

Active Reading

Section 3: Hazardous Waste

Read the passage below and answer the questions that follow.

Some hazardous wastes are disposed of by burning, often in specially designed incinerators. Incinerators can be a safe way to dispose of waste, but they have several problems. Incineration is generally the most expensive form of waste disposal because incinerators require a lot of energy to operate. Incinerators also need pollution-control devices and need to be carefully monitored so that hazardous gases and particles are not released into the air. Also, after hazardous waste is incinerated, the leftover ash needs to be buried. This ash is usually buried in a hazardous waste landfill.

When we put hazardous waste into disposal facilities for long-term storage, the wastes do not disappear. Instead, they must be closely monitored. For example, disposal of radioactive wastes from nuclear reactors is an especially difficult storage problem. The only way to make the radioactive wastes non hazardous is to let them sit for thousands of years until the radioactivity decreases to safe levels. Therefore, engineers and geologists search for disposal sites that probably will not be damaged by movements of the Earth for thousands of years.

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 phrase that best completes each statement.

- _____ 1. Incinerators are used to
 - a. control pollution.
 - b. store hazardous wastes.
 - c. burn hazardous wastes.
 - d. dispose of radioactive wastes.
- _____ 2. After hazardous waste is incinerated, the leftover ash is
 - a. stored in a long-term storage facility.
 - b. buried in a special landfill.
 - c. left to sit for thousands of years.
 - d. monitored for hazardous gases.
- _____ 3. Wastes from nuclear reactors are
 - a. radioactive.
 - b. non hazardous.
 - c. gaseous.
 - d. expensive.

VOCABULARY DEVELOPMENT

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

4. A *hazard* is a “source of danger.” *Waste* is “something that is discarded.”
What is *hazardous waste*?

SEQUENCING INFORMATION

One reading skill is the ability to sequence information, or to logically place items or events in the order in which they occur.

Sequence the statements below to show the steps in the process of disposing of radioactive waste. Write “1” on the line in front of the first step, “2” on the line in front of the second step, and so on.

- _____ 5. Sites are closely monitored.
- _____ 6. Scientists locate a site that will not be damaged by Earth movements.
- _____ 7. Radioactive wastes are stored.
- _____ 8. Disposal facilities are built.
- _____ 9. Wastes sit for thousands of years.

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.

10. Name two reasons why incinerators are the most expensive form of waste disposal.

11. Why must incinerators be carefully monitored?

12. Why do engineers and geologists try to find disposal sites that are unlikely to be damaged by movements of the Earth?
