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# Place and Movement



Niagara Falls, Ontario, and Paris, France, are easy to identify because of their familiar landmarks.

## Before READING

### Making Connections

Use rapid writing to describe a place you know. It may be a specific location, such as your home, or a more general area, such as a city you visited.

Include as many details as you can. Why do you think you remember it so well?

**P**lace is one of the most important words in geography. The world is filled with unique places, some of them large and others small. Every place has a location, a description by which it can be found. For each big city, such as Toronto, there are many tiny crossroads communities, such as Punkeydoodles Corners. This is an actual community in southwestern Ontario, between the cities of Kitchener and Stratford. No one is quite sure who first called it Punkeydoodles Corners, but long ago the place was a stagecoach stop with an inn, some businesses, and a post office. Today, a few houses and a funny name are all that remain. It still has a sense of place, but just barely. The places shown here are much better known.



## What You Will Learn in This Chapter

- What is the geographic idea of place/location?
- How can the geographic idea of movement help me to understand the connections between places?
- What are the geographic terms related to place/location and movement?
- How can I interpret place/location and movement by reading a map?

### Thinking About **LITERACY**

This chapter will explain new meanings of words you already use. It will focus on new vocabulary and why it is important. You will also learn how to visualize to connect with what you are reading.

Start a vocabulary sort chart of boldfaced words in the text and other words you don't know. Take point-form notes on the importance of the word or concept.

See page S 5 in the Skills Tool Kit for help with vocabulary.

<b>Word List</b>	<b>How I Use It</b>	<b>Geography Use</b>	<b>Importance to Learning Geography</b>	<b>Drawing or Way to Remember New Meaning</b>
Place	Somewhere I can find something	A place is a part of the earth that is separate or different from other parts		

# Places Are Unique

## WORDS MATTER

**place** a bounded area; a locality such as a town or a city

**landmark** an object or landform that identifies a place

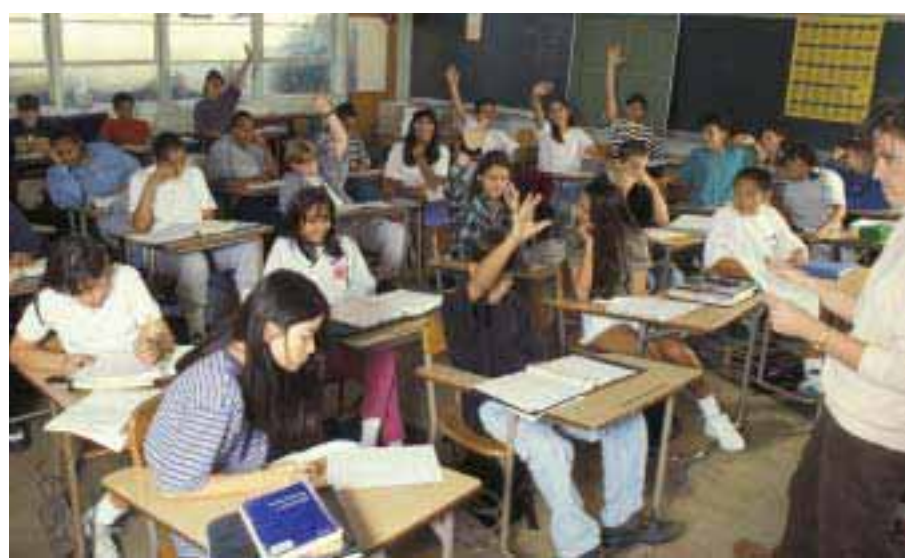
You are an individual, right? There is nobody else exactly like you in appearance, ability, and personality. The friends of identical twins can tell them apart. Just as each person has a unique character, each part of the earth has a special “sense of place.”

A **place** is a part of the earth that can be recognized as separate or different from other parts. Each place is a unique combination of natural physical characteristics (for example, landforms and bodies of water) and human-made features (for example, roads and buildings). Punkeydoodles Corners is unique because of its odd name. Niagara Falls and Paris have their widely recognized natural or human **landmarks**: the Horseshoe Falls and the Eiffel Tower.

## During READING

### Checkpoint

Why are the words *place* and *landmarks* boldfaced in this paragraph?



What would make each of these places unique?

Places come in many sizes, from a single room to the Pacific Ocean. Since places occur on the earth's surface, they are of special interest to **geography**. This subject focuses on the relationship between people and the earth. Geographers often study conditions at different places on the planet. Since the days of the ancient Greeks, explorers have wanted to learn the characteristics of different parts of the world. In fact, the word “geography” comes from two ancient Greek words, “geo” (of the earth) and “graphica” (descriptions). *National Geographic* magazine has used maps, graphs, pictures, and words to describe places on earth for more than a century.

