



## What Is This Module About?

Have you ever seen a child who is thin and pale and has a big abdomen? From his/her appearance, you can guess that the child is sick. If a child has no appetite, often gets dizzy and frequently has loose bowel movement, he or she may have worms.

Why do you think children usually have worms? What can we do to prevent worms from entering our body?

This module explains how worms enter and do damage to our body. It also tells us how to avoid having worms and how to get rid of them.

This module is divided into two lessons:

Lesson 1 — *Why Do We Get Worms?*

Lesson 2 — *The Deworming Team*



## What Will You Learn From This Module?

After studying this module, you should be able to answer the following questions:

- ◆ Why do some persons have worms?
- ◆ How do worms enter a person's body?
- ◆ What are the effects of worms on a person's health?
- ◆ How can you prevent yourself from having worms?
- ◆ How can you get rid of worms if you have them?



## Let's See What You Already Know

Before you start studying this module, answer the following questions first to find out what you already know about the topic. Encircle the letter of the correct answer.

1. Where do people usually get worms?
  - a. from dirty places
  - b. from clean homes
  - c. in school
  - d. in the department store
  
2. What is one reason people get worms?
  - a. Because they often walk barefoot.
  - b. Because they play with worms.
  - c. Because they eat too much *bagoong*.
  - d. Because they are very talkative.
  
3. How would you feel if you had worms?
  - a. strong
  - b. weak
  - c. happy
  - d. sad
  
4. How does a person with worms usually look like?
  - a. fat
  - b. healthy
  - c. thin
  - d. beautiful
  
5. How does a person's abdomen look like if he or she has worms?
  - a. small
  - b. big
  - c. empty
  - d. thin

Well, how was it? Do you think you fared well? Compare your answers with those in the *Answer Key* on page 20 to find out.

If all your answers are correct, very good! This shows that you already know much about the topics. 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 only goes to show 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 go now to the next page to begin Lesson 1.

# LESSON 1

## Why Do We Get Worms?



This is Pablo. He lives in a crowded part of the town. His surroundings are dirty.

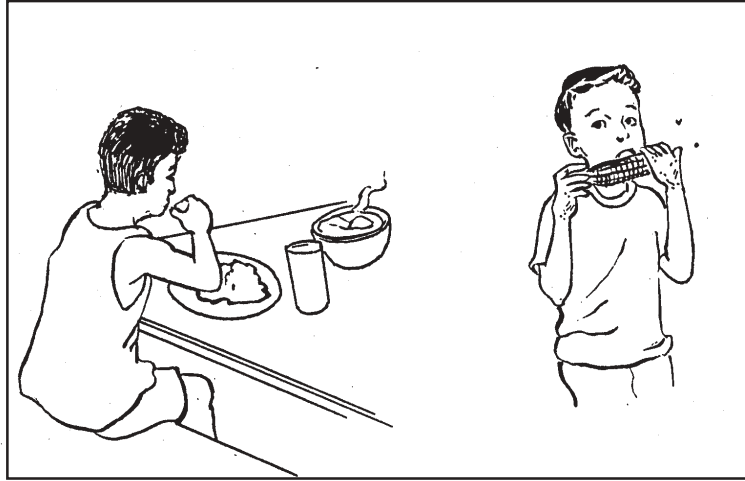
The canals in their area are full of stagnant water. Trash and garbage are scattered all over the place. Most of the houses do not have clean toilets.

Let us look at Pablo again.

He usually walks barefoot. His stomach is big and yet he is thin. He is usually weak and pale. Pablo is sick.

Let us look at Pablo's neighbors, too. They play in dirty surroundings. They do not have slippers. They are also very thin. Pablo's friends are also sick.





These are Juan and Pedro. They are Pablo's classmates. They live in another part of the town.

Juan eats a lot and yet he is very thin. He often suffers from stomach pain.

On the other hand, Pedro eats just the right amount of food. But he does not wash his hands before eating.

