

## Quiz: Enzymes.

- \_\_\_\_\_ 1. In chemical reactions, atoms are
- created.
  - destroyed.
  - rearranged.
  - neutralized.
- \_\_\_\_\_ 2. When hydrogen and oxygen combine to form water, water is
- a product.
  - a reactant.
  - both a product and a reactant.
  - neither a product nor a reactant.
- \_\_\_\_\_ 3. Identify the reactant(s) in the chemical reaction,  $\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{H}_2\text{CO}_3$ .
- $\text{CO}_2$ ,  $\text{H}_2\text{O}$ , and  $\text{H}_2\text{CO}_3$
  - $\text{CO}_2$  and  $\text{H}_2\text{O}$
  - $\text{H}_2\text{CO}_3$
  - $\text{CO}_2$
- \_\_\_\_\_ 4. What is the process that changes one set of chemicals into another set of chemicals?
- cohesion
  - adhesion
  - chemical reaction
  - dissolving
- \_\_\_\_\_ 5. What is the term used to describe the energy needed to get a reaction started?
- adhesion energy
  - activation energy
  - cohesion energy
  - chemical energy
- \_\_\_\_\_ 6. Chemical reactions that release energy
- will not occur.
  - will never explode.
  - will always explode.
  - often occur spontaneously.
- \_\_\_\_\_ 7. If a reaction in one direction releases energy, the reaction in the opposite direction
- also releases energy.
  - absorbs energy.
  - destroys energy.
  - cannot occur.
- \_\_\_\_\_ 8. Which of the following is a form of energy that may be released during a chemical reaction?
- heat
  - sound
  - light
  - all of the above
- \_\_\_\_\_ 9. Which of the following statements about enzymes is NOT true?
- Enzymes work best at a specified pH.
  - All enzymes work inside cells.
  - Enzymes are proteins.
  - Enzymes are organic catalysts.
- \_\_\_\_\_ 10. Which of the following statements is true about catalysts?
- Catalysts slow down the rate of chemical reactions.
  - All catalysts are enzymes.
  - Catalysts are used up during a chemical reaction.
  - Catalysts lower the activation energy of a chemical reaction.
- \_\_\_\_\_ 11. A substance that accelerates the rate of a chemical reaction is called a(an)
- catalyst.
  - lipid.
  - molecule.
  - element.
- \_\_\_\_\_ 12. Enzymes affect the reactions in living cells by changing the
- products of the reaction.
  - speed of the reaction.
  - temperature of the reaction.
  - pH of the reaction.
- \_\_\_\_\_ 13. The level of chemicals in the body that speed up cellular activity is regulated by
- action potential.
  - feedback inhibition.
  - the sympathetic nervous system.
  - the parasympathetic nervous system.