## WORDS MATTER

geography the study of the earth's surface and people's relationship to it



In 1986, Sharon Wood became the first Canadian woman to reach the summit of Mount Everest.



## WORLD RECORDS

### The Highest Place

Mount Everest is the highest place on earth. Standing 8848 metres, it towers nearly 9 kilometres above the level of the Indian Ocean.

Mount Everest is part of the Himalayan mountain range in southern Asia. This gigantic landmark of rock, ice, and snow was first climbed in 1953 by Sir Edmund Hillary and his Sherpa guide, Tenzing Norgay. Hundreds of adventurers have attempted the ultimate quest—Mount Everest's summit. Some of them have paid with their lives.

## THINKING It Over

1. List, in order of size, eight types of geographic places, with an example for each. Start with a room and end with an ocean. (Hint: A city will fall somewhere near the middle.) **K**
2. Work with a partner to pick two pictures of places from this unit. (Don't choose Paris or Niagara Falls.) For each one, make a
- list of a) the natural, or physical, features and b) human-made characteristics that make the place unique. **K**
3. Describe the natural and the human-made features of the most interesting place you have ever experienced. See if your partner can guess the name of the place. **t c**

# Where in the World?

## WORDS MATTER

relative location description of a place in relation to other places, using landmarks, distance, or compass directions

“Where?” is the geographer’s favourite question. In this section, you will learn how to answer “Where?” questions using two methods: relative location and absolute location.

## Relative Location

You might describe the location of your home like this: “It’s at the first corner, just past the park.” This is called **relative location**, because where you live is related to another place, the park. Some people give relative location by using familiar landmarks and directions such as “right,” “left,” or “straight ahead.” Others use street names, compass directions, and some idea of distance.

Use the neighbourhood map below to find out how you use relative location. Read the two sets of directions to the arena. Which one seems clearer to you? Would you rather combine both approaches in your own unique style? Try it out.

## During READING

### Checkpoint

Which instructions (in the chart below) do you find easiest? Sketch a line map to your favourite place for a friend, showing the landmarks or streets.

Where’s the arena? How do I get there?

Using Simple Directions and Landmarks	The Location of the Arena	Using Compass Direction and Distance
1. When you come to the variety store, turn to your right.		1. Walk one block south to Oak Street.
2. Walk past the baseball park, then turn to your left.		2. Turn west at Oak Street and go another block.
3. At the end of the street you’ll see a big grocery store.		3. At Park Street, turn south and walk three blocks.
4. Make a left there.		4. Turn east at the end of Park Street and go one and a half more blocks.
5. Watch for the arena up ahead on the other side of the street.		5. The arena is on the south side of Elm Street.

## Absolute Location

If you have used a road map, an atlas, or a GPS (Global Positioning System) unit, you already know about **absolute location**. It is the location of a place independent of any other place. The system of latitude and longitude is an example of absolute location.

## Latitude and Longitude

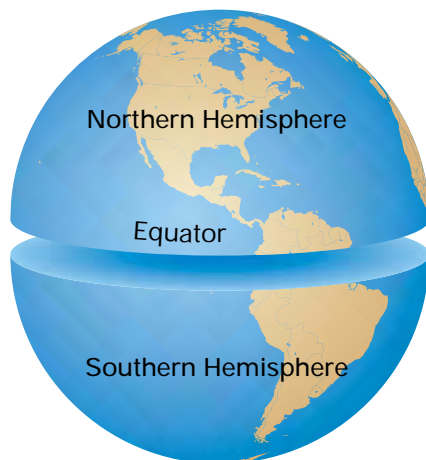
Suppose that a classmate was flying from Canada to visit relatives “down under” in Australia. The flight origin and destination locations would be listed this way in an atlas.

Imaginary lines of latitude and longitude show the absolute locations of these two cities.

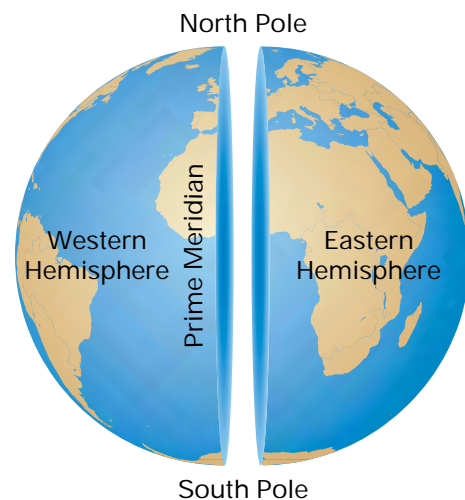
Place	Atlas Page	Latitude	Longitude
Toronto, Canada	64	43.40° N	79.23° W
Sydney, Australia	159	33.55° S	151.10° E

## Four Hemispheres

You cut an orange in half in different ways. To squeeze orange juice, you slice it across the middle. To eat it in sections, you cut it from top to bottom. Geographers also divide the world into halves, with each part called a **hemisphere**. The northern, southern, western, and eastern hemispheres are the source of the N, S, W, and E in the chart above.



