GeoJournal
As you read this chapter, use your journal to log the key economic activities of Australia, Oceania, and Antarctica. Note interesting details that illustrate the ways in which human activities and the region’s environment are interrelated.

Chapter Overview Visit the Glencoe World Geography Web site at txgeography.glencoe.com and click on Chapter Overviews—Chapter 34 to preview information about the region today.
Living in Australia, Oceania, and Antarctica

A Geographic View

Antarctic Diving

There’s something special about peering beneath the bottom of the world. When Antarctica’s summer diving season begins in September the sun has been largely absent for six months, and the water... has become as clear as any in the world. Visibility is measured not in feet but in football fields. . . . Only here can you orbit an electric-blue iceberg while being serenaded by the eerie trills of Weddell seals.


The wonders hidden under Antarctic ice are among the many attractions of Australia, Oceania, and Antarctica. Tourism is a growing part of the region’s economies. In this section you will learn how people in Australia and Oceania earn their livings despite remote geographic locations and challenging environments.

Agriculture

Agriculture is by far the most important economic activity in the South Pacific area. Australia and New Zealand—the region’s major developed countries—export large quantities of farm products. Australia is the world’s leading producer of wool, and New Zealand is known for the quality of its dairy products, lamb, beef, and wool.
Although only 5 percent of Australians work in agriculture, much of their country’s vast land area is devoted to raising livestock—primarily sheep and cattle. Because of the generally dry climate, ranchers must roam over large areas to find enough vegetation to feed their herds. As a result, some Australian ranches, called stations, are gigantic—as large as 6,000 square miles (15,540 sq. km), about the size of Connecticut or Hawaii.

In addition, because of Australia’s dry climate, only about 10 percent of its land is suitable for growing crops. Irrigation, fertilizers, and modern technology help Australian farmers make the best use of their limited croplands. Wheat, for example, is grown in the dry Central Lowlands. By contrast, sugarcane thrives in the wetter climate and fertile soil of Australia’s northeastern coast.

About half of New Zealand’s land is used for agriculture. New Zealand ranchers, known as graziers, raise sheep, beef, dairy cattle, and red deer. Surprisingly, the country has 25 times more farm animals than people! New Zealand’s soil, more fertile than that of Australia, allows farmers to grow wheat, barley, potatoes, and fruits. One of New Zealand’s most distinctive fruits is the kiwifruit, a small, green-fleshed fruit named for its resemblance to the kiwi, the flightless bird that is the country’s national symbol.

Throughout Oceania, the lack of arable soil limits commercial agriculture. As a result, most island farmers practice subsistence farming. They grow starchy roots and tubers—taro, cassava, and sweet potatoes—and raise pigs and chickens. Fishing adds to the diet of many South Pacific peoples.

Some South Pacific islands, however, have areas of rich soil—often volcanic—and ample rainfall. These islands produce a variety of crops, such as tropical fruits, sugarcane, coffee, and coconut products, for export. The major South Pacific cash crop, produced widely in the region, is copra (KOH•pruh), or dried coconut meat. Among the island countries that export are Fiji, a producer of sugarcane, copra, and ginger, and Papua New Guinea, a supplier of coffee, copra, and cacao.

Mining and Manufacturing

A variety of mineral deposits exist in some parts of the South Pacific region. Australia is a leading exporter of diamonds, gold, bauxite, opals, and iron ore. Extracting these minerals, however, is hampered by high transportation costs inside and outside the country. In addition, public debate about Aboriginal land rights limits where mining can occur. For example, Australia has the world’s largest undeveloped supply of uranium ore, but much of it lies within ancestral lands sacred to the Aborigines.

With some exceptions, few significant mineral resources are found in other areas of the South Pacific region. New Zealand has a large aluminum smelting industry, and Papua New Guinea’s rich deposits of gold and copper have only recently been exploited. Kiribati and Nauru, once dependent on phosphate mining, now face dwindling supplies. They are now encouraging foreign investment and seeking aid to develop new economic activities.

