



## What Is This Module About?

Are you aware of the rapid increase of population in your community? How about in our country and in the world? In a single day the world population increases by about 211,839. In an hour, an average of 8,827 new babies are born in the world. If it takes you three hours to complete this module, by the time you finish, the world's population will have grown by 26,481 people.

Rapid population growth and overpopulation have serious effects on our quality of life, environment and health. In this module, we will analyze the problem of overpopulation and the issues it raises about our lives and our future.

This module is divided into three lessons:

Lesson 1 — *What Is Population?*

Lesson 2 — *Can Overpopulation Cause Problems?*

Lesson 3 — *How Can We Solve Population Problems?*



## What Will You Learn From This Module?

After studying this module, you should be able to:

- ◆ define the terms *population*, *population explosion* and *overpopulation*;
- ◆ identify the factors that contribute to population growth;
- ◆ explain the problems caused by a rapid increase in population;
- ◆ describe possible solutions to population problems and ways to slow down population growth; and
- ◆ describe actions other countries have taken to address their rapid population growth.



## Let's See What You Already Know

Before you start with the module, answer first the following questions to check what you already know about the topic to be discussed.

Choose the answers from the box and write them in the blanks.

<b>Population explosion</b>	<b>Population education</b>	<b>Family planning</b>
<b>Death rate</b>	<b>Birth rate</b>	<b>Economic growth</b>
<b>India</b>	<b>Overpopulation</b>	<b>Migration</b>
<b>Population</b>	<b>United States of America</b>	<b>Sex education</b>
<b>Population growth</b>	<b>Total population</b>	<b>Big population</b>

1. This refers to the transfer of people from one country or place to another.  
\_\_\_\_\_
2. This country has the second biggest population in the world.  
\_\_\_\_\_
3. This refers to the number of people born in a year in a certain place or country. \_\_\_\_\_
4. This refers to the number of people who die in a year in a place or country.  
\_\_\_\_\_
5. This refers to a very fast increase in population. \_\_\_\_\_
6. This refers to the total number of people in a country or place.  
\_\_\_\_\_
7. This refers to the condition of having a population so large it could result in economic difficulties, shortage of food supply, pollution and problems in employment. \_\_\_\_\_
8. This is a solution to the rapid increase in population that aims to educate people about population issues and how they could be addressed.  
\_\_\_\_\_
9. This method is used to slow down population growth by determining and spacing the number of children in families through effective birth control techniques. \_\_\_\_\_
10. This refers to an increase in a country's material resources. If a country's income grows faster than its population, the country is able to meet the demands and needs of the people. \_\_\_\_\_

Well, how was it? Do you think you fared well? Compare your answers with those in the *Answer Key* on page 51.

If all your answers are correct, very good! This shows that you already know much about the topic. You may still study the module to review what you already know. Who knows, you might learn a few more new things as well.

If you got a low score, don't feel bad. This means that this module is for you. It will help you understand important concepts that you can apply in your daily life. If you study this module carefully, you will learn the answers to all the items in the test and a lot more! Are you ready?

You may now go to the next page to begin Lesson 1.

## What Is Population?

**Population** refers to the number of people in a particular place. This place can be a community, municipality, province, city, country or the entire world. What is the population of the Philippines today? What may be the factors which contribute to population growth? You can answer these questions with the help of this lesson.

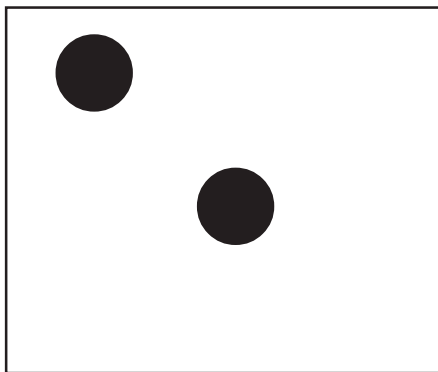
After studying this lesson, you should be able to:

- ♦ define the terms **population**, **population explosion** and **overpopulation**; and
- ♦ identify the factors that contribute to population growth.

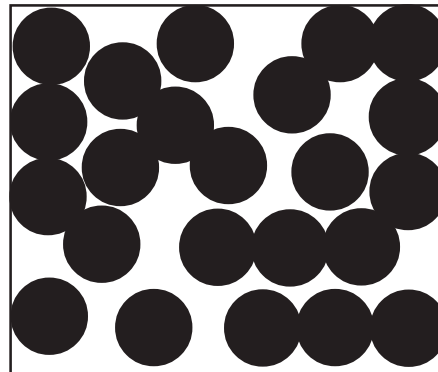


### Let's Try This

- I. Look at the two boxes and compare what you see in them.



**A**



**B**

Answer the questions below.

1. What are the differences between the number and arrangement of the black circles in Boxes A and B?

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2. If Box A and B represent two different countries and the black circles represent the people in each country, what are the differences between the number and distribution of people of each country?

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3. What do you think may happen to the country represented by Box B if the number of people continues to increase? Why?

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4. Which of the two boxes more closely represents the population of the Philippines? Why?

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- II. **Population** refers to the total number of people in a community, municipality, province, city, country or the world. Name five countries with big populations aside from the Philippines.

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Compare your answers with those in the *Answer Key* on page 51.



## Let's Think About This

Do you know how to read tables? A table is a set of facts or figures arranged in rows and columns. Look at the two tables below. Table 1 shows the Philippine population from 1980 to 2000. Table 2 shows the top five countries in the world with big populations. Study them carefully and answer the questions that follow.

**Table 1: Philippine Population**

<b>1980</b>	<b>1990</b>	<b>1995</b>	<b>2000</b>
48,098,460	60,703,206	68,616,536	75,300,000
48 million	60.7 million	68.6 million	75.3 million

*(Source: National Statistics Office)*

**Table 2: Countries with the Largest Population in 1999**

<b>Countries</b>	<b>Population</b>
1. China	1,246,871,951
2. India	1,000,848,550
3. United States of America	272,639,608
4. Indonesia	216,108,345
5. Brazil	171,853,126

*(Source: US Census Bureau, International Database)*

1. What did you notice about the size of the Philippine population from 1980 to 2000?

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2. What do you think will happen to the Philippine population? Why?

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3. What countries in Table 2 are found in Asia?

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4. What do you think are the factors that contribute to population growth in a particular place, country or in the world?

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You may compare your answers with those in the *Answer Key* on page 52.



## Let's Learn

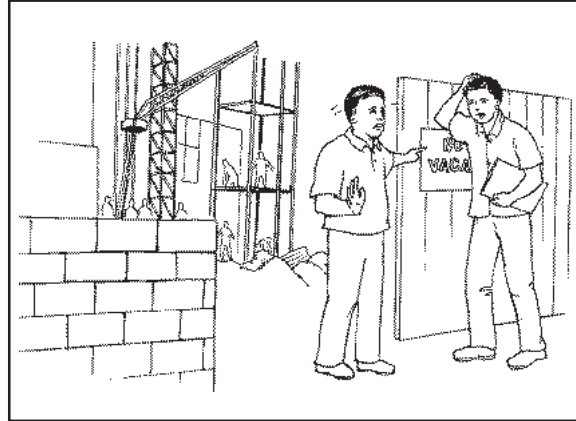
Recall your answers in the previous activity. Did you use any of the terms listed below? These refer to factors which may contribute to population growth:

- ◆ Migration
- ◆ New medicines and new medical equipment
- ◆ Birth rate
- ◆ Death rate
- ◆ Urban development

These five major factors are discussed in detail below.

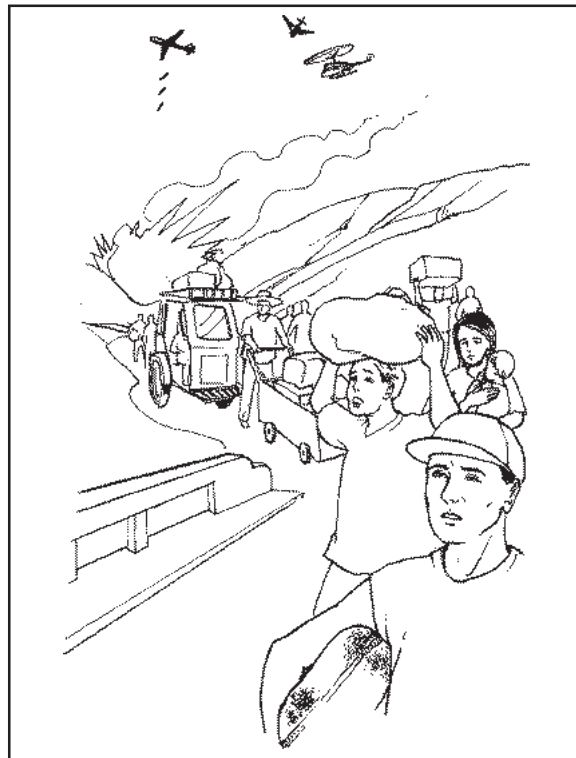
1. **Migration** is the transfer or movement of people from one place to another. This transfer may be to a new community, municipality, province, city or country. Migration may occur for the following reasons:

- a. *Employment* – People from rural areas often migrate to urban areas in search of better work opportunities. People may also migrate to other countries for better salaries and work conditions. Migration due to employment is considered temporary, though there are some cases wherein people



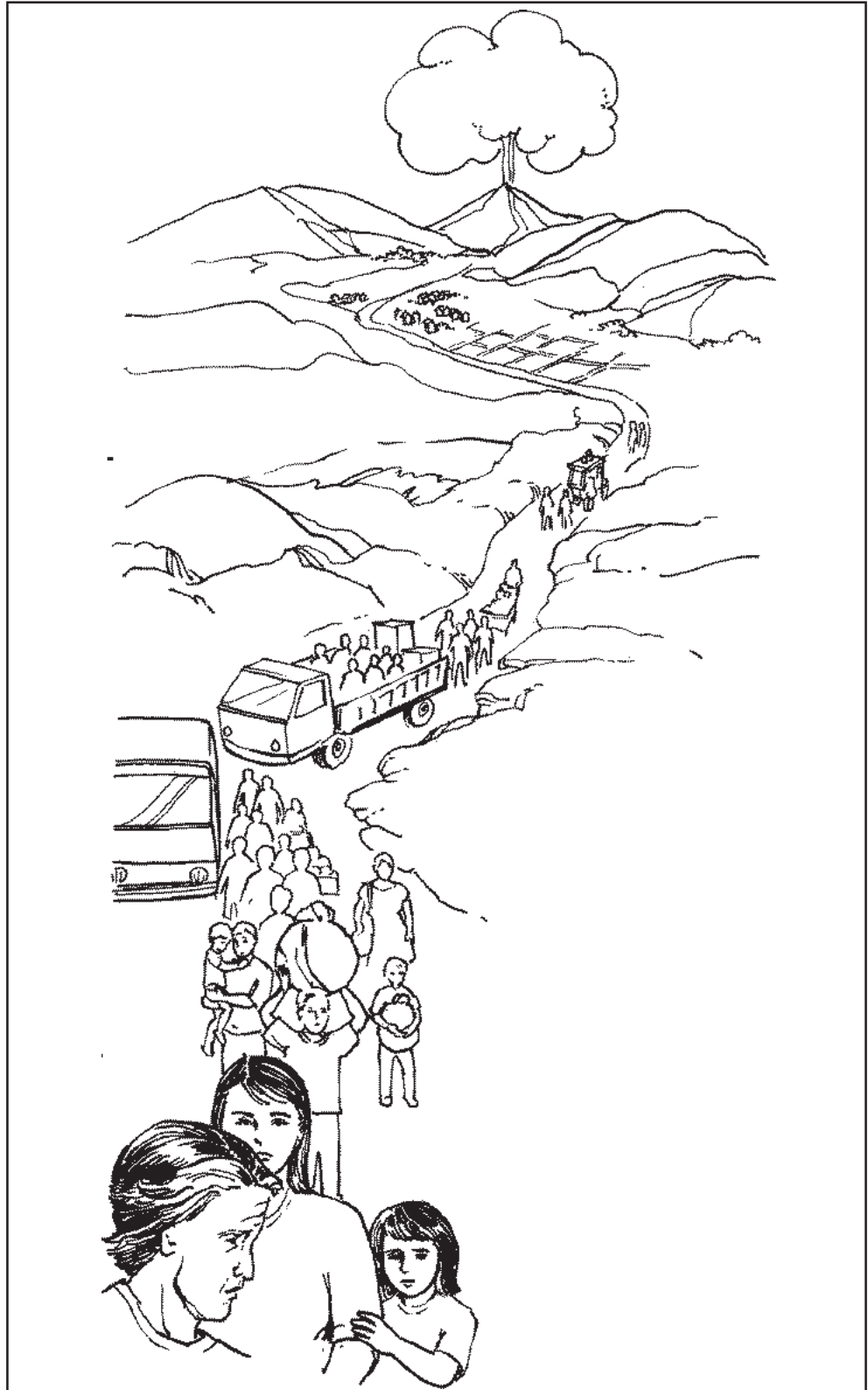
permanently reside in the city or country they moved to. Examples of **migrant workers** (people who move from one place to another to find employment) are the Overseas Filipino Workers (OFWs) who work as seamen or helpers in Hong Kong and Singapore.