The northern and southern hemispheres are divided by the equator, an imaginary line at the widest part of the earth.



The eastern and western hemispheres are divided by the prime meridian, an imaginary line between the earth's poles.

### WORDS MATTER

**absolute location** a description of a place independent of any other place



GPS units have become a popular way to find location.

### WORDS MATTER

**hemisphere** half of a sphere or globe, especially the earth

## WORDS MATTER

latitude distance, north or south, from the equator

### Latitude Location

You could make orange slices by cutting pieces across the orange, parallel to its widest part. Geographers divide the earth's surface like this, with **latitude** lines running parallel to the equator. North latitudes are numbered from  $0^\circ$  at the equator to  $90^\circ$  N at the North Pole. South latitudes are numbered from  $0^\circ$  at the equator to  $90^\circ$  S at the South Pole.



## WORDS MATTER

longitude distance, east or west, from the prime meridian

### Longitude Location

You could make orange segments by cutting pieces from one end of the orange to the other. Geographers divide the earth's surface like this, with **longitude** lines stretching between the North Pole and the South Pole. These run east or west of the prime meridian, a measured line passing through the Greenwich Observatory in England. East and west longitude lines are both numbered from  $0^\circ$  at the prime meridian to  $180^\circ$  at the international date line. This line cuts through the Pacific Ocean, a convenient place to start a new day in the world time zone system.



### WEB LINK • .....

For more information on latitude and longitude, visit [www.pearsoned.ca/on7geography](http://www.pearsoned.ca/on7geography).

# Alphanumeric Location

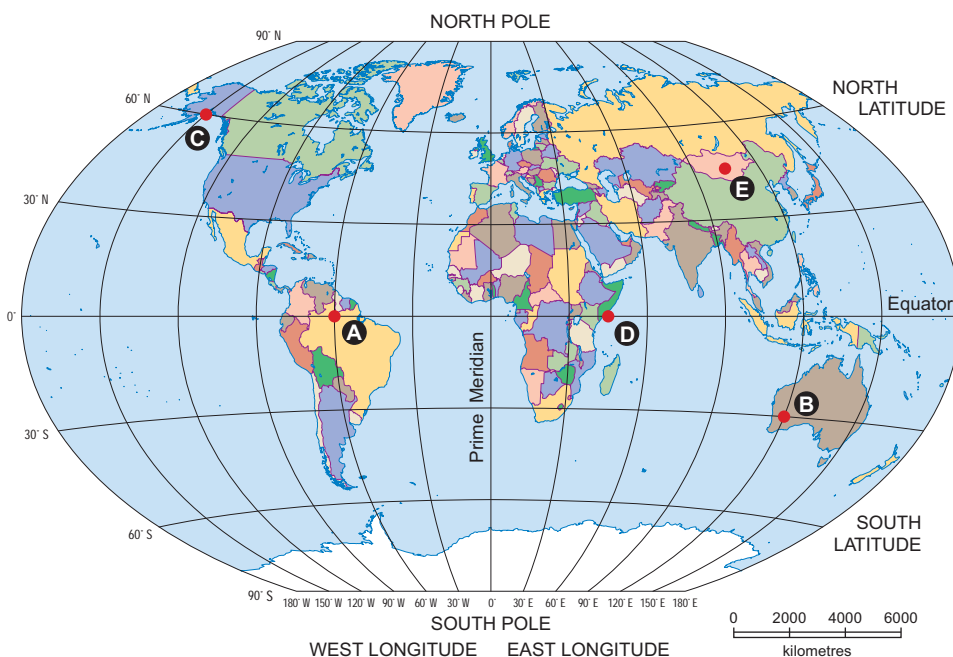
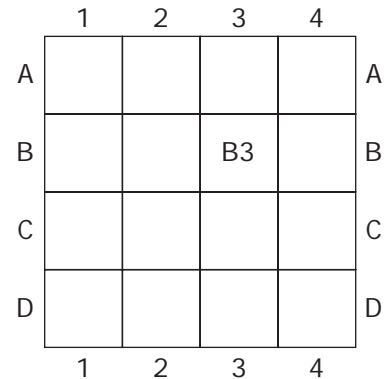
Alphanumeric location is a second way to find absolute location. It is a simple system that uses an **alphanumeric grid** with a combination of letters and numbers. Fine lines cross the map from top to bottom and from side to side. They form a checkerboard-like grid to identify each square. You will practise using this location method on page G 13.

