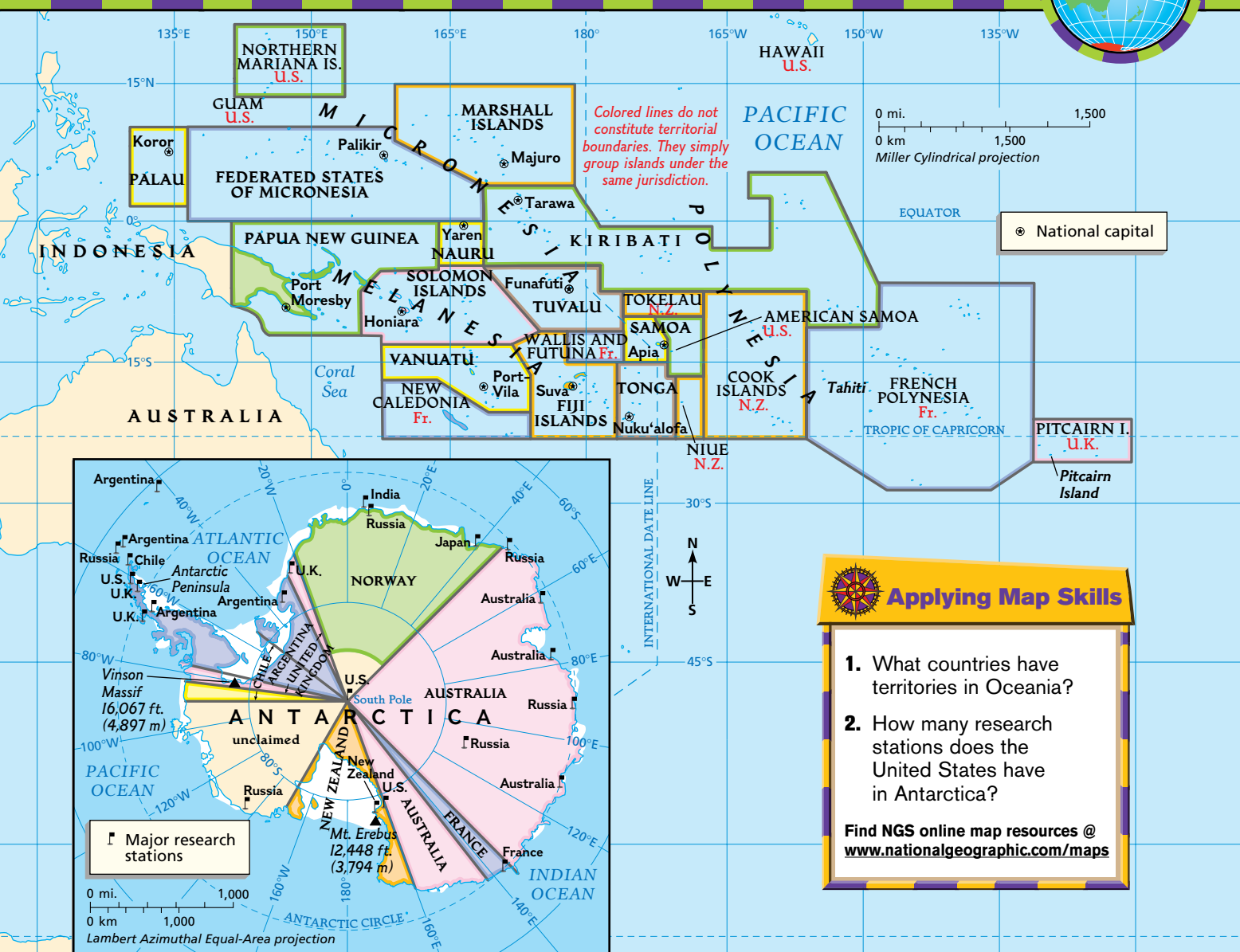
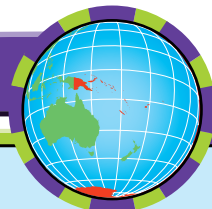
Most Melanesians work on subsistence farms. Others work on farms that produce coffee, palm oil, and cacao for export. **Cacao** is a tropical tree whose seeds are used to make chocolate. Sugarcane is exported as sugar and molasses. Coconut oil from **copra**, or dried coconut meat, is used to make margarine, soap, and other products.

Some Melanesian islands hold rich mineral resources such as gold, oil, copper, and nickel. Several islands export timber and fish. Melanesia is also becoming a popular tourist destination.

Melanesia's People Almost all Melanesians are ethnic Pacific Islanders. Two island groups hold exceptions. About one-third of New Caledonia's people are Europeans. In the Fiji Islands, almost half of the people are of Indian descent. The ancestors of these Indians were brought from British India in the late 1800s and early 1900s to work on sugarcane plantations. Today ethnic Indians control much of the



Oceania and Antarctica: Political



Applying Map Skills

1. What countries have territories in Oceania?
2. How many research stations does the United States have in Antarctica?

Find NGS online map resources @ www.nationalgeographic.com/maps



Micronesia

Many of the homes in Micronesia have thatched roofs and no walls (above left). This young boy is from the island of Yap in Micronesia (above right).

Culture How does the house reflect an adaptation to the environment?

economy of the Fiji Islands. Fijians of Pacific descent own most of the land. The two groups struggle for control of the government.

