LEARNING OUTCOMES

- identify factors that influence the movement of people around the world
- locate on a world map the major population clusters, and explain the relationship between population distribution and the natural environment

 Everything Is in Motion

Our world is full of movement. The Earth spins around on its axis once every 24 hours. The Earth’s crust is constantly shifting. The wind blows the leaves on the trees. Different forms of transportation move things from one location to another. Motion is all around us. The movement of people, animals, or things to a new area is called migration.

The history of a region influences the number of people who live there. Areas that were first settled because the natural environment was favourable or there was access to water transportation may have larger populations. This is because these settlement sites have existed for longer periods of time. Only in the past 300 years or so have large numbers of people from other continents moved to North and South America. This is a short time compared with how long people have been living in Europe, Africa, and Asia. These continents have higher population densities than North and South America.

Figure 2.1
As volcanoes erupt, earth materials move. What do you think happens to all the dust and smoke that flies into the air during a volcanic eruption?
People on the Move

There are many different reasons for people to move. Forces that encourage you to leave a place are called push factors. These could be poor living conditions, economic and/or political difficulties, or war. Forces that draw you to another place are called pull factors. Good jobs or better living conditions can pull you to a different place. Barriers are the things that make it difficult to move, such as family ties or travel costs. Usually, more than one factor influences people’s decision to move.

Figure 2.3
Many world regions have experienced losses of population due to migration over the years. On the other hand, countries like Canada have been gaining population steadily, also from migration.
Why Migrate?

People migrate for a new start in life, better economic opportunities, to escape persecution, and to find freedom. But moving has its price. Migration means dislocation. It means leaving somewhere familiar for a new and strange place. It means loss and gain, leaving and arriving, ending and beginning. As you learn about migration, it is important to remember the challenges that migrants face.

In more recent times, nations have created migrations to satisfy different national needs. Some countries wanted to reduce their populations at home. Some wanted to extend their power or create new directions for their countries. By the start of the 1900s, there were few places left untouched by immigration.

In some countries, governments have forced people to leave their homeland against their will. One of the most brutal examples of forced migration in history involved millions of black Africans. They were captured, stripped of all human rights, herded onto ships, and transported to the Americas to endure years of slavery.

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**Fact File**

One of the largest single migrations of people in the 1900s involved the move of 8 million Muslims into East Pakistan (now Bangladesh) and West Pakistan (now Pakistan) in 1948 from India. Over 3 million Hindus moved from East and West Pakistan into India.
In North America, many groups of First Nations peoples were forced by European settlers to move from their lands to reserves. This type of forced migration has created many issues for societies today. These issues are often reported in the news. Can you identify some of the challenges that the First Nations people face today because of these forced migrations?

1. List five push factors and five pull factors.
2. What would it take (pull factor) to make you want to leave your home, family, and country to start fresh somewhere else? Explain your choice. What barriers might get in the way?
3. There have been many news stories about boatloads of people who have endured terrible travelling conditions in order to arrive on the shores of Canada or some other country. Why do people take such risks? Why are they so desperate to risk everything to find a new start?
Population Distribution and Density

**Demography** is the study of human population. *Demographers* are scientists who study data on population. They also study issues related to where, and how well, people live. Geographers and demographers try to help us understand why people live where they do. They also study why some countries have population problems. As part of their work, demographers help countries, regions, and cities predict what the population will be in the future. Governments and businesses hire them to make recommendations about how to provide services and goods to people.

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**Fact File**

Eighty percent of the world’s people live in countries that are economically developing, and 97 percent of all population growth occurs in these countries. The United Nations uses the term economically developing to refer to countries that are not as industrialized as Canada or the United States — mainly Africa, Asia (except Japan), and Latin America.

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“Population growth is the primary source of environmental damage.”