**WORDS MATTER**  
alphanumeric grid lines that divide a map into squares, with numbers along the top and bottom and letters along the sides

## THINKING It Over

1. Write short descriptions of the locations of your home and the school. **t c**
2. Record the latitude and longitude location of points A, B, C, D, and E on the map. **m**
3. On a larger copy of this map, locate and label these cities: **m**

a) Toronto, ON, 44° N, 79° W	e) Cape Town, South Africa, 34° S, 18° E
b) St. John's, NL, 47° N, 52° W	f) Sydney, Australia, 34° S, 151° E
c) London, England, 52° N, 0° (longitude)	g) Buenos Aires, Argentina, 35° S, 59° W
d) Mexico City, 19° N, 99° W	h) Tokyo, Japan, 36° N, 140° E



# GEO SKILL

## Read a Map

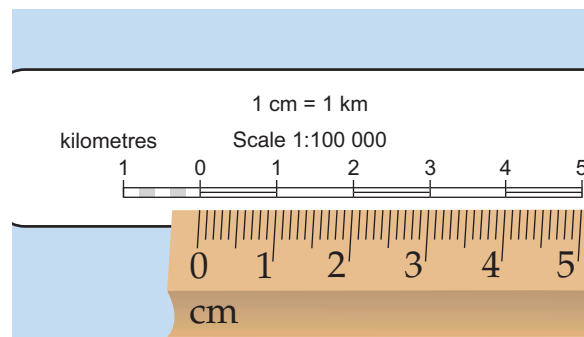
A map shows a simplified view of the earth (or some part of it) from directly overhead. Here's how to read one step by step.

### Step 1: Find Map Location

Check to see which of the absolute location methods the map uses. This map has an alphanumeric grid.

### Step 2: Measure Map Distance

Look for a map scale that shows earth distance. It might be shown as a statement scale; for example, 1 cm = 1 km. This means that each centimetre on the map shows one kilometre on the ground. This map uses a line scale, easy to measure with a ruler.



### Step 3: Find Map Direction

The top edge of most maps stands at north. Look for either a simple arrow or a compass rose, often but not always, near the top of the map.

### Step 4: Interpret the Map Legend

Use the legend to learn the meanings of three types of symbols on the map.

#### WORDS MATTER

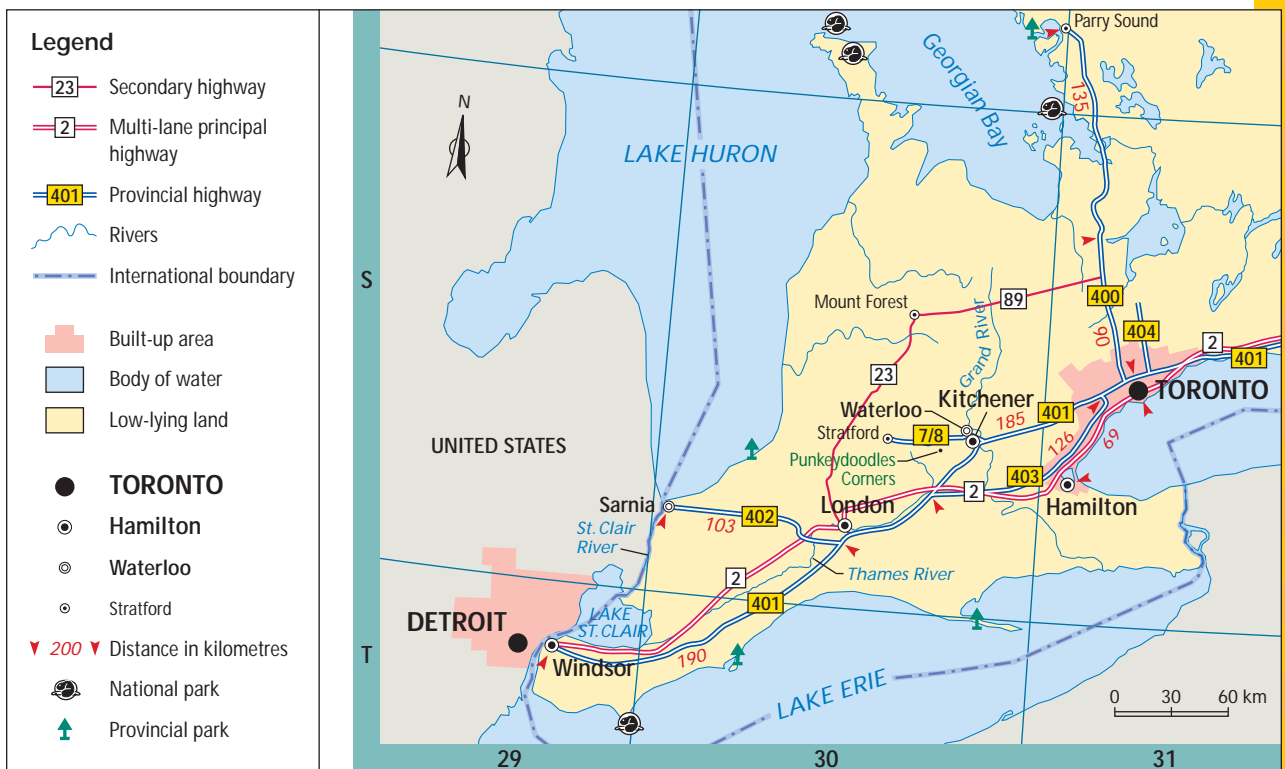
compass rose a four-pointed or eight-pointed symbol showing the major directions of the compass