Melanesia's languages and religions are diverse. More than 700 languages are spoken in Papua New Guinea alone. People here speak a **pidgin language** formed by combining parts of several different languages. People speak English in the Fiji Islands. French is the main language of New Caledonia. Local traditional religions are practiced, but Christianity is widespread. The Indian population is mostly Hindu.

Many Melanesians live in small villages in houses made of grass or other natural materials. Recently, people have built concrete houses to protect themselves from tropical storms. Melanesians keep strong ties to their local group and often hold on to traditional ways. Only a small number live in cities, often working in businesses and government.

✓ **Reading Check** What is the largest country in Melanesia?

Micronesia

The islands of Micronesia are scattered over a vast area of the Pacific Ocean. Independent countries include the **Federated States of Micronesia**, the **Marshall Islands**, **Palau** (puh•LOW), **Nauru** (nah•OO•roo), and **Kiribati** (KIHR•uh•BAH•tee). The **Northern Mariana Islands** and **Guam** are territories of the United States.

Micronesia is made up of two types of islands—high islands and low islands. Volcanic activity formed the mountainous **high islands** many centuries ago. Coral, or skeletons of millions of tiny sea animals, formed the **low islands**. Most of the low islands are **atolls**, or low-lying, ring-shaped islands that surround lagoons.

Like Melanesia, Micronesia has a tropical climate. From July to October, typhoons may strike. These tropical storms with heavy winds and rains cause deaths and much destruction in the islands.

On Micronesia's high islands, the volcanic soil is rich. Most people are subsistence farmers who grow cassava, sweet potatoes, bananas, and coconuts. Some high island farmers also raise livestock. People in the low islands rely on fishing.

Several Micronesian islands have **phosphate**, a mineral salt that is used to make fertilizer. Phosphate supplies are now gone on Kiribati, and they have almost run out on Nauru. The Federated States of Micronesia and the Marshall Islands have phosphate but lack the money to mine this resource.

Challenges in Micronesia include unemployment, overfishing, and overdependence on aid. Micronesia receives financial aid from the United States, the European Union, and Australia. With this money, the Micronesians have built roads, ports, airfields, and small factories. Clothing is made on the Northern Mariana Islands. Beautiful beaches draw tourists here.

Micronesia's People Southeast Asians first settled Micronesia about 4,000 years ago. Explorers, traders, and missionaries from European countries came in the 1700s and early 1800s. By the early 1900s, many European countries, the United States, and Japan held colonies here.

During World War II, the United States and Japan fought a number of bloody battles on Micronesian islands. After World War II, most of Micronesia was turned over to the United States as **trust territories**. Trust territories are areas temporarily placed under control of another nation. Some of these islands served as sites for hydrogen bomb testing. Since the 1970s, most have become independent.

Many of Micronesia's people are Pacific Islanders. They speak local languages, although English is spoken on Nauru, the Marshall Islands, and throughout the rest of Micronesia. Christianity, brought by Western missionaries, is the most widely practiced religion. Micronesians generally live in villages headed by local chiefs. In recent years, many young people have left the villages to find jobs in towns.

 **Reading Check** In what two ways were Micronesia's islands formed?

Polynesia

Polynesia includes three independent countries—**Samoa**, **Tonga**, and **Tuvalu**. A vast group of islands is under French rule and is known as **French Polynesia**. **Tahiti**, Polynesia's largest island, is part of this French-ruled area. **American Samoa**, a United States territory, is also part of this region.

Most Polynesian islands are high volcanic islands, some with tall, rugged mountains. Other islands are low atolls. With little soil, the only vegetation is scattered coconut palms. Because Polynesia lies in the Tropics, the climate is hot and humid.

Polynesians fish or grow crops for their food. Some farmers export coconuts and tropical fruits. The main manufacturing activity is food processing. American Samoa supplies about one-third of the tuna brought into the United States. Tonga exports squash and vanilla.



The Fate of Nauru

Micronesia's most famous phosphate island is Nauru, an 8-square-mile coral atoll. The name *Nauru* means "nowhere." Over the last 90 years, Nauru's citizens have chosen to "consume" their island by mining the coral as phosphate and selling it as fertilizer. The government of Nauru is now working to develop other industries, such as fishing and tourism, in preparation for the day when the phosphate is gone.

Tourism is one of the fastest growing industries of Polynesia. Tourists come by air or sea to the emerald green mountains and white palm-lined beaches. New hotels, shops, and restaurants have been built to accommodate the needs of these tourists.

Polynesia's People Very little is known about the origins of the Polynesians. Historians believe that their ancestors used canoes to cross the Pacific Ocean from Asia hundreds of years before the birth of Christ. They also believe that the Polynesians must have been gifted navigators.

When the Polynesian people traveled from island to island, they carried everything they would need with them, including pigs, hens, and dogs. As soon as the Polynesians arrived at an island, they planted young banana and breadfruit trees. The influence of these early Polynesians can be seen today in the vegetation, languages, music, and dances of the southern Pacific islands.

During the late 1800s, several European nations divided Polynesia among themselves. They built military bases on the islands and later added airfields. The islands served as excellent refueling stops for long voyages across the Pacific. Beginning in the 1960s, several Polynesian territories chose independence, while others remained territories.

About 600,000 people live in Polynesia. Most Polynesians live in rural villages, but an increasing number of people are moving to towns and cities. **Papeete** (PAH•pay•AY•tay), located on Tahiti, is the capital of French Polynesia and the largest city in the region.

