PHYSICAL AND CHEMICAL PROPERTIES AND CHANGES

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# PHYSICAL CHANGE CHEMICAL CHANGE

1. a change in size, shape, or state 1. a change in the physical and

2. no new substance is formed chemical properties

2. a new substance is formed

**Identify the following as physical *(P)* or chemical *(C)* changes.**

\_\_\_\_\_1. NaCl (Table Salt) dissolves in water. \_\_\_\_\_\_9. Milk sours.

\_\_\_\_\_2. Ag (Silver) tarnishes. \_\_\_\_\_\_10. Sugar dissolves in water.

\_\_\_\_\_3. An apple is cut. \_\_\_\_\_\_11. Wood rots.

\_\_\_\_\_4. Heat changes H2O to steam. \_\_\_\_\_\_12. Pancakes cook.

\_\_\_\_\_5. Baking soda reacts to vinger. \_\_\_\_\_\_13. Grass grows.

\_\_\_\_\_6. Fe (Iron) rusts. \_\_\_\_\_\_14. A tire is inflated.

\_\_\_\_\_7. Alcohol evaporates . \_\_\_\_\_\_15. Food is digested.

\_\_\_\_\_8. Ice melts. \_\_\_\_\_\_16. Paper towel absorbs water.

**Physical and Chemical Changes**

Can you recognize the chemical and physical changes that happen all around us? If you change the way something looks, but haven’t made a new substance, a **physical change** (P) has occurred. If the substance has been changes into another substance, a **chemical change** (C) has occurred.

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| 1. |  | An ice cube is placed in the sun. Later there is a puddle of water. Later still the puddle is gone. |
| 2. |  | Two chemical are mixed together and a gas is produce. |
| 3. |  | A bicycle changes color as it rusts. |
| 4. |  | A solid is crushed to a powder. |
| 5. |  | Two substances are mixed and light is produced. |
| 6. |  | A piece of ice melts and reacts with sodium. |
| 7. |  | Mixing salt and pepper. |
| 8. |  | Chocolate syrup is dissolved in milk. |
| 9. |  | A marshmallow is toasted over a campfire. |
| 10. |  | A marshmallow is cut in half. |

**True or False. If false, correct the underlined portion of the statement so that it is true.**

1. A physical change is a change of matter from one form to another without a change in chemical properties.

2. A physical change is a change that occurs when a substance changes composition by forming one or more new substances.

3. Color change is evidence that a chemical change may have occurred.

4. Fizzing or foaming is evidence that a chemical change may have occurred.

5. Production of light is evidence that a physical change may have occurred.

6. Production of heat or light is evidence that a chemical change may have occurred.

7. A change in odor is evidence that a physical change may have occurred.

8. Chemical changes can be reversed by physical changes.

**Identify each of the following as either a Physical change (P) or a chemical change (C).**

1. You cut your hair. \_\_\_\_\_\_\_

2. Making a peanut, pretzel and cereal mixture. \_\_\_\_\_\_\_

3. Baking soda reacts with vinegar and forms a gas. \_\_\_\_\_\_\_

4. A piece of metal is bent in half. \_\_\_\_\_\_\_

5. An aspirin is crushed into fine powder. \_\_\_\_\_\_\_

6. Copper turns green when exposed to the environment. \_\_\_\_\_\_\_

7. Two clear liquids are mixed and a yellow color forms. \_\_\_\_\_\_\_

8. Baking cookies. \_\_\_\_\_\_\_

9. Diamonds are used to scratch glass. \_\_\_\_\_\_\_

10. A tree burns to form ashes. \_\_\_\_\_\_\_

11. A piece of paper is crumpled up. \_\_\_\_\_\_\_

12. Water freezes to form ice. \_\_\_\_\_\_\_

13. Food spoiling. \_\_\_\_\_\_\_

14. A candle burning. \_\_\_\_\_\_\_

15. A candle melting. \_\_\_\_\_\_\_