**Physical and Chemical Changes**

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**Physical Change**

- The particles in a substance \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ex. \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ remain the same throughout a change in state.

Ice 🡪 Water 🡪 Water Vapor

**How Do You Know You Have a Physical Change?**

***Signs of a Physical Change***

**1) Change in State**

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**2) Change in the Shape of a Substance by,**

- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3) Dissolution**

- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chemical Change**

- Results in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that have their own properties

ex. The electrolysis of ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** results in ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** and ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** gas

H2O (l) 🡪 H2 (g) + O2 (g)

**How Do You Know You Have a Chemical Change?**

***Signs of a Chemical Change***

1) A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is Formed (without applying heat)

3) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is Produced

4) A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (or residue) is Produced

- Is the formation of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**WORK - Identify each of the following as a**

***Physical* Change OR a *Chemical* Change**

1) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Tarnishing silver

2) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lighting a match

3) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Chewing/digesting food

4) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Cloud forming in the sky

5) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Rusting nail

6) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ice melting

7) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Frying an egg

8) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Burning a magnesium strip

9) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ball deflating

10) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Clay being molded into a new shape

11) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Chopping wood

12) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Roasting a marshmallow

13) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Adding food coloring to icing

14) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Melting butter on toast

15) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Burning gas in a stove

16) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Dissolving Salt in water

17) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Tearing a piece of tin foil