Jacques Cousteau, oceanographer and environmentalist

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**Fact File**

Birth rates, death rates, and immigration can cause changes in a country’s population.
The Census

How are all the people in a country counted? Every five years, governments collect information about the number of people living in their region. Every 10 years, a more detailed census is carried out. People are hired to conduct door-to-door surveys in their neighbourhoods. They collect information about age, ethnic background, language, family size, and other facts. Statistics Canada is the branch of government responsible for the Canadian census.

If we could shrink the Earth’s population to a village of 100 people, with all the existing human ratios remaining the same, it would look like this:

There would be

- 61 Asians
- 11 Europeans
- 13 from the Western hemisphere (5 from North America)
- 14 Africans
- 1 Oceanian
- 52 would be female
- 48 would be male
- 6 people would possess 59 percent of the entire world’s wealth
- 80 would live in substandard housing
- 70 would be unable to read
- 50 would suffer from malnutrition
- 1 would be near death
- 2 would be near birth
- 1 would have a college education

Fact File

The first national census was taken in 1871. This was the first census taken after Confederation in 1867. It counted the population of the four original provinces of Nova Scotia, New Brunswick, Ontario, and Quebec. The population was 3,689,000. In the national census taken in 2001, the population of Canada was 31,021,000.

Connections to Demographics

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Figure 2.6

World population growth, 1800 to 2150 (estimated). What do demographers mean when they say there has been a population “explosion”?
Population Distribution

Look at the map of world population density in the map appendix. People are not evenly distributed on Earth’s surface. Settlement does not occur everywhere, but very few places are completely free of the impact of human activities. There are even permanent, year-round research bases in Antarctica.

Where people live is called population distribution. How many people live within a given area is called population density. While these terms may seem very similar, Figure 2.7 shows the difference: both regions A and B have the same population density, but the population distribution is different for each.

<table>
<thead>
<tr>
<th>World population reached:</th>
<th>World population may reach:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 billion in 1804</td>
<td>7 billion in 2013 (14 years later)</td>
</tr>
<tr>
<td>2 billion in 1927 (123 years later)</td>
<td>8 billion in 2028 (15 years later)</td>
</tr>
<tr>
<td>3 billion in 1960 (33 years later)</td>
<td>9 billion in 2050 (22 years later)</td>
</tr>
<tr>
<td>4 billion in 1974 (14 years later)</td>
<td>244 billion in 2150 (100 years later)</td>
</tr>
<tr>
<td>5 billion in 1987 (13 years later)</td>
<td>134 trillion in 2300 (150 years later)</td>
</tr>
<tr>
<td>6 billion in 1999 (12 years later)</td>
<td>?</td>
</tr>
</tbody>
</table>

When did the number of people living on “Spaceship Earth” first reach one billion people? From 1974 to 1999, what happened to the number of years it took for the world population to increase by another billion people?

The world population is growing by 3000 every 20 minutes.

Figure 2.7

Regions A and B both have the same population density – 12 people per square kilometre – but different patterns of population distribution. Region A shows an unequal distribution, or cluster, of people. In region B, the population is more evenly distributed, or scattered, throughout the area.
Population Density

The population density of a place tells us how many people live in an area. It is usually measured by the average number of people for each square kilometre \((\text{km}^2)\). You can calculate this by dividing the number of people living in a country or region by the land area in which they live.

For example, Australia has a population of 19 million and an area of 7,682,000 square kilometres \((\text{km}^2)\):

\[
\frac{19,000,000}{7,682,000} = 2.47 \text{ people per km}^2.
\]

Bangladesh has a population of 120 million and an area of 144,000 square kilometres \((\text{km}^2)\):

\[
\frac{120,000,000}{144,000} = 833.3 \text{ people per km}^2.
\]

As these two examples show, population density varies greatly from place to place. In fact, population densities around the world range from less than one person per square kilometre to thousands of people per square kilometre.

