

# INTRODUCTION

**A**lthough you may not be aware of it, you experience geography every day. Geography is about location—where people live on the Earth. But geography also embraces many other aspects of your life. The weather, the economy, and even the sports you play are all shaped by geography.

Consider the following Canadian newspaper headlines:

Death of local pulp mill town in BC

Local tree war spreads to Europe

Migration to BC slows

Warm seas ruining BC fishery

Recyclables one-third of landfill

Toxins found in bodies of harbour seals

You probably noticed that these headlines are extremely timely. But did you know that they also relate to the broad area of study known as “geography”? Geography explores much about human behaviour—how

humans react with their environment, and how they occupy and exploit the physical environment.

When the Royal Geographic Society was founded in 1830 in London, England, its goal was to promote an “important and entertaining branch of knowledge—geography.” Like the founders of the Royal Geographic Society, modern geographers want to unlock the mysteries of the Earth. However, they are less interested in exploring unknown places than they are in understanding the “why” and “how” of the physical world. Geography brings together many fields of study: it draws on a wide range of subjects, such as climate, geology, hydrology, economics, and biology. It looks for spatial patterns on Earth in order to understand how humans live.

In this chapter, you will explore the geography of west-

ern Canada and how human activity changed the ecology of the prairies. For thousands of years, the prairies were home to many aboriginal nations. European settlement, which began by the 1860s, was the driving force of change. The aboriginal peoples saw that European settlement would change their world forever and fought against it. You will read more about the political resistance to settlement in the next chapter. By examining the geography of the region in this chapter, you will be able to link these two factors in your appreciation of western Canada’s history.

**Figure 3-1** European settlement changed the face of the prairies. In this painting of the Plains Indians hunting bison, the prairie grasses are shown in their natural state. What is your image of the prairie today?



# THE IMPORTANCE OF PLACE

**latitude:** the distance of any point north or south of the equator, measured up to 90 degrees

**longitude:** the distance of any point east or west of the Prime Meridian, measured up to 180 degrees

Geography begins with the posing of questions and the gathering of information. What is a place like? How is it similar to, or different from, another place? Geographers use five organizing principles to help them gather, organize, and analyze their information:

- Places have a location.
- Places have physical and cultural characteristics.
- Places change.
- Places interact with other places.
- Places are in regions.

**Places have a location.** Many people think that geography is simply about finding places on a globe or map. While modern geographers would scoff at this as a definition, location nonetheless is the first step in the process of geography.

All places can be located in precise terms, in other words, a place has a position on the globe and a specific relationship to other places. For example, Winnipeg is located at 49 degrees north **latitude** and 97 degrees west **longitude**, and it is 650 kilometres away from Moose Jaw, and 550 kilometres away from Regina.

However, location also has significance, and this is even more important for geographic study. It is more important for geographers to know that Winnipeg is located in western Canada, is the geographic centre of North America and the historic gateway to the prairies from eastern Canada, and that it functions as Manitoba's economic, administrative, and transportation centre. You can reach Winnipeg by travelling from the east or the west along the Trans-Canada Highway. And if you lived in Minnesota, in the United States, you could drive to Winnipeg in the space of an afternoon.