Juan and Pedro are both pale. They are both thin. They are not healthy. They are sick.

What do you think is their illness?

This is their problem. Pablo has worms. Some of his friends and classmates also have worms.

You may also get worms if your surroundings are dirty and you do not observe good health habits. Examples of good health habits are washing your hands before eating and wearing shoes or slippers.





## Let's Remember

People get worms if their surroundings are dirty and they do not observe good health habits.



## Let's Think About This

Read and understand the important words and phrases below. Think about the meaning or importance of each word or phrase for your health.

1. dirty surroundings
2. stagnant water
3. pile of trash
4. clean toilet
5. big belly
6. thin
7. weak
8. walking barefoot
9. pale
10. worms



## Let's Remember

- ◆ Many people have worms.
- ◆ They have worms because of dirty surroundings.
- ◆ They get worms because of poor health habits.
- ◆ People who do not wear shoes or slippers run a bigger risk of getting worms.
- ◆ Worms in the body affect a person's health.

Did you know that there are different kinds of worms and parasites that may enter the body? What are they? How do you prevent them from entering your body?

Before continuing with your study, test what you have learned from Lesson 1.



## Let's See What You Have Learned

Write **True** in the blank if the sentence is correct and **False** if it is not.

- \_\_\_\_\_ 1. A child who has worms is healthy and lively.
- \_\_\_\_\_ 2. If a child does not always wear slippers and plays in dirty places, he or she might get worms.
- \_\_\_\_\_ 3. A child who has worms is usually pale and feels dizzy.
- \_\_\_\_\_ 4. Having worms is good for the body and for the health.
- \_\_\_\_\_ 5. A child with worms becomes thin and his or her abdomen becomes big.

Compare your answers with those in the *Answer Key* on page 21.

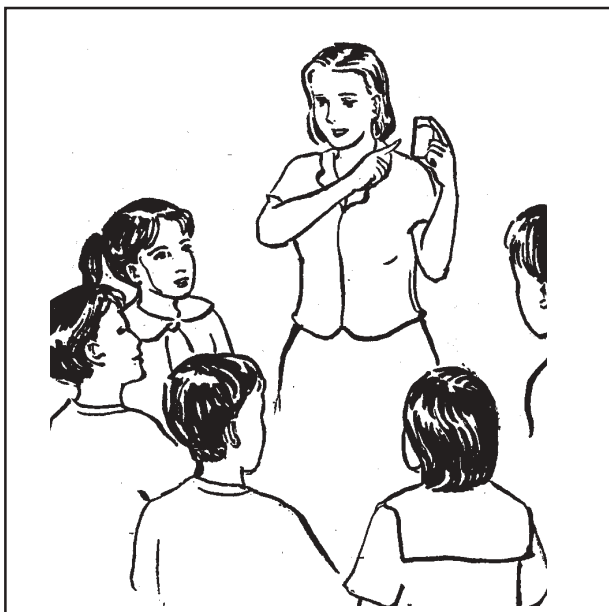
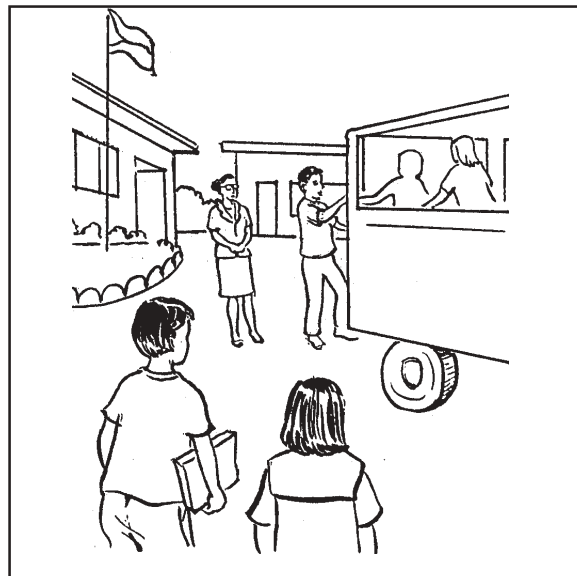
# The Deworming Team



## Let's Read

When Pablo arrived in school one morning, he saw many visitors. They were getting off from a van. The principal was there to welcome them.