 **Reading Check** What is the largest island in Polynesia?

Section 1

Assessment

Defining Terms

1. **Define** cacao, copra, pidgin language, high island, low island, atoll, phosphate, trust territory.

Recalling Facts

2. **Region** What three regions make up Oceania?
3. **Economics** What two kinds of economic activities are most important in these regions?
4. **History** What groups first settled the lands of Micronesia?

Critical Thinking

5. **Analyzing Information** How might over-dependence on aid be a challenge for Micronesia?
6. **Drawing Conclusions** Why do many people in Melanesia speak a pidgin language?

Graphic Organizer

7. **Organizing Information** Create a chart like this one. List all the island groups of Oceania under their specific region. Then note whether they are independent countries or territories.

Melanesia	Micronesia	Polynesia	Country/Territory of ?



Applying Social Studies Skills

8. **Analyzing Maps** Look at the political map on page 759. Which territories are colonies of France?

Study and Writing Skill

Writing a Report

Writing skills allow you to organize your ideas in a logical manner. The writing process involves using skills you have already learned, such as taking notes, outlining, and sequencing information.

- Your report should have an introduction, a body, and a conclusion that summarizes and restates your findings.
- Each paragraph should express one main idea in a topic sentence. Additional sentences should support or explain the main idea by using details and facts.

Learning the Skill

Use the following guidelines to help you apply the writing process:

- Select an interesting topic. Do preliminary research to determine whether your topic is too broad or too narrow.
- Write one or two sentences that state what you want to prove, discover, or explain in your writing. This will be the focus of your entire paper.
- Research your topic and make a list of main ideas. List facts and source information for each main idea on note cards.

An atoll in the Pacific Ocean ▼



Practicing the Skill

Read the following paragraph, and then answer the questions that follow.

Most of Micronesia's low islands are atolls—low-lying, ring-shaped islands that surround lagoons. An atoll begins as a ring of coral that forms around the edge of a volcanic island. Over time, wind and water erode the volcano, wearing it down to sea level. Eventually, only the atoll remains above the surface. The calm, shallow seawater inside the atoll is called a lagoon.

1. What is the main idea of this paragraph?
2. What are the supporting sentences?
3. What might be the topic of an additional paragraph that follows this one?

Applying the Skill

Suppose you are writing a report on Oceania. Answer the following questions about the writing process.

1. How could you narrow this topic?
2. What are three main ideas?
3. Name three possible sources of information.

Section 2

Guide to Reading

Main Idea

Antarctica is a harsh land of rock and ice. The world's nations have agreed to leave the frozen continent open to scientific study.

Terms to Know

- crevasse
- ice shelf
- iceberg
- krill
- ozone

Reading Strategy

Create a chart like the one below. Under each heading, fill in at least one fact about Antarctica.

Antarctica	
Land	Climate
Resources	People

The Frozen Continent



Exploring our World

These Emperor penguins live in the harsh environment of Antarctica. Their shiny “tuxedos” and waddling walk fascinate people. Although they cannot fly, their feathers provide excellent insulation against the ice, snow, and freezing water. Emperor penguins often travel 30 miles (48 km) a day to bring food to their rookeries, or nests. Sometimes walking takes too long, so penguins simply slide on their bellies, which is called tobogganing.



Antarctica sits at the southern end of the earth. Icy ocean water surrounds it. Freezing ice covers it. Cold winds blow over it. The least explored of all the continents, this frigid mysterious land is larger than either Europe or Australia.

Unique Antarctica

Picture Antarctica as a rich, green land covered by forests and lush plants. Does this description match your mental image of the continent? Fossils discovered here reveal that millions of years ago, Antarctica was inhabited by dinosaurs and small mammals.

Today, however, a huge ice cap buries nearly 98 percent of Antarctica’s land area. In some spots, this ice cap is 2 miles (3.2 km) thick—about the height of 10 tall skyscrapers stacked upon one another. This massive “sea” of ice holds about 70 percent of all the freshwater in the world.

The Antarctic ice cap is heavy and strong, and it also moves. In some areas, the ice cap forms **crevasses**, or cracks, that plunge more than 100 feet (30 m). At the Antarctic coast, the ice cap spreads past

the land into the ocean. This layer of ice above the water is called an **ice shelf**. Huge chunks of ice sometimes break off, forming **icebergs**, which float freely in the icy waters.

Highlands, Mountains, and Valleys Beneath most of the ice cap, however, Antarctica has highlands, mountains, and valleys—the same landforms you find on other continents. A long mountain range called the **Transantarctic Mountains** crosses the continent. The highest peak in Antarctica, the **Vinson Massif**, rises 16,067 feet (4,897 m). The Transantarctic Mountains sweep along the Antarctic Peninsula, which reaches within 600 miles (966 km) of South America's Cape Horn. East of the mountains is a high, flat plateau where you find the **South Pole**, the southernmost point of the earth. On an island called **Ross Island**, off Antarctica's coast, rises **Mount Erebus** (EHR•uh•buhs). It is Antarctica's most active volcano.