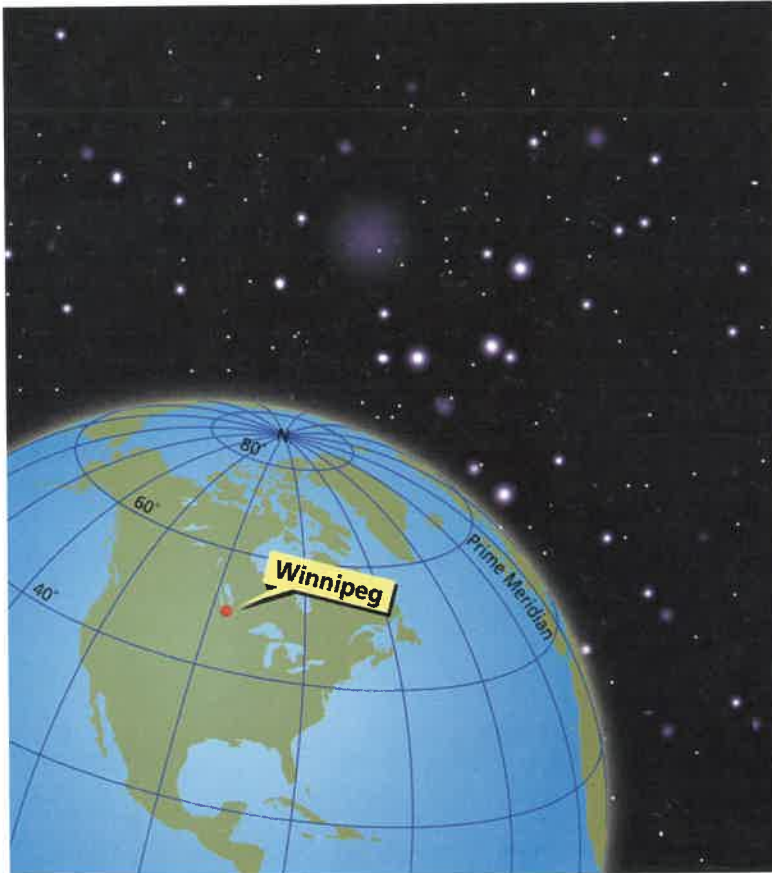


Figure 3-2 Winnipeg, Manitoba

# Where (Exactly) Are You?

It's 5:30 p.m.

You're at the mall.

You've spotted the perfect shoes.

You've just realized that your bank card's sitting on your dresser at home.

Phone home with the news, and the response is pretty much guaranteed:

"Where ARE you?"

Now, thanks to the **Global Positioning System (GPS)** you can state your latitudinal and longitudinal coordinates with amazing accuracy, give or take a few metres. The GPS is a new technology that it is being used by researchers and map-makers to pinpoint exact locations.

All you need is a GPS receiver, which looks like a cell phone. The GPS receiver picks up radio signals from twenty-four US Department of Defense satellites orbiting 17,600 kilometers above the Earth. Equipped with four highly accurate atomic clocks, the satellites continuously transmit their positions, time signals, and other data. The GPS receiver compares the positions of three satellites and the length of time it took the signals to reach it. In this way, it calculates your exact position on Earth. GPS calculations are based on the same system of triangulation that was used by Canada's early map-makers, but the new technology eliminates the back-breaking work.

The US military introduced GPS technology in 1974 to aid in naval navigation and to locate foreign military targets. It was used extensively in the Gulf War to help American troops move around the desert in Saudi

## DID YOU KNOW?

Canada is in the process of modifying GPS technology to implant in children's knapsacks, to foil child predators.



**Figure 3-3** Right: With GPS technology, you could offer your exact location. Left: GPS technology is useful in remote areas such as the Canadian Arctic. Here an Inuit fisher is using a GPS receiver to track a whale.

Arabia. Today, GPS technology is used much more widely. It is used to survey land, monitor geologic fault lines, explore resources, track wildlife, and fight fires. As receivers become smaller and cheaper, they are being used by hikers, boat owners, and even by golfers who want to figure out how far they are from the hole.

Some California companies are now using GPS to market a "personal satellite tracking device" that will allow parents to locate their children, or even the family pet.

