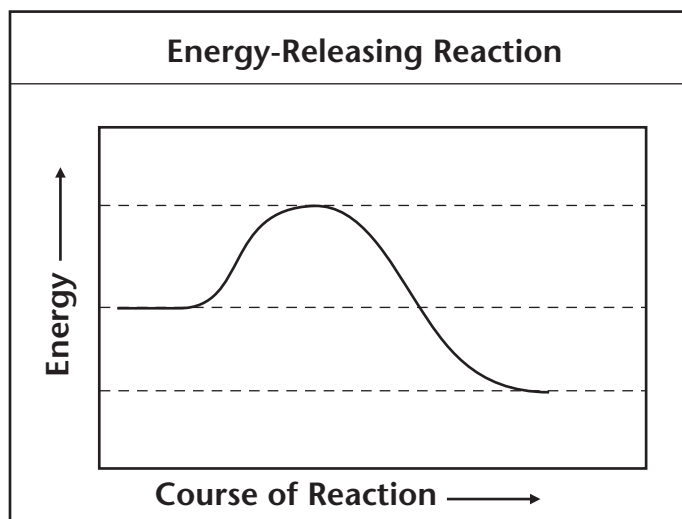
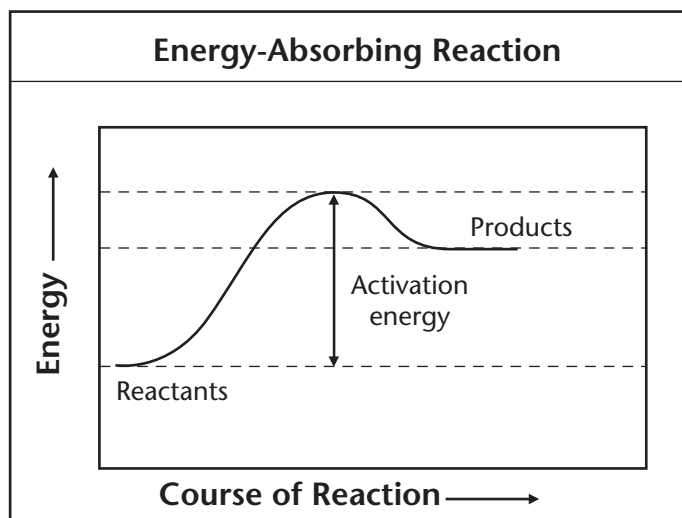


Energy in Reactions

The graphs below show the amount of energy present during two chemical reactions. The top graph has been labeled to show the reactants, products, and activation energy. Recall that activation energy is the energy needed to start a chemical reaction.

Label the reactants and products on the bottom graph. Then, draw an arrow to show the activation energy.



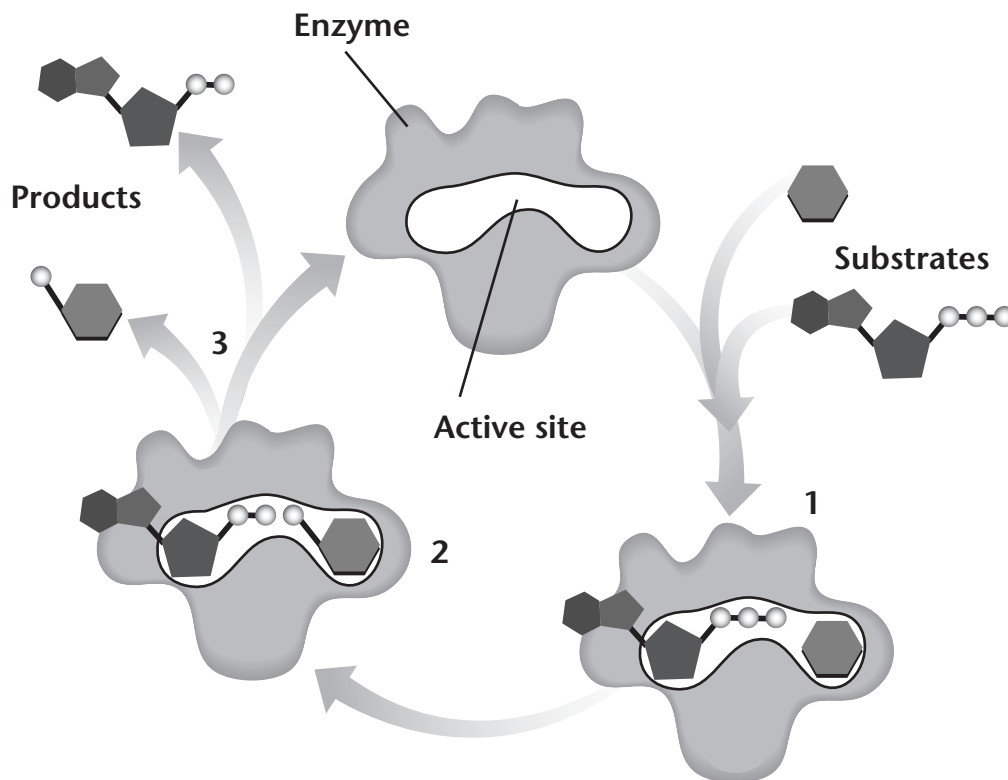
Use the graphs to answer the question. Circle the correct answer.

1. Which type of reaction often occurs spontaneously?

energy-absorbing energy-releasing

Enzymes

Many chemical reactions in cells take place on enzymes. The reactants bind to the enzyme until the reaction is complete. These reactants are called substrates. When the reaction is complete, the products are released.



Use the diagram to place the steps below in the correct order.

- _____ Products are released.
- _____ Substrates bind to enzyme.
- _____ Substrates are converted into products.

Use the diagram to answer the questions.

1. Where do the reactants bind to the enzyme?

2. What is the function of enzymes in living things? Circle the correct answer.

catalyze chemical reactions inhibit chemical reactions