

WELCOME TO THE ONLINE CLASS

SESSION NO.: 4

CLASS: 4

SUBJECT: SCIENCE

CHAPTER NUMBER: 5

CHAPTER NAME: SOLIDS, LIQUIDS AND GASES

SUB TOPIC: DISSOLVING SOLIDS IN WATER

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

Learner will able to:

- **Understand the term ‘ solute’, ‘solvent’ and ‘solution’**
- **conduct simple experiments.**

RECAPITULATION

- **The particles of solid are closely packed and occupy less space while particles of gases are loosely packed and occupy the complete space available.**
- **Solid, liquid and gas are interchangeable states.**
- **We have three forms of water in solid, liquid and gaseous.**
- **Water on heating can be converted into water vapour.**
- **Burning of candle can get melted into wax.**

Dissolving Solids Into Liquids

What happens when sugar dissolves in water?

- **When we put sugar in water, its molecules scatter throughout the water.**
- **They occupy the empty spaces in between the molecules of water, this is why sugar seems to disappear when it is dissolved in water.**
- **The sugar solution does not look different from pure water, However, it tastes sweet.**



Now let us compare the volume of the water and the solution through the following activity.

- 1. Take a beaker half-filled with water.**
- 2. Put some sugar into it and stir well.**
- 3. Can you see the sugar now? No.**
- 4. Taste the water. Is it sweet? Yes.**
- 5. This is because the sugar has dissolved in the water.**
- 6. The liquid is now a sugar solution.**