The principal introduced each of the visitors to the teachers and the schoolchildren. They were members of a deworming team from Manila. They were there to rid the children of worms. They were going to give the children a dewormer to drink. The dewormer would kill the worms and eliminate



them from their bodies. But the team had to know first who among the children had worms.

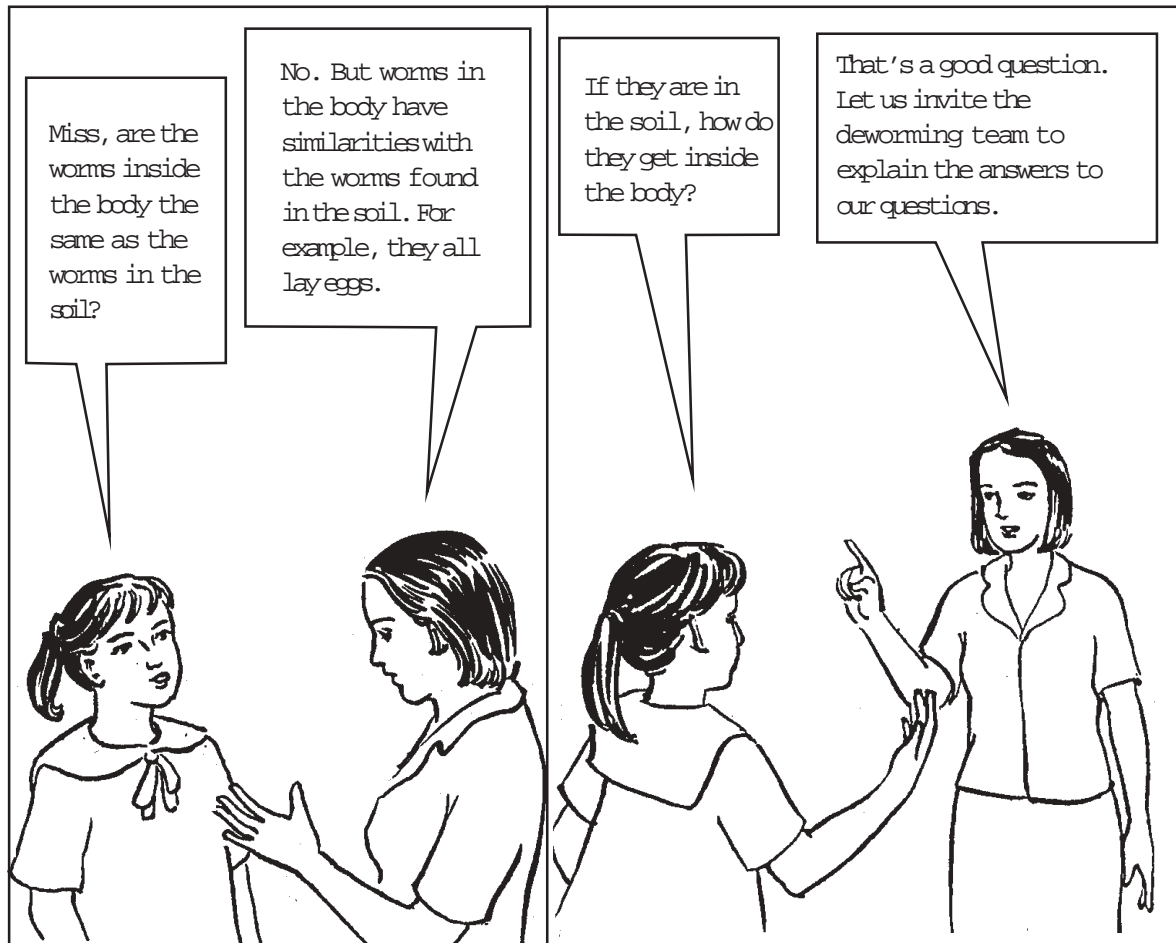
The schoolchildren were told to bring their stool (feces) to school for examination in the laboratory. This is what you call stool test or fecalysis.