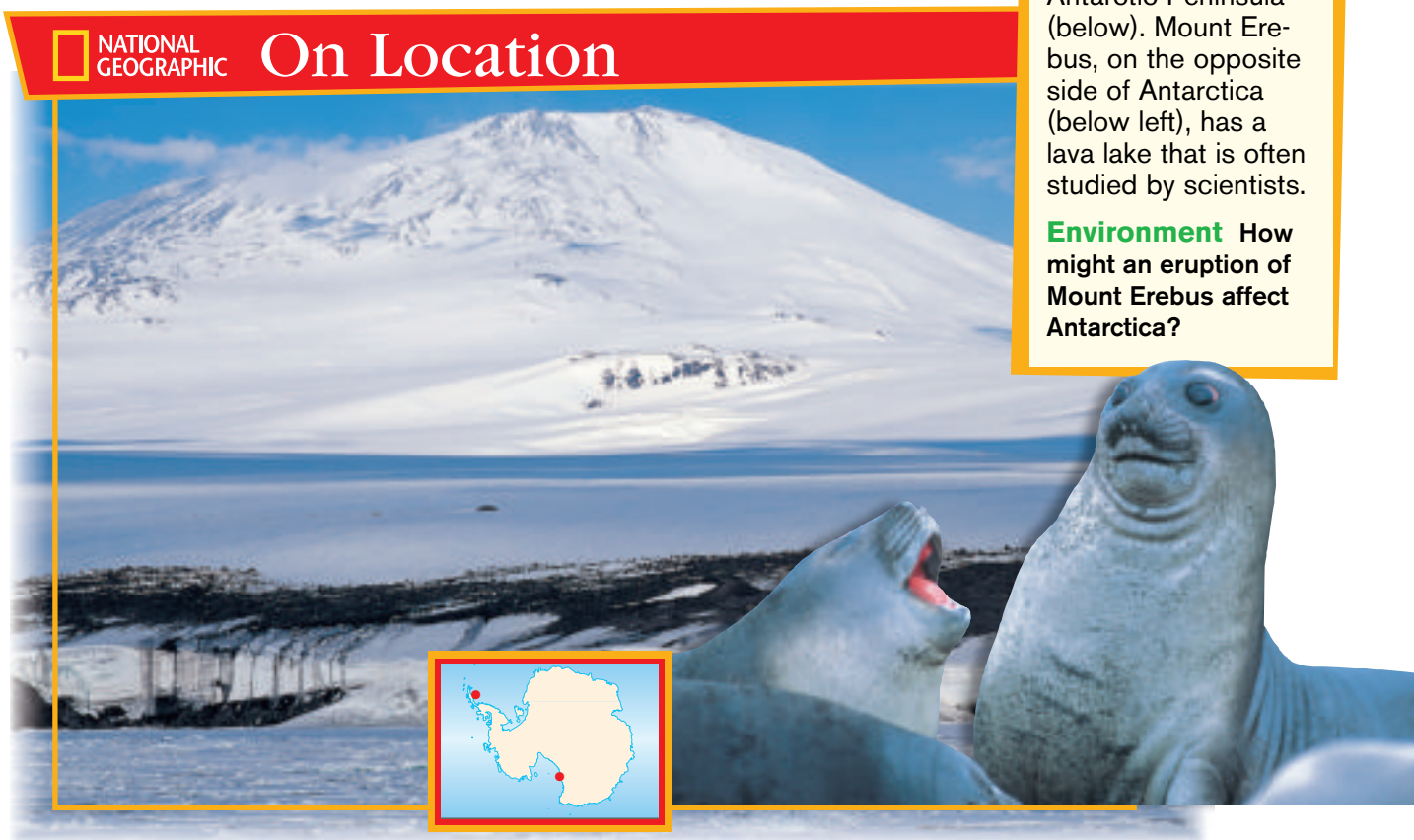
Climate Now that you have a mental picture of Antarctica's ice cap, think about this: Antarctica receives so little precipitation that it is the world's largest, coldest desert. Inland Antarctica receives no rain and hardly any new snow each year. Antarctica has a polar ice cap climate. Imagine summer in a place where temperatures may fall as low as -30°F (-35°C) and climb to only 32°F (0°C). Antarctic summers last from December through February. Winter temperatures along the coasts fall to -40°F (-40°C), and in inland areas to a low of -100°F (-73°C).

 **Reading Check** What landforms are found under Antarctica's ice cap?

Antarctica

Elephant seals lounge on the coast of Elephant Island off the Antarctic Peninsula (below). Mount Erebus, on the opposite side of Antarctica (below left), has a lava lake that is often studied by scientists.

Environment How might an eruption of Mount Erebus affect Antarctica?



Believe It! or Not!

The Endurance

In January 1915, Ernest Shackleton and his crew in the *Endurance* became trapped in Antarctica's freezing seawater. In late October, ice crushed the wooden ship, forcing the explorers to abandon it (below). They spent five more months drifting on the ice until they reached open water and used lifeboats to get away.



Resources of Antarctica

Antarctica has a harsh environment, but it can still support life. Most of the plants and animals that live here are small, however. The largest inland animal is an insect that reaches only one-tenth of an inch in length. Penguins, fish, whales, and many kinds of flying birds live in or near the seas surrounding Antarctica. Many eat a tiny, shrimplike creature called **krill**.

Scientists believe that the ice of Antarctica hides a treasure chest of minerals. They have found major deposits of coal and smaller amounts of copper, gold, iron ore, manganese, and zinc. Petroleum might lie offshore.