Government

Mining in Antarctica

Antarctica holds enormous untapped mineral resources, including petroleum, gold, iron ore, and coal. Scientists have used core sampling—drilling cylindrical sections through the Antarctic ice cap—to
identify the presence of these and other key minerals. Although seven countries have made territorial claims to Antarctica, the voluntary Protocol on Environmental Protection, signed by 44 nations in 1991, prohibits mining on the continent.

**Manufacturing**

Australia and New Zealand are the South Pacific region’s major producers of manufactured goods. Because agriculture is important in these two countries, food processing is their most important manufacturing activity. Relatively isolated geographically, Australia and New Zealand must import costly machinery and raw materials in order to set up major manufacturing industries capable of producing exports. As a result, industries in the two countries generally manufacture products for home consumption. Goods that cannot be produced domestically are imported.

The rest of the South Pacific region is less industrially developed than Australia and New Zealand. Manufacturing in the islands of Oceania is limited to small-scale enterprises, such as textile production, clothing assembly, and mass production of craft items.

**Service Industries**

Throughout Australia and Oceania, service industries have emerged as major contributors to national economies. As in other developed countries, most people in Australia and New Zealand make their living in service industries. In Oceania few countries are large enough to support extensive service industries other than tourism. Nauru, however, has begun to attract international banking and investment companies as a way of ending its traditional dependence on phosphate mining.
Tourism

In recent decades the expansion of air travel has boosted tourism in Australia and Oceania. Each year thousands of tourists visit the region. Among the South Pacific region’s attractions are its indigenous cultures, unique wildlife, and contrasting physical features—rock formations, tropical rain forests, geysers, mountain glaciers, sandy beaches, and coral reefs.

History

World War II in the Pacific

Today several countries in Oceania are promoting World War II battle sites on or near South Pacific islands as tourist destinations. Just as history buffs in the United States visit Civil War battlefields, people from the countries involved are now visiting World War II battle sites. For developing South Pacific countries, such as Vanuatu, the Marshall Islands, the Solomon Islands, and the Federated States of Micronesia, tourism provides a much-needed source of income.

Global Trade Links

In recent decades, improved transportation and communications links have increased trade between the once remote South Pacific region and other parts of the world. The South Pacific’s agricultural and mining products are its greatest sources of export income. Countries in Oceania export copra, timber and wood products, fish, vegetables, and handicrafts. The spices of the vast South Pacific region are now found in kitchens around the world. For example, the islands of Micronesia are a major source of black pepper, and Tonga exports ginger and the costly vanilla beans used to flavor ice cream and baked goods. A number of South Pacific countries, however, must import food to supplement the subsistence crops.

During most of the 1900s, Australia and New Zealand traded exclusively with the United Kingdom and the United States. In recent years, however, these South Pacific countries have increased trade with their neighboring Asian countries of Japan, Taiwan, and China. In 1971 various island countries of Oceania set up the South Pacific Forum, an organization that promotes trade and economic growth. Because of few natural resources, some South Pacific islands are dependent to some degree on outside investment or foreign aid.

Transportation and Communications

Australia, Oceania, and Antarctica contain thousands of miles of coastland, barren desert, and solid ice. Physical barriers and long distances challenge travelers in the region.

Land Travel

Australia and New Zealand have the most developed road and rail systems in the region. In coastal areas of these countries, highways are well maintained, and subways provide public transportation in urban areas. Few roads, however, are found in the isolated Australian outback.

In Oceania many island countries are too small, too poor, or too rugged to have well-developed road or rail systems. Some governments, however, are improving the roads and bridges necessary for economic growth. Antarctica lacks permanent settlements and has no roads or rail systems.
Air and Water Travel

Long distances, harsh climates, or obstacles to land travel make air and water travel important to the region. Cargo ships and planes move imports and exports to and from far-flung Pacific territories. Commercial airlines and cruise ships bring travelers.

