

TENDER HEART HIGH SCHOOL, SEC-33B, CHD.

Class: IV

Subject: Science

Topic: Materials and Solutions

Date: 14.10.2024

Good morning students

This chapter is for class IV, topic - Materials and solutions and is being presented to you on 14.10.2024.

Ch-8

We find water everywhere. About two-thirds of the earth's surface is covered with water. Water is found in three different states i.e. solid, liquid and gas.

Solvent, solute and solution

Solution: A uniform mixture of two or more substances.

Solvent: It is the part of solution which is more in amount and a substance dissolves in it.

Solute: It is the part of solution which is in smaller amount and dissolves well into solvent.

Thus, $\text{Solution} = \text{Solvent} + \text{Solute}$

Aqueous solution - A solution made in water is called aqueous solution.
example - solution of salt in water.

Non aqueous solution - A solution which is not made in water is called nonaqueous solution..
example - solutions made in alcohol, benzene etc.

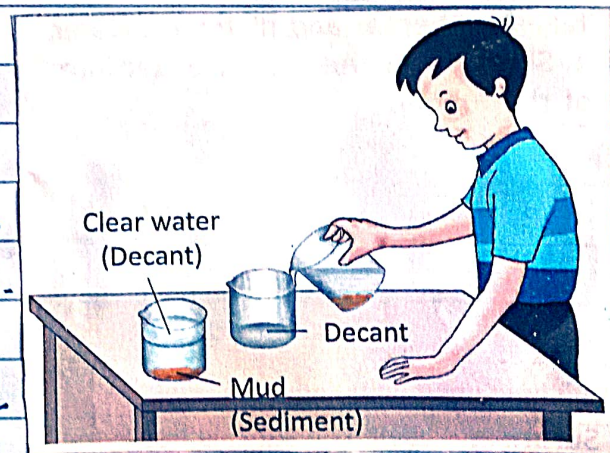
Seperation of parts of a mixture

We can separate the parts of a mixture by various methods. They are sedimentation, decantation, filtration and evaporation.

Sedimentation - The process of settling down of an insoluble substance in a solution is called sedimentation.

Decantation - The process of pouring out the clear liquid without disturbing sediment is called decantation.

Filtration - The process of separating out insoluble impurities from a liquid by using a filter is called filtration.



Evaporation - The process of changing water into water vapour is called evaporation.

The common salt from sea water is obtained by evaporation. For this sea water is trapped in shallow pits called salt pans and is left in the sun for long. The sun's heat



evaporates all the water leaving the salts behind. This mixture of salts is then purified to obtain common salt.

Home assignment - Find out why the stains of paint are removed by applying turpentine oil or kerosine.