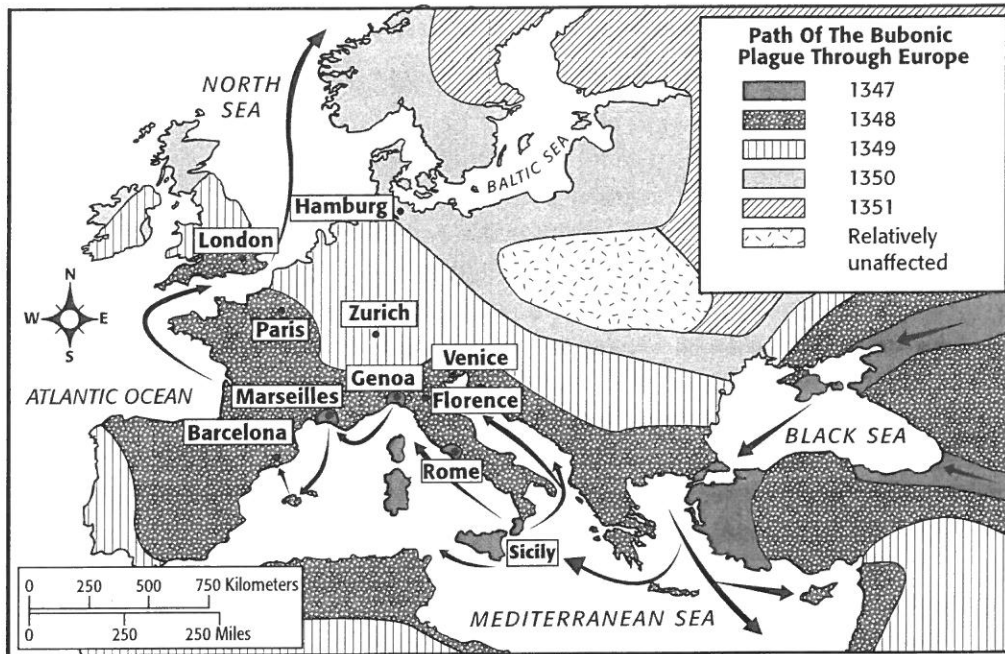


Map Skills

20



The bubonic plague, also called the Black Death, was brought to Europe along trade routes that ran to and from Asia. Rats on trading ships carried fleas that carried the disease to Europe. Nearly half the population of Europe died from the Black Death in the 1300s.

Use the map above to answer the questions below.

1. **Using a Key** What were the first areas hit by the plague?

2. **Analyzing Data** How long did it take for the plague to reach London?

3. **Analyzing Data** How many years did it take for the plague to spread throughout most of Western Europe?

4. **Using a Key** About how many miles did the plague spread?

5. **Making a Hypothesis** Some areas of Europe were unaffected by the plague despite being in its path. What might explain this?

Active Reading

Section: Pollution and Human Health

Read the passage below and answer the questions that follow.

We are exposed to small amounts of chemicals every day, in food, in the air we breathe, and sometimes in the water we drink. Almost any chemical can be harmful if taken in, or *ingested*, in large enough amounts. The question is whether the concentration of any particular chemical in the environment is high enough to be harmful.

To determine the effect of a pollutant on health, we need to know several things. We need to know how much of the pollutant is in the environment and how much gets into the body. Then we need to determine what concentration of the toxin damages the body. The amount of a harmful chemical to which a person is exposed is called the **dose** of that chemical. The damage to health that results is called the *response*.

Whether a chemical has a toxic effect depends in part on the dose. The response also depends on the number of times a person is exposed, the person's size, and how well the person's body breaks down the chemical.

IDENTIFYING MAIN IDEAS

One reading skill is the ability to identify the main idea of a passage. The main idea is the main focus or key idea. Frequently, a main idea is accompanied by supporting information that offers detailed facts about main ideas.

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 1. How are people exposed to chemicals on a daily basis?
- in the food they eat
 - in the air they breathe
 - in the water they drink
 - all of the above
- _____ 2. The amount of a harmful chemical to which a person is exposed is the
- dose.
 - response.
 - pollutant.
 - toxin.
- _____ 3. Almost any chemical can be harmful if
- it is present in the environment.
 - a person is exposed to it repeatedly.
 - it is ingested in large enough amounts.
 - a person has never been exposed to it before.

Active Reading *continued*

VOCABULARY DEVELOPMENT

Read each question and write the answer in the space provided.

4. The verb *concentrate* means “gather” or “collect.” The suffix *-ion*, used to form nouns, means “state” or “condition.” Use this information to define the noun *concentration*.

5. *Pollute* means “to make impure.” *Pollution* is “the act of polluting.” If the suffix *-ant* means “something that performs an action,” what is a *pollutant*?

6. A *response* is a “reply” or a “reaction.” Use this information to explain why the health damage that results after exposure to a harmful chemical is called a *response*.

RECOGNIZING CAUSE AND EFFECT

One reading skill is the ability to recognize cause and effect.

In the space provided, write the letter of the phrase that best answers each question.