Water and air also provide important means of personal transportation. Pacific islanders began using outrigger canoes thousands of years ago, and many of Oceania’s travelers continue to use boats today. Sailboats and motorized boats are common, and ferries link New Zealand’s two major islands. Icebreakers—ships with reinforced bows—carry people and supplies to Antarctica as do small planes and helicopters, although winter blizzards often make transportation of any kind impossible. Severe winters isolate Antarctica:

"Along about February the annual exodus [from the research stations] begins in earnest. Once the cold season takes hold, planes stop making regular flights to inland stations, and the ice layer spreads out to sea, making access by ship nearly impossible. Only a few hundred residents stay through the winter."


Planes also provide transportation between islands in the South Pacific. In Australia’s outback almost every station or farm has at least one plane. Ranchers often use helicopters to herd cattle over thousands of acres of rough terrain.

Communications

In the South Pacific area, the same geographic obstacles that hinder land travel also make communications difficult. The development of modern technology, however, has helped increase contacts within Australia, Oceania, and Antarctica and with the rest of the world. In the Australian outback, some cattle stations are large enough to maintain their own post offices and telephone exchanges. Others use two-way radios to communicate. Emerging technologies, such as cellular, digital, and satellite communications and the Internet, are becoming common in developed areas. A continuing challenge is to provide developing Pacific countries with access to these technologies.

Student Web Activity Visit the Glencoe World Geography Web site at tx.geography.glencoe.com and click on Student Web Activities—Chapter 34 for an activity about research in Antarctica.
People and Their Environment

A Geographic View

From Leafy Grove to Salty Swamp

Behind us a forest of dead eucalyptus trees stood in a salty swamp, a graveyard of skeletons with gray arms raised in good-bye.... Once a leafy grove in Western Australia, this salt lake rose from the ground when nearby woodlands were cleared for farms. Thirsty trees had absorbed rainwater and kept the water table from rising, but when they were cut, the water surfaced and brought salt with it. The result: saline ponds and dead fields.


Beneath much of Australia’s land surface there is a layer of salty subsoil or salty groundwater. Salts are carried to the surface as the water slowly evaporates. Scientists believe that 40 percent of Western Australia’s productive wheat belt could be lost to salty swamps in the next two decades. Today Australia, like other countries, is experiencing the environmental consequences of human activity. In this section you will learn about environmental challenges in Australia, Oceania, and Antarctica as well as the efforts under way to remedy environmental damage.

Managing Resources

Australia, Oceania, and Antarctica hold some of the planet’s richest and most diverse natural resources. Unfortunately, these resources have not always been well managed, and today the region faces many environmental issues. Conservation efforts, however, are
gaining recognition in the region. Environmental issues concern voters and government leaders alike in Australia, New Zealand, and other South Pacific islands.

**Australia’s Unusual Animals**

The continent of Australia, separated for so long from other landmasses, is home to many unique animal species. Kangaroos, koalas, and wallabies are just some of Australia’s 144 species of **marsupials**—mammals whose young must mature in a pouch after they are born. The Australian island of **Tasmania** gave its name to the Tasmanian devil, a powerful meat-eating marsupial about the size of a badger. Australia’s strangest wildlife may be the duck-billed platypus and the echidna, a spiny anteater—the only mammals in the world that lay eggs.

Australia’s unusual wildlife species, however, have been seriously threatened by the human introduction of various nonnative animals. These **introduced species** include the hunting dogs called dingoes brought from Asia by migrating Aborigines. Sheep, cattle, foxes, cats, and rabbits were also brought by European settlers. In the absence of natural predators, these animals have multiplied and taken over the habitats of Australia’s native species. Some of Australia’s native species have become extinct, and at least 16 kinds of marsupials are now endangered. Efforts to restore Australia’s ecological balance include the use of electric fencing to keep out nonnative animals, hunting and trapping programs, the introduction of natural predators, and the creation of native wildlife reserves.