- b. *Refuge from violent conflicts and war* – People may also migrate to another place because there is a war or violent conflict in their previous residence. They go in search of a peaceful environment where they could live normally and safely. Some of our Muslim brothers in Mindanao, for example, migrated to Metro Manila because of the war in Mindanao. There is also a refugee camp in the province of Palawan for Vietnamese people who moved out of their country in search of a democratic life in a peaceful environment.





- c. *Natural disasters* – Migration may also occur when people are forced to evacuate their residences due to natural calamities. For example, some of our Filipino brothers and sisters in Pampanga were relocated to other communities because their homes were in the lava path of Mt. Pinatubo.



Do you know a relative, friend or co-learner who migrated from one place or country to another? Discuss one reason for his/her migration.

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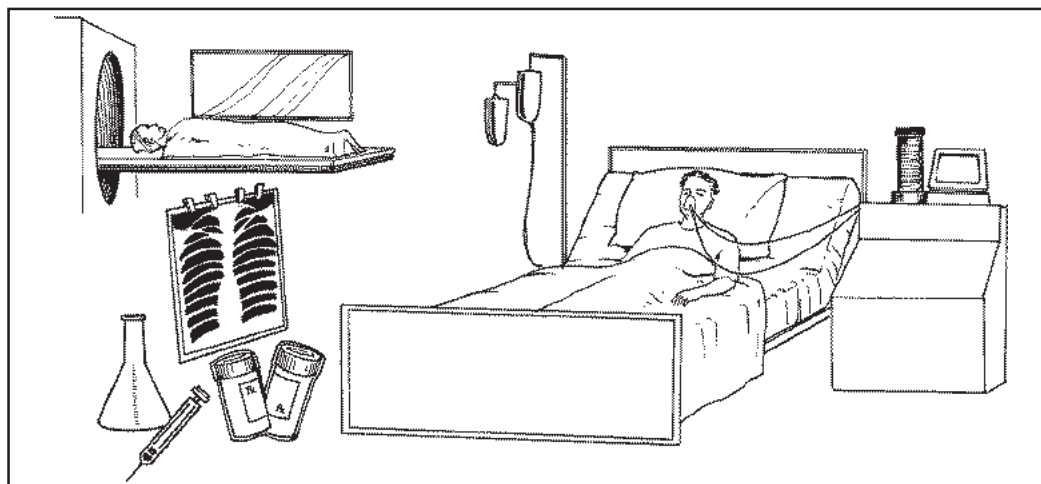
2. **New medicines and medical equipment.** Through the years, science has discovered ways and means of improving people's health. Medical discoveries — antibiotics, vaccines, paracetamol, analgesics, chemotherapy and others — have helped people cope with diseases that were considered deadly in the past.

For example, medical science has made possible the early detection of cancer in people. All types of cancer are dangerous once they are in their critical stages. But because we can now detect the early signs of cancer, it is easier for doctors to determine treatments and for victims to immediately seek treatment.

Breakthroughs in medical research have also led to the discovery of new medical techniques for the treatment of many other diseases. New medical equipment such as the respirator and X-ray machine have been developed in support of new-found medical techniques.

Medical research has also further developed doctors' knowledge in surgery. For instance, they can now perform organ transplants and blood transfusions.

New vaccines have also been discovered and developed in order to combat common diseases such as polio, Hepatitis A and B, measles and tuberculosis.

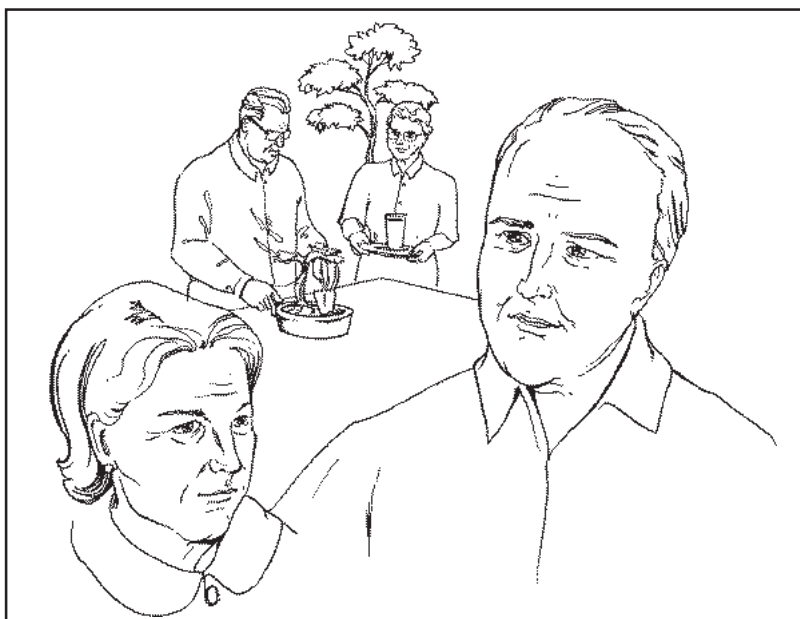


The discovery of new medical treatments and equipment has resulted in *low infant mortality* and *longer life span for humans*. These in turn have contributed to a great increase in population.

- a. *Low infant mortality* refers to the low incidence of death among infants. This is due to the development of new medicines such as vaccines against tuberculosis, measles, Hepatitis A and B, and polio which contribute to the prevention of illnesses. Information drives on infant care also contribute to low infant mortality.



- b. *A longer life span* means that people live longer. This is because common diseases such as tuberculosis can now be cured through medication and surgery. Medical research has also discovered new methods to improve people's health and nutrition.



Do you know of a family member, friend or community member whose life was saved by new medicines or new medical equipment? How did these scientific breakthroughs save his/her life?

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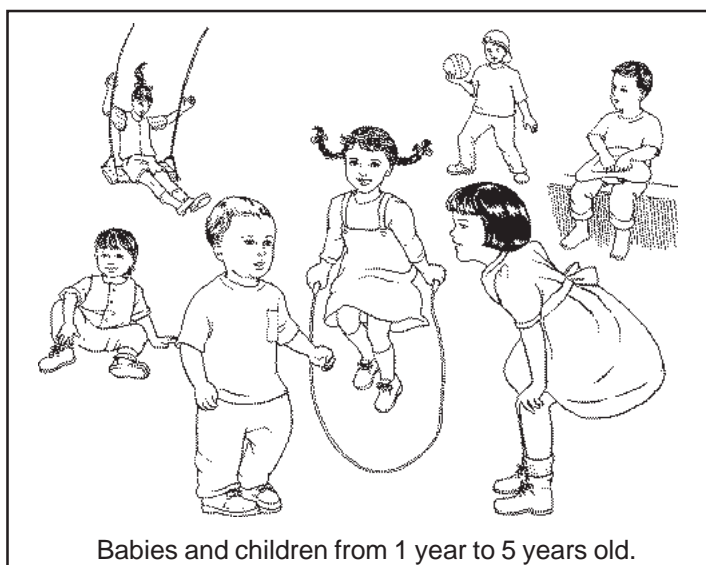
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3. **Birth rate** refers to the number of persons born every year. If the birth rate in a certain place is higher than in the previous year, there may be an increase in population. A high birth rate means many infants are being born.



Does your community have a high birth rate? Why or why not?

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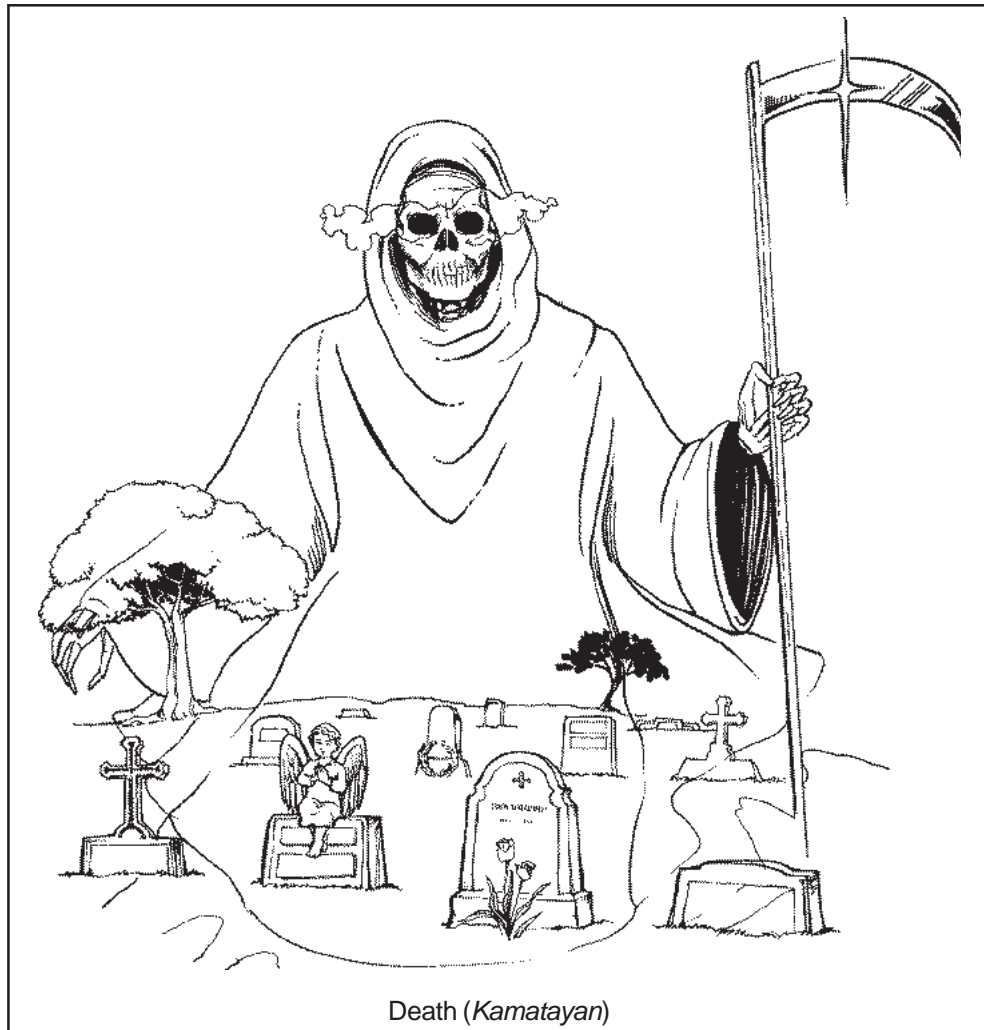
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4. **Death rate** refers to the number of persons who die every year. If the death rate in a certain place is low, the population is likely to increase. On the other hand, a high death rate means many people are dying, which tends to result in a decrease in population. A high death rate may be caused by wars, plagues, famine or genocide (mass killing of a racial, political or cultural group).



If your community has a high death rate, does this mean it has a decreased population? Why or why not?

