

## REVIEW

**5** CHAPTER 5**Mixed Review**

1. **Creative Thinking** Foods kept in a refrigerator stay fresh longer than foods left out on the counter. Explain why this is true.

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2. **Applying Concepts** Silver chlorate,  $\text{AgClO}_3$ , produces silver chloride,  $\text{AgCl}$ , and oxygen,  $\text{O}_2$ , when heated.

a. Identify the reactants and products of this chemical reaction.

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b. Write the equation for the reaction.

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c. Balance the equation for the reaction.

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3. **Applying Concepts** Predict the product or products of the following general descriptions of chemical reactions, and then name the type of reaction.

a.  $A + B \rightarrow$

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b.  $AB \rightarrow$

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c.  $AX + BY \rightarrow$

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d.  $AX + B \rightarrow$

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4. **Creative Thinking** Compare a chemical reaction at equilibrium with a game of tug-of-war.

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**Chapter 5 Mixed Review, continued**

**5. Critical Thinking** The following chemical reaction takes place during the process of respiration:  $C_6H_{12}O_6 + 6O_2 \rightarrow 6H_2O + 6CO_2 + \text{energy}$

a. What are the products of this reaction?

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b. Is energy absorbed or released?

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c. Since the law of conservation of energy states that energy cannot be created or destroyed, where do you think the energy for the chemical process of respiration is derived? (**Hint:** What are the reactants?)

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**6. Concept Mapping** Complete the concept map below by writing the correct word or phrase in the lettered boxes.