**Forest, Soil, and Water**

The protection of forest, soil, and freshwater resources is a major concern throughout the South Pacific region. In Australia many sparse woodlands have been cleared for farms and grazing lands, leaving little protection against wind erosion. As in other parts of the world, soil conservation in the region is closely linked to reducing deforestation. Countries with valuable timber resources, such as New Zealand, Papua New Guinea, and Vanuatu, are developing plans to use forest resources without damaging the environment.

Drought, salt, irrigation, and agricultural runoff threaten Australia’s freshwater sources. In the fertile Murray-Darling River Basin, one of the world’s largest drainage basins, the use of water for agriculture and growing city populations has dramatically reduced the rivers’ flow.

Oceania also faces challenges in managing its freshwater resources. Many small coral atolls and volcanic islands hold only limited supplies of freshwater. Agricultural runoff and inadequate sanitation cause pollution that further threatens these supplies. The lack of clean drinking water keeps the standard of living low and poses barriers to economic growth in some countries of Oceania.
Improvement will come with better management of runoff, construction of additional sanitation facilities, and development of less expensive ways of removing salt from ocean water.

Agricultural runoff, chemical fertilizers, and organic waste also threaten oceans in the South Pacific region. Toxic waste in particular endangers Australia’s Great Barrier Reef and other Pacific coral reefs. Coral environments are increasingly stressed by tourists, boaters, and divers as well as oil-shale mining.

Pollution also affects all kinds of marine life, including the tiny organisms that make up coral reefs. Algae—on which these organisms thrive—and plankton are key parts of the ocean’s food web, the interlinking chains of predators and their food sources in an ecosystem. As these tiny living things are destroyed, the larger plants and animals that rely on them for food also die off.

History
The Nuclear Legacy

The testing of nuclear weapons has had major effects on the region’s environment. In the late 1940s and 1950s, the United States and other countries with nuclear capability carried out aboveground testing of nuclear weapons in the South Pacific. The dangers of such testing were gravely underestimated at the time. In 1954 the United States exploded a nuclear device on Bikini Atoll, in the Marshall Islands. The people of Bikini Atoll had been moved to safety, but those living on Rongelop Atoll, downwind of the explosion, were exposed to massive doses of radiation that resulted in deaths, illnesses, and genetic abnormalities.

Although the American testing was stopped, the effects of radiation exposure and environmental damage have continued through several generations. Today the atolls affected by the testing remain off-limits to human settlement. Recent studies, however, offer hopeful signs of eventual environmental recovery. In the 1990s the United States government provided $90 million to help decontaminate Bikini Atoll and set up a $45 million trust fund for blast survivors and their offspring from Rongelop Atoll.

The nuclear legacy also has had political effects. Antinuclear activism is a major factor in regional politics. In 1986 New Zealand banned nuclear-powered ships and those with nuclear weapons from entering its waters. Because of this ban, the United States withdrew from a defense agreement with New Zealand. In the mid-1990s, French plans to conduct nuclear tests on an atoll in French
Polynesia aroused antinuclear demonstrations. The international outcry led to an early halt to the tests.

**Atmosphere and Climate**

Like other world regions, Australia, Oceania, and Antarctica are threatened by global atmospheric and climate changes. In the 1970s scientists found a hole in the ozone layer over Antarctica:

“The mysterious stuff called ozone, which until then was known to the public chiefly as an . . . element of smog in overcrowded cities, was being destroyed in the stratosphere by chemicals made and released in the 20th century by humans. . . . The hole was real; the ozone had dropped by 50 percent. . . .”


The ozone layer’s protective gases prevent harmful solar rays from reaching the earth’s surface. The ozone hole over Antarctica grew dramatically between 1975 and 1993, when it covered more than 9 million square miles (23 million sq. km). In 1989 a similar ozone hole developed over the Arctic.

