

5.1 cont. Physical/Chemical Properties

A physical change is a rearrangement of identical particles.

Ex: - dissolving sugar in H_2O . → can be reversed
 - formation of dew (condensation) → can be reversed

A chemical change involves the formation of a new substance.

Ex: - photosynthesis. (cannot be reversed)
 - respiration.
 - hydrogen gas burning.

A word equation or chemical equation can be used to represent a reaction involved with a chemical change.

REACTANTS combine to form new PRODUCTS.

Glucose + Oxygen → Carbon dioxide + water + heat
 $C_6H_{12}O_6 + O_2 \rightarrow CO_2 + H_2O + \text{heat}$

Silver + Sulfur → Silversulfide
 $Ag + S_2 \rightarrow Ag_2S$

The silver and the sulfur are the reactants, the tarnished silver (silver sulfide) is the product.

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