

## **Physical, Chemical, and States of Matter A**

Classify each property below in 1-6 as physical or chemical by circling (P) or (C).

1. (P)(C)Copper may be drawn into a thin wire.
  2. (P)(C)Iron combines easily with oxygen to form rust.
  3. (P)(C)Glass is not flammable.
  4. (P)(C)Sugar is soluble in water.
  5. (P)(C)When mixed with vinegar, baking soda reacts to form bubbles of carbon dioxide.
  6. (P)(C)Copper has a density of 9.2 g/cc.
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7. Which of these best describes a chemical change?

- a)The substance changes how it looks.
- b)A new substance is formed.
- c)The substance changes state or form.
- d)The substance dissolves in another substance.

8. Which of these describes a physical change?

- a)No new substances are formed
- b)A chemical reaction occurs.
- c)A new substance forms
- d) An odor is given off.

9.(Y)(N)Jim and Mary mix two different liquids together in a beaker. The liquids fizz and change color. Is it likely that a chemical change happened?

10. Which best describes a solid?

- a)definite volume and shape
- b)definite volume but not a definite shape
- c)neither a definite volume nor a definite shape

11. Which best describes a liquid?

- a)definite volume and shape
- b)definite volume but not a definite shape
- c)neither a definite volume nor a definite shape

12. Which best describes a gas?

- a)definite volume and shape
- b)definite volume but not a definite shape
- c)neither a definite volume nor a definite shape

13.(T)(F)The particles of water vapor move faster than the particles of liquid water move.

14. Which best describes a characteristic property?

- a)A property that may be observed without changing into new substances
- b)A property that may only be observed by forming a new substance
- c)A property that doesn't depend on the amount of a substance and may be used to identify it.

15. Describe the motion of particles in a solid as completely as you can.