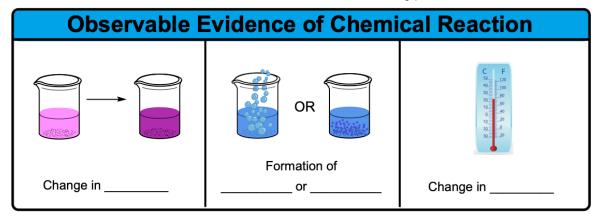
## **CONCEPT: CHEMICAL REACTION: CHEMICAL CHANGE**

- ◆Recall, chemical reaction is an example of a \_\_\_\_\_ change.
  - □ Chemical Reaction: chemical bonds \_\_\_\_\_ in reactants, new chemical bonds \_\_\_\_ in the products.
    - We can observe certain evidence of a chemical reaction taking place.



**EXAMPLE**: What happens on a molecular level when a chemical reaction occurs?

- a) bonds are broken
- b) bonds are formed
- c) temperature increases or decreases
- d) all of the above

• Chemical Equation: expression that uses chemical formulas and symbols to represent chemical reaction.

2 NaHCO<sub>3</sub> (s) 
$$\xrightarrow{\Delta}$$
 Na<sub>2</sub>CO<sub>3</sub> (s) + H<sub>2</sub>O (l) + CO<sub>2</sub> (g)

Symbols of Chemical Equations			
<b></b>		(I)	
$\Delta$		(g)	
(s)		(aq)	

**EXAMPLE**: Write a chemical equation using correct formulas and symbols for the decomposition of solid sodium carbonate at high temperature to produce solid sodium oxide and carbon dioxide gas.