The test will tell what kind of worms are inside the children's stomachs.



From this test, the doctor will know what medicine to give to kill the worms.

In class that day, the kids from the fourth grade became curious. They had many questions about worms. They were surprised when they learned about the different kinds of worms and parasites that enter the body.

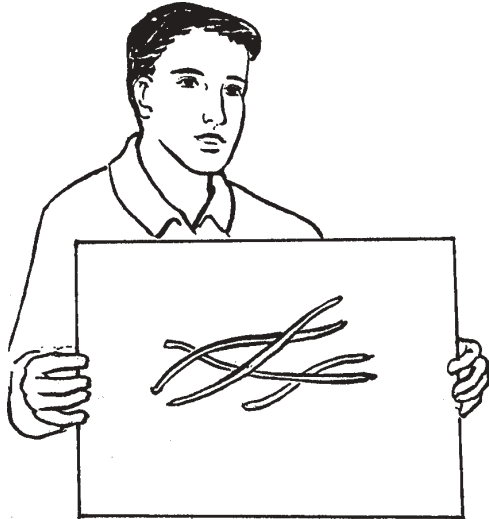


Because Pablo's school is small, the deworming team was able to talk to all the children at once.

The medical technologist spoke first. He brought a flipchart with pictures.

The medical technologist opened his flipchart and showed the different kinds of worms that can enter the body. He also explained how they are able to enter the body.

This is what he showed and explained.



This is the worm **ascaris**. It looks like an earthworm or worm found under the ground. It can grow to as long as 15 inches.

Anyone who eats uncooked food that has not been properly washed might swallow the eggs of this worm. Such eggs may be found in some raw vegetables.

The eggs of the ascaris are usually found in stools of people who defecate (move their bowels) anywhere.

To prevent having ascaris, it is best to wash your hands first and wash food thoroughly before eating.

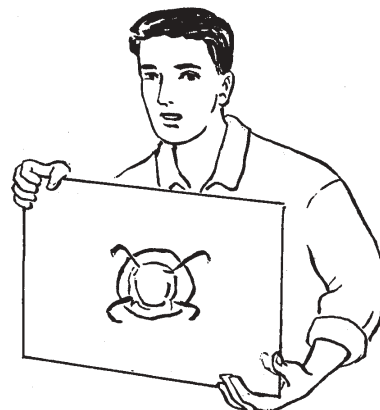
This is the **hookworm**. It is half an inch long but its mouth has many sharp teeth. These teeth help suck the blood from your intestines.

The female hookworm lays up to 10,000 eggs a day. These eggs may also be found in stools of people with hookworms.

The eggs turn into larvae. The larvae are the ones which enter the skin of your feet.

So, it is best that you wear slippers or shoes all the time.

Clean toilets help prevent the spread of hookworms.

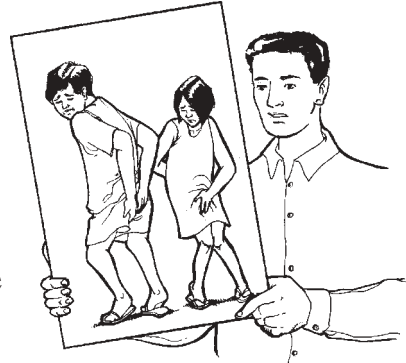


**Pinworms** look like thin threads and are usually found in the anus. The eggs of pinworms are transferred to the tips of the fingers or under the nails if a person scratches his or her anus. They can also be transferred through towels or toilet bowls.

It is necessary that you wash your hands before preparing food or eating, and after coming from the toilet.

It is also good to maintain short nails.

The kids in this picture may already have pinworms. They are scratching the surrounding areas of their anus and sex organs.



