

Name: \_\_\_\_\_ Period: \_\_\_\_\_

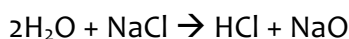
Unit 1: Basic Chemistry For Biology  
Activity 3: Energy Practice Problems

**Vocabulary Practice**

- |                             |  |
|-----------------------------|--|
| ____ 1. Energy              | a. Molecules on the left side of a chemical equation             |
| ____ 2. Reactant            | b. Reactions that take in energy                                 |
| ____ 3. Product             | c. The amount of energy required to begin a reaction             |
| ____ 4. Exergonic Reaction  | d. The ability to do work or cause change                        |
| ____ 5. Endergonic Reaction | e. A type of catalyst that is found in living organisms          |
| ____ 6. Activation Energy   | f. Something that reduces the amount of activation energy needed |
| ____ 7. Catalyst            | g. Reactions that release energy                                 |
| ____ 8. Enzyme              | h. Molecules on the right side of a chemical equation            |

**Chemical Reactions Practice**

9. In the following equation, label the reactants and label the products:



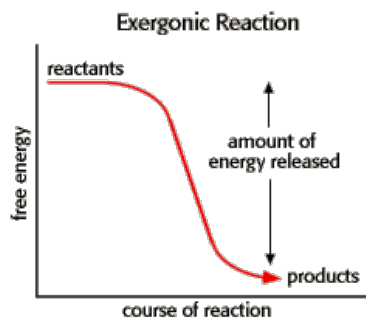
For the following questions, identify if the equation is balanced. Answer “A” for balanced, answer “B” for not balanced.

- \_\_\_\_ 10.  $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$   
\_\_\_\_ 11.  $3\text{Na} + 2\text{Cl} \rightarrow \text{NaCl}_2$   
\_\_\_\_ 12.  $2\text{CO} + \text{O}_2 \rightarrow 2\text{CO}_2$

Balance the following equations.



15. The graph to the right represents a reaction that is  
a. endergonic                      b. exergonic



16. \_\_\_\_\_ is required in order for a reaction to begin, but many times it would take a very long time for the proper amount to be achieved. Because of this, most reactions use a \_\_\_\_\_ to lower the amount of activation energy that is necessary. Specifically, one class of these molecules found in living organisms are called \_\_\_\_\_.