- _____ 7. What information is *not* necessary for determining the effects of a pollutant on individual health?
- a. how much of the pollutant gets into the body
 - b. how many people have been exposed to the pollutant
 - c. what concentration of the pollutant damages the body
 - d. how much of the pollutant is in the environment

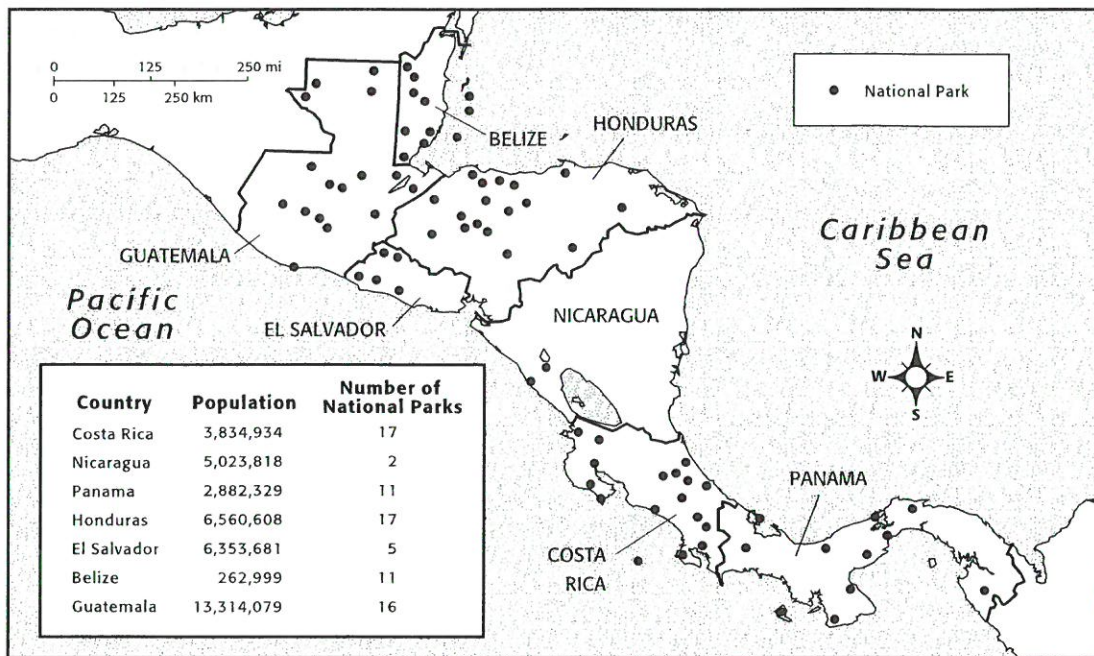
- _____ 8. Which factors determine whether exposure to a chemical will have a toxic effect?
- | | |
|---------------------------|-------------------------------|
| a. concentration and dose | c. concentration and response |
| b. dose and exposure | d. exposure and response |

Read the following question and write the answer in the space provided.

9. What factors determine the response to a chemical?

Map Skills

21



Every Central American country has created national parks in order to save the remaining rain forest ecosystems. There are 411 protected areas in the region, and 391 more are being planned. Of the areas already protected, 124 are officially national parks.

Use the map above to answer the questions below.

- Analyzing Data** Which country or countries in Central America have the most national parks? the fewest?

- Analyzing Data** How have countries distributed their parks among interior and coastal areas?

- Inferring Relationships** What is the relationship, if any, between the size of a country and the number of national parks?

- Making Conclusions** What factors do you think affect the creation of national parks?

- Making a Hypothesis** How might a significant population increase in Guatemala affect the national parks system?

Active Reading

21

Section: Economics and International Cooperation**Read the passage below and answer the questions that follow.**

Businesses and private organizations also play roles in addressing environmental problems. Businesses may donate land for parks or preserves, or donate money to environmental causes. Many businesses have found that recycling their wastes can save costs and improve their public image.

Private organizations often cooperate with each other and with governments. Such cooperation may include conducting research or creating plans for environmental management.

The Nature Conservancy is a nonprofit organization that uses a simple economic strategy to preserve ecosystems. This organization collects donations of money and land. If the donated land is not targeted for preservation, the organization trades or sells the land. Large preserves are put together by a combination of donations, exchanges, and purchases of land. The organization has created preserves in all 50 states and in 28 other countries.

IDENTIFYING MAIN IDEAS

One reading skill is the ability to identify the main idea of a passage. The main idea is the main focus or key idea. Frequently, a main idea is accompanied by supporting information that offers detailed facts about the main idea.

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 1. What is the Nature Conservancy?
- a. a business that recycles its waste
 - b. a nonprofit organization that preserves ecosystems
 - c. a government organization that oversees preserves
 - d. a private company that targets land for preservation
- _____ 2. The Nature Conservancy forms large preserves by
- a. combining donations, exchanges, and purchases of land.
 - b. working with the government to target land for preservation.
 - c. persuading businesses to donate land for parks.
 - d. conducting research to determine what land is suitable for preservation.

Read the following question and write the answer in the space provided.

3. What does the Nature Conservancy do with donated land that is not targeted for preservation?

Active Reading *continued*

VOCABULARY DEVELOPMENT

Read the question and write the answer in the space provided.

- _____ 4. A private organization working with a government to create a plan for environmental management is an example of
- a. preservation
 - b. economic strategy
 - c. cooperation
 - d. exchange

In the space provided, write the letter of the description that best matches the term or phrase.

- | | |
|-----------------------------------|--|
| _____ 5. preserve | a. a plan for taking care of the environment |
| _____ 6. recycling | b. reuse of waste material |
| _____ 7. environmental management | c. land whose ecosystems are protected |

RECOGNIZING SIMILARITIES AND DIFFERENCES

One reading skill is the ability to recognize similarities and differences between two phrases, ideas, or things. This is sometimes known as comparing and contrasting.

Read the question and write the answer in the space provided.

8. Businesses and private organizations both play roles in addressing environmental problems. How are their roles different?

RECOGNIZING CAUSE AND EFFECT

One reading skill is the ability to recognize cause and effect.

Read each question and write the answer in the space provided.

9. How do businesses benefit from recycling waste?

10. How do private organizations cooperate with each other and with governments?
