Seperation of Substances

Previously we have discussed the need to seperate the Substances. Now, we are going to discuss the methods to seperate different Substances.

Seperating two Solid Substances:-

1) Handpicking:

To Seperate Rotten potatoes from the Fresh ones, we can use our hands. Or, the process to seperate comparatively large impurities from useful Substances is called handpicking.

Threshing: If we want to seperate rice grains from the stems of paddy tree, then handpicking is not the suitable process. To do this we have to pile up the stalks (paddy) together. Then, we beat them on an elevated platform to seperate the grains this process is known as threshing. Now a days we can use machines for this purpose.

winnowing

Winnowing:

The method of seperating lighter particles (Husk particles) from the heavier particles (grains) By Blowing Air is called winnowing.

Sie

Sieving:

If powr the mixture of fine particles (flour) and big impurities (stones) on a slanting Siev. then the small holes in the siev will allow the flour particles to pass through it. But, it will prevent the impurities from passing through the holes.

In this way we can seperate impurities from fine particles with help of a siev and this process is known as Sieving.

we also use this process to seperate pebbles and stones from sand. then we use this refined sand to construct our houses.

Separating Solid from Liquid :

Suppose, we have glass of water with sand in it and we want to seperate the sand from the water.

1st, if we leave this mixture for few minutes then we will see that the sand particles is settling down at the bottom of the glass, this phenomena is known as Sedimentation.

After that, now we have a mixture with the sand particles ~~at~~ ~~the~~ settled at the bottom of the glass.

So, if we tilt the glass gradually and collect the water in another container, then we will get water (with dust) without heavy sand particles. This procels is known as Decantation.

And the water is called decanted water. But, even now the water is not 100% pure Because there is dust in it.

Now, with the help of filter ~~paper~~ paper or other filter mechanism, we can purify the water. this process is known as Filtration.

Seperation of soluble solids from Liquid :

we all know. that salt is soluble in water. so, from the solution solution of salt and water, if we want to seperate the salt from water, Then we have to supply heat and evaporate all the waters then only salt will be left in the container or Beaker.

* The process of ~~to~~ turning (liquid) waters in water (gas) vapour by supplying heat is known as evaporation.

* The process of turning water vapour into liquid water by cooling ~~to~~ down the water vapour is known as condensation.

* Read the whole chapter from your TextBook.