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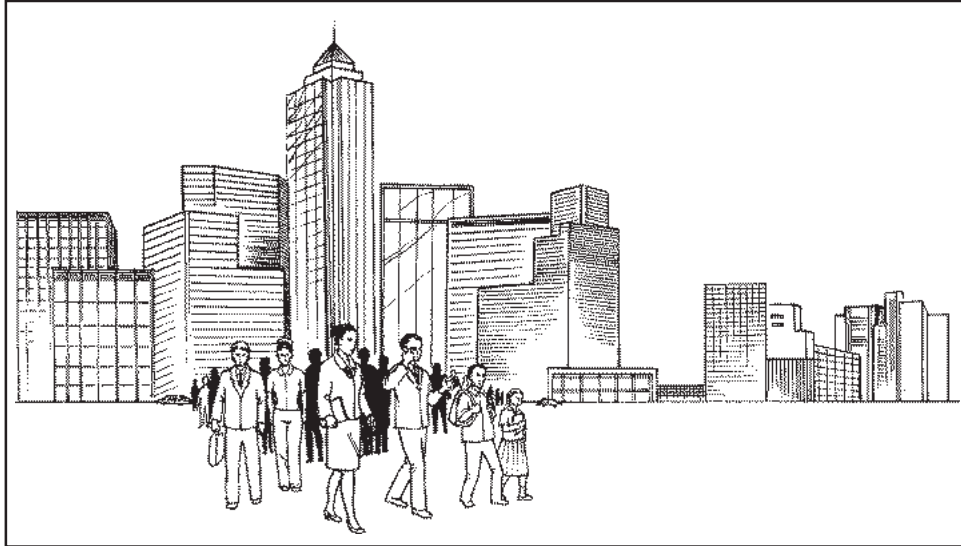
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5. **Urban development.** This refers to the growth and development of an area or place into a city. Highly urbanized areas such as Metro Manila and Metro Cebu provide opportunities for better employment and delivery of basic social services such as education, medical services and welfare services. These opportunities encourage people from the provinces and rural areas to migrate to urban areas in search of an improved quality of life.



Does your community belong to an urbanized area? Why or why not?

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## Let's Review

Encircle the letter of the correct answer.

1. Why do so many educated and non-educated Filipinos migrate to Hong Kong, Singapore and Malaysia?
  - a. To find better employment
  - b. To avoid violent conflicts in their hometown
  - c. To avoid natural disasters
  - d. To avail of basic social services such as education, medical services and welfare services

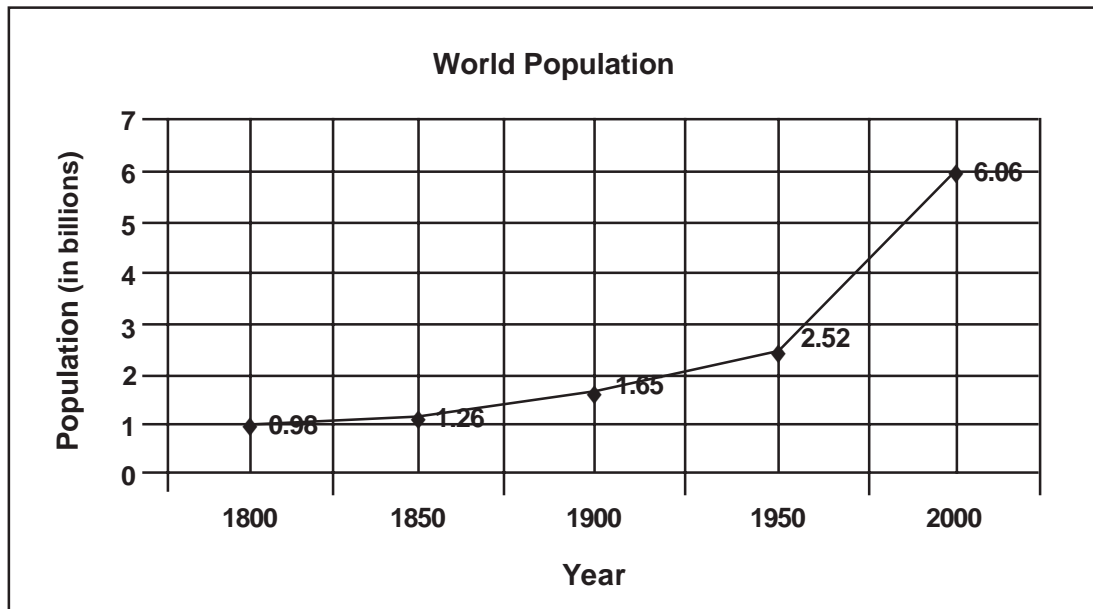
2. Botswana, a country in Africa, has a very low population because many of its citizens die from Acquired Immune Deficiency Syndrome (AIDS). This is an example of population decrease due to \_\_\_\_\_.
  - a. low birth rate
  - b. high death rate
  - c. new medicines
  - d. migration
3. The discovery of vaccines has helped doctors prevent the occurrence of diseases like tuberculosis and Hepatitis A and B. This discovery can be attributed to \_\_\_\_\_.
  - a. death rate
  - b. new medicines
  - c. new medical equipment
  - d. birth rate
4. Many people from the provinces migrate to Metro Manila. These people think that moving to a big city will help them earn more money and live a better life. This is because there are more business districts, health facilities and better schools in Metro Manila compared to the provinces. People from the provinces migrate to Metro Manila because of \_\_\_\_\_.
  - a. new medicines and medical equipment
  - b. violent conflicts or wars
  - c. urban development
  - d. natural disasters
5. A *defibrillator* is a machine which monitors a person's heart condition and automatically indicates when shock is advisable. This machine has saved the lives of many people who suffered from heart attacks. The defibrillator is an example of \_\_\_\_\_.
  - a. new medicine
  - b. new medical equipment
  - c. birth rate
  - d. death rate

Do you want to know the correct answers to the test? You may look in the *Answer Key* on pages 52–54.



## Let's Think About This

Do you know how to read a graph? A **graph** is an illustration showing the relation of different numbers and quantities. Analyze and interpret the line graph below which shows the size of the world's population in billions of persons from the years 1800 to 2000.



(Source: NPG Facts and Figures)

What does the line graph show about the growth of the world population from 1800 to 2000?

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You may look at the sample answer in the *Answer Key* on page 54.

Did you notice the sudden increase of the world population in the year 2000? The world population increased by 3.54 billion from 1950 to 2000. We got this by subtracting:

$$\begin{array}{r} 6.06 \\ - 2.52 \\ \hline 3.54 \end{array}$$

If the world population continues to grow at 3.54 billion from 2000 to 2025, can you imagine what the world population would be then?



If the population continues to increase at a very fast rate, we call this **population explosion**. For example, if people continuously migrate to a country to find employment, there is an immediate increase in population in that country. Canada, for instance, opened its doors to professionals from other countries in order to help the country attain economic development. Many people from different countries applied in Canada. The people who were qualified were immediately approved for migration, even if they took their families with them. Due to the employment opportunity Canada presented, many people applied for migration and were able to live there. This resulted immediately to an increase in Canada's population.



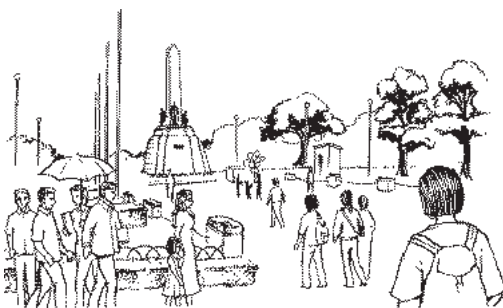
## Let's Read

Read the story below.

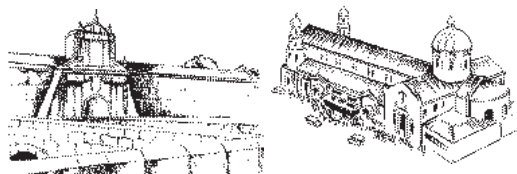
This is Manila. For many, it is the city of opportunities. Many people from provinces and rural areas migrate to Manila.



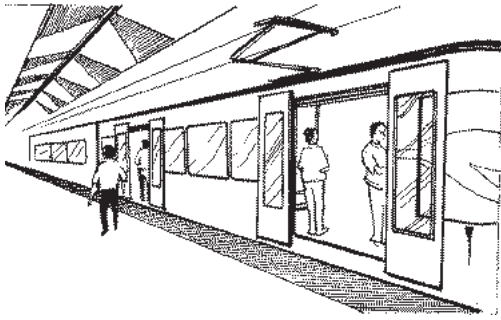
Manila is a city that is very rich in history.



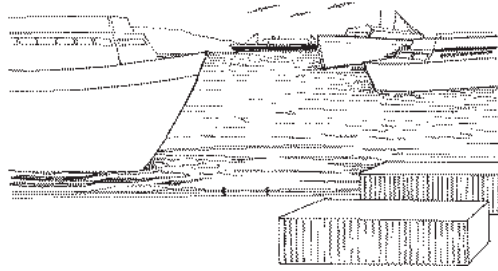
It is the capital city of the Philippines. The famous walled city called Intramuros is located there as well as the famous Quiapo Church.



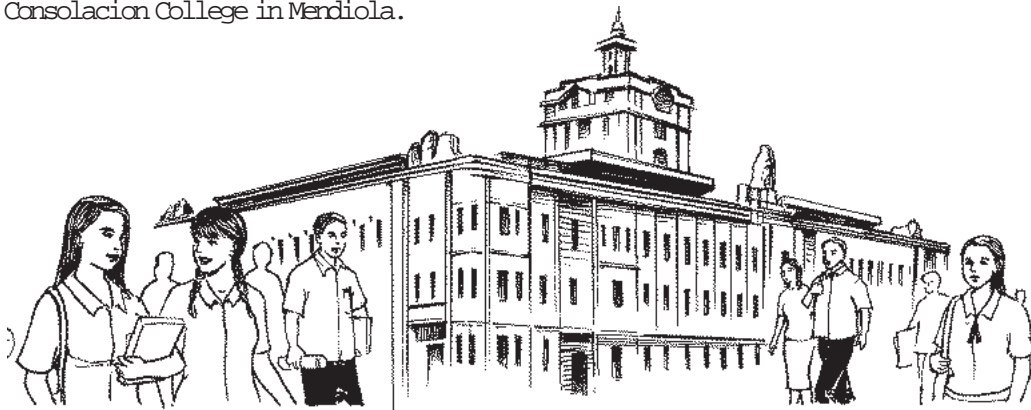
A highly urbanized city...



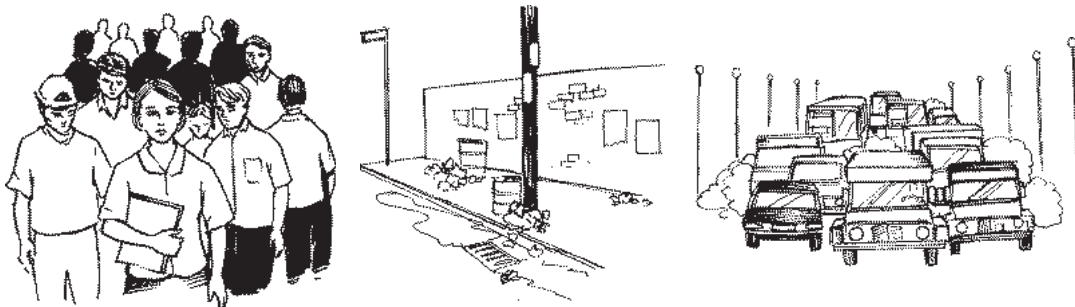
... you will also find in Manila the North and South Harbor.



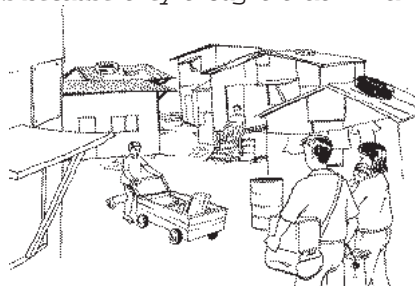
Manila is also well-known for its University Belt. It has the De La Salle University in Taft Avenue, the University of Santo Tomas in España, the Far Eastern University in Morayta, and San Beda College, Centro Escolar University, Holy Spirit and La Consolacion College in Mendiola.



