

SUBJECT:SCIENCE
TOPIC: SORTING MATERIALS INTO GROUPS

LESSON PLAN

Pre-content/Content/ Post-content	Learning Outcome/Objectives	
Pre-content: Students know that there is a large variety of things in our house and we classify or group them while arranging them. .For example, we keep utensils in the kitchen, books in the study, beds in the bedroom. Thus, there is a diversity of object around us. Teacher will ask questions to motivate the students and to introduce the lesson.	General Students will be able to ➤ appreciate the concept of grouping & arranging things systematically ➤	Specific Students will be able to ➤ discuss the need to group or arrange material.
Content: ➤ Classification ➤ Grouping & sorting materials ➤ Properties of materials	➤ interpret the need for grouping or classification. ➤ apply the various ways by which we can group similar materials together ➤ classify material on the basis of its properties. ➤	➤ recall the importance of classification. ➤ classify materials on the basis of similarities and dissimilarities in their properties. ➤ compare and classify materials on the basis of their properties. ➤ observe & categorize materials on the basis of properties of material – appearance, hardness, solubility or insolubility, transparency, floating, magnetic property.
Post-content: Understand the concept of sorting materials into groups based on different properties.	➤ apply the concept in our daily life.	➤ explore the various ways by which we can group the materials so that we become more meticulous & organised.

Home Work/Assignments

- Exercise questions
- Worksheet

Teacher's Activity	Student's Activity	Teacher's Observation and Remedial
Teachers will:- Introduce the lesson by conducting a brainstorming session in which students will be asked general questions which are related to their routine works.	Students will:- participate in the brainstorming session and answer the questions related to the lesson.	
ask the students to fill up the table to show that the same material can be used to make different objects. <u>ANNEXURE 4A</u> conduct an activity to show the difference between miscible and immiscible liquids. conduct an activity to how the various properties of materials, like appearance, solubility and density. ask students to perform an activity for classifying the materials as transparent, translucent and opaque. She will also discuss the exercises related to the concept given in the text book & extra questions explained in the class.	perform the activity given by the teacher and record their observations. <u>ANNEXURE 4A</u> perform the activity given by the teacher and categorize them. classify the given objects as lustrous and non-lustrous, classify the given liquid as miscible or immiscible in water, classify the given substances as lighter or heavier than water. perform the activity given by the teacher and categorize them and also take part in discussion and note down the answers.	
explain the importance of grouping or classification in our daily life.	share their thoughts and apply to real life situations	

Teaching Aids- Active Inspire boards, ICR, Materials for sorting out, Material required for activities,

Methodology/Innovative Methods: Activity based teaching, Know to Unknown, Discussions, Audio visual.

Interdisciplinary Links –

- **Physics** – Magnetic and non- magnetic property
- **English** – It will improve the power of expression while explaining the activity and also vocabulary.

HOD

COORDINATOR

HEADMISTRESS

PRINCIPAL

ANNEXURE 4A&a
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.