Area Colours	Line Symbols	Point Symbols
Used for larger areas such as natural features, lakes, parks, and cities	May connect places (roads, railroads, rivers) or divide them (boundaries)	Uses small designs for towns, campgrounds, and other human activities

## APPLY It

- If you are flying from London, ON, what is the compass direction to: i) Sarnia, ii) Windsor, iii) Waterloo, iv) Hamilton? **m**
- Give the grid locations of the five cities in Question 1. **m**
- How many kilometres would each of these flights travel? Measure the distances from and to the centre of each city. From London, ON to i) Windsor, ii) Sarnia, iii) Waterloo, iv) Hamilton. **m**
- Describe the relative locations of: i) Lake St. Clair and ii) Punkeydoodles Corners **m**
  - How many different 400-series highways are shown on this map? **m**
  - Name the five largest Ontario cities shown on the map. **m**
  - Sketch and label a map to show how these five cities are linked by the 400-series highways. **m**

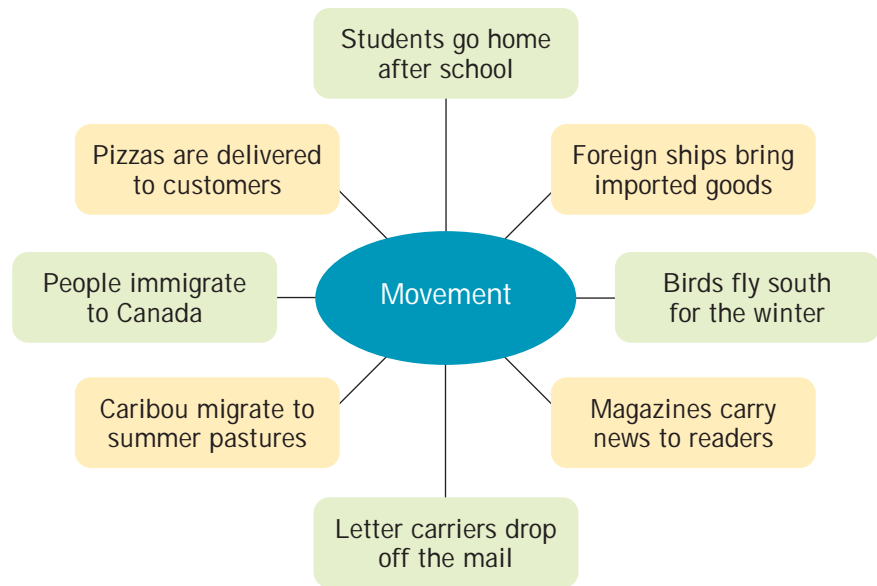


# A World in Motion

## WORDS MATTER

movement the flow of people, products, information, and elements of nature

How did you get to school this morning? Did you walk, ride a bike, take a bus, or get a ride? However you travelled, this **movement** took you from one place (home) to another (school). Movement connects places at different locations. It is one of the five geographic themes, and refers to the flow of people, products, and information. Movement includes migration in the natural world too. The web below shows all four of these motions.



## During READING

### Checkpoint

Use the sentences before and after a boldfaced word to help you understand the meaning. This is using *context*. Make notes about boldfaced words.

Geographers look at movement in two ways. They see **systems**, that is, a pattern of routes that connect places together. People build networks of highways to carry people to and from work. Nature develops river systems to carry water to the ocean. **Flow** measures the volume of people, products, information, and other things that move along a system. For example, planners measure traffic flow to decide where more lanes are needed on roads and highways. Scientists measure the water volume in rivers to predict flood periods.