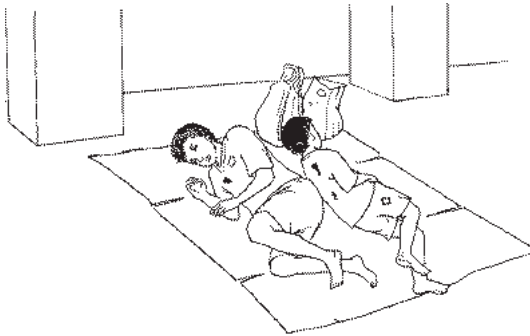
And this is the other side of Manila, a place that is overcrowded, polluted, and where traffic is always heavy.



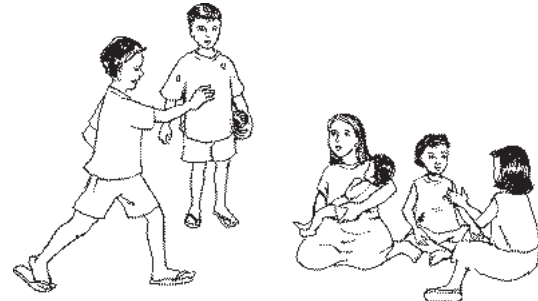
In many parts of Manila, you will see slum areas. We call these the urban poor communities. Some of the people who live here come from the provinces in search of a better life. They left their towns because they thought that in Manila, they would earn more.



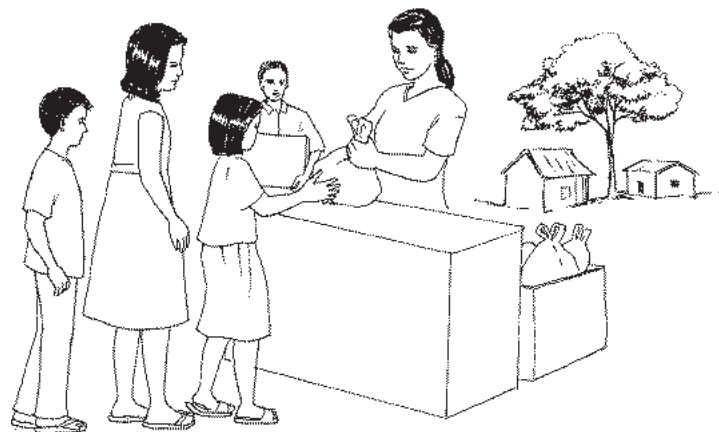
There are also some places in Manila where people sleep on the streets.



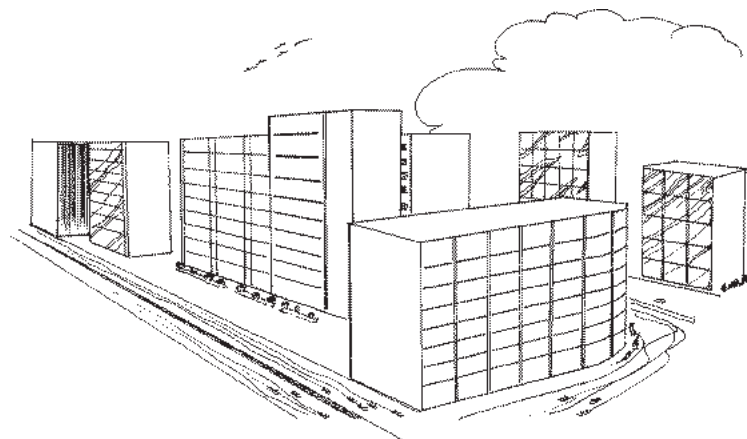
You will even see plenty of children playing in the side streets of this city.



The local government of Manila would want to help some of its residents but it lacks money. Also, helping the needy residents of the city would encourage other people from the provinces to migrate to the city.



In Manila, you seldom see trees and plants – every bit of space is a valuable piece of land upon which residential and commercial buildings could be constructed. In order to meet the needs of the growing number of people in the city, idle spaces are converted to buildings, houses, schools and business establishments.



Despite the unfavorable health conditions brought about by the dirty and polluted city environment, many people still migrate to Manila.

For them, Manila is indeed the city of opportunities.



### Let's Try This

Answer the following questions.

1. Based on what you have read, describe the good and bad sides of Manila.

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2. Why do people from the provinces continue to migrate to Manila?

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3. Is land or space valuable in Manila? Why or why not?

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4. What prevents Manila's local government from helping its poor residents?

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You may compare your answers with those in the *Answer Key* on page 54.

Would you choose to live in Manila? Why or why not?

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## Let's Think About This

How would you define *overpopulation*? Write your answer in the blanks.

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It is important to know that **overpopulation** refers to the condition of having too many people living in a particular country or place at one time. This condition can affect the economy of a community, municipality, province, city, country or the world. It can also affect the resources, environment, food supply and other basic needs of people living in the place. We will discuss these effects in Lesson 2 of this module.

Do you think your community, municipality or city is overpopulated? Based on what you have just read about Manila, do you think this city is overpopulated? Why or why not? You don't need to write down the answers to these questions. Just think them over for a few minutes.



## Let's See What You Have Learned

Write **T** if the statement is true and **F** if it is not. Write your answers in the blanks.

- \_\_\_\_\_ 1. Migration refers to the transfer of people from one place to another.
- \_\_\_\_\_ 2. Death rate refers to the number of people who die every month.
- \_\_\_\_\_ 3. Birth rate refers to the number of persons who are born every two years.
- \_\_\_\_\_ 4. Urban development refers to the growth and development of an area or place into a city.
- \_\_\_\_\_ 5. Population refers to the total number of people living in a particular place.
- \_\_\_\_\_ 6. People migrate to other countries due to wars or violent conflicts in their own country.
- \_\_\_\_\_ 7. A very fast increase in population is called a population boom.
- \_\_\_\_\_ 8. Overpopulation refers to a condition wherein too many people live in a certain place at one time. It could affect the area's resources, environment and food supply as well as the other basic needs of people.
- \_\_\_\_\_ 9. New medicines and medical equipment have contributed to longer life spans and low infant mortality rates.
- \_\_\_\_\_ 10. The victims of the Mt. Pinatubo explosion in Pampanga migrated due to natural calamities.

Do you want to know if you got all the answers right? You may compare your answers with those in the *Answer Key* on pages 54–55.



## Let's Remember

- ◆ *Population* refers to the total number of people living in a particular community, municipality, province, city, country or in the world.
- ◆ *Population explosion* refers to a very fast increase in population.
- ◆ *Overpopulation* is the condition of having too many people living in a particular place at one time. This condition can affect the economy of a community, municipality, province, city, country or the world. It can also affect the resources, environment and food supply of the place as well as the other basic needs of the people.

The factors which contribute to population growth are:

- ◆ *Migration* or the transfer of people from one place to another.
- ◆ *New medicines* and *new medical equipment* because they save people's lives.
- ◆ *Birth rate* or the number of persons born every year. If a country has a high birth rate, the population of the country increases. If there is a low birth rate, the population tends to decrease.
- ◆ *Death rate* or the number of persons who die every year. If a country has a low death rate, the population of the country increases. If there is a high death rate, the population is likely to decrease.
- ◆ *Urban development* or the growth and development of an area or place into a city.

## Can Overpopulation Cause Problems?

Do you know of a country that is overpopulated? What about the Philippines? Do you think our country is overpopulated?

Overpopulation is not only a concern of individual countries but also of the entire world. What are the effects of overpopulation? This, as well as the reasons why nations try to control their population growth, will be discussed in this lesson.

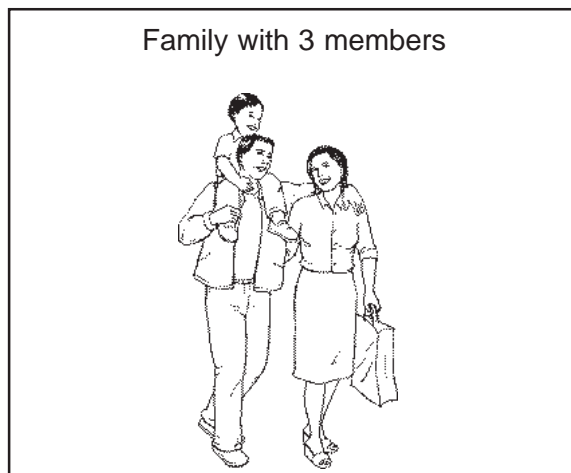
After completing this lesson, you should be able to:

- ◆ identify the problems caused by a rapid increase in population; and
- ◆ describe the effects of overpopulation.

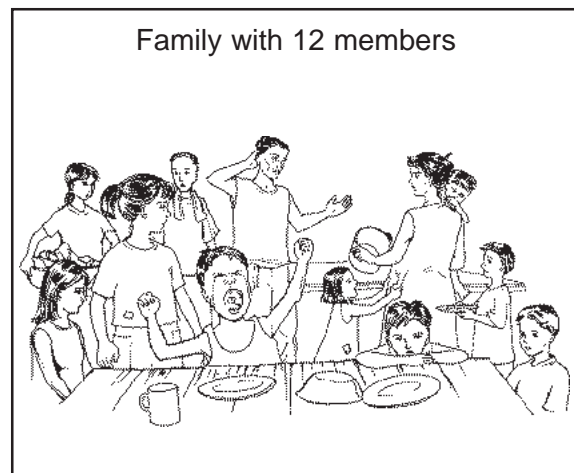


### Let's Think About This

Imagine that two families live in two similar houses. The income of the parents in the two families is the same, but the families differ in the number of members.



**A**



**B**



In your opinion, which family (A or B)...

- \_\_\_\_\_ 1. is able to eat enough?
- \_\_\_\_\_ 2. is more likely to send all its children to school?
- \_\_\_\_\_ 3. has more time to rest and relax?
- \_\_\_\_\_ 4. has a more comfortable life?
- \_\_\_\_\_ 5. has a more disorderly house?
- \_\_\_\_\_ 6. has children who are not likely to finish their studies?
- \_\_\_\_\_ 7. has children who are not too healthy?
- \_\_\_\_\_ 8. has parents with difficulties and problems?

Have you finished?

If you answered **Family A** for Questions 1 to 4, you're correct. Life is more comfortable for a small family. A family with limited resources can only meet the needs of a smaller number of family members in order for them to maintain a good quality of life. Likewise, a country with fixed resources and only a small population is more able to meet its needs compared to a country with similar resources and a large population.

If you answered **Family B** for Questions 5 to 8, you're correct again. If a family is too big, it faces many problems, particularly if it only has limited resources. Similarly, a country with a big and growing population will suffer many problems. These problems may include pollution, the destruction of the environment, the depletion of natural resources (like oil, water, land), and unemployment.

Now, if you were asked, which would you prefer, a small family or a big one? Why?

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Discuss your answer with your Instructional Manager or Facilitator, family member, friend or co-learner. Do they agree or disagree? Why or why not?

There is a sample answer in the *Answer Key* on page 55.



## Let's Think About This



### *Does a big population mean overpopulation?*

Some people think that when a country has a large population, it is already overpopulated. Is this thinking correct? Does a big population really mean overpopulation? Well, the answer is both yes and no. Let's discuss this further.

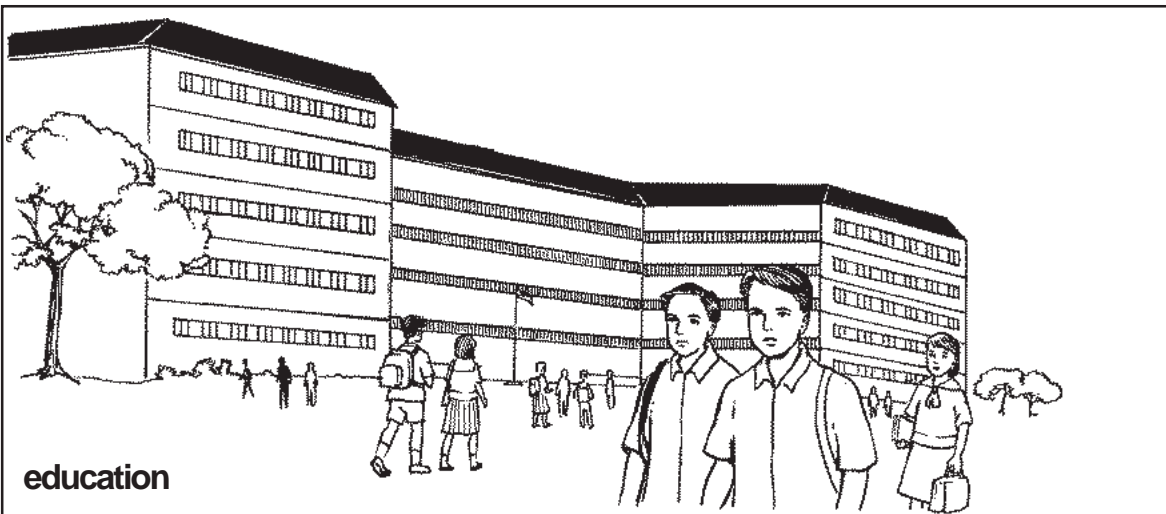
A country with a large population **is overpopulated** if it has limited resources. But a country with plenty of resources, or which is rich and economically stable, **is not really overpopulated** even if it has a large population.

