

Hand-in Assignment 2***Identifying Chemical and Physical Changes***

The table shown below lists some ordinary occurrences. In the second column, list whether each situation represents a physical or chemical change taking place.

Observed Action	Type of Change
1. Water boils out of a kettle or condenses on a cold glass	
2. A silver spoon tarnishes	
3. An aluminum pot is put on a burner and gets hot	
4. Dry ice goes from a solid to a gaseous form of carbon dioxide	
5. An iron rod rusts	
6. Gold melts or solidifies	
7. Sand is mixed in with salt	
8. Methane burns	
9. A piece of chalk is ground to dust	
10. An antacid tablet neutralizes stomach acid	
11. Glass breaks	
12. An iron rod is magnetized	
13. Yeast is used to make carbon dioxide in bread and causes it to rise	
14. A lump of sugar dissolves in water	

(continued)

Assignment

1. What is the difference between

a. An element and a compound?

b. A chemical reaction and a physical reaction?

2. Place a (C) or a (P) to indicate whether the following examples illustrate a chemical or physical reaction.

___ a. A fluorescent bulb lights up when an electric current passes through it.

___ b. A baker makes a loaf of bread.

___ c. A block of aluminum is rolled into a thin sheet of foil.

___ d. An iron bar is magnetized.

___ e. Dry ice evaporates to form a fog for a school play.

___ f. A candle is lit at a birthday party.

___ g. The birthday candle is blown out and the heat causes it to continue melting.

___ h. You get your hair dyed at a beauty salon.

___ i. A piece of copper is drawn into a long wire.

___ j. A cement floor is poured and three days later is hard enough to walk on.

3. Water and diesel fuel are in different containers. Describe two physical and one chemical property that would identify them as different liquids.

7. Name the following:

a. The substances you start with in a chemical reaction.

b. The substance doing the dissolving in a solution.

c. The shorthand description of a chemical reaction.

d. The process that helps stop milk from separating into milk and cream.

e. The products of a chemical reaction.

f. What type of mixture is cookie batter?

g. The type of reaction as yeast combines with sugar when making bread.

h. The type of change where no new substance is produced.

i. The solid that sometimes forms when two liquids or a gas and a liquid are mixed.

j. Adding some other materials modifies a pure metal to form a(n) _____.

Check the answer key.