These mineral resources have not yet been tapped. To do so would be very difficult and costly. Also, some people feel that removing these resources would damage Antarctica's fragile environment. Another reason is that different nations would disagree over who has the right to these resources. Forty-three nations have signed the Antarctic Treaty, which prohibits any nation from taking resources from the continent. It also bans weapons testing in Antarctica.

✓ **Reading Check** What is the Antarctic Treaty?

A Vast Scientific Laboratory

The Antarctic Treaty says that Antarctica should only be used for peaceful, scientific purposes. Many countries have scientific research stations here, but no single nation controls the vast continent. In January—summer in Antarctica—about 10,000 scientists come to study the land, plants, animals, and ice of this frozen land. Some 1,000 hardy scientists even stay during the harsh polar winter.

Much of the research focuses on ozone. **Ozone** is a type of oxygen that forms a layer in the atmosphere. The ozone layer protects all living things on the earth from certain harmful rays of the sun. In the 1980s, scientists discovered a weakening, or “hole,” in this layer above Antarctica. If such weakening continues, the sun's harmful rays may cause skin cancer in humans and destroy plants. Turn to page 772 to learn more about the earth's ozone layer.

This frozen world attracts more than just scientists, though. Each year, a few thousand tourists come to Antarctica. Because it has such a harsh environment, however, Antarctica is the only continent in the world that has no permanent population.

✓ **Reading Check** Why are scientists studying the ozone layer?

Villa Las Estrellas

Humans can adapt to life under the most difficult of conditions. One example of this is the Villa Las Estrellas, or Village of the Stars. Located in Chile's Antarctic Territory, the “town” has a school, hospital, supermarket, post office, bank, telephone, television, and Internet service. There is even a gym and a sauna. Village residents include members of Chile's air force and their families, as well as scientists from

various countries. In all, about 240 people can live in Villa Las Estrellas. Many stay for two years at a time.

Like Penguins Daily dress in Villa Las Estrellas consists of thermal underclothes, warm boots, and dark sunglasses to protect the eyes against the sun's strong ultraviolet rays. Villagers must survive extreme temperatures down to -13°F (-25°C) with an even more bone-chilling wind factor. They do not stay inside all day, however. Adults walk from house to house to visit their neighbors. The children seem to enjoy the experience more than anyone else. One resident described outdoor playtime: "The children go crazy over the snow and enjoy sledding or just tobogganing downhill on their stomachs. They look like penguins!"

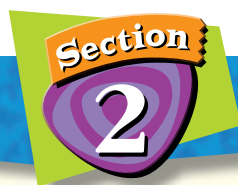
Global Village The countries of Russia, China, Korea, Brazil, Poland, Argentina, and Uruguay have military or scientific bases close to the village. In Antarctica, normal tensions between countries do not seem to matter. Every Wednesday afternoon, the different bases send soccer teams to the Chilean gymnasium for a game of indoor soccer. Once a year, a "winter Olympics" is held in volleyball and basketball. Visitors to the different bases mix freely with the people who live in them. Villa Las Estrellas may be as close to a real global village as the earth has ever seen.

 **Reading Check** What is one way that humans have adapted to the harsh Antarctic environment?



Social Studies online

Web Activity Visit *The World and Its People* Web site at twip.glencoe.com and click on **Chapter 27—Student Web Activities** to learn more about Antarctica.



Assessment

Defining Terms

1. **Define** crevasse, ice shelf, iceberg, krill, ozone.

Recalling Facts

2. **Place** What covers nearly 98 percent of Antarctica?
3. **Location** Where in Antarctica would you find the most living things?
4. **Human/Environment Interaction** Why do scientists come to Antarctica?

Critical Thinking

5. **Summarizing Information** Why have countries agreed not to use the resources of Antarctica?
6. **Writing Questions** Imagine that you are planning a trip to Antarctica. What questions would you ask scientists working there?

Graphic Organizer

7. **Organizing Information** Create a chart like the one below, and then look at the political map on page 759. In your chart, list the various national claims made in Antarctica by the world's countries. Then give the number of research stations for each country.

Countries With Claims in Antarctica	Number of Research Stations



Applying Social Studies Skills

8. **Analyzing Maps** Look at the physical map on page 728. What mountain range cuts across Antarctica?

MakingConnections

ART

SCIENCE

CULTURE

TECHNOLOGY

Antarctica's Environmental Stations

For nearly 200 years, adventurers, explorers, geographers, and scientists have been drawn to the icy wilderness of Antarctica. Scientific research is the major human activity on this remarkable continent.

Polar Science

In the 1950s, countries began to talk of preserving Antarctica as an international laboratory for scientific research. Today a formal treaty guarantees free access and research rights for scientists of many countries. Antarctica now holds more than 40 research stations.

Types of Research

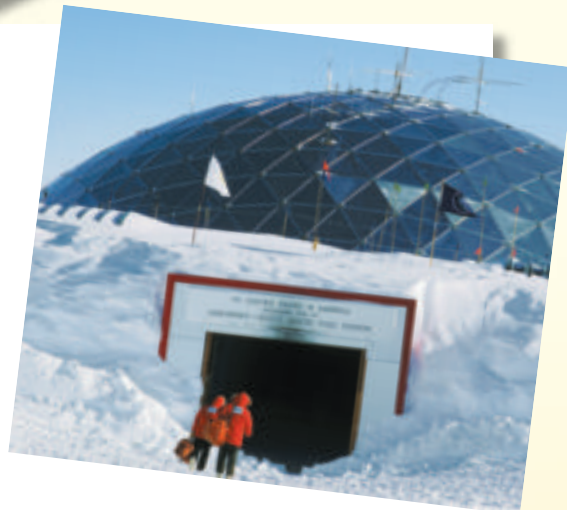
Geologists, biologists, climatologists, and astronomers are some of the many scientists who come to Antarctica to study. Understanding the earth's environment is a major focus. The Antarctic ice cap contains 90 percent of the world's ice and 70 percent of its freshwater. Changes here can affect the world's oceans and climates.