Why is this so? Let us discuss it further.

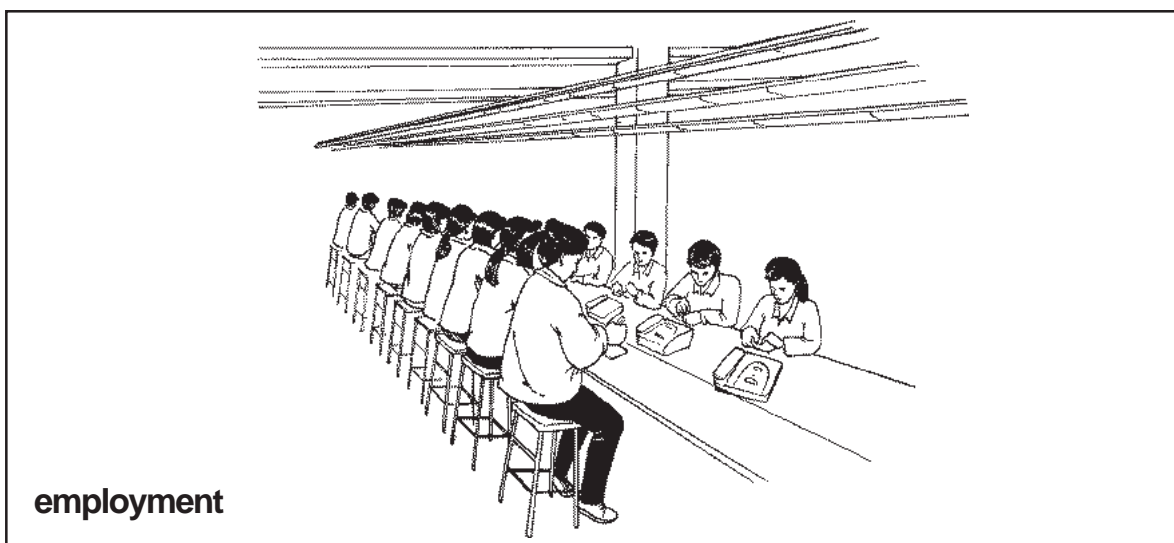
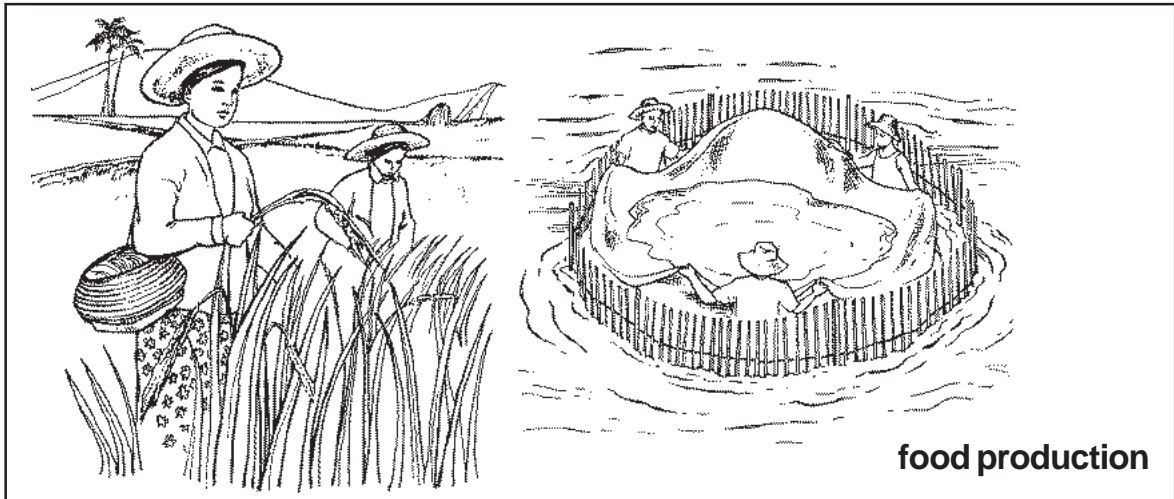
If a country has an increasing population growth rate, there is also an increase in the demand for the basic needs of the people. This means more services for:



housing



education



We can say that a country is overpopulated when it cannot meet the basic needs of its people.

A country needs to provide basic services to its present population. If a country has an excessive population, it will encounter difficulties in providing the basic needs of its people. If the population continues to increase rapidly, these difficulties will grow in number and become worse.

Do you know that having a big population could affect the limited resources of a place or a country? These natural resources may be oil, gas and wood. The increase in population may lead to the shortage of these natural resources.

For example, oil is used as fuel and its residues are used for road asphalt. Electric distribution also requires the use of oil as fuel for generators. An increase in population would mean more families utilizing fuel for public or private transportation, the construction of more roads and the distribution of electricity in homes.

The continuous consumption of oil would lead to the depletion of this natural resource because oil takes millions of years to develop.

Overpopulation could also affect the economic condition of a country since providing basic services to an increasing number of people would mean more expenses. These expenses may be due to infrastructure projects, provision of employment opportunities, educational services and the development of agricultural programs.

A developing country such as the Philippines, which is currently in an economic crisis, experiences shortages of funds due to overpopulation.

Do you remember Family B? They experienced so many difficulties and problems. They must also have had difficulties budgeting their limited earnings to meet all the family's needs.

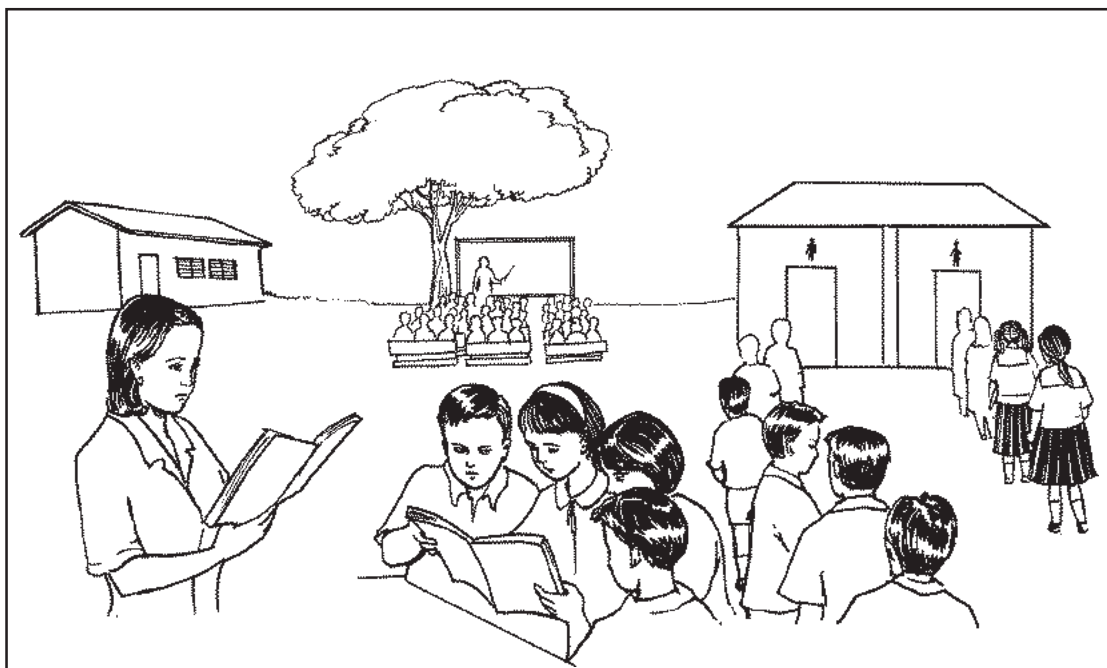
Some other countries may have also experienced what Family B has gone through. For example, India and Brazil have accumulated international debts from foreign lenders. These debts were used by the countries' governments to provide basic services to their growing number of citizens.

This is why many countries like China, Japan and the USA have taken steps to slow down the growth of their populations. We will discuss some of these steps or actions in Lesson 3.



## Let's Think About This

Study the illustration carefully. What does it show?



Do you agree that the things shown in the illustration can be caused by overpopulation? Why or why not?

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Discuss your answer with your Instructional Manager or Facilitator, family member, friend or co-learner. Do they agree or disagree? Why or why not?

You may look at the sample answer in the *Answer Key* on page 55.



## Let's Study and Analyze

Carefully study the illustration below. Identify each problem presented. List the problems you have identified in the blanks below.



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One serious problem brought about by a large population is the **shortage of food, water and land**. As the population increases in a certain place or country, the demand for basic needs also increases. These basic needs are food, water and shelter. The government needs to supply an adequate amount of these three basic necessities to the entire population.

For example, in Japan, the government used technological innovation in order to produce agricultural products such as rice. They used *greenhouses*, for instance, in planting rice.

Japan has also established distillation plants for their water resources. These distillation plants help produce safe drinking water for the use of the residents.

Japan has a geographic area of 145,856 square miles or 378,073 square kilometers. Due to the increasing population of the country, Japan has implemented infrastructure projects such as airports in reclaimed areas. **Reclamation** is the conversion of some sea or water territories and wastelands into useful agricultural or commercial spaces.

How can you help solve the problem of food, water and land shortage in our country?

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A large population could result in **land, water and air pollution**. As the population increases, more waste and garbage are produced by people. Unless the people and the government dispose of these properly and take measures to lessen pollution, this problem will exist. It can severely affect the health of the people.

For example, one of the major problems in Metro Manila is the large amount of garbage thrown in the streets by its residents. These are scattered in the different parts of the city.

There are also many creeks in Metro Manila which are heavily polluted. The Pasig River, which used to be the center of trade in the country in the early periods, had to undergo intensive cleaning because of its high level of pollution.

Air pollution in Metro Manila is caused by the increasing number of vehicles that release toxic fumes in the streets. There are also industrial plants which emit smoke from their exhaust pipes, thus polluting the air.

How can you prevent land, air and water pollution in your community?

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A large population could also lead to the **depletion of natural resources**. There are limited natural resources like oil, coal and gas which could be easily consumed and may one day run out completely.

For example, oil is used as fuel and its residues are used for road asphalt. Electric distribution also requires the use of oil as fuel for the generators. An increase in population would mean more families utilizing fuel for public or private transportation, the construction of more roads for people to use, and the distribution of electricity.

The continuous consumption of oil would eventually lead to the depletion of this limited natural resource.

How can you help preserve our natural resources, such as oil, despite the continuous increase in population?

