

ACTIVITY NO.- 4: IS THIS LIQUID MISCIBLE OR NOT ?

Subject	Science
Class	VI
Chapter/Unit	Sorting materials into groups
Topic	Miscible and Immiscible liquids
Time	40 minutes
Nature of Activity	Individual

What will I learn ?(Learning Outcome):

To verify that

- two components are miscible only when they have similar nature or belong to the same homologous series.
- solubility depends upon the following factors:

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

Skills: Applying, Creating, Recognizing

What I have to do ?

To study the solubility of different liquids in water.

What do I require ?

Milk, cooking oil, juice, machine oil, vinegar, water, glass rod, 5 beakers and dropper

What do I need to know ?

Miscible liquids combine in any ratio to form a homogeneous solution. Liquids which have little or no mutual solubility are **immiscible**.

➤ Teacher's Activity:

Teacher will guide students to :

- (1) take five beakers and label A,B,C,D,E to differentiate between miscible and immiscible liquids.
- (2) fill each one of them upto half with water.
- (3) add small amount of milk to beaker A ,cooking oil to beaker B , juice to beaker C , machine oil to Beaker D ,vinegar to beaker E.

How will I proceed ?

➤ Student's Activity:

Students will :

- (1) collect all the liquids and start dissolving them 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	Did it dissolve in water completely?
1	Milk	
2	Oil	
3	Juice	
4	Machine oil	
5	Vinegar	

What have I learnt ?

- Liquids which completely dissolve in water are known as _____ liquids.
- Liquids which do not dissolve in water are known as _____ liquids.

What am I curious to learn ?

Let us find out why water is called universal solvent .

Let me evaluate myself

Tick the correct options in Q1 and Q2:

Q1. Which of the following is another term that can be used to describe a miscible liquid?

- a) homogenous b) unmixed c)non-uniform d)heterogeneous

Q2.Which one of the following is not miscible with water?

- a)kerosene b)milk c)lemon juice

Q3.Adrija mixed oil and water by mistake. Can these two be separated? If yes,then suggest a method to separate oil and water.

Q4.Why are we able to dissolve more solute in a solvent at high temperature?

Q5.Differentiate between miscible and immiscible liquid on the basis of the activity performed.