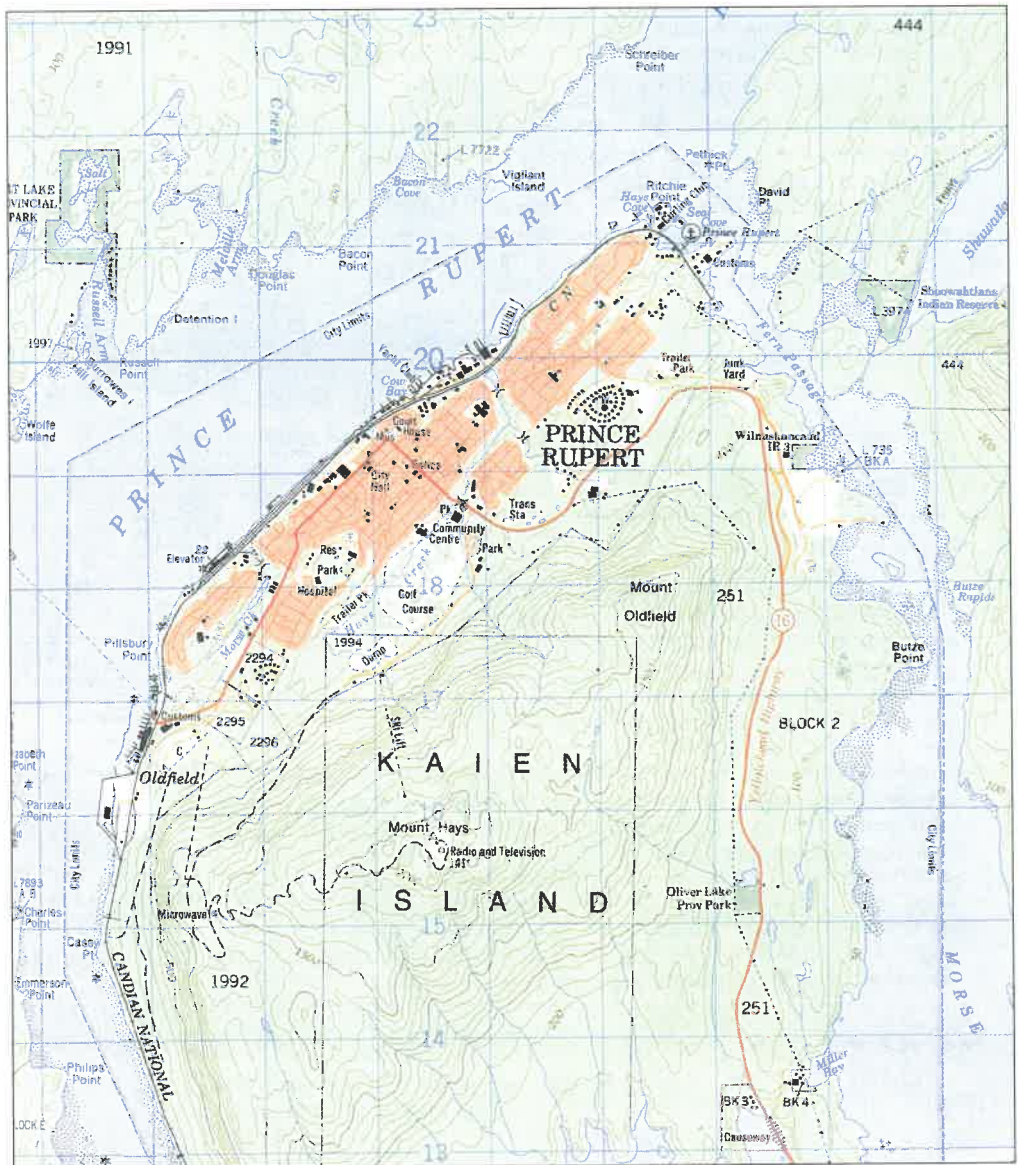
**Global Positioning System:** a system that uses satellite tracking devices to establish the latitude and longitude of a person or object

## WHAT DO YOU THINK?

1. If you were given a GPS receiver, in what ways could you use it?
2. Imagine that you represent a company selling GPS locators. What kind of customer would be interested in your product? Why?
3. Prepare a five-point company brochure that describes the advantages of GPS locators.

