# Skills Worksheet

## ANALOGIES

Mark the letter of the pair of terms that best completes the analogy shown. An analogy is a relationship between two pairs of words or phrases written as a : b :: c : d. The symbol : is read "is to," and the symbol :: is read "as."

- **1.** cardboard box : solid waste ::
  - **a.** motor oil : hazardous waste
  - **b.** barge : exported waste
  - c. excavation : mining wasted. Yucca Mountain : nuclear waste
  - **2.** landfill : groundwater ::
    - **a.** vent pipes : methane
    - **b.** incinerator : air
    - **c.** factory : land
    - **d.** playgrounds : chemicals
  - 3. sunlight: photodegradable::
    - **a.** polyester : nonbiodegradable
    - **b.** decomposers : biodegradable
    - c. paper: recyclable
    - $\textbf{d.} \text{ batteries}: rechargeable}$
  - **4.** dish towels : paper towels ::
    - **a.** egg cartons : drink boxes
    - **b.** green plastic : sugar molecules
    - **c.** plastic bags : paper bags
    - **d.** rechargeable batteries : regular batteries
  - **5.** surface impoundment :
    - evaporation ::
    - **a.** Superfund : legislation
    - **b.** furnace : incineration
    - **c.** composting : decomposition
    - **d.** recycling : source reduction

- **6.** waste production : increasing ::
  - a. incinerators : reducing
  - **b.** available land : decreasing
  - **c.** raw materials : decomposing
  - **d.** recycled materials : expanding
- **7.** household hazardous waste collection : local government ::
  - **a.** waste export : international agreement
  - **b.** Resource Conservation and Recovery Act : state government
  - **c.** Superfund site cleanup : federal government
  - d. Love Canal: school board
  - **8.** better design : source reduction ::
    - **a.** increased demand : recycling
    - **b.** changing materials : solid waste
    - **c.** reusing materials : glass bottles
    - **d.** chemical treatment : oil spills

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#### Critical Thinking continued

### **INTERPRETING OBSERVATIONS**

#### Read the passage below, and answer the questions that follow.

The total amount of municipal solid waste generated in the United States has doubled in the last 40 years. Today, the average person living in the United States produces 4.4 pounds of solid waste per day. Because the human population and the amount of waste we create are increasing and the amount of land available is decreasing, it is getting harder to dispose of the waste we create.



- **9.** During the 1970s, the production of waste per person grew slowly while an economic recession was occurring in the United States. How might the slower production of waste have been related to the recession?
- **10.** In the 1980s, after the recession was over, why did the amount of waste per person increase? What could have been done to offset this trend?
- **11.** During the 1990s, the amount of waste generated per person remained almost constant, yet the total waste generated increased steadily. Explain why such a situation could occur.

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Critical Thinking continued

#### AGREE OR DISAGREE

Agree or disagree with the following statements, and support your answer.

12. Leachate is a form of hazardous waste.

**13.** Compost is biodegradable.

14. There is little danger of hazardous waste entering groundwater if the waste is disposed of through deep-well injection.

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Critical Thinking *continued* 

#### **REFINING CONCEPTS**

15. Under certain conditions, biodegradable materials can take a long time to decompose. What factors could keep a newspaper in a landfill intact for years? What factors could speed up the process of decomposition?

16. As a packaging material, glass has some advantages over plastic, but it also has some disadvantages. List two disadvantages of using glass containers.

17. Recycling rates in Japan are much higher than they are in the United States. List two reasons why this might be the case.

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