<table>
<thead>
<tr>
<th>Country/Territory</th>
<th>Population (people/km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>2.5</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>833.3</td>
</tr>
<tr>
<td>Belgium</td>
<td>336.6</td>
</tr>
<tr>
<td>Bermuda</td>
<td>1,260.0</td>
</tr>
<tr>
<td>Brazil</td>
<td>20.1</td>
</tr>
<tr>
<td>Canada</td>
<td>3.3</td>
</tr>
<tr>
<td>China</td>
<td>122.0</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>6,435.7</td>
</tr>
<tr>
<td>Egypt</td>
<td>66.4</td>
</tr>
<tr>
<td>France</td>
<td>107.8</td>
</tr>
<tr>
<td>Greenland</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>Iceland</td>
<td>2.7</td>
</tr>
<tr>
<td>Israel</td>
<td>277.6</td>
</tr>
<tr>
<td>Japan</td>
<td>331.0</td>
</tr>
<tr>
<td>Macau</td>
<td>20,338.0</td>
</tr>
<tr>
<td>Mongolia</td>
<td>1.6</td>
</tr>
<tr>
<td>New Zealand</td>
<td>13.5</td>
</tr>
<tr>
<td>Nigeria</td>
<td>121.4</td>
</tr>
<tr>
<td>Russia</td>
<td>8.6</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>10.6</td>
</tr>
<tr>
<td>Singapore</td>
<td>5,474.5</td>
</tr>
<tr>
<td>Sudan</td>
<td>12.0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>238.9</td>
</tr>
<tr>
<td>United States</td>
<td>29.5</td>
</tr>
</tbody>
</table>
Canada and Australia are large in area but have small populations. These countries have a low or **sparse population** density. Some countries have large populations living in a small area. In Bangladesh, people are packed more closely together. Countries like this have a high population density or a **dense population**. A **moderate population density** is somewhere in the middle. These countries average 15 to 150 people per square kilometre. France has 107.8 people per square kilometre, so it has a moderate population density.

Population density really means how close or how far apart people live from one another. Understanding this can help communities plan what services are needed and where to build new schools, houses, businesses, and transportation routes. Knowing population density also helps us make comparisons among different regions of the world.

**Check Back**

1. Predict the number of people who may live on Earth in 100 years.
2. How old will you be when the Earth is expected to have nine billion people?
3. Using Figure 2.6, estimate the ratio of people who live in economically developing countries to those who live in developed, industrialized countries?
4. Calculate the population density of your classroom by finding the number of people per square metre.
Human Patterns

There are patterns to where people live in the world. The natural environment affects where people live. The population pattern of a region is also affected by its history.

A region’s level of economic development has a large impact on its population patterns. Many people in less industrialized countries tend to have larger families. Therefore, populations in these countries grow more rapidly. Compare this to people in industrialized nations. They tend to have higher levels of technological development. They have better access to education, health care, and more job opportunities. Because of these conditions, people in economically developed countries tend to have smaller families. They live in regions with sparse or moderate population density. (Japan and the Netherlands are exceptions to this general rule. They are economically developed countries, but they have high population densities.)

Before 1800, most people lived in rural areas. With the Industrial Revolution, many people began moving to cities to work in factories. In recent years, the growth of cities in economically developing countries has been very rapid. Today, fewer than 50 percent of people in these countries live in rural areas.
1. Give two reasons why it is useful to understand population distribution and density patterns.

2. Which continent has the highest population growth? Which has the largest total population? Why might this information be important to the people living on these continents? Why might this information be important to people living on the other continents?
Population Characteristics

Many population characteristics can tell us how a population is changing, or how well people live in the world’s countries. The United Nations selects a number of factors to gather information and statistics on 175 countries throughout the world. These factors include such things as how long people can expect to live, how many people can read and write, and how much money people earn. The United Nations combines these statistics into its **Human Development Index (HDI)**. This index gives a general picture of living conditions in each country.

