

Directed Reading A

Section: Energy and Rates of Chemical Reactions

1. All chemical reactions either give off or absorb _____.

REACTIONS AND ENERGY

2. Why is chemical energy a part of all chemical reactions?

3. When energy is released during a chemical reaction, it is called a(n) _____ reaction.

4. Give one example of the types of energy released in exothermic reactions.

5. When energy is taken in during a chemical reaction, it is called a(n) _____ reaction.

6. Photosynthesis is an example of a(n) _____ process.

7. What does the law of conservation of energy state?

8. If energy can be neither created nor destroyed in a chemical reaction, what can happen to the energy?

9. What happens to the energy taken in during endothermic reactions?

Directed Reading A *continued*

RATES OF REACTIONS

10. The speed at which new particles form is called the _____.
11. The smallest amount of energy needed to start a chemical reaction is called _____.
12. Name one source of activation energy.
- _____

FACTORS AFFECTING RATES OF REACTIONS

13. What four factors affect how rapidly a chemical reaction takes place?
- _____
- _____
- _____
14. As temperature increases, the rate of reaction _____.
15. A measure of the amount of one substance that is dissolved in another is called _____.
16. How does increasing concentration increase the rate of reaction?
- _____
- _____
- _____
17. The amount of exposed surface of a substance is called _____.
18. How can you increase the surface area of a solid reactant?
- _____
- _____
- _____
19. A substance that slows down or stops a chemical reaction is called a(n) _____.
20. Give one example of an inhibitor.
- _____

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21. A substance that speeds up a reaction without being permanently changed is called a(n) _____.

22. How can the rate of a chemical reaction be increased?
