

Name \_\_\_\_\_

Changes of Matter

- \_\_\_\_ 1. Which statement describes a chemical property of iron?
1. iron can be flattened into sheets
  2. iron conducts electricity and heat
  3. iron combines with oxygen to form rust
  4. iron can be drawn into a wire
- \_\_\_\_ 2. Which statement describes a chemical property that can be used to distinguish between compound A and compound B?
1. A is a blue solid and B is a white solid
  2. A has a high melting point and B has a low melting point
  3. A dissolves in water and B does not dissolve in water
  4. A does not burn in air and B does burn in air
- \_\_\_\_ 3. An example of a physical property of an element is the element's ability to:
1. react with an acid
  2. react with oxygen
  3. form a compound with chlorine
  4. form an aqueous solution
- \_\_\_\_ 4. Which statement describes a chemical property of oxygen?
1. Oxygen has a melting point of 55 K
  2. Oxygen can react with a metal
  3. Oxygen gas is slightly soluble in water
  4. Oxygen gas can be compressed
- \_\_\_\_ 5. Which statement describes a chemical property of hydrogen gas
1. hydrogen gas burns in air.
  2. hydrogen gas is colorless
  3. hydrogen gas has a density of  $0.000\ 09\text{g/cm}^3$  at STP
  4. hydrogen gas has a boiling point of 20.K at standard pressure
- \_\_\_\_ 6. A large sample of solid calcium sulfate is crushed into smaller pieces for testing. Which two physical properties are the same for both the large sample and the smaller pieces?
1. mass and density
  2. mass and volume
  3. solubility rate and density
  4. solubility and volume
- \_\_\_\_ 7. Which process represents a chemical change?
1. melting of ice
  2. corrosion of copper
  3. evaporation of water
  4. crystallization of sugar
- \_\_\_\_ 8. Which substance can NOT be broken down by a chemical change?
1. ammonia ( $\text{NH}_3$ )
  2. argon (Ar)
  3. methane ( $\text{CH}_4$ )
  4. water ( $\text{H}_2\text{O}$ )
- \_\_\_\_ 9. Which substance can be broken down by chemical means?
1. CO
  2. Ce
  3. Ca
  4. Cu
- \_\_\_\_ 10. Which set of procedures and observations indicates a chemical change?
1. Ethanol is added to an empty beaker and the ethanol eventually disappears.
  2. A solid is gently heated in a crucible and the solid slowly turns to liquid.
  3. Large crystals are crushed with a mortar and pestle and become powder.
  4. A cool, shiny metal is added to water in a beaker and rapid bubbling occurs.