The loss of protective ozone may be behind the global rise in the rates of skin cancer and cataracts, conditions caused by overexposure to the sun’s ultraviolet rays. Increased solar radiation that reaches the earth through ozone holes may also contribute to global warming, the gradual rise in Earth’s temperatures over the last century.

Climate and weather in the South Pacific region are highly sensitive to changes in the El Niño weather pattern called El Niño-Southern Oscillation (ENSO). This seasonal weather event can cause droughts in Australia and powerful cyclonic storms in the South Pacific. These ENSO-related weather patterns are believed to be increasing in frequency and severity and may also be linked to global warming.

Some scientists claim that continued rises in Earth’s temperatures could be devastating. If polar ice caps were to melt and thermal expansion of ocean waters occurred, many of Oceania’s islands would be flooded by rising ocean levels. Rising ocean temperatures also affect certain types of plankton and algae that grow in warm waters, causing overgrowth and the choking out of other life-forms. Diatoms—plankton that flourish in cold ocean waters—would die if temperatures rose, affecting life-forms that feed on them. Scientists in the region, especially in Antarctica, are studying global warming and are hoping to discover causes, predict consequences, and provide solutions.

**TAKS Practice**

**Checking for Understanding**

1. **Define** marsupial, introduced species, food web, ozone layer, El Niño-Southern Oscillation (ENSO), diatom.
2. **Main Ideas** On a chart like the one below, list resources and examples of their mismanagement in the region. Also list possible solutions.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Example of Mismanagement</th>
<th>Possible Solution</th>
</tr>
</thead>
</table>

**Critical Thinking**

3. **Comparing and Contrasting** How are countries of the region similar and different in the challenges they face concerning water resources?
4. **Decision Making** Do you agree or disagree with New Zealand’s nuclear ban? Explain your reasons.
5. **Problem Solving** What steps would you take to increase awareness about the risks of global warming? Explain.

**Analyzing Maps**

6. **Location** Study the physical-political map on page 796. Which countries are at the greatest risk from rising ocean levels as a result of continued global warming?

**Applying Geography**

7. **Effects of Mining** Study the map on page 787. Compare a mineral-rich area shown on the map to a mineral-rich area in another region. Explain the effects of mining on both environments.
Is Global Warming at Fault?

Viewpoint

During the last century, Earth’s average surface temperature crept steadily higher—a phenomenon called global warming. In the past few decades, vast expanses of Antarctic ice have started breaking up and large chunks have floated out to sea. Researchers speculate that if the huge West Antarctic ice sheet collapses and melts, sea levels could rise dramatically, causing flooding in coastal regions around the world. Is global warming responsible for Antarctica’s melting ice?
As global temperatures rise, ocean waters warm and then expand, and ice in places such as Antarctica begins to melt. The seas start creeping higher onto the edges of the continents. Sea levels in some parts of the world are already almost a foot (30 cm) higher than they were a century ago. However, this increase is trivial compared with the rise that could occur if the vast West Antarctic ice sheet melts. If this happens, sea levels could rise by 13 to 20 feet (4 to 6 m). Coastal communities worldwide would be flooded. Low-lying islands, such as Tuvalu and Kiribati in the Pacific, would disappear underwater. Recent studies, however, indicate that the West Antarctic ice sheet has been receding for almost 8,000 years. Scientists have also uncovered evidence that the ice sheet may have collapsed about 400,000 years ago, before the last ice age. These findings have sparked a controversy.

Some scientists think that changes taking place in Antarctic ice are part of a natural cycle that has nothing to do with recent global warming. They point out that the West Antarctic ice sheet began shrinking before people started burning large amounts of fossil fuels and adding carbon dioxide to the atmosphere.

Other scientists think that recent changes in Antarctic ice sheets are a direct result of human-caused global warming. While these scientists admit there might be a natural cycle at work in Antarctica, they argue that global warming is speeding up that cycle.