**Places have physical and cultural characteristics.** Physical characteristics include the landforms and bodies of water found in a place, as well as its soil and mineral deposits. These characteristics have a great impact on how people live, and they usually present distinct advantages or disadvantages, or a combination of both. For example, Prince Rupert has rugged terrain and heavy rainfall, but it also has rich vegetation and abundant water sources.

Virtually every human activity leaves its mark on the physical environment. The visible results of human activity are known as the “cultural landscape.” Peoples of different cultures usually affect the landscape in distinct ways. For example, in the Prince Rupert area of northwestern British Columbia, the Northwest Coast peoples removed bark from standing trees to make blankets, clothing, and fishing nets. Because the trees renewed their bark,



**Figure 3-4** Prince Rupert’s rugged landscape and shoreline is evident in this topographic map. The changes in the physical environment caused by settlement are particularly evident along the shoreline. In what way has the pattern of development been adapted to the landscape? What cultural features and patterns of land use would you spot if you were on a boat approaching the yacht club at Cow Bay?

and because the bark itself was recyclable, the long-term impact on the environment was minimal. This was not the case with the activities of later settlers. From its founding as a terminus of the second transcontinental railway (see Chapter 7), Prince Rupert experienced a dramatic alteration of its physical environment: as European immigrants settled in the area, they cleared land and built houses, roads, and port facilities. Eventually they exploited the area's fish and forest resources on a massive scale.

**Places change.** Nothing in nature stays the same. Landforms and **vegetation** are changing all the time, as are political boundaries and patterns of human settlement. How a place

looks today is the result of changes that occurred over time.

Geographers are especially interested in knowing how the natural environment changes through human actions. For example, how do river dams upstream affect people living downstream? How does a new highway affect the development of nearby real estate or industry? Knowledge of past changes helps us to make informed decisions about future changes.

**Places interact with other places.** In the past, the size and location of a place determined its level of contact with the rest of the world. Today, however, new transportation and communication technologies have made all but the most remote loca-

**vegetation:** the natural and undisturbed plants of a region



**Figure 3-5** Before Richmond's population rapidly increased in the 1980s and 1990s, the area was mainly devoted to agriculture. Farmland was displaced by housing developments and new commercial and light industrial activities.

tions accessible. We live in a world of rapid movement and instant communication. People travel, communicate, and use products, information, and ideas from around the globe. In this way, the places we inhabit have an impact on one another.

**Places are in regions.** A region is an area where certain characteristics prevail. The concept of a geographic region allows the geographer to organize information about the great diversity of the Earth's surface. You already use the idea of region in your everyday speech. For instance, you travel to "the coast," "the interior," "the prairies"—or to the "Caribbean" for holidays. You have a clear image of these regions. You also know that no two places in any of these regions are the same, but that they are similar enough to allow you to make general statements about the area.

There are as many regions as there are ways to examine and classify the similar physical or cultural characteristics of an area. Natural regions are identified by characteristics such as the prevailing climate, landforms, vegetation, and soils. Economic regions have prevailing industries. Government regions can be as large as a province or as small as a school board. There are also political-economic regions, such as all the countries who participate in NAFTA (the North American Free Trade Agreement). In this and later chapters, you will be introduced to the regions of western Canada as a means of analyzing regional issues.



**Figure 3-6** Edmonton's position in northern Alberta makes it a crossroads for travel east, west, north, and south. In particular, it is the gateway city for road and air travel to Canada's northern territories. As the capital of the province, Edmonton also regulates and controls the province's resources and industry.

## ACTIVITIES

1. a) Record the latitude and longitude of your community by using an atlas and copying the information in your notebook.  
b) Describe the location of your community in such a way that a person on another continent could find it easily on a map—without reference to latitude and longitude.
2. As a class, create a time line to display the effects of human activity on the cultural landscape of your local area. You could choose four or five main periods, beginning with the culture of the aboriginal peoples and ending with the twentieth century. Groups of students could be responsible for gathering information from the school library on one time period and filling in the information on the time line.
3. List as many regions as you can in your community. Beside each region, briefly describe what type of region it is. Remember that there are many categories of regions.