In some parts of the Philippines, there is a destructive parasite that causes the deadly illness called **schistosomiasis**.

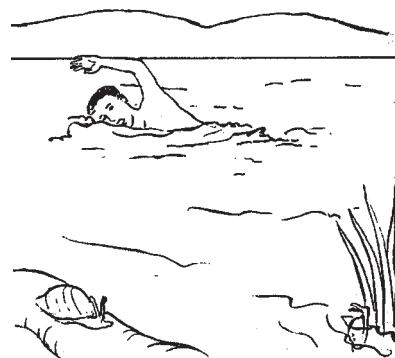
The parasite is a kind of flatworm shaped like a leaf. It is called, **schistosome**. Its eggs come from people's stools which float in bodies of water.



When the eggs hatch, they become *larvae*. The larvae look for a freshwater snail and live there. Inside the snail, they grow and multiply. Then they leave the snail and look for a human victim.

These worms enter through the skin of a person's head. Inside the head, they attack the blood vessels going to the liver, kidney, intestines and other internal organs.

If a person goes swimming or bathing in water where these worms live, they will surely enter the body of that person.



*Everybody should use clean toilets, especially those who live near rivers and other bodies of water. Also, people should not defecate along the riverbanks.*

If there are parasites like these in the water, government officials should do something to address this problem. They should come up with steps to clean the water and remove the snails where these parasites live.

This is called a **tapeworm**.  
It is shaped like a shoelace.  
Can you guess why this is called a tapeworm?

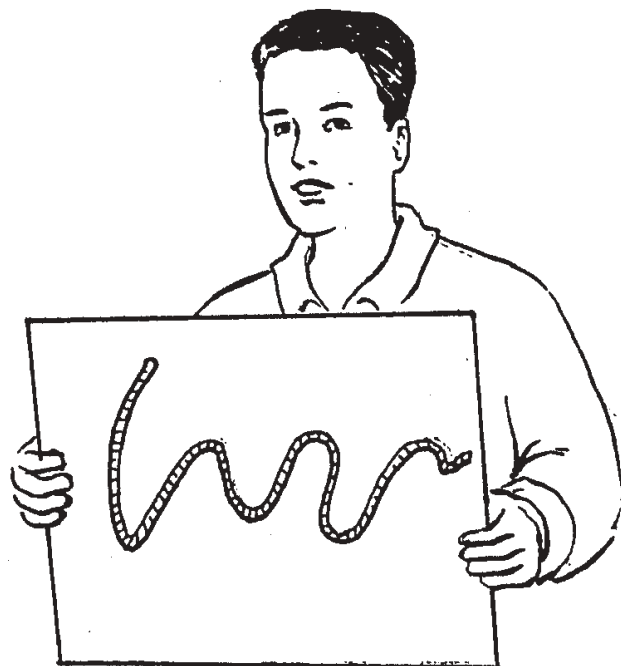
Tapeworms may grow from 6 to 10 feet long in pigs.

They may grow from 15 to 20 feet long in cows.

They may grow from 40 up to 50 feet long in fish.

People who are fond of eating uncooked fish or half-cooked pork or beef may get tapeworms.

