

RQ Physical and Chemical Changes

Name: _____

Date: _____

- Solutions of lead(II) nitrate and potassium dichromate are mixed. The solution turns cloudy and yellow. Solid yellow particles fall to the bottom of the beaker. Which statement *best* describes this reaction?
 - A precipitate formed.
 - A gas formed.
 - The reaction is exothermic.
 - The reaction is endothermic.
- Which situation provides the *best* evidence that a chemical reaction is taking place?
 - A metal strip bends when heated.
 - A solution freezes in the freezer.
 - Two solutions mixed in a beaker produce a solid.
 - A chemical completely dissolves in water and the temperature of the solution remains constant.
- A teacher wants to demonstrate a chemical reaction to her students. Which activity would *best* demonstrate a chemical reaction?
 - placing a metal in an acid to create a gas
 - measuring the densities of liquid water and ice
 - melting a solid piece of aluminum
 - filling a balloon with helium gas
- Which is an example of a chemical reaction?
 - nails rusting
 - glass melting
 - sugar dissolving
 - alcohol vaporizing
- In making a pizza, which process involves a chemical change?
 - mixing spices for the sauce
 - slicing pepperoni for the topping
 - spreading cheese on the pizza
 - baking the dough to form the crust
- Which of the following is a characteristic of *all* chemical changes?
 - A different state of matter is produced.
 - Some mass is converted to energy.
 - Some form of light is given off.
 - A new material is formed.
- Which of the following is an example of a chemical change?
 - burning a scented candle
 - cutting an apple into slices
 - freezing liquid water into an ice cube
 - melting a stick of butter to pour over popcorn
- Which of the following is an example of a physical change?
 - Iron exposed to air produces rust.
 - Hydrogen combined with oxygen forms water.
 - Sulfur combined with oxygen produces sulfur dioxide.
 - Liquid nitrogen exposed to air becomes nitrogen gas.

9. Which of the following examples is evidence of a physical change?

- A. Ice cream melts in a bowl.
- B. A silver spoon tarnishes over time.
- C. An electrical current splits water into hydrogen and oxygen.
- D. A person inhales oxygen and exhales carbon dioxide and water.

10. Which of the following is NOT an indication of a chemical change?

- A. Formation of a gas
- B. Formation of a precipitate
- C. Change in Color
- D. Change in State (solid to a liquid or a liquid to a gas)