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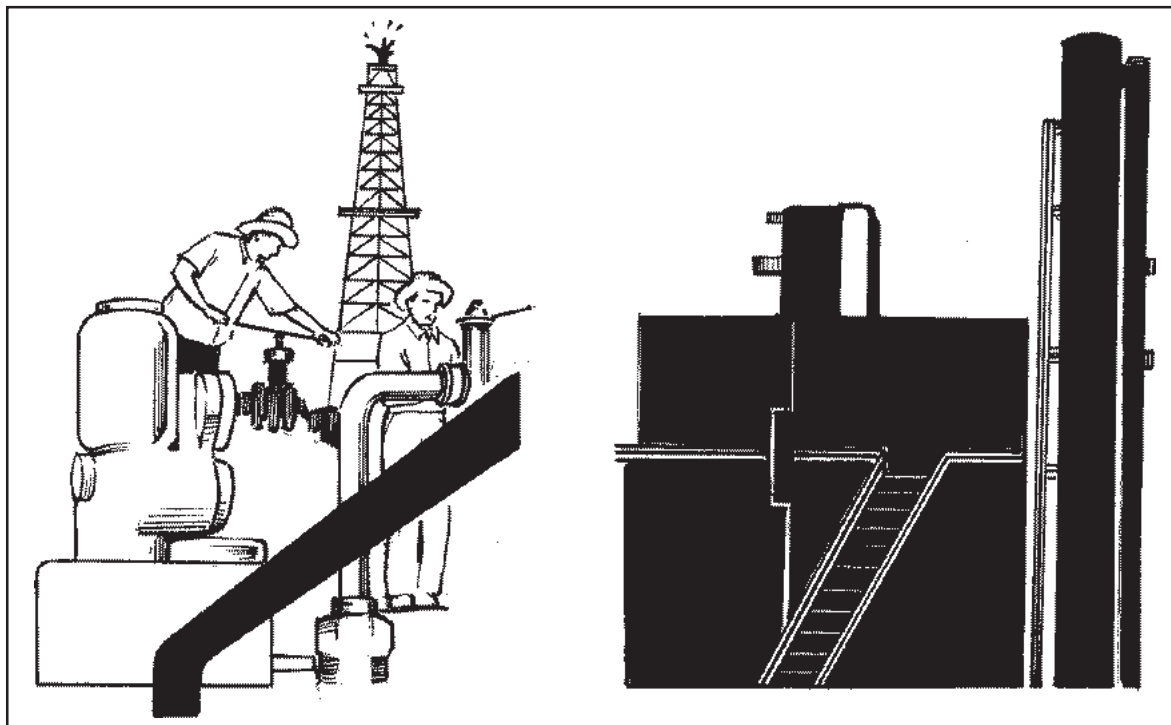
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**Problems in Education.** As the population increases, so does the demand for more schools, classrooms and teachers. If there is no adequate funding for educational projects, the quality of education may be affected. Classrooms may have too many students. There may be an inadequate number of teachers in schools as well as an inadequate number of schools in the community, municipality, province, city or country. There is also the problem of insufficient books, learning materials and school equipment for the learners to use.

In India, the growing number of people and the rising level of poverty among families have affected their quality of education. The government has been experiencing problems in providing learning materials to its population. A shortage of classrooms is also evident in India since the poor economic condition prevents the country from pursuing costly infrastructure projects.

Does your community have adequate numbers of classrooms and teachers that could accommodate the growing number of students each year? Why or why not?

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**Environment problems.** Forest degradation is one effect of overpopulation. More trees are cut down due to the greater demand for wood needed for housing. Most forests are also converted to housing or business sites. The ecological balance is then affected since many forest areas are developed or urbanized. Existing wildlife are forced to migrate to different areas. This could possibly lead to their extinction.

Have you ever heard about the **Himalayas**? This is a mountain range that stretches over a distance of about 2,500 kilometers from west to east. It covers three countries — India, Nepal and Tibet.

The Himalayan mountains are known for its many different species of plants and wildlife. However, the growing human populations in India, Nepal and Tibet have affected the Himalayan wildlife population. Forests are being cleared in many areas to provide new locations for human habitation, wood for fuel and materials for furniture.

The continuous cutting down of trees has also affected other rare species of plants and animals in the Himalayan region. Animals that used to live in this region have fled.

What project could you launch in your community in order to help protect our forests? Explain your ideas for this project.

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**Employment problems.** A large population may have both positive and negative consequences for employment. A big population could lead to the production and sale of more goods and the development of the business and agricultural sectors. This is in order to meet the people's need for food, shelter, clothing and consumer's goods. However, a country should have sufficient programs and services for the education and training of its citizens. This way, the people will have a greater chance for employment and later on can contribute to the economic growth of the country.

For example, after World War II, many countries such as Australia, New Zealand, Canada and the USA encouraged large-scale migration to help their economic development.

A large population may be difficult to accommodate in terms of employment opportunities for countries that are just developing and countries that are experiencing economic crises. It would be difficult to provide employment opportunities to all its citizens with limited financial resources.

For example, many Filipinos migrate to other countries in search of better employment opportunities. New graduates find it difficult to find employment here since there are very few job vacancies in the country.

Are there plenty of employment opportunities in the Philippines? Why or why not?

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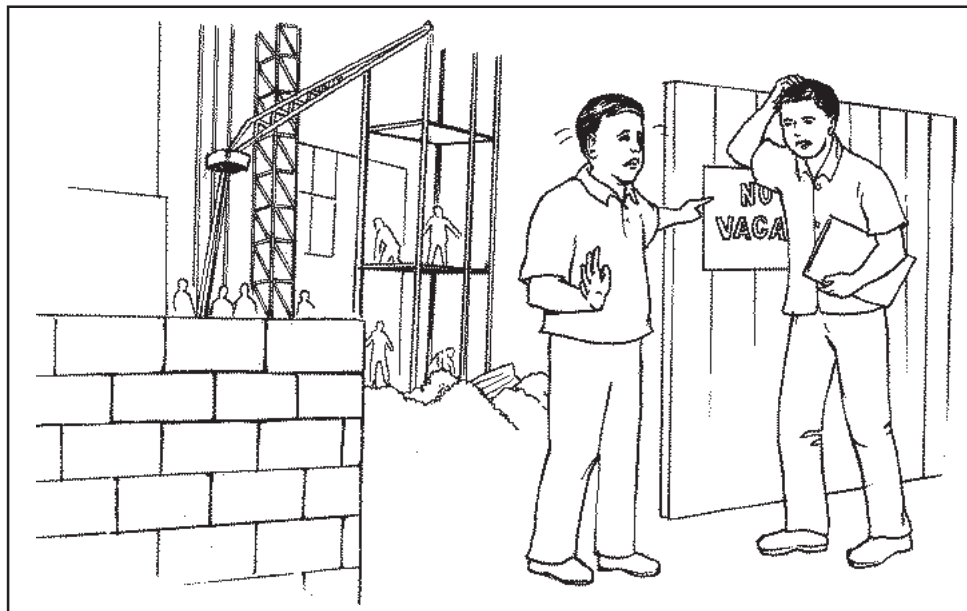
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Now you know all about the problems that may be caused by a large population. They are:

- ◆ Shortage of food, water and land
- ◆ Land, water and air pollution
- ◆ Depletion of natural resources
- ◆ Education problems
- ◆ Environmental problems
- ◆ Lack of employment opportunities



## Let's Try This

Now that you have studied all about overpopulation, do you think the Philippines is overpopulated? Why?

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Discuss your answer with your Instructional Manager or Facilitator, family member, friend or co-learner. Do they agree or disagree? Why or why not?

There is a sample answer in the *Answer Key* on pages 55–56.



## Let's See What You Have Learned

1. Enumerate 3 problems the country is experiencing due to overpopulation. Explain your answers. (2 points each)

a. 

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b. 

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c. 

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2. The United States of America had a population of 272,639,608 or 272.6 million in the year 1999. Compared to the Philippine population of 74,723,373 or 74.7 million, would you say that the USA is overpopulated? Why or why not? (5 points)

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Compare your answers with those in the *Answer Key* on pages 56–57.

If you got:

- |                |  |
|----------------|--|
| 0 – 5 points   | You need to study the entire lesson again.   |
| 6 – 7 points   | You need to review the topics you didn't understand.                                 |
| 8 – 9 points   | Good! You just need to review the answers to the items that you didn't get right.    |
| 10 – 11 points | Very good! You have learned a lot from this lesson. You may proceed to the next one. |



## Let's Remember

- ◆ An increase in population leads to an increase in people's needs. This means more services need to be provided for:
  - ◆ Housing
  - ◆ Education
  - ◆ Food production
  - ◆ Employment
- ◆ Problems which may be caused by overpopulation include:
  - ◆ Shortage of food, water and land
  - ◆ Land, water and air pollution
  - ◆ Depletion of natural resources
  - ◆ Problems in education
  - ◆ Environmental problems
  - ◆ Lack of employment opportunities

## How Can We Solve Population Problems?

In Lesson 2, we learned that a big population could cause many different problems if the basic needs of the people are not met. Can we stop population growth? What can a country do to address its population problems? What actions have other countries taken to prevent overpopulation?

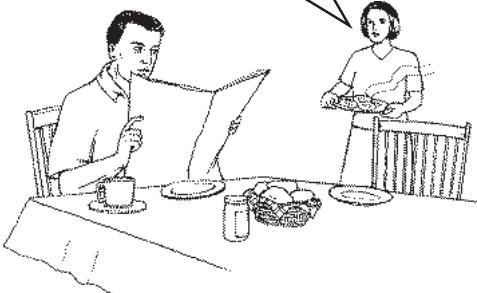
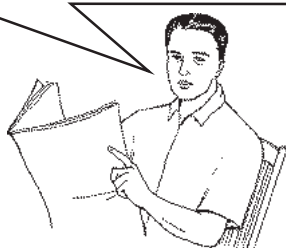


After completing this lesson, you should be able to:

- ◆ identify and describe possible solutions to population problems; and
- ◆ describe actions other countries have taken to prevent overpopulation.

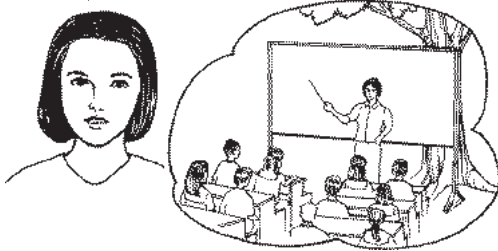


### Let's Read

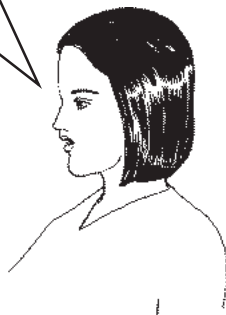
Read the conversation of Crisostomo and Maria.

<p>Luis' tuition fee is due tomorrow. Would you believe that his tuition fee for one quarter is already ₱ 6,000.00?</p> 	<p>Last year, we only paid ₱ 10,000 for the whole school year. Our economy must really be getting worse. Can you imagine those people who have four to five children? How will they send their children to school?</p> 
<p>The question is, do they send their children to school at all? I see so many children in the streets begging for alms or washing cars.</p> 	<p>What about the public schools? I know that parents who send their children there won't pay much except for the miscellaneous fee of around ₱ 200 to ₱ 300.</p> 

What about the other expenses like notebooks, allowances and projects? Do you know the condition of the classrooms in public schools? Some children even have their classes in basketball courts or under the trees.



I think the people and the government have a joint responsibility to look after our basic needs such as education, shelter and food. If we can't provide for such needs, then people should stop having more children. The government should also raise the awareness of people about the effects of having big families.



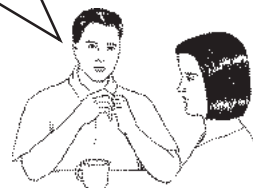
I'm really thankful for our decision. Before I forget, do give me the money for Luis' tuition fee.



I know that. We Filipinos should think twice about producing more babies. Many children are affected because their parents can't provide them with a good quality of life. What if the parents don't earn much and they have four or five children? How will they give their children good education? What about their food and housing? Our government also has difficulty with funds. We can't expect the government to shoulder all our responsibilities to our children.



You're right about that. I know we did our part. We made a good decision to have only one child. Can you imagine our life if we had four children? We might be one of those who can't send their children to school.



I thought you'd never ask.







## Let's Try This

Answer the following questions.

1. Do you agree with Crisostomo and Maria that having more children may result in difficulties such as problems in sending them all to school? Why or why not?

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2. What is Maria's point of view about the population problem?

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3. According to Crisostomo, who are most affected if the basic needs aren't met? Why?

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4. Cite from the dialogue one effect of having a big population.

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5. Based on the dialogue, cite two possible solutions to the population problem.

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6. Are Crisostomo and Maria responsible parents? Why or why not?

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7. Do you agree that the people and the government have a joint responsibility to address the population problem? Why or why not?

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8. Apart from the solutions mentioned in the dialogue, cite other possible ways by which the problem of overpopulation can be addressed.

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Discuss your answers with your Instructional Manager or Facilitator, family, friend or co-learner. Do they agree or disagree with your answers? Why or why not?