Scientists in Antarctica were the first to discover the holes in the ozone layer. Such holes can expose life on the earth to too much ultraviolet radiation.

Researchers in Antarctica also study the earth's history. Locked in the continent's ice crystals and air bubbles are clues to the earth's past. Fossils show how landmasses existed before the formation of today's continents.

The harsh living conditions of Antarctica provide another subject for study. The National Aeronautics and Space Administration (NASA) sends engineers and scientists to Antarctica to learn how to survive in extreme conditions, such as those humans might someday encounter on visits to other planets.

Research station at the South Pole ►



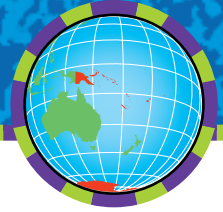
Life at the Edge

Living and working in Antarctica's polar wilderness demands special equipment, well-trained people, and a sizable dose of caution. Freeze-dried food, layers of warm, quick-drying clothes, insulated boots, and specially designed pyramid tents keep researchers well-fed, warm, and dry. Researchers quickly learn the importance of staying inside during whiteout conditions, when snow and fog create a total lack of visibility.

The Antarctic environment is a fragile one, and researchers take care to protect it. All trash and wastes are removed from the continent. Mining of mineral resources is banned, and laws protect native plants and animals. Such care ensures that Antarctica will continue to hold exciting discoveries for years to come.

Making the Connection

1. What do researchers study in Antarctica?
2. What discovery did researchers make about the ozone layer?
3. **Summarizing Information** What items do researchers in Antarctica use to stay warm and dry?



Section 1

Pacific Island Cultures and Economies

Terms to Know

cacao
copra
pidgin language
high island
low island
atoll
phosphate
trust territory

Main Idea

Oceania is made up of thousands of Pacific Ocean islands organized into countries and territories.

- ✓ **Region** Oceania is a huge area of vast open ocean and about 25,000 islands.
- ✓ **Region** Geographers divide Oceania into three regions: Melanesia, Micronesia, and Polynesia.
- ✓ **Place** High islands were formed by volcanoes. Low islands were made from coral.
- ✓ **Place** Papua New Guinea, in Melanesia, is the largest and most populous country of Oceania.
- ✓ **Economics** The main economic activities in Oceania are farming and tourism. Some islands have important minerals or other resources.
- ✓ **History** Most people of Oceania are descendants of people who left Southeast Asia on canoes thousands of years ago.

Fijian schoolgirls buy ►
snacks from an Indian
merchant in Suva.



Section 2

The Frozen Continent

Terms to Know

crevasse
ice shelf
iceberg
krill
ozone

Main Idea

Antarctica is a harsh land of rock and ice. The world's nations have agreed to leave the frozen continent open to scientific study.

- ✓ **Location** Antarctica lies at the southern end of the earth.
- ✓ **Place** Most of the continent, which has mountain ranges and a plateau, is covered by a huge, thick ice cap.
- ✓ **Place** Most plants and animals that live in Antarctica are small. Larger animals thrive in the waters off the coast.
- ✓ **Economics** Antarctica has many minerals, but many nations have signed a treaty agreeing not to remove these resources.
- ✓ **Culture** Antarctica is a major center of scientific research, but it is the only continent with no permanent human population.

Assessment and Activities



Using Key Terms

Match the terms in Part A with their definitions in Part B.

A.

1. pidgin language
2. copra
3. trust territory
4. ice shelf
5. phosphate
6. ozone
7. low island
8. iceberg
9. high island
10. krill

B.

- a. mineral salt used to make fertilizer
- b. tiny, shrimplike animal
- c. Pacific island formed by volcanic activity
- d. combines elements of several languages
- e. chunk of a glacier that floats free
- f. dried coconut meat
- g. layer of ice above water in Antarctica
- h. area temporarily placed under control of another nation
- i. Pacific island formed of coral
- j. layer in the atmosphere that blocks certain harmful rays of the sun



Reviewing the Main Ideas

Section 1 Pacific Island Cultures and Economies

11. **History** Why are there South Asians on the Fiji Islands?
12. **Human/Environment Interaction** Which is likely to have better farmland—a high island or a low island? Why?
13. **Government** New Caledonia is ruled by which European country?
14. **Economics** What attracts tourists to Oceania?
15. **History** From where did the people who first settled Oceania originally come?

Section 2 The Frozen Continent

16. **Place** What is significant about Mount Erebus?
17. **Location** What marine birds feed in the seas near Antarctica?
18. **Economics** What resources have been found in Antarctica?
19. **Government** What agreement bans the use of Antarctica's resources?
20. **Human/Environment Interaction** Why do scientists study the ozone layer in Antarctica?

