

Chapter 2 The Chemistry of Life

Section Review 2-4

Reviewing Key Concepts

Completion *On the lines provided, complete the following sentences.*

1. Chemical reactions that _____ energy often occur spontaneously.
2. During a chemical reaction, chemical bonds are _____.
3. Biological catalysts, or enzymes, act by lowering the _____ required for a reaction.
4. The reactants of an enzyme-catalyzed reaction are known as _____.

Defining Terms *On the lines provided, describe how the words in each set are related.*

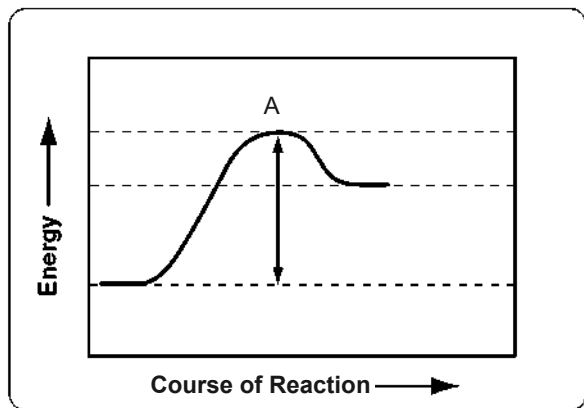
5. catalyst, enzyme, activation energy

6. reactant, product, chemical reaction

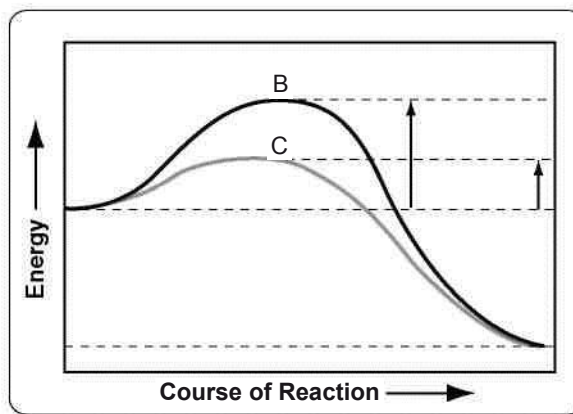
Reviewing Key Skills

Interpreting Graphics *Use the two diagrams of chemical reactions to answer questions 7 to 9.*

Graph I



Graph II



7. Which pathway has the greatest activation energy?

8. Which graph shows a reaction that absorbs energy?

9. Why are two pathways shown in the graph on the right?

10. **Forming a Hypothesis** Most enzymes in the human body work best at 37°C. Imagine scientists have discovered an enzyme in the body that works best at 39°C. What processes or functions might this enzyme be involved in?