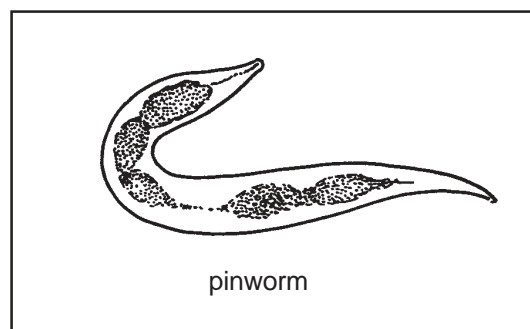
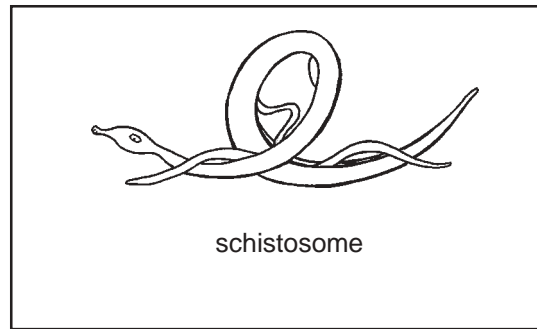
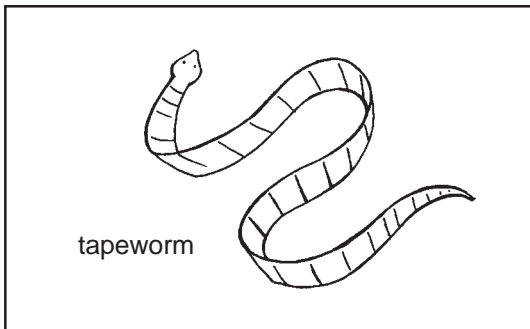
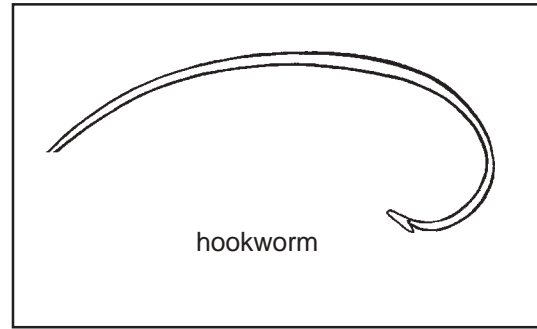
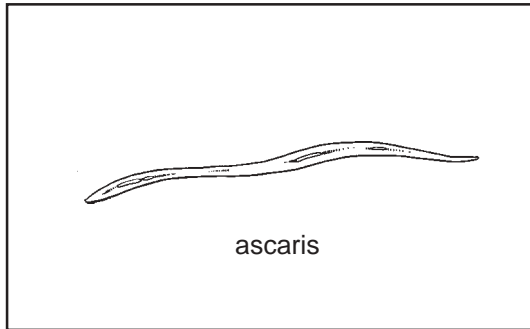
The larvae of tapeworms in meat die when the meat is cooked properly.





## Let's Remember

- ◆ Five kinds of worms were mentioned by the medical technologist: ascaris, hookworm, tapeworm, schistosome and pinworm.



- ◆ These worms are typically found in the Philippines. If a person has worms, he or she has to consult a doctor at once. The doctor will prescribe a medicine to kill and remove the worms.

Let us see if you understood what the medical technologist said.



## Let's Review

Use the list below to answer the simple test that follows.

- |             |                |
|-------------|----------------|
| a. ascaris  | d. schistosome |
| b. hookworm | e. pinworm     |
| c. tapeworm |                |

A. In the space provided, write the letter of the worm being described. Choose the correct answer from the box.

- \_\_\_\_\_ 1. has small and sharp teeth
- \_\_\_\_\_ 2. is long and segmented
- \_\_\_\_\_ 3. is like a piece of white thread
- \_\_\_\_\_ 4. lives inside snails
- \_\_\_\_\_ 5. looks like an earthworm

B. Choose the letter of the correct answer from the box. Write the letter of the type of worm which enters the body of the person who:

- \_\_\_\_\_ 1. swims in a river containing the parasites
- \_\_\_\_\_ 2. eats raw or half-cooked beef, pork or fish
- \_\_\_\_\_ 3. scratches the area around the anus
- \_\_\_\_\_ 4. walks barefoot
- \_\_\_\_\_ 5. eats unwashed food from the ground

See how many correct answers you got. Consult the *Answer Key* on pages 21 and 22.



## Let's Read

How can these worms be killed? Read the story of Emalyn.