What’s Your Point of View? Experts predict it will take 500 to 700 years for the West Antarctic ice sheet to melt completely, no matter what the cause. Should people today care about this issue? Why or why not?
Problem Solving

Individuals and groups often face problems that require critical thinking to solve. Identifying problems and evaluating possible solutions are important skills used by individual citizens, local and national governments, and world organizations.

Learning the Skill

Whether a problem is simple or complex, local or global, the same problem-solving steps can be applied. You can practice these steps in your everyday life, just as governments and organizations do when addressing major conflicts.

Here are the steps involved in problem solving:

• **Identify the problem.** State clearly the issue at hand and the reasons the problem must be solved.

• **Brainstorm possible solutions to the problem.** Be open-minded and creative. Take notes on all the possibilities suggested.

• **Evaluate the proposed solutions.** Evaluate each proposed solution by listing its advantages and disadvantages and anticipating its possible consequences.

• **Choose and implement the best solution.** Choose the best possibility, understanding that it may have some drawbacks. Put your solution into practice.

• **At a later time, review the success of the solution.** If implementing your solution has not improved the situation or has resulted in further problems, begin the process again.

Practicing the Skill

Read the excerpt above. Then use what you know about problem solving to answer these questions.

1. What is the problem?
2. What are the positions of environmental groups and the Australian government regarding the problem?
3. What are some possible solutions to the problem?
4. How has Australia tried to solve the problem?
5. How can the success of the solution be evaluated?

Environmentalists say the Great Barrier Reef will be under threat if the Australian government allows oil explorations in the area. After years of controversy, the government has started testing ways of tapping oil reserves around one of the world’s most spectacular sites. Experts say there is more oil to be tapped in the reef’s coastal rock next to the coral than has ever been found on the entire American continent.

Environmentalists say the processes involved could destroy the delicate coral. . . . “To do that [extract the oil] requires a lot of energy and the oil you get is very carbon intensive, making the whole process a very dirty kind of mining.”

More than one million people visit the reef each year but oil pollution has the potential to ruin the tourist industry. . . . [The government] says the country cannot afford to ignore the reef’s precious resources. . . . [S]uch is the sensitivity of the issue, the authorities have only given the go-ahead for one pilot area to be exploited for oil.

—“World: Asia-Pacific Oil Threat to Great Barrier Reef,”

**BBC News** (online), September 25, 1998

Applying the Skill

Work in a small group to find an environmental issue facing your community. As a group, apply the steps for problem solving to the issue you have chosen. Prepare a written report of your results. If possible, share your proposed solution with community authorities.
SUMMARY & STUDY GUIDE

SECTION 1

Living in Australia, Oceania, and Antarctica (pp. 833–837)

Terms to Know
- station
- grazier
- copra

Key Points
- Agriculture is the most important economic activity in the region, although mining is done in Australia and some island countries.
- Manufacturing in Australia and New Zealand centers on food processing, and the rest of the region engages in small-scale production of clothing and crafts.
- The importance of service industries, particularly tourism, is increasing in the economies of the region.
- Transportation and communications technologies, such as air travel, satellite communications, and the Internet, are helping people in the region to overcome geographic obstacles.

Organizing Your Notes
Create an outline using the format below to help you organize your notes for this section.

Living in the South Pacific
I. Agriculture
   II. Mining and Manufacturing
      A. Mining in Antarctica
         1.
         2.

SECTION 2

People and Their Environment (pp. 838–841)

Terms to Know
- marsupial
- introduced species
- food web
- ozone layer
- El Niño-Southern Oscillation (ENSO)
- diatom

Key Points
- Australia, Oceania, and Antarctica have many natural resources, but the region’s environment is threatened by human activity.
- Governments and individuals in the region are focusing on balanced management of water resources, forest, land, and wildlife.
- Nuclear testing conducted in Oceania during the 1940s and 1950s has had a lasting impact on people and the environment.
- Scientists are studying global warming and the thinning ozone layer to prevent potential risks.

Organizing Your Notes
Create a web diagram like the one below to help organize the notes you took for this section. Add other key ideas to the web, and draw lines to show connections between ideas.