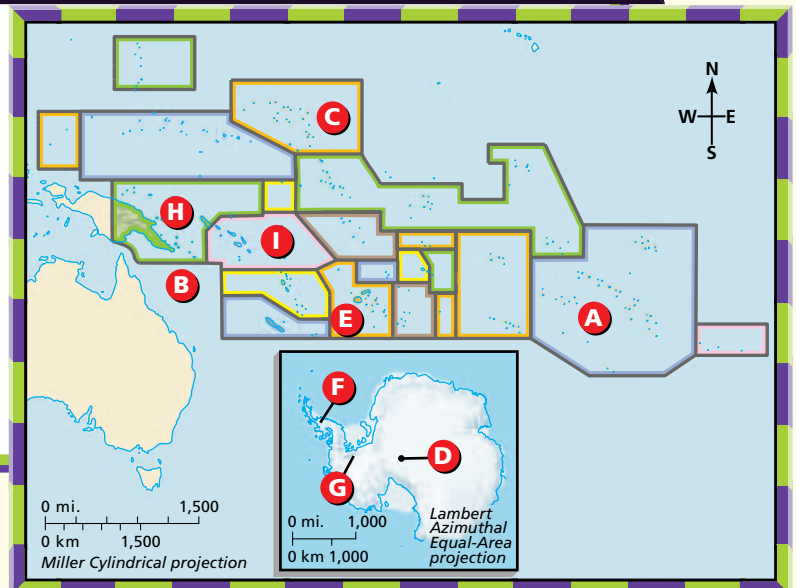


Oceania and Antarctica

Place Location Activity

On a separate sheet of paper, match the letters on the map with the numbered places listed below.

1. Antarctic Peninsula
2. South Pole
3. Vinson Massif
4. Marshall Islands
5. Papua New Guinea
6. Fiji Islands
7. French Polynesia
8. Coral Sea
9. Solomon Islands





Social Studies Online

Self-Check Quiz Visit **The World and Its People** Web site at twip.glencoe.com and click on **Chapter 27—Self-Check Quizzes** to prepare for the Chapter Test.



Critical Thinking

- 21. Making Generalizations** You have read about two areas with very different climates. Write a generalization about how climate affects the way people live in each area.
- 22. Organizing Information** Make a chart like this one. Under each heading, write a fact about each of the four regions you studied in this chapter: Melanesia, Micronesia, Polynesia, and Antarctica.

Landforms	Climate	Economy or Resources	People



Comparing Regions Activity

- 23. Geography** The region of northern Siberia in Russia has one of the coldest climates in the world. Research to find what plants and animals live here. Compare this information to what lives on the continent of Antarctica. What similarities and differences do you see?



Mental Mapping Activity

- 24. Focusing on the Region** Create an outline map of Antarctica. Refer to the map on page 728, and then label the following:
- Antarctic Circle
 - Pacific Ocean
 - Vinson Massif
 - Atlantic Ocean
 - Antarctic Peninsula
 - South Pole



Technology Skills Activity

- 25. Building a Database** Research three animals of Oceania. Create a database of the information you find. Include separate fields for the following items: name of species, location, type of habitat, diet, natural predators, and population status. Then use the database information to create a map showing the location of each species.

Standardized Test Practice

Directions: Read the paragraph below, and then answer the question that follows.

Because of the abundance of marine life in the clear Pacific waters, fresh fish is the primary traditional food of Oceania's people. This is especially true in the low coral islands, where there is little land suitable for farming. The rich volcanic soil of the high islands allows pineapples, coconuts, bananas, and sweet potatoes to grow. In Papua New Guinea, pork is a favorite food. Great feasts of pork, greens, and yams are social gatherings for whole villages. At these feasts, pigs are cooked for about eight hours over hot stones set in an "earth oven"—or large hole in the ground.

- 1. Which of the following statements *best* summarizes the paragraph above?**

- F** People in the high islands are able to grow and eat pineapples, bananas, and sweet potatoes.
- G** In the low islands, the coral prevents much farming.
- H** The Pacific Ocean is the source of the fish that most people eat.
- J** Physical geography influences the traditional foods of Oceania's people.

Test-Taking Tip: When a question uses the word *best*, it means that more than one answer might be correct. Your job is to pick the *best* answer. This question also asks for a summary of the passage. Read through all of the answer choices before choosing the one that provides a more general restatement of the information.



OZONE

Earth's Natural Sunscreen

The Ozone Hole If you spend lots of time outdoors, you probably know that “SPF 30” is a rating for sunscreen. The higher a sunscreen’s Sun Protection Factor (SPF), the longer you can be exposed to sunlight before your skin begins to burn. Earth has a sunscreen too. It is called ozone. Ozone is a kind of gas. A thin band of ozone high above the earth shields the planet from the sun’s most harmful ultraviolet (UV) rays. This ozone is being depleted, however. The satellite images (above right) show an expanding ozone hole above Antarctica. For several decades, the ozone layer has been in trouble.



Human-made chemicals, particularly chlorofluorocarbons (CFCs), destroy ozone and thin the ozone layer. CFCs were used for years in refrigerators, air conditioners, foam-insulated cups, aerosol sprays, and in some cleaning products.



Ozone losses of about 10 percent have occurred over Europe, Canada, and other parts of the Northern Hemisphere too.

When ozone is destroyed, more UV rays strike the earth. Exposure to harmful rays can cause skin cancer in humans, destroy plants, and kill ocean plankton.

