

Activity Number- 4

Solubility of substances

Class: VI

Subject: Science

Duration – 30 minutes

Nature of activity: Individual

Learning Outcome: Students will be able to

-**analyse** that two components are miscible only when they have similar nature or belong to the same homologous series.

-**discover** that solubility depends upon the following factors:

(I) Nature of solute (ii) Nature of solvent (iii) Temperature

What I have to do? To study the solubility of different substances in water.

What I require? Sugar , Salt , chalk powder , sand, washing soda , beakers , water , glass rod

What do I need to know ?Solute: Small component in the solution.

Solvent: Component present in larger proportion in the solution.

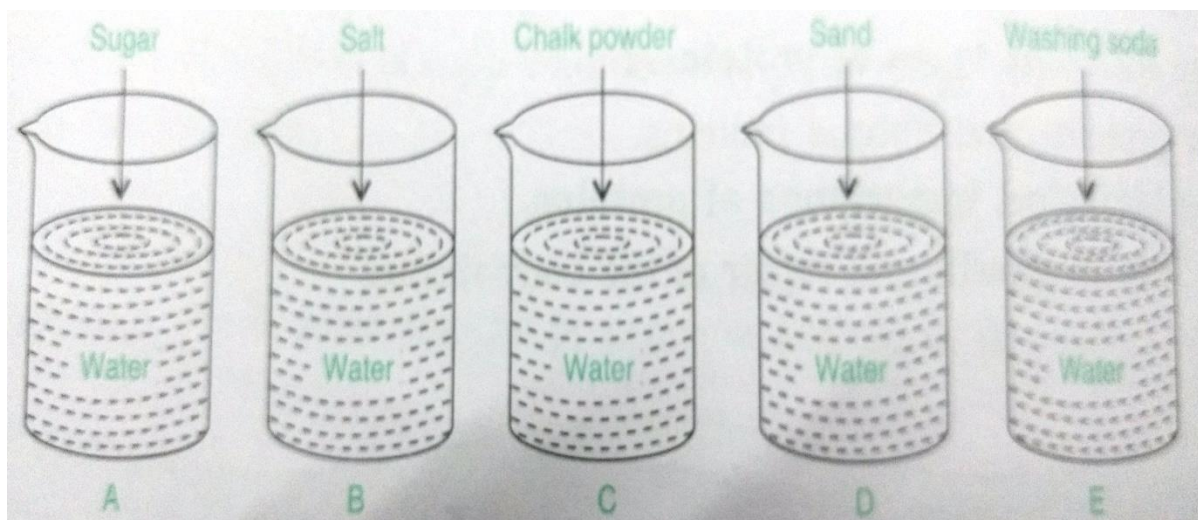
Teacher's Activity: Teacher will guide students as follows :

- (1) Take five beakers and label A,B,C,D,E.
- (2) Fill each one of them up to half with water.
- (3) Add small amount of sugar to beaker A ,salt to beaker B , chalk to beaker C , sand to Beaker D ,washing soda to beaker E.

How will I proceed ?

Student's Activity: Students will :

- (1)perform the activity as guided by the teacher .
- (2)stir the contents of each beaker with glass rod and observe the change in each beaker.



What have I observed ? :

S.No.	Material	Soluble	Insoluble
1	Sugar		
2	Salt		
3	Chalk powder		
4	Sand		
5	Washing Soda		

What have I learnt ? Substances which dissolve in water are known as _____ substances.

Substances which do not dissolve in water are known as _____ substances.

What I would be interested / curious about ? Is oil miscible with water or not ?

Extended learning worksheet

A. Ritu prepared lemonade for herself , but she remembered the concept taught by her teacher and tried to check herself. What shall be the answers given by Ritu to the given questions:

- 1.The sugar added to water to make lemonade will be identified as _____ (solute/solvent).
- 2.The water in which sugar is added will be called as _____ (solute/solvent).
- 3.The ability of sugar to dissolve itself into the water is called _____ (solubility/miscibility).
- 4.After sometime , the sugar if added more and more , stops dissolving because solution becomes _____ (saturated/unsaturated).

B. MCQ's

1.Which one of the following does not dissolve in water?

- a) alum b)washing powder c)chalk powder d)salt

2.Which one of the following is not miscible with water?

- a)vinegar b)glycerine c)lemon juice d)kerosene

3.A piece of one of the following materials floats in water. This one is

- a)wood b)soil c)chalk powder d)glass

C) What is the importance of oxygen gas dissolved in water? How is the oxygen gas dissolved in water helpful to the plants which live in water?
