

### Guided Reading Chapter 14 Section 3

- How is energy involved in chemical reactions?
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- Describe and provide an example of an exothermic reaction.
- Describe and give an example of an endothermic reaction.
- Activation energy is the energy needed to begin a reaction and \_\_\_\_\_ the chemical bonds.
  - combine
  - break
  - synthesize
- Sketch and label the graph that shows the energy flow in a chemical reaction.
- What kind of reaction is this (endothermic or exothermic)? How do you know?  
$$2\text{Al}_2\text{O}_3(\text{s}) + \text{Energy} \longrightarrow 4\text{Al}(\text{s}) + 3\text{O}_2(\text{g})$$
- A \_\_\_\_\_ reaction is a type of endothermic reaction that takes place when an ionic compound mixes in water to create an ionic solution.
- Describe the common endothermic reaction (reactants and products) referred to in problem 7.
- What is the purpose of the reaction?

10. The change in concentration of reactants and products in a chemical reaction, occurring over a period of time is called \_\_\_\_\_.
11. Two molecules that speed up or slow down a reaction are called the \_\_\_\_\_ and the \_\_\_\_\_.
12. What is happening in the chemical reaction displayed?