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**Figure 2.13**

Canada is a huge and diverse country. Do you think everyone in all parts of Canada feels fortunate to live here? Why or why not?
Doubling Time

Imagine the changes in your living conditions if the number of people in your family doubled over the next few years. Would there be enough room? Would there be enough money? If your family grew that quickly, you would have to make many adjustments in your life. When a country’s population is growing quickly, people have to adjust how they live. The government could have problems in providing basic needs such as food, housing, education, health care, and a healthy natural environment. Governments must know how fast a population is growing so they can plan for the future.
Paul Ehrlich is a Stanford University professor who has written books on population issues. He travelled to New Delhi, India. This is a description from his book, *The Population Bomb*. It provides a vivid picture of life in some parts of developing countries: "My wife and daughter and I were returning to our hotel in an ancient taxi…. As we crawled through the city, we entered a crowded slum. The temperature was well over 37 °C, and the air was a haze of dust and smoke. The streets seemed alive with people. People eating, people washing, people sleeping. People visiting, arguing, and screaming. People thrusting their hands through the taxi window, begging…. People clinging to buses. People herding animals. People, people, people, people."

**Check Back**

1. Name three population characteristics that tell us whether a country’s population is changing (growing, stable, or shrinking).
2. Should governments take responsibility for population growth in their countries? Support your answer with reasons.
Skills for Active Democratic Citizenship

1. Contact your local federal immigration office to invite a representative to speak to your class. Work together to develop questions to ask about immigrants who come to Manitoba. You may wish to ask about the classes of immigrants who come to Manitoba, where they have migrated from, their reasons for coming to Canada and then to Manitoba, the procedure they must follow to enter Canada, what they experience as newcomers to the province, and challenges they face. Decide who will contact the immigration office. Decide who will ask each of your group’s questions.

2. Imagine that you are a demographer. Write a report that describes the population characteristics of the community in which you live. Make one recommendation to the local government on how to provide better services to the age group of your choice. You could choose children under age 12, teenagers, people with young families, young adults, or senior citizens.

Skills for Managing Ideas and Information

3. The patterns of world population distribution show some amazing similarities to patterns found on maps of the natural environment. Compare the map of world population distribution with other world thematic maps that show landforms, climates, soils, and vegetation. Where do you find regions of dense, moderate, and sparse population distribution?

4. There are several key pressures on people to migrate: drought/starvation, political conflict, resource/environmental loss, and social/economic conditions. Copy the organizer in your notebook to help understand these factors. For each factor, identify an event of that type and where it happened.

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drought/starvation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political conflict</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource/environmental loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social/economic conditions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.17
Montreal’s harbourfront
Critical and Creative Thinking Skills

5 “The natural environment is the most important factor that influences where people live.” Do you agree or disagree with this statement? Give supporting reasons for your point of view.

6 Consider the location of your community as a place to live. What makes it a good location for a community? Are there any problems with its location as a place to live? What are the problems?

7 Imagine that you are a member of a family coming to Canada from a war zone in another country. Write diary entries for one week in your life as the family member you have chosen. Tell about the family. Describe the conditions of “your” country and why “you” left, “your” feelings about leaving, and “your” emotions about coming to Canada.

Communication Skills

8 How would you explain to a friend the ways in which population density varies around the world?

9 a) Survey your class to find out about your classmates’ origins. Ask each student in your class where her or his family came from and when they came to Canada. The families of some students may have arrived in Canada fairly recently. Others may have been here for several generations. The ancestors of the First Nations students lived here for thousands of years before Europeans arrived. As you survey each student, create a list of the countries and years they immigrated to Canada. The country of origin for First Nations students will be Canada.

b) Plot the countries on a world outline map. Calculate the percentage of arrivals from each continent.

c) Draw arrows from the continents to show the flows of migration.

10 Make a mural, collage, poster, or hanging mobile to show characteristics of Canadian life and life in a developing country. Work with a partner to decide on a format. Work together to plan how you will show the two ways of life. Add labels and a title to your work.

Figure 2.18
This group of immigrants are becoming new Canadian citizens. They are participating in a swearing-in ceremony.