The movement theme can be applied to many geographic questions. What is the best way to get around a city? What is the most efficient way to bring freight to customers? How does wireless technology move information? You will examine these questions in the next five pages.

## Moving People

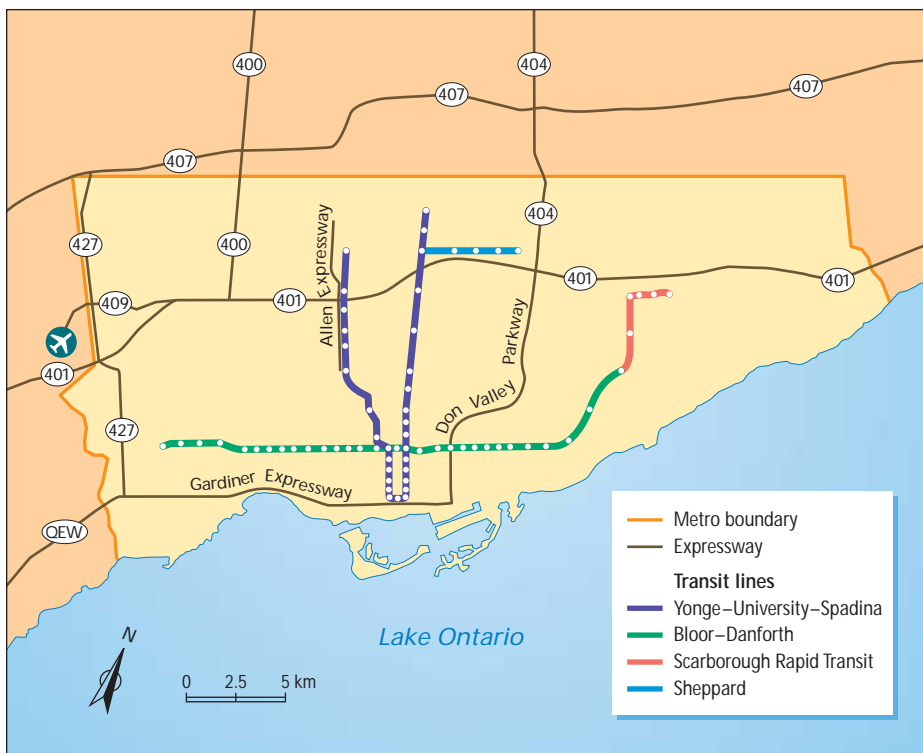
Friday at last! Rick Westermann turned his BMW onto Highway 404 and headed for Toronto. By the time he reached east–west Highway 401, commuter traffic was down to its usual crawl. He was still far from his downtown office, at least 45 more minutes away. For the fifth time this week, Rick considered that there must be a better way. He told himself that next week he would try parking at the top of the Yonge Street subway line, and riding public transportation the rest of the way to work. It had to be better than wasting time in another traffic jam.



A better way to get to work.



Rush-hour traffic on Toronto's Highway 401.



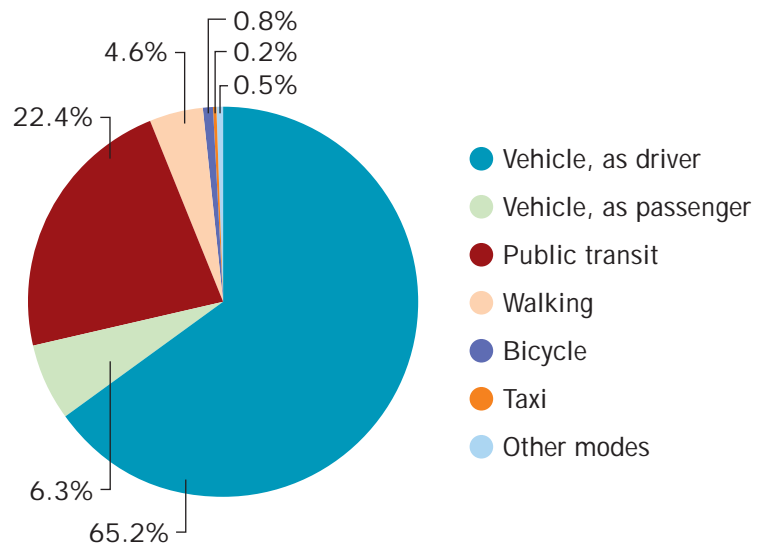
Describe the patterns of Toronto's transport systems.

## WORDS MATTER

public transit transportation systems that include buses, subway trains, streetcars, and commuter trains

The following Monday morning, Rick could be found on the Don Valley Parkway, caught in traffic again. Old habits die hard. Personal vehicles offer a level of privacy, comfort, and convenience that many commuters cling to, in spite of the high cost of gasoline, parking, and car repairs. About two-thirds of those who work in Metro Toronto drive to their job. Less than a quarter use **public transit**. In many parts of the world, these fractions are reversed, with public transit the favoured way to travel in cities.

