Chapter – 6

Physical and Chemical Changes

- Changes can be of two types, physical and chemical.
- **Physical changes** are changes in the physical properties of substances. No new substances are formed in these changes. These changes may be reversible. Example: dissolution of sugar in water, glowing of an electric bulb, tearing of paper.
- **Chemical Changes** are changes in which the composition and chemical properties of the substance get changed. In chemical changes new substances are produced. This change is permanent and irreversible. Example: burning of a candle, formation of curd from milk, ripening of fruits.
- **Chemical Reactions in Every day Life**:

  Rusting of Iron: Rust is a reddish-brown flaky substance that forms on the surface of iron objects after the process of rusting.

  Cooking of food: Cooking causes breakdown of complex molecules of carbohydrates, fats and proteins into smaller molecules.

  It is regarded as a decomposition reaction. Cooked food is easier to digest than uncooked food.

  Decay of Organic Substances: Microorganisms like fungi and bacteria produce enzymes which break down complex organic compounds into smaller substances.

  It is also regarded as a decomposition reaction.

  Prevention of Rusting:

  By Painting

  By Oiling and greasing

  By Chromium plating

  By Galvanizing

  By Alloying
- Some substances can be obtained in pure state from their solutions by crystallisation.