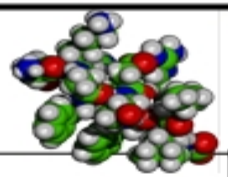
Indicators of Physical and Chemical Change

Notes after Chemistry in a bag lab



	Physical Change	Chemical Change
Change	A physical alteration of the substance but still the same substance. ***Indicators***: –Change of Shape / Size –Phase change Interaction with other substances but there is **NO** chemical reaction: –Mixture –Dissolve –Natural Color Change	Two chemicals react to form a NEW SUBSTANCE. ***Indicators:*** –Fire –Light, Heat –Producing a gas (Fizzing) –Un-natural color change –Change of Smell - Production of a precipitate (solid that forms when liquids react with one another)
	Same Substance A Reversible Change	**New Substance** An Irreversible Change

Physical Change Indicators	Chemical Change Indicators
• The substance has not changed into something new • The physical appearance may have changed, but the substance is still the same. • There is no energy conversion – only heat or electricity has gone through it, but not converted into another form of energy.	• The substance has reacted with another substance. • The substance has changed into another substance. • Energy has been converted from one form into another. –i.e. chemical → heat & light

Chemical Reactions

A. Definition: a process by which 1 or more substances, called **reactants**, are changed into 1 or more substances, called **products**, with different physical & chemical properties.

B. Evidence of a Chemical Reaction

1. Color change
2. Formation of a precipitate, ppt
3. Release of a gas
4. Energy change – heat, light, sound
5. Odor change

C. Reactions are started by the addition of energy