<p>In Emalyn's house...</p> <p>Oh, Emalyn, you eat a lot and yet you are getting thinner. And it looks like your stomach is getting bigger.</p> <p>Do you know why, Inay?</p> 	<p>I think we should go to the health center so the doctor can examine you, okay?</p> <p>Okay, Inay.</p> 
<p>In the health center...</p> <p>Doc, what do you think is wrong with Emalyn?</p> <p>She has worms. To know what kind of worms she has, please have her stool examined in the laboratory.</p> 	<p>The next day...</p> <p>She has pinworms. But do not worry. They can be removed easily. Here is my prescription.</p> <p>Thanks, Doc. I'll buy the medicine at once.</p> 



## Let's Sum Up

In this module you have learned how worms enter and affect our bodies. Remember that:

- ◆ People get worms if their surroundings are dirty and they do not observe good health habits.
- ◆ People who do not wear shoes or slippers run a bigger risk of getting worms.
- ◆ Worms or their eggs may enter your body through your mouth.
- ◆ Worms in a person's stomach and intestines eat the food he/she eats, making him/her weak.
- ◆ There are five kinds of parasitic worms: ascaris, hookworm, tapeworm, schistosome and pinworm.
- ◆ These worms are typically found in the Philippines. If a person has worms, he or she has to consult a doctor at once. The doctor will prescribe a medicine to kill and remove the worms.
- ◆ Our surroundings should always be clean so we can avoid having worms.
- ◆ Beef, pork and fish should be cooked very well.
- ◆ If a river contains schistosomes, no one should bathe or swim there.
- ◆ Worms in the body can be killed by taking the right medicine.



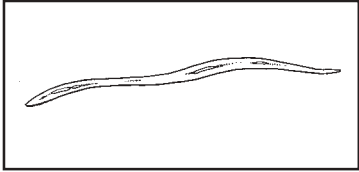
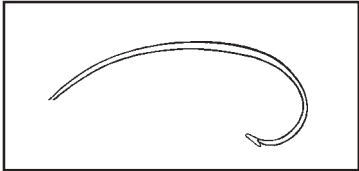
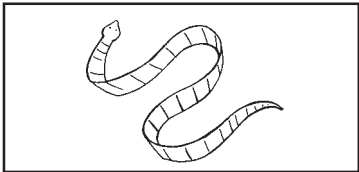
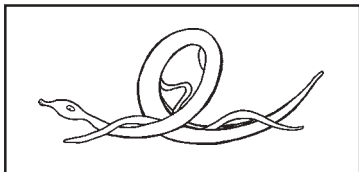
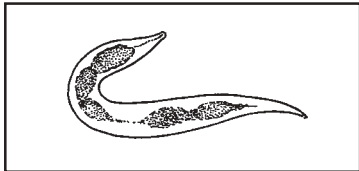


## What Have You Learned?

A. Encircle the letter of the best answer.

1. How do you usually get worms?
  - a. through clean surroundings
  - b. through dirty surroundings
  - c. by coming in contact with people who have them
  - d. by eating fruits and vegetables
  
2. Who among these children will get worms easily?
  - a. A barefoot child playing on the ground
  - b. A child going to school
  - c. A child playing inside the house
  - d. A child who is always clean
  
3. What is a common sign that a person has worms?
  - a. The person is pale and has a big belly.
  - b. The person is lively and healthy.
  - c. The person is happy and clean.
  - d. The person has a healthy body.
  
4. The worm which enters a snail and breeds there is called \_\_\_\_\_.
  - a. ascaris
  - b. hookworm
  - c. pinworm
  - d. schistosomiasis parasite
  
5. How does a person with worms look like?
  - a. has a small stomach
  - b. has a big chest
  - c. has a big stomach
  - d. is lively

B. Write down the name of the worm in the drawing

1.		_____
2.		_____
3.		_____
4.		_____
5.		_____

C. What type of worm is being described? Write the answer on the line before the number.

- |       |                              |
|-------|------------------------------|
| _____ | 1. lives inside a snail      |
| _____ | 2. commonly felt in the anus |
| _____ | 3. longest worm              |
| _____ | 4. has small, sharp teeth    |
| _____ | 5. looks like an earthworm   |

Compare your answers with those in the *Answer Key* on page 22.