You may also compare your answers with those in the *Answer Key* on pages 57–58.



## Let's Think About This

The rapid increase in population is not only a problem of communities, municipalities, provinces, cities or countries. It is also a problem of the entire world. Many studies have indicated that overpopulation results in many problems such as food shortage, pollution, environmental and health problems, and even employment issues. The economies of overpopulated countries are severely affected and their governments find it difficult to provide the basic needs of their people.

Since it is difficult to sustain the basic needs of a big population, our country and many other countries have taken action to slow down their population growth.

1. Have you heard about **population education**? How would you define it?

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2. How can population education slow down the population growth rate of a certain place or country?

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Are you sure about your answers to the questions? Continue reading and you will know if they are right.



## Let's Learn

**Population education** is an educational campaign aimed at slowing down the population growth rate of a certain place or country. It is needed to supplement existing government programs aimed at reducing the birth rate. It is also highly relevant to people's lives because it will help them better understand their own and their society's decisions on population issues. Countries like Japan and the United States of America conduct population education programs.

The US and Japanese governments conduct seminars about population and the issues it raises. The people are informed about the problems brought about by overpopulation. These population education seminars also present government efforts to address such problems. The seminars also teach people how they can help the government minimize the increase in population.

**Population education** doesn't only inform and educate people about **population** and the **issues** that go along with it such as shortage of food, water and land; and pollution and employment problems. It also informs and educates people on how they could help minimize the population growth rate in their place or country. This may be done through the implementation of **family planning** methods.

Many countries such as the Philippines, the USA, Singapore and Japan are promoting *family planning*. **Family planning** involves determining the number and spacing of children in a family. This may be done through **natural methods** like the rhythm method or through the use of **contraceptives** such as condoms and pills. Family planning doesn't only focus on the practicality of having fewer members in a family. It also emphasizes how a family becomes emotionally closer and stronger when their **basic physical needs are met**. These basic needs are **food, shelter, education and health**.

Population education could also inform the people about the importance of having **economic reforms** and **economic development** in the country. If a country experiences difficulty in minimizing its population growth rate, it should then focus on building a strong economy. A strong economy could offset the increase in demand for basic services which is a result of having a large population.

We have learned that as the population increases, demand for basic services also increases. Providing these basic services such as food, shelter and education means expenses for the government. A poor country will encounter difficulty in providing these basic services since their financial resources are limited. A country which is earning better is more able to spend money. This money may be used for programs and services which can help provide basic services to the people.

For example, the United States of America is one of the top five countries with a large population. The US government, seeing that the population increases every year, launched economic reforms and focused on economic strengthening. As a result, they were able to provide their increasing number of citizens with programs and services from the country's earnings to help meet their basic needs.

How can population education be promoted efficiently and effectively?

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Continue reading and you will know the different mediums of communication which could be used to promote population education.

Population education can be promoted through the following:

- ◆ learning materials such as brochures, leaflets and newsletters;
- ◆ television;
- ◆ radio; and
- ◆ print media such as newspapers, magazines and journals.

Another way to promote population education is through **peer education**. Lectures regarding population issues may be conducted in the community, school or workplace. These should focus on minimizing the population growth rate in a certain place or country. Friends, schoolmates and officemates may be informed about the bad effects of overpopulation. They could also be informed about a specific government program such as family planning which could help minimize population growth.

**Public forums or town meetings** may also help promote population education. Experts on population issues may be invited as lecturers. They could inform people about the problems of and solutions to having a large population.



## Let's Think About This

Even though the government has programs and services which aim to minimize population growth, the people should also know their responsibilities.

Any government cannot do the difficult task on its own. The people should work along with the government. Each should assess its economic status before planning to increase its members.

On its part, the government should do its best to meet the basic needs of its people.



## Let's See What You Have Learned

Write **T** if the statement is true and **F** if it is not.

- \_\_\_\_\_ 1. Population education is aimed at slowing down the increase of population in a certain place or country.
- \_\_\_\_\_ 2. Population education informs and educates people on the effects of having a large population.
- \_\_\_\_\_ 3. Population education doesn't promote family planning.
- \_\_\_\_\_ 4. One way of promoting population education is through the use of learning materials.
- \_\_\_\_\_ 5. Peer education and public forums can also help promote population education.

You may compare your answers with those in the *Answer Key* on page 59.



## Let's Remember

- ◆ We cannot stop people from multiplying altogether; however, we could slow down the population growth.
- ◆ The rapid increase in population is not only a problem of communities, municipalities, provinces, cities or countries; it is a problem of the entire world.
- ◆ Population education is a solution which aims to minimize the increase of population in a certain place or country. It informs and educates people about population and population issues.
- ◆ Population education also promotes family planning and the launching of economic reforms which could lead to economic development.
- ◆ Population education can be promoted efficiently and effectively through the following:
  - ◆ learning materials such as brochures, leaflets and newsletters;
  - ◆ television;
  - ◆ radio;
  - ◆ print media such as newspapers, magazines and journals;
  - ◆ peer education; and
  - ◆ public forums or town meetings.
- ◆ The government cannot minimize population growth by itself. The people should work along with the government.
- ◆ The government should do its best to meet the basic needs of its people.

Well, this is almost the end of the module! Congratulations for having reached this far. You have been a diligent learner. Did you enjoy the module? Did you learn useful things from it? A summary of its main points is given on the next page to help you remember them better.



## Let's Sum Up

- ◆ *Population* refers to the total number of people living in a community, municipality, province, city, country or the entire world.
- ◆ *Population explosion* refers to the very fast increase in population.
- ◆ The factors which contribute to population growth are:
  - ◆ Migration
  - ◆ New medicines and medical equipment
  - ◆ Increased birth rate
  - ◆ Decreased death rate
  - ◆ Urban development
- ◆ *Overpopulation* is the condition of having too many people living in a certain place at one time. This condition can affect the economy of a community, municipality, province, city, country or the entire world. It can also have effects on the resources, environment, food supply and other basic needs of people.
- ◆ Population education aims to minimize the increase of population in a certain place or country. It informs and educates people about population and population issues.
- ◆ Population education also promotes family planning and the launching of economic reforms which could lead to economic development.
- ◆ Population education can be promoted efficiently and effectively through the following:
  - ◆ learning materials such as brochures, leaflets and newsletters;
  - ◆ television;
  - ◆ radio;
  - ◆ print media such as newspapers, magazines and journals;
  - ◆ peer education; and
  - ◆ public forums or town meetings.
- ◆ The government alone cannot do the work of minimizing population growth. The people should work along with the government.
- ◆ The government should do its best to meet the basic needs of its people.



## What Have You Learned?

Answer the following questions.

1. What is *population*? (1 point)

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2. What is *overpopulation*? (1 point)

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3. Define *population explosion*. (1 point)

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4. How does the *birth rate* affect population? (2 points)

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5. How does the *death rate* affect population? (2 points)

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6. Define the following terms: (4 points)

◆ *Migration*

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◆ *Birth rate*

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◆ *Death rate*

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◆ *Urban development*

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7. How do new medicines and medical equipment contribute to population growth? (2 points)

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8. Define *population education*. (2 points)

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9. What is *family planning*? (1 point)

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10. Whose responsibility is it to minimize the increase in population of a certain place or country, the people's or the government's? Why?  
(4 points)

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You may compare your answers with those in the *Answer Key* on pages 59–60.

If you got:

- |         |  |
|---------|--|
| 0 – 9   | You need to study the entire module again.   |
| 10 – 14 | You need to review the lessons you did not understand.                                     |
| 15 – 18 | You need to review the answers to the test items you were not able to answer correctly.    |
| 19 – 20 | Very good! You have learned much from this module. You may now proceed to the next module. |



## Answer Key

### A. Let's See What You Already Know (*page 2*)

- |                         |                         |
|-------------------------|-------------------------|
| 1. Migration            | 6. Population           |
| 2. India                | 7. Overpopulation       |
| 3. Birth rate           | 8. Population education |
| 4. Death rate           | 9. Family planning      |
| 5. Population explosion | 10. Economic growth     |

### B. Lesson 1

*Let's Try This (pages 4–5)*

- I.
  1. Box A has fewer circles than Box B. Box B is more congested than Box A, which has plenty of space.
  2. Box A has lesser people compared to Box B.
  3. If the population of the country represented by Box B continues to increase, the country would become overcrowded. It would be difficult for people to live conveniently. This country might experience difficulty in providing land to the growing number of people, for example.
  4. Box B better represents the population of the Philippines. The Philippines is a relatively small country with a big population — 75.3 million people. According to the United Nations 1998 Revision of the World Population Estimates and Projections, the Philippines belong to the top ten contributors to world population from 1995 to 2000.
- II. The five countries with the biggest populations as of 1999 are:

1. China	1,246,871,951
2. India	1,000,848,550
3. USA	272,639,608
4. Indonesia	216,108,345
5. Brazil	171,853,126

You may also have identified some other countries with big populations. Show your answers to your Instructional Manager or Facilitator.

*Let's Think About This (pages 6–7)*

1. The data in Table 1 shows that the population of the Philippines has been progressively increasing from 1980 to 2000.
2. The population of the Philippines will continue to increase. Population growth cannot be stopped or prevented; it can, however, be slowed down.
3. In Figure 2, the countries which belong to Asia are:
  - ◆ China
  - ◆ India
  - ◆ Indonesia
4. The factors which may contribute to population growth are:
  - ◆ Migration
  - ◆ Decreased death rate
  - ◆ Increased birth rate
  - ◆ Urban development
  - ◆ New medicines and medical equipment

You may also have identified some other factors which contribute to population growth. Show your answers to your Instructional Manager or Facilitator, a family member, friend or co-learner for additional feedback.

*Let's Review (pages 14–15)*

1. **(a)** is the correct answer. Many Filipinos go to other countries to earn more. They want to provide their families with a better future. These Filipinos don't only go to Hong Kong, Singapore and Malaysia; they also seek opportunities in Middle Eastern countries like Saudi Arabia, Iran, Iraq and Kuwait.

(b) and (c) are incorrect because few Filipinos migrate to other countries due to violent conflicts or natural disasters.

(d) is incorrect because basic social services such as education, medical services and welfare services are often available at urban centers like Metro Manila and few Filipinos go abroad to avail of these.
2. **(b)** is the correct answer. *Death rate* is the total number of persons who die in a year in a place or country. A high death rate could lead to a decrease in population. However, a low death rate leads to an increase in population.

(a) is incorrect. *Birth rate* is the total number of persons who are born in a year in a place or a country. A high birth rate could lead to an increase in population. However, a low birth rate leads to a decrease in population.

(c) is incorrect. New medicines have helped prevent diseases and cure illnesses and thus, they contribute to population growth.

(d) is incorrect. Migration contributes to population growth.

3. **(b)** is the correct answer. New medicines such as vaccines for tuberculosis and Hepatitis A and B have helped prevent people from acquiring diseases.

(a) is incorrect. Death rate refers to the number of persons who die every year. It doesn't prevent the occurrence of diseases like tuberculosis and Hepatitis A and B.

(c) is also incorrect. New medical equipment refers to machines used to help save people's lives.

(d) is also incorrect. Birth rate refers to the number of persons who are born every year. It doesn't prevent diseases.

4. **(c)** is the correct answer. Many people from the provinces go to urban areas because they believe that there are opportunities there for employment, health services, better education and many more.

(a) is incorrect because new medicines and new medical equipment are a contributing factor to population growth, not a cause of migration.

(b) is incorrect because the situation presented does not involve people from war-torn areas.

(d) is incorrect because the situation presented does not involve people from areas or places affected by natural disasters such as floods, earthquakes and typhoons.

5. **(b)** is the correct answer. A *defibrillator* is a medical equipment used by paramedics, hospitals and some clinics for cardiovascular emergencies. It monitors a person's heart condition and could automatically indicate when an electric shock is needed to be given to a patient.

(a) is incorrect. A defibrillator is not a medicine but a medical device used for cardiovascular emergencies.

(c) is incorrect. Birth rate refers to the number of persons who are born every year in a certain place or country. It is not a medical equipment.

(d) is incorrect. Death rate refers to the number of persons who die in a year in a place or a country. It is not a medical equipment.