- ENSO
- ozone hole
- deforestation
- climate change
- Environmental Concerns

Thermal spring, Rotorua, New Zealand
Critical Thinking

1. **Finding and Summarizing the Main Idea** What are three critical challenges to agriculture in Australia?

2. **Identifying Cause and Effect** In what ways could mining operations in Antarctica interfere with scientific research programs there?

3. **Problem Solving** Use a graphic organizer like the one below to describe three steps that countries in Oceania might take to reduce the impact of tourism on coral reefs.

   Reduce tourist impact

Reviewing Key Terms

Write the key term that best completes each of the following sentences. Refer to the Terms to Know in the Summary & Study Guide on page 845.

1. Ranchers on an Australian __________ will sometimes build fences to keep out ________.
2. The kangaroo, one type of __________, is native to Australia.
3. __________ are part of the __________ of larger life-forms.
4. Disruptions to weather patterns in the South Pacific caused by ________ may be increasing.
5. A New Zealand __________ makes a living by raising sheep, beef cattle, and dairy cattle.
6. Many countries in Oceania export __________.
7. Scientists discovered a reduction in the __________ in the 1970s.

Reviewing Facts

**SECTION 1**

1. How does the importance of agriculture, mining, and manufacturing vary among South Pacific countries?
2. What service industries are developing in Australia and Oceania?
3. How have changes in transportation and communications affected the location and patterns of economic activities in the South Pacific region?

**SECTION 2**

4. What are the major threats to the region’s wildlife, forests, soil, and water?
5. What have been the effects of nuclear testing in Oceania?
6. What effects in the South Pacific have occurred because of atmospheric and climatic changes?

Locating Places

**Antarctica: Physical Geography**

Match the letters on the map with the physical features of Antarctica. Write your answers on a sheet of paper.

- 1. Weddell Sea
- 2. Antarctic Circle
- 3. South Pole
- 4. Ross Sea
- 5. Antarctic Peninsula
- 6. Transantarctic Mountains

Lambert Azimuthal Equal-Area projection
Using the Regional Atlas
Refer to the Regional Atlas on pages 784–787.

1. Location  Where are most of the zinc deposits in the region?

2. Human-Environment Interaction  Which physical features in the region are vulnerable to environmental damage from mining activities?

Thinking Like a Geographer
Using what you know about the physical geography of Oceania's islands, write a paragraph suggesting three ways these islands might address their lack of clean freshwater.

Problem-Solving Activity
Group Research Project  With a small group of classmates, research one of the introduced species in Australia. Investigate the origins of the problem it has created, its effects on the environment, and suggested solutions. Brainstorm additional solutions, and evaluate each proposal. Prepare a report to the class on the solution you think is best.

GeoJournal
Descriptive Writing  Using your GeoJournal data, select a human activity from each of the following areas: Australia, Oceania, and Antarctica. Then write a descriptive paragraph that compares how each of these activities has modified the physical environment.

Technology Activity
Using the Internet for Research  Use the Internet to find information about global warming. List the sources you find on the Internet, and compare the different viewpoints on the issue of global warming. Then choose one solution that you support, and write an argument for adopting that solution.

Answer to Multiple-Choice Question
Rabbits are one of the more destructive wild animals that have been introduced into Australia. They damage the environment and reduce agricultural production. They compete with native wildlife for food and shelter, which reduces the populations of many native plants and animals. Because rabbits eat seedlings, there are fewer young plants to replace those that die naturally. Rabbits also compete with livestock for the same plants, eating them to below ground level. This loss of plant cover results in soil erosion.

1. Based on the information in the paragraph, how do rabbits reduce agricultural production?
   A  They live in wheat-growing regions and eat the wheat seedlings.
   B  They compete with native wildlife for food.
   C  Dead plants are not replaced by enough new plants to prevent soil erosion.
   D  They eat the plants that provide food for livestock and cause soil erosion by eliminating plant cover.