Transportation to Work, Metro Toronto, 2001



What percentage of Torontonians arrive at work by vehicle?

Public Transit to Work, Top Six Canadian Cities

Top Six Metro Areas	Population, 2005	Percentage of Workers Using Public Transit
Toronto*	5 304 000	22.4
Montreal*	3 636 000	21.7
Vancouver	2 208 000	11.5
Ottawa–Gatineau	1 149 000	18.5
Calgary	1 060 000	13.2
Edmonton	1 016 000	8.6

\*Subway systems

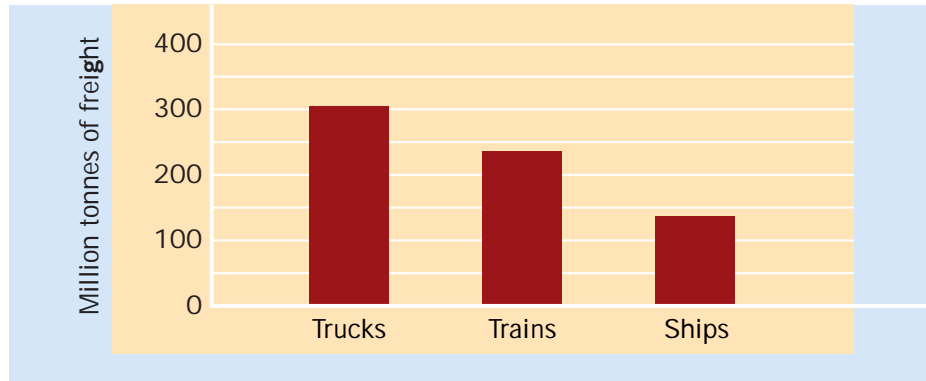
How does a subway system affect the use of public transit?

Toronto has been more successful than other Canadian cities in getting people to use public transit. The city's public transportation system has operated street railcars since 1921, and completed the first stage of its underground subway line in 1954. In 2005, the Toronto Transit Commission celebrated its 25 billionth passenger. This total is about four times greater than the population of the earth!

## Moving Products

The movement of products connects places to one another. Airplanes carry passengers, but they also deliver cargo or airdrop emergency food supplies to disaster areas. Energy flows through oil and natural gas pipelines and high-voltage electric power systems. Trucks, trains, and ships compete for most of the freight business.

Three Freight Competitors, Canada, 2003



The **container freight system** is a good example of movement. Products are packed into metal containers that look something like dumpsters. These containers can be stacked on the deck of a ship or clipped onto flatbed railcars or truck trailers. Special hoists lift the containers between different types of transport at container terminals. There are real benefits to this system:

- *security*: containers remain locked
- *cost*: no need to handle the contents of the container, saving time and human resources
- *time*: cargoes are delivered faster
- *tracking*: computers track container movement
- *global*: containers come in standard sizes, so contents do not have to be loaded into different containers as they move from one country to another

## During READING

### Checkpoint

What words tell us that the author wants us to see that it is important for people to use public transit?

## WORDS MATTER

**container freight system**  
a system for moving products that uses standard-sized metal boxes that attach to trucks, trains, and ships

# Three Freight Competitors

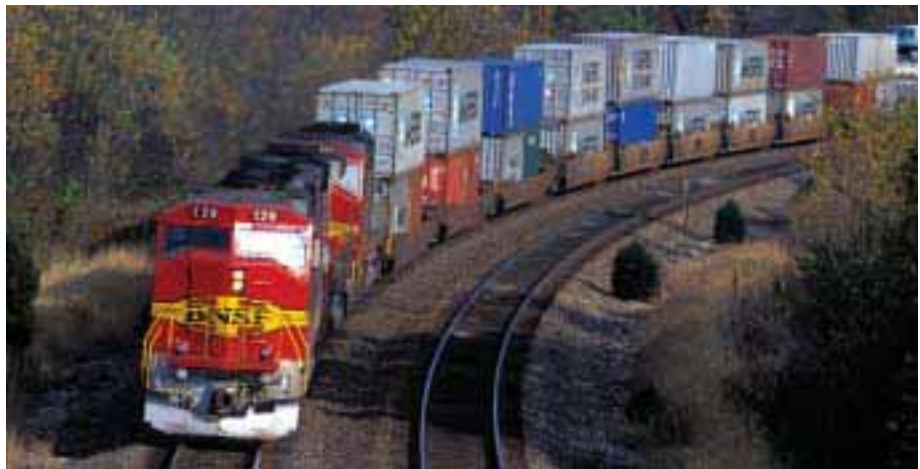
## Trucks

Trucks can go almost anywhere, even over winter ice roads in the Far North. They are ideal for carrying manufactured goods and packaged products. Trucks handle standardized freight containers and can provide overnight “just-in-time” delivery for manufacturers such as Ontario’s automobile assembly plants. Trucks are heavy energy users and their weight is very tough on roads. Heavy truck traffic is a problem along most major highways.



