sns academy
a fingerprint school
Sincerity, Nobility and Service

Chapter 5 - Seperation of Substances

1. You are given a sample of water. How will you find out whether it is pure or not?
Boiling point of pure water is 100 °C.
If there are dissolved substances
in the water, its boiling point goes up.
Thus,by measuring the boiling point we will know
whether the water is pure or not.

2. What is the principle used in the separation of mixtures?
To separate a mixture into its constituents we
have to use the special or specific property of the constituent substance.

Example:
1. Iron with sand can be separated using a magnet.

2.Salt with water can be separated by evaporation

3. To use a sieve to separate sand and rice seeds, what should be the size of the holes of the sieve in comparison to the size of sand particles and rice seed?
To use a sieve to separate sand and rice seeds, the holes of the sieve should be bigger than the sand particles but smaller than rice seeds.

4. Which property of a filter paper is used to separate an insoluble solid from a liquid?
The filter paper is made up of cotton and has fine holes which allow a liquid to flow through.
The particles of an insoluble solid does not pass through the holes.
This helps it to separate the insoluble solid from the liquid.

5. We always talk about a saturated solution at a certain temperature? Why is the temperature specified?
The temperature of a saturated solution is specified because the solubility of most substances increases with temperature.

6. Under which condition can handpicking be used to separate the constituents of a mixture?

Handpicking can be used to separate the constituents of a mixture only when the particles of the undesirable substance have different colour, shape and size and are present in small quantities.

7. Why are objects at a distance seen more clearly after rain?

Objects at a distance are seen more clearly after rain as loading of dust particles in air takes place when it rains. The dust particles become heavier and settle on the ground.

8. The process of adding alum to water to hasten sedimentation is called 'loading'. Why has this name been given to the process?

To load means to make it heavier. In loading, the fine suspended particles are made heavier to make them settle down.