



knowledge quiz

Chemistry

Name _____

1. In a chemical reaction, a new substance is created that is difficult to change back into its original ingredients. An example of this process is
 - A. chopping wood.
 - B. boiling water.
 - C. beating an egg.
 - D. **baking a cake.**
2. Fuel cells combine hydrogen and oxygen to produce energy. What by-product would a fuel cell car produce?
 - A. vinegar
 - B. sulfuric acid
 - C. **water**
 - D. ammonia
3. The total amount of matter is always conserved in a mixture. Why, then, might a mixture weigh less after a new substance is added to it?
 - A. This could never happen.
 - B. The new substance floated on the other substances.
 - C. **Some of the ingredients were changed into gas.**
 - D. Some of the ingredients were changed into a solid.
4. When acids and bases are mixed, a chemical reaction occurs. Which of the following would you expect to react with baking soda (a base)?
 - A. pure water
 - B. baking powder
 - C. air
 - D. **vinegar**
5. Chemistry plays an important role in the human body. Which of the following demonstrates this?
 - A. the production of sugars through the process of photosynthesis
 - B. **the digestion of food**
 - C. the division of cells to form new tissues
 - D. combustion



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6. In a solution, a solid or gaseous substance dissolved in a fluid is called a solute. Which of the following could be a solute in water?
 - A. wood
 - B. sand
 - C. oil
 - D. sugar

7. The process of oxidation occurs when oxygen reacts with another substance. Which of the following is an example of oxidation?
 - A. photosynthesis
 - B. the reaction of water with sodium
 - C. rusting
 - D. the reaction of vinegar with baking soda

8. Litmus paper turns red when dipped in an acid, and blue in a base. What color would your stomach juices turn litmus paper?
 - A. red
 - B. purple
 - C. blue, then red, then blue again
 - D. blue

9. Chemical reactions involve chemical changes. Which of the following is always a sign that a chemical reaction has taken place?
 - A. a new substance
 - B. no change
 - C. a change in size
 - D. a higher temperature

10. Two solids combine and instantly change into a rapidly expanding gas. This chemical reaction would describe
 - A. evaporation.
 - B. an implosion.
 - C. an explosion.
 - D. oxidation.