



LITTERA PUBLIC SCHOOL

SCIENCE

CHAPTER 5

CLASS VI

SEPARATION OF SUBSTANCES

Why do we separate substance :

- To get necessary things from unnecessary things.
- To remove impurities from pure substance.

Mixture ;

A mixture is a material made up of two or more different substance which are physically Combined . Mixture can be homogeneous or heterogeneous.

Homogeneous mixture:

A mixture in which constituent are distributed uniformly is called homogeneous mixture.



Heterogeneous mixture :

A mixture in which constituent are not distributed uniformly called heterogeneous mixture.



Method of separation :

a) Hand picking:

If a constituent of a solid mixture is big and visibly different, it can be separated by hand picking.

Example : small stone can be separated from the rice .



b) Winnowing :

Winnowing can be use to separate lighter solid from heavier one.

Farmer used it to separate husk from grain.



c) Sieving :

The method of separate particles of different sizes with the help of a sieve is called sieving.



d) Threshing :

Beating a stalk on a hard object is called threshing . Threshing is done to separate the grain from the stalk.

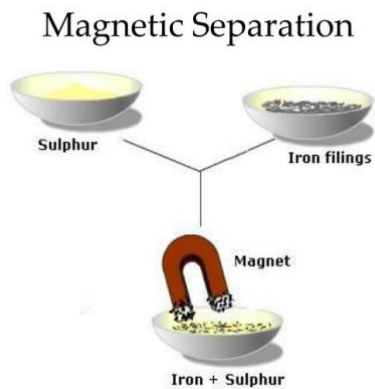


e) Magnetic separation :

A method in which magnet is used to separate the constituent of a mixture is called magnetic separation .

Or

Using magnet to separate magnetic materials from non magnetic is called magnetic separation.

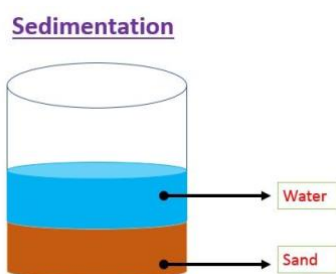


f) Sedimentation :

A solid liquid mixture of sand and water can be separated by leaving it undisturbed for sometime. This process is known as sedimentation.

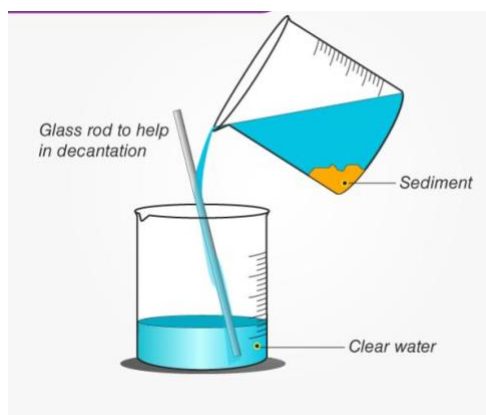
Solid layer form of sand at the bottom is called sediment.

The liquid above the sediment is known as the supernatant liquid.



g) Decantation :

The liquid water above the sediment can be poured out into another container without disturbing the sediment . This process is called sedimentation.



h) Filtration :

This is used for separating fine insoluble solid particles from the liquid.

i) Dissolution:

This method is useful when one constituent of solid mixture is soluble in a solvent (water) and the other is not.

j) Evaporation :

- A process of conversion of water into its vapour is called evaporation.
- A solid can be recovered from its solution by evaporating the solvent.
- For example a solution of salt in water , when heated on a flame for sometime , remain the residue of salt .