Reversing the Damage The good news is that ozone destruction can be reversed. Officials around the world are taking action.

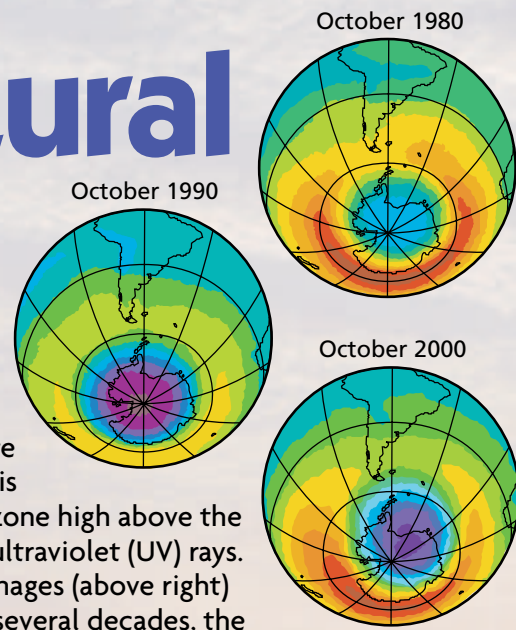
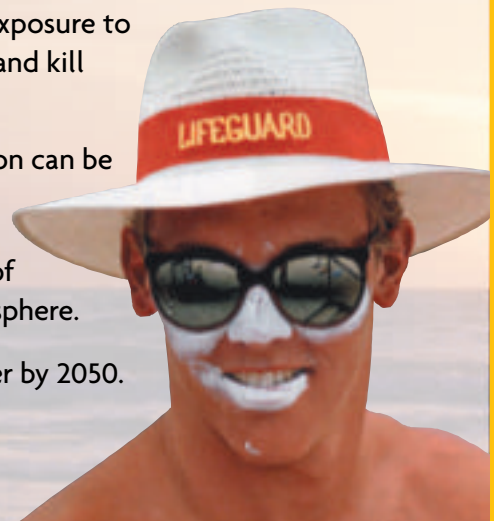


In 1992 an international treaty called for a global ban of CFCs by 1996. Today there are fewer CFCs in the atmosphere.



Some scientists predict full recovery of the ozone layer by 2050.

A lifeguard in Australia prepares for a day in the sun with hat, sunglasses, and zinc cream. ►



Source: Ozone Processing Team, NASA, GSFC.



NATIONAL
GEOGRAPHIC

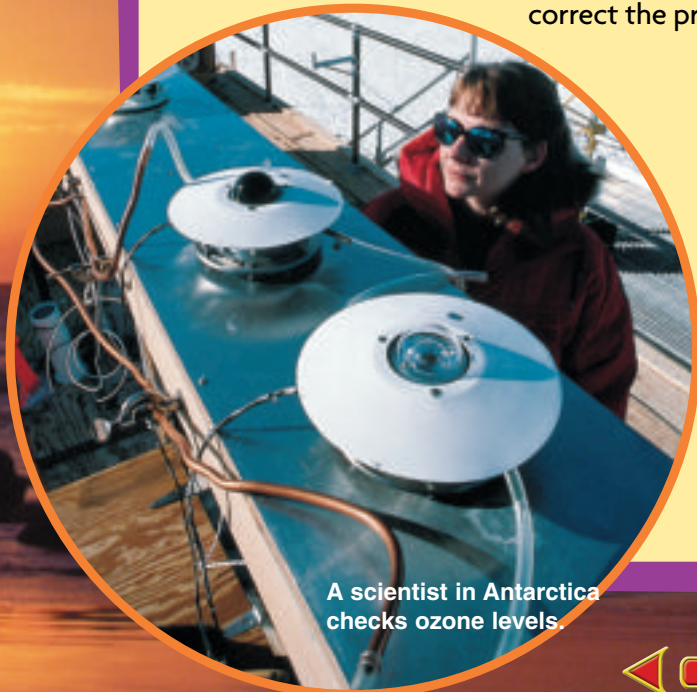
Making a Difference

Ozone Prizewinners Three scientists shared the 1995 Nobel Prize in chemistry for their research on ozone. Americans Mario Molina (right) and F. Sherwood Rowland and Dutch citizen Paul Crutzen shared the honor after describing the chemical processes by which ozone is formed and destroyed in the atmosphere. Before they explored the issue, little was known about how human-made chemicals affect ozone. The three scientists were able to show that the release of CFCs into the air damages the ozone layer. Their important research led governments around the world to ban the use of CFCs.



Mario Molina

Keeping Watch Antarctica has long been seen as a barometer of Earth's health. Scientists from all over the world live and work in research stations scattered throughout Antarctica. In 1985 scientists reported that the ozone layer over Antarctica had decreased dramatically. Since then, they have been closely watching the ozone layer, collecting data from special instruments that record ozone levels. Governments and environmental groups use this information to determine what can be done to correct the problem.



A scientist in Antarctica checks ozone levels.

What Can You Do?



Get Involved

Organize a "Sun Alert" campaign to warn younger students about the dangers of overexposure to the sun.



Find Out More

On the *Trail of the Missing Ozone*, an online book, tells why we need the ozone layer and how to prevent ozone depletion. You can read it at www.epa.gov/ozone/science/misoz/index.html. Share what you learn with the class.



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