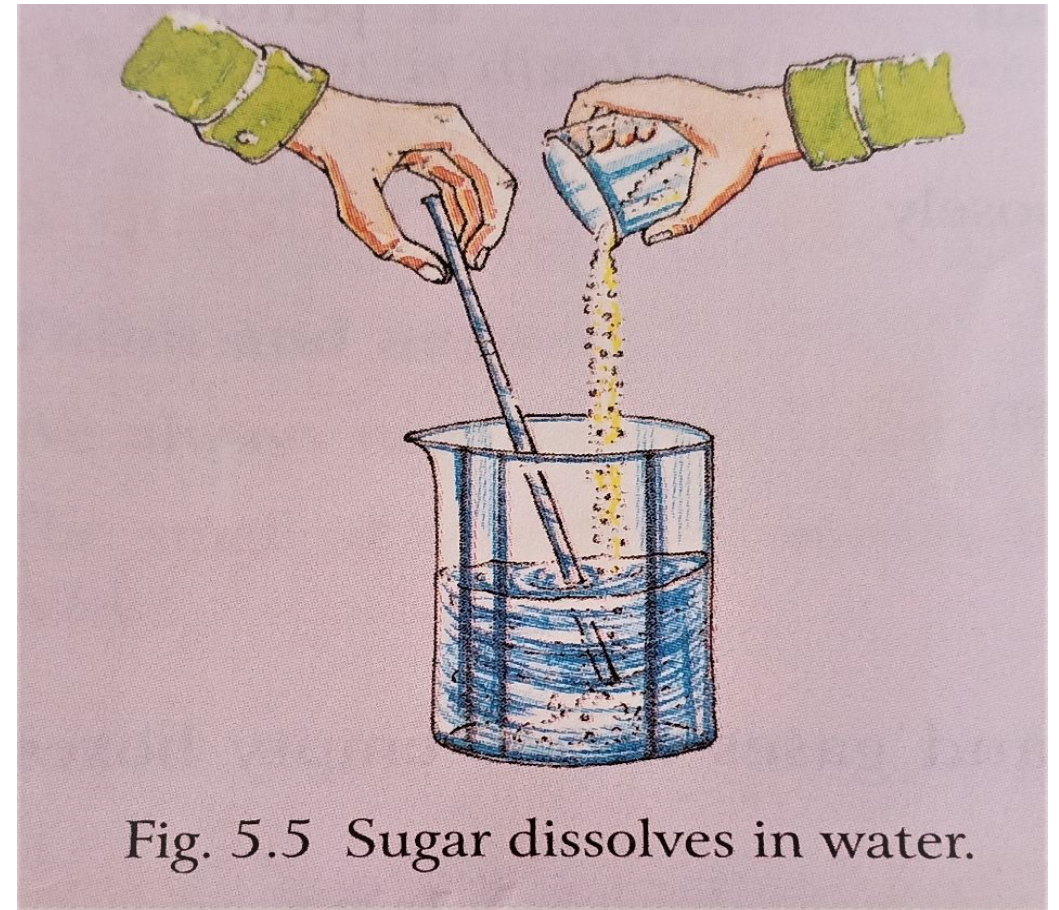


Fig. 5.5 Sugar dissolves in water.

SOLUTION OF WATER AND SUGAR

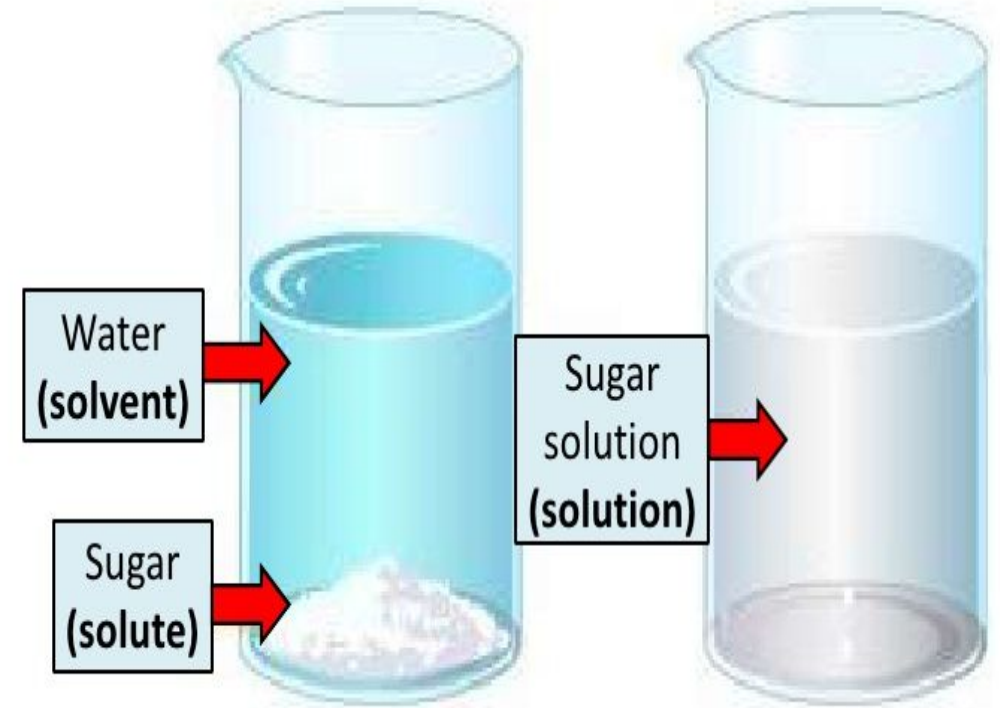
In the mixture:

Sugar + Water = Sweet Water
[solute] [solvent] [solution]

solute: a solid that dissolves in liquid

**solvent: a liquid in which a solid
dissolves**

**solution: the solute and the solvent
together gives solution.**



SUMMARY

- **When we put sugar in water , its molecules scatter throughout the water.**
- **Sugar solution will look same as pure water because its molecules occupies the empty spaces in between the molecules of water.**
- **A solid substance that dissolves in a liquid is called a solute.**
- **The liquid in which a solid dissolves is called a solvent.**
- **The solute and the solvent together form a solution.**

HOMework

- **Do the oral Q & A of page no. 44.**
- **Do the short Q & A in the notebook.**

LEARNING OUTCOME

The learner will be able to:

- Understand the term ‘ solute’, ‘solvent’ and ‘solution’
- conduct simple experiments.

THANKING YOU
ODM EDUCATIONAL GROUP