## Trains

Freight makes up 90 percent of the railway business in Canada. Trains are the best way to carry materials such as coal, iron ore, potash (for fertilizer), wheat, lumber, and huge rolls of paper. Often these products are being carried to ports for shipment within Canada and overseas. Special train cars carry container freight and new automobiles. Trains are more energy-efficient than trucks, but can only follow fixed routes.



## Ships

Much of the shipping within Canada takes place at a few ocean ports and along the Great Lakes system. Ships can load and unload huge volumes of the bulkiest raw materials, such as oil, coal, iron ore, limestone, and wheat. They also handle international container freight. Ships are the most energy-efficient form of transport, but they are limited by freeze-up during the Canadian winter.





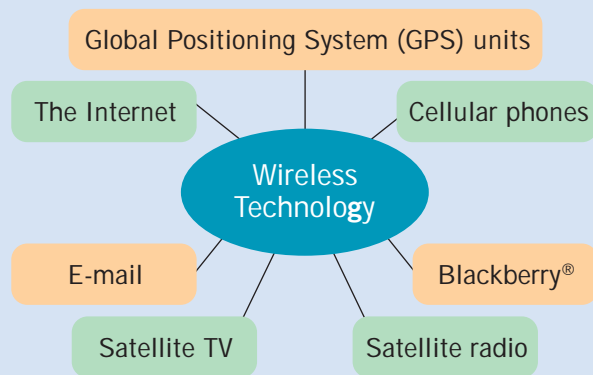
# ZOOM IN

## Wireless Technology

You are bombarded with information every day. Wireless technologies, computer-based systems that operate using only signal waves, are the key to information flows. Technology is expanding so quickly that successful new media products, such as the iPod® and the BlackBerry®, become widely used very quickly. People wonder how they ever lived without the new technology—until something even better comes along!

South Korea is probably the most advanced high-tech society in the world at present. Working parents use their office computer to check on the

kids after school, by interfacing with a tiny computer webcam built into the refrigerator door. Many South Koreans use their cellphones for shopping, online banking, and place-to-place travel (GPS). Wireless technology is the key to this ever-expanding “information superhighway”—and satellites make wireless technology possible.



Which of the examples shown in this diagram have you used before? Give some other examples of wireless technology that could be added to the web.



### THINKING It Over

- Record two examples each for people, product, and information flows that you have personally experienced today. Compare your examples to those of another student. **k**
- Construct a graph to show all or part of the information in the number table “Public Transit to Work, Top Six Canadian Cities.” See page S 8 in the Skills Tool Kit for help with graphs. **t c**
- What is holding Rick Westermann back from using public transit? Outline three different approaches to getting him off the highway and into the subway system. Use the Toronto map and pie chart to help you. **t c**
- Work with a partner to complete a Pros, Cons, Questions chart to summarize three competing freight carriers—trucks, trains, and ships. **t c**

# CHAPTER IN BRIEF

After

## READING

### Tie It Together

Compare your notes to the "Chapter in Brief" summary. What have you learned about place and movement? Why is it important to know this when we study geography?

This chapter introduced two common themes that geographers investigate—place/location and movement. You saw that there are many types of places in the world, each with its own location. This position can be determined using either relative location or absolute location methods. You practised both by using maps. In this chapter, you learned that movement connects places, using transportation and communications systems. People, products, and information link places on earth, sometimes by using satellite-based technology.

Word List	How I Use It	Geography Use	Importance to Learning Geography	Drawing or Way to Remember New Meaning
Place	Somewhere I can find something	A place is a part of the earth that is separate or different from other parts		

## PUTTING It All Together

Interpret the map and photo on the next page to identify characteristics of this unique place in Greece.

1. Use the map to write a detailed description of the relative location of the island. Include place names and direction. **t c**
2. Use the photo to record the following information about this place:
  - a) its physical features
  - b) its human-made features
  - c) evidence of geography's movement theme **t c k**
3. Describe the physical and human characteristics that make this place both unique and popular with tourists. **t c a**
4. Construct a Venn diagram to compare this place to your own community. **c**



Mykonos Town on the Greek island of Mykonos.



The location of the Greek village shown in the photograph.