*Let's Think About This (page 16)*

The line graph illustrates a significant increase in the world population from 1800 to 2000. It also shows that there has been a sudden increase in population by some 3.54 billion people between the years 1950 and 2000. In just a period of fifty years, the world's population more than doubled.

*Let's Try This (pages 20–21)*

1. Manila is an urbanized city that is rich in history. It is the capital city of the Philippines and is well-known for the walled city called Intramuros. It has piers — the North and South Harbors. It also has a university belt where different schools like De La Salle University, University of Santo Tomas and San Beda College are located.

Manila is also a city that is overcrowded and polluted and where traffic is always heavy. Slum areas or urban poor communities are also seen in Manila. It is a place where you would seldom see trees and plants since most of the land is converted to areas for houses, buildings, schools and business establishments.

2. People from the provinces continue to migrate to Manila because they see Manila as a place where they could find a good quality of life. They see Manila as a city where they could get employed easily.
3. Yes, land and space is very valuable in Manila. In Manila, idle spaces or lands are converted to areas for buildings, houses, schools and business establishments.
4. The local government of Manila cannot help all the poor residents in the city because it lacks financial resources. Another reason is that by helping all the poor residents in the city, most of the poor people in the provinces and other cities might migrate to Manila to seek help.

*Let's See What You Have Learned (page 22)*

1. **T**
2. **F** – Death rate refers to the number of persons who die every year.
3. **F** – Birth rate refers to the number of persons who are born every year.
4. **T**
5. **T**
6. **T**
7. **F** – A very fast increase in population is called a population explosion.

8. T
9. T
10. T

## C. Lesson 2

*Let's Think About This (pages 24–25)*

I would prefer a small family. Having a small family means living a more comfortable life. It is easier for a small family to meet their basic needs such as food, clothing, education and shelter. A family with many members may encounter financial difficulties. The rising cost of daily living makes it more difficult to provide the basic needs of a large family.

*Let's Think About This (pages 28–29)*

I agree. I learned that as the population increases, the demand for basic services also increases. These basic services include food, education and shelter. It would be difficult for a country to provide these needs if the country lacks financial resources.

The illustration shows the problems affecting education, such as shortage of school facilities, school equipment and teachers.

Shortage of school facilities may be due to the yearly increase of students especially in public schools. The student population doubles each start of the school year. As a response to this, the government should build more schools and classrooms for these students. School equipment such as books, chairs and blackboards should also be provided each learner in school.

However, if the government does not have sufficient funds to meet these needs, schools, teachers and students are affected. Schools are affected because the classrooms would be congested due to the large number of students. Teachers will have more students to teach for the school year and students will not be able to concentrate on their lessons since there would be too many students in one classroom.

*Let's Try This (page 36)*

Yes, the Philippines is overpopulated because there is an increasing number of people who are deprived of such basic needs as good education, employment and a healthy environment.

The country has had difficulties increasing its income in order to meet the needs of the people. As a result, the government has resorted to loan applications to international lending institutions such as the International Monetary Fund, World Bank, and the Asian Development Bank.

Education is one major problem of the country. Each year, school officials worry about how they could accommodate students in public elementary schools and high schools. The lack of adequate schools and classrooms in communities, municipalities, provinces and cities has always been a major problem of the Department of Education. Students are forced to have their classes under trees, in basketball courts and any other available space in the campus. Students from public schools also have problems acquiring textbooks which they will use in school. Very often, five students share a single book. Many of these textbooks soon become damaged due to overuse and so they need to be replaced. It is also very difficult to hire new teachers, especially in rural areas.

The country also experiences difficulty in employing new graduates from colleges and universities. As a result, Filipinos are forced to migrate to other countries in search of better employment opportunities.

Pollution, too, has worsened in cities around the Philippines. The air in Metro Manila is heavily polluted, resulting in many health problems such as asthma, chest infections and lung diseases. The garbage problem is also a cause of worry for people and the government since there are no permanent land sites for landfills in which to dispose of garbage and waste. Rivers, lakes and other bodies of water are likewise polluted due to the wastes and garbage thrown in them by people.

*Let's See What You Have Learned (pages 36–37)*

1. Conditions in the Philippines contributed by overpopulation:
  - a. The increasing population has affected our natural resources. For example, people have destroyed natural rainforests such as those in Ormoc, Leyte. They have cut down trees in these forests to make furniture. They also sell the wood to big companies for profit. In some provinces like Pampanga, people practice *kaingin*, the burning of the forest in order to plant vegetables or rice in the field.
  - b. The increase in population has led to the shortage of schools, classrooms and teachers. Due to this condition and the insufficient financial resources of the government, many schools conduct their classes outside classrooms. Or else, students are often cramped in one classroom. There is also a need to hire additional teachers who will teach the increasing number of students each school year.
  - c. Overpopulation makes it difficult for new graduates from colleges and universities to find jobs. As a result, they are forced to migrate to other countries in search of better employment opportunities.



- d. Pollution has worsened in cities around the Philippines due to overpopulation. Metro Manila, especially, has a very high level of air pollution. Our rivers, lakes and other bodies of water are also polluted by garbage thrown in by the increasing number of people.
2. No, the United States of America is not overpopulated. The USA is a first world country, while the Philippines is a developing country. Because of this, the USA has more financial resources than the Philippines. Since it has sufficient financial resources, the basic needs of its large population are easily met. The government is able to provide services such as education, welfare and health services to its people. Projects which are believed to be beneficial to people are easily implemented by the government.

The USA is also bigger in land area, with 3,618,770 square miles compared to the Philippines' 115,831 square miles. Despite the large land area of the USA it only has a population density of 68 per square mile, compared to the Philippines' population density of 535 per square mile.

We define overpopulation as the condition of having too many people living in a certain place at one time. This condition can affect the economy of a community, municipality, province, city, country or the world. It can also affect resources, environment, food supply and other basic needs of people.

The USA, despite its large population of 272.6 million, is able not only to provide the basic needs of its growing population, but also to help other countries financially.

### **D. Lesson 3**

*Let's Try This (pages 41–42)*

1. I agree. More children means more financial responsibility in terms of providing them their basic needs. If the parents don't earn much, it would be difficult for them to send their children to school.
2. Maria believes that the people and the government have a joint responsibility in looking after our basic needs such as education, shelter and food. If these and other needs are not met, the population growth should be prevented. The government also has a responsibility to raise the awareness of people about the effects of having a big number of people in a family, community, province, municipality, city and in a country.

3. According to Crisostomo, the children are mostly affected if the basic needs aren't met. Their parents won't be able to give them a good education, a healthy living environment and a good home if the parents have to adjust to increasing prices of goods.
4. One effect of a big population is the lack of schools and classrooms to accommodate the increasing student population.
5. Two possible solutions to the population problem are:
  - ◆ People should stop having more children if they know that they can't meet their basic needs such as food, shelter and education.
  - ◆ The government should raise the awareness of its people on the effects of having a big family.
6. Yes, Crisostomo and Maria are responsible parents because they planned their family. They decided to have only one child. This way, they could easily meet their son's needs and provide him with quality education.
7. I agree that the people and the government have a joint responsibility to address the population problem. A country's rapid population increase should not be blamed on the government; people are the ones who contribute to population growth. The people should know their obligations and responsibilities as parents to their children. If you know that you can't afford to raise four children, then you should limit your number of children to the number you could afford to raise.

The government, on the other hand, needs to inform and educate the people about the problems brought about by having a big family and how overpopulation affects the community, the municipality, the province, the city and the country.

The government can minimize population growth by promoting family planning. It could involve parents, organizations and other groups who are informed about family planning to educate residents in other communities.

8. Another way of addressing the population problem is through population education. Population education means informing and educating people on the problems brought about by a large population. It also educates people on ways of preventing these problems.

There may also be poster campaigns in the community discussing overpopulation and its problems.

You may have identified other solutions to the population problem. You may present your answers to the Instructional Manager or Facilitator to get feedback about them.

*Let's See What You Have Learned (page 45)*

1. **T** — Population education is an educational campaign aimed at developing responsible attitudes in people so that they will make better decisions regarding population growth. It aims to help people understand their own and their society's decisions on population, issues relating to it and how these could be addressed.
2. **T** — Population education is about informing and educating people on population and related issues. It seeks to raise the awareness of people on issues and problems brought about by a large population in a country and how these can be addressed.
3. **F** — Population education does not only inform and educate people about population and its issues. It also seeks to inform and educate people on how they could help minimize the population growth in their place or country. Family planning is presented by population education as one way of minimizing population growth.
4. **T** — Learning materials could further improve information dissemination on population. These materials may be distributed to different communities and to people in even the most remote areas.
5. **T** — Peer education and public forums can be effective mediums for the dissemination of information on population and its issues among friends and residents of one's community.

**E. What Have You Learned?** (*pages 48–50*)

1. *Population* refers to the total number of people in a community, municipality, province, city, country or the world.
2. *Overpopulation* is the condition of having too many people living in a certain place at one time. This condition can affect the economy of a community, municipality, province, city, country or the entire world. It can also affect the resources, environment, food supply and other basic needs of people.
3. *Population explosion* is the very fast increase of population in a certain place or country.
4. If the *birth rate* or the number of persons born in a place or a country is high, the population usually increases. If the *birth rate* is low, population is likely to decrease.
5. If the *death rate* or the number of persons who die in a place or a country is high, the population often decreases. If the *death rate* is low, population tends to increase.

6. *Migration* is the transfer of people from one place to another.

*Birth rate* refers to the total number of babies born every year.

*Death rate* refers to the total number of persons who die every year.

*Urban development* is the growth and development of an area or a place into a city.

7. *New medicines and new medical equipment* contribute to population growth because they help save people's lives.
8. *Population education* is an educational campaign aimed at slowing down the population growth rate of a certain place or country. It is needed to supplement existing government programs which try to reduce the birth rate. It is also highly relevant to people's lives because it will help them better understand their own and their society's decisions on population issues.

Population education doesn't only inform and educate people about population and the issues that go along with it such as shortage of food, water and land, pollution and employment problems. It also informs and educates people on how they could help minimize the population growth rate of their place or country.

9. *Family planning* is a method used to slow down population growth by determining the number and spacing of children in a family.
10. The people and the government have a joint responsibility in minimizing the population growth rate of a certain place or country.

Even though the government of a country has programs and services which aim to minimize the increase in population, the people living in this country should also know their responsibility to help lessen population growth. The people should work along with the government. They should assess their financial condition before planning to increase their family. The government should also do its best to meet the basic needs of its people.



## Glossary

**Birth rate** The number of persons who are born every year.

**Death rate** The number of persons who die every year.

**Family planning** A method used to slow down population growth by determining the number and spacing of children in families.

**Migration** The transfer of people from one place to another.

**Overpopulation** The condition of having too many people living in a certain place at one time.

**Pollution** The condition in which something (air, water, land, etc.) has become dirty or harmful to people, animals and plants. This condition is often the result of the addition or introduction of harmful chemicals.

**Population** The total number of people in a community, municipality, province, city, country or the entire world.

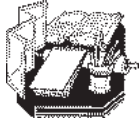
**Population education** An educational campaign aimed at slowing down the population growth rate of a certain place or country.

**Population explosion** A very fast increase in population.

**Reclamation** Conversion of sea or water territories or wastelands into useful agricultural or commercial spaces.

**Shortage** Lack.

**Urban development** The growth and development of an area or place into a city.



## References

Did You Know? — Fascinating Facts and Amazing Stories. *There are now 6 billion of us.* <<http://www.didyouknow.com/billions>> January 11, 2001, date accessed.

Negative Population Growth (NPG). NPG Facts and Figures: *World Population Growth Per Time Unit.* <[http://www.npg.org/facts/world\\_pop\\_time.htm](http://www.npg.org/facts/world_pop_time.htm)> January 10, 2001, date accessed.

National Statistics Office. *Philippine Population.*

United Nations Population Fund. Population Issues Briefing Kit. *Urbanization and Migration.* <<http://www.unfpa.org/modules/briefkit/English/ch06.html>> January 12, 2001, date accessed.

United Nations 1998. Revision of the World Population Estimates and Projections.

U.S. Bureau of Census. *World Population Profile:* 1998, pp. 1–2.