

# CHEMICAL CHANGES & REACTIONS

## WORKSHEET - 1

1. Explain the term chemical reaction with special reference to reactants and products.
2. Give a suitable example with equation to show the representation of a chemical reaction.
3. Differentiate between Neutralization reaction & a precipitation reaction.
4. Define a displacement reaction with a suitable example. State how it is represented.
5. Convert an insoluble base, a soluble base to their respective soluble salts by neutralization reaction.
6. A chemical reaction is often accompanied by external indications or characteristics.  
Give two examples where a chemical reaction is accompanied by a change in colour of the reactants & products on completion of the reaction.
4. Give balanced equations for reactions involving evolution of a gas on addition of dilute acid to  
(a) sodium sulphite (b) calcium carbonate
5. Define a thermal dissociation reaction with a suitable example. Give an example of photochemical decomposition reaction.
6. Explain the term double decomposition – precipitation reaction. Give a balanced equation for the preparation of two different insoluble lead salts from their salt solutions by – double decomposition – precipitation.
7. Define the following types of chemical changes or reactions with a suitable example of each.  
(a) Displacement reaction or substitution reaction  
(b) Double decomposition reaction
8. Give a balanced equation for conversion of –  
(a) An ammonium salt to a basic gas  
(b) A soluble lead salt to an insoluble lead salt – formed as a white precipitate
9. Chemical reactions may proceed with evolution or absorption of heat. Give an example of each.
10. Give balanced equations for thermal decomposition of:  
(a) Mercury [II] oxide (b) Calcium hydroxide
11. Explain the term energy changes in a chemical change or reaction. Give an example with a balanced equation, for each of the following reactions:  
(a) Exothermic reaction (b) Endothermic reaction
12. Differentiate between Decomposition reaction & a double decomposition reaction.
13. Give a balanced equation for a direct combination reaction involving:  
(a) Two elements – one of which is a neutral gas and the other a yellow non-metal  
(b) Two elements – one of which is a neutral gas and the other a monovalent metal
14. Supply of energy maybe required to initiate a reaction. State the different forms with a suitable example of reactions initiated by supply of energy.
15. Give balanced equations for the following reactions of synthesis involving formation of:  
(a) An acid – from sulphur dioxide gas  
(b) An alkali – from a basic oxide – sodium oxide  
(c) A salt – from a trivalent metal and a coloured gas