

SUBJECT :SCIENCE**LESSON PLAN****TOPIC :SEPARATION OF SUBSTANCES**

<u>Pre-content/ Content / Post-Content</u>	<u>Learning outcomes / Objectives</u>	
	<u>General</u>	<u>Specific</u>
<u>PRE-CONTENT</u> Brainstorming session and interactive discussion will be taken up in which previous knowledge will also be tested by asking following questions : Q a) What is the need to separate substances from a mixture ?	Students will be able to • recall the need to separate the substances from mixtures	Students will be able to • list the method of separation and explain them.
<u>CONTENT</u> • Different methods of separation Hand-picking Threshing Winnowing Sieving Sedimentation Decantation Filtration Evaporation Condensation Distillation Solution Solute Solvent Saturated and unsaturated solution	• recall the terms involved in various methods of separation. • identify apparatus required during separation techniques. • design experiments showing separation techniques. • recall terms involved to prepare a solution , saturated solution and unsaturated solution	• develop various definitions involved in various methods of separation. • differentiate between the apparatus used during separation techniques. • identify and apply combination of techniques for separating mixtures. • differentiate between saturated and unsaturated solution
<u>POST CONTENT</u> Importance of water as solvent	• create sensitization on conservation of water.	• identify ways of conservation of water.

HOMEWORK / ASSIGNMENT

1. Work exercises from the “ N.C.E.R.T Science Textbook “
2. Practice assignments from work book

Teacher's Activity	Student's activity	Teacher's observation and Remedial
Teacher will take up the brainstorming session and ask questions and further she will ask students to write their own views about the need to separate pure substances.	Students will participate in the brainstorming session and answer the questions asked by the teacher and then will write about the need to separate pure substances in notebooks.	
conduct the following activities and ask students to write their observations. (1)Sieving (2)To separate a mixture of sand and water (3)To separate common salt from Brine solution (4)To separate of mixture of water and sulphur <u>ANNEXURE 5 A</u> conduct an activity to introduce terms solute , solvent , solution , saturated solution and unsaturated solution	listen to the instructions given by the teacher carefully and pen down their observation and further draw conclusions. (1)sieving (2)To separate a mixture of sand and water (3)To separate common salt from Brine solution (4)To separate of mixture of water and sulphur <u>ANNEXURE 5 a</u> do the activity and try to write definitions on their own in the notebook.	
ask students to make posters on save water and try to merge the ways to conserve water within the poster as well.	follow the instructions and make their masterpieces.	

Teaching aids: pastel sheets , ICR , textbook , material required for experiments.

Methodology/Innovative Methods : Deductive Activity Method , Brainstorming

Interdisciplinary Links- Linked with real life , life skills , language

HOD

COORDINATOR

HEADMISTRESS

PRINCIPAL

ANNEXURE –5A&a
LET’S SEPARATE A MIXTURE OF SULPHUR AND WATER !

Subject	Science
Class	VI
Chapter/Unit	Separation of substances
Topic	Filtration
Time	40 mins
Nature of Activity	Individual

What will I learn (Learning Outcome) :

To discover that many substances around us contain only one type of constituent particle. These are called pure substances. Substances containing more than one type of constituent particles are called impure substances.

Skill: Applying and Evaluating.

What I have to do ?

To separate a mixture of sulphur and water by filtration.

What I require ?

Sulphur powder , water , beakers , glass rod, funnel and conical flask

What I need to know ?

Substances around us are mostly mixtures. They contain two or more substances . There are many instances when we need to separate a substance from mixture.

➤ **Teacher's Activity:**

Teacher will

- (1) explain the concept of filtration
- (2) demonstrate how to arrange the apparatus required for the experiment.
- (3) guide the students to perform the activity .

How will I proceed ?

➤ **Student's Activity:**

Students will :

- (1) make the mixture of sulphur and water in a beaker.
- (2) stir the mixture with glass rod.
- (3) make a cone shape with filter paper and fix it on the funnel over conical flask .
- (4) pour the mixture into another beaker through funnel carrying filter paper.

What have I observed :

S.No	What is left on the filter paper?	What is there in the bottom of the conical flask?

What have I learnt ?

The mixture of sulphur and water can be separated by _____

What am I curious to learn ?

Let us find out if the same method can be used to separate the mixture of sand and water? If not, then suggest another method.

Let me evaluate myself

Q1.Which of the following mixtures would you be able to separate using the method of filtration?

- (a) Oil in water
- (b) Cornflakes in milk
- (c) Salt in water
- (d) Sugar in milk

Q2.What is the difference between saturated and unsaturated solution ?

Q3.Which process is used to separate bacteria from water ?

Q4.What is the difference between filtrate and residue ?

Q5.Why do we need to separate the components of a mixture?

Q.6 Explain the process of filtration with the help of a well labeled diagram.