If you got a score of :

- 1–4 You should review the whole module.
- 5–8 Review parts of the module you did not understand.
- 9–12 Good! Review the questions you did not get right.
- 13–15 Very good! You learned a lot from the module. You may now proceed to the next one.



## Answer Key

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

1. The correct answer is **(a)**. People usually get worms from dirty places.  
(b) is incorrect. You don't get worms from clean homes.  
(c) and (d) are incorrect. You don't usually get worms from school or department store.
2. The correct answer is **(a)**. If people go barefoot, worms will enter through the pores in their feet.  
(b) is incorrect. Nobody plays with worms because they are dirty.  
(c) is incorrect. Eating *bagoong* does not cause a person to have worms.  
(d) is incorrect. Being talkative has nothing to do with getting worms.
3. The correct answer is **(b)**. Worms make you feel weak because they eat the food you eat.  
(a), (c) and (d) are incorrect. If you have worms, you do not feel strong, happy or sad.
4. The correct answer is **(c)**. A person with worms is usually thin because the worms use up nutrients in his or her body.  
(a), (b) and (d) are incorrect. A person with worms does not usually look fat, healthy or beautiful.
5. The correct answer is **(b)**. A person with worms has a big stomach.  
(a), (c) and (d) are incorrect. A person with worms does not have a small, empty or thin stomach. The stomach becomes big because it is full of worms.

## B. Lesson 1

*Let's See What You Have Learned (page 7)*

1. **False.** A person who has worms is neither healthy nor lively. The worms eat the nutrients in the person's body.
2. **True**
3. **True**
4. **False.** Having worms is not good for your health. Your body will lose nutrients because the worms will eat them.
5. **True**

## C. Lesson 2

*Let's Review (page 14)*

- A.
1. The correct answer is **(b)**. Hookworms have small and sharp teeth.
  2. The correct answer is **(c)**. Tapeworms are long and segmented.
  3. The correct answer is **(e)**. Pinworms are like white threads that spread if a person scratches his or her anus.
  4. The correct answer is **(d)**. Schistosomes are found in snails that live near bodies of water.
  5. The correct answer is **(a)**. The ascaris can grow to 15 inches in length and looks like an earthworm.
- B.
1. The correct answer is **(d)**. Schistosomes look for snails near bodies of water.
  2. The correct answer is **(c)**. Tapeworms can be found in beef, pork and fish. If the meat is not cooked well or if it is eaten raw, the worms may grow and reproduce in your body.
  3. The correct answer is **(e)**. Pinworms are found near the anus. If you scratch your anus, pinworms will be transferred to your fingernails. If you do not wash your hands before eating, you will get these worms.

4. The correct answer is **(b)**. Hookworms enter through openings in the skin of your feet, like wounds and open pores.
5. The correct answer is **(a)**. The ascaris worms live on the ground. Vegetables that are not washed may contain eggs of ascaris. If you do not wash the vegetables before eating, you might eat the eggs, too. The eggs will hatch and become worms.

#### **D. What Have You Learned?** *(pages 17–18)*

- A.
1. The correct answer is **(b)**. Worms live in dirty places.
  2. The correct answer is **(a)**. Worms live in the soil. If a child does not wear slippers, worms will enter through open pores or wounds in his or her feet.
  3. The correct answer is **(a)**. A person with worms is pale, has a big stomach and feels weak because the worms are using up the nutrients in his or her body.
  4. The correct answer is **(d)**. Schistosomiasis parasites grow and reproduce inside snails living near bodies of water.
  5. The correct answer is **(c)**. A person with worms has a big stomach because worms grow and reproduce inside the stomach.
- B.
1. ascaris
  2. hookworm
  3. tapeworm
  4. schistosome
  5. pinworm
- C.
1. schistosome
  2. pinworm
  3. tapeworm
  4. hookworm
  5. ascaris