

## Chapter 04

# Transportation Through Plasma Membrane

### Understanding osmosis:

Let us prepare a sugar solution.

- In a sugar solution, sugar is the solute and water is the solvent.
- Sugar dissolves in water forming a sugar solution.
- Add more sugar to the same solution.
- After adding some more sugar, at a particular level will notice that, the sugar does not dissolve in the water anymore and will remain as such. Such a solution is called saturated solution.

A solution in which no more solute can be dissolved is called saturated solution.

Let us do another virtual lab activity.

The Aim of the experiment is, observe a material in different solutions.

For this **experiment**,

- Require two beakers, tap water, sugar, dry raisin or

Kishmish.

### Procedure:

- Take 100 ml of water in a beaker.
- Keep dry raisin (Kishmish) in it.
- Leave it for one hour.
- Take it out and compare it with the dry raisin.

In this observation,

- The dried raisin has become larger.
- This is because water has moved into the raisin.
- Take 100 ml of saturated solution of sugar in a beaker.
- Keep dry raisin (Kishmish) in it.
- Keep swollen Kishmish of the previous activity and Leave it overnight.
- When you observe in the morning, the raisin has again shrunked.
- This is because water has gone from the raisin to the beaker.

By another **experiment**,

- Take a boiled potato and peel off the skin.
- Make cube shaped cups using the potato.
- Pour sugar solution into the potato cup to a certain level and mark it by using a pin.
- Keep the potato cup in the bowl of water and make

sure that the potato cup is not floating on the water.

- Leave the setup for half an hour.
- The sugar solution level has gone above the previously marked point.
- This is because the water has moved from the beaker to the potato cup.

