

VIDYA BHAWAN BALIKA VIDYAPEETH

STUDY MATERIAL SCIENCE

CLASS-VI

Date : 03-06-2021

Teacher : Poonam Kumari

▶ Separation of substances :

Methods of Separation: Handpicking, winnowing, sieving, magnetic separation, sedimentation, decantation, loading, filtration, evaporation, sublimation, distillation, churning, etc., are some common methods of separation.

Churning (or Centrifugation): It is the process of separation of the lighter particles of a suspended solid from a liquid. For example, to obtain butter from the curd or milk.

Condensation: The process of conversion of water vapour into its liquid form is called condensation.

Crystallisation: The process of crystallisation is used for obtaining pure crystalline substance from impure sample.

Decantation: It is the transfer of clean liquid from one vessel to the other without disturbing the settled (sedimented) particles.

Evaporation: It is the process of removing water (or moisture) from a mixture either by heating on

flame or direct sunlight. For example, salt from sea water is obtained by this method.

Filtration: Filtration is used to separate solid particles from liquid by passing the mixture through a filter paper.

Handpicking: This method is used for separating small particles of dirt, stone, husk, etc., from the grains of wheat, rice, pulses, etc.

Loading: It is the process of faster sedimentation by suspending alum to a liquid.

Sedimentation: It is the process of settling of heavy solid particles in a mixture at the bottom of the vessel.

Sieving

- Sieving is used when two components of a mixture have different particle sizes.
- Sieving allows the fine particles to pass through the holes of the sieve, while the bigger particles remain on the sieve. For example, sieving of wheat flour, sieving of sand at construction sites.