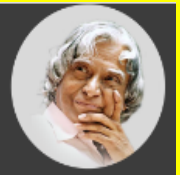
Srini Science Mind

Abdul Kalam Physical Science Group



NEW

9th class

PHYSICAL SCIENCE

LESSON PLAN with BYJU's Content

Visit: srini science mind

M.SRINIVASA RAO, SA(PS) SPSMHS GUDIVADA PH: 9848143855

LESSON PLAN

CLASS: 09 **SUBJECT: PS** **Name of the Teacher: M.Srinivasa Rao** **Name of the School: SPSMH School, Gudivada**

Name of the Lesson/Unit	Topic	No.of Periods Required	Timeline for teaching		Any specific information
			From	To	
IS MATTER AROUND US PURE? (Chapter-2)	Introduction, What is a mixture? And Types of mixtures	1			
	What is a Solution?	1			
	BYJU's Content Review	1			
	Concentration of a solution	3			
	What is a Suspension? and What is a Colloidal Solution?	3			
	Physical and Chemical Changes	1			
	BYJU's Content Review	1			
	What are the Types of Pure Substances? and Elements	2			
	Compounds	1			
	Mixtures and Compounds	1			
	BYJU's Content Review	1			

Prior Concept/Skills:

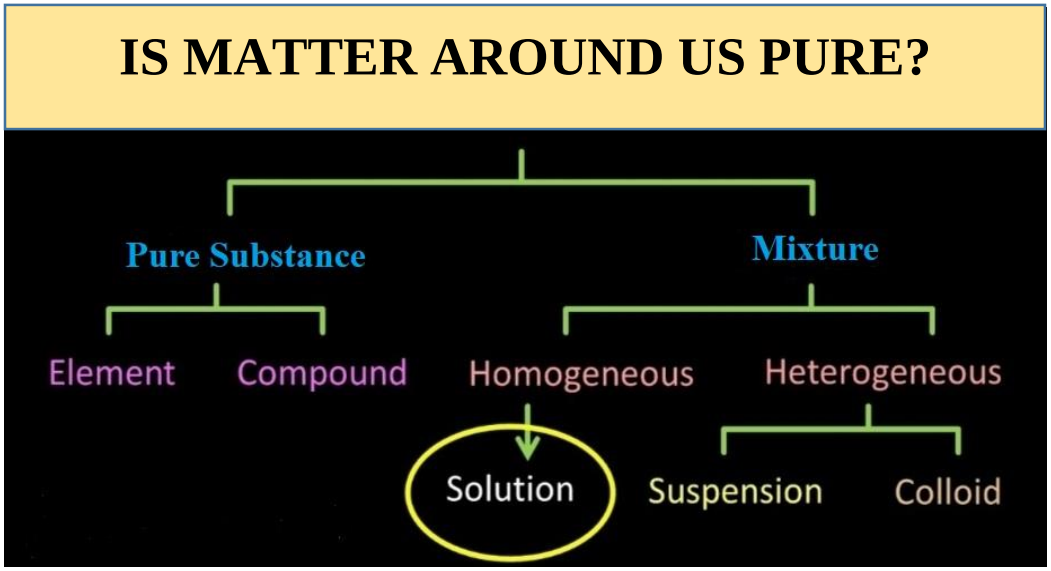
1. Name the method by which you can separate butter from milk.
2. Which method of separation is used for husk from wheat flour?
3. What is air called, if it is a combination of some gases?

Learning Outcomes:	**No. of Periods**
1. Classification of matter based on their states (solid/liquid/gas).	1
2. Draws conclusion of matter is made up of particles.	1
3. Seek answers to queries on their own "Is the mixture heterogeneous?"	1
4. Differentiates element, compound and mixture on their properties.	2
5. Calculates using the data given of concentration of solution in terms of mass by mass percentage of substances.	1
6. Communicates the findings and conclusions effectively of concentration of mixtures.	2
7. Relates processes and phenomena with causes of various processes of separation with the physical and chemical properties of the substances.	1
8. Draws labelled diagrams of process of filtration.	1
9. Analyses and interprets graphs and figures of properties of components of a mixture to identify the appropriate method of Separation.	1
10. Applies scientific concepts in daily life and solving problems of separation of mixtures.	1
11. Differentiates Solutions, Suspension and Colloid based on their properties.	2

12. Draws flow chart of the matter 13. Classifies composition (element/compound/ mixture) based on their properties.	1 1

TEACHING LEARNING PROCESS

Induction/Introduction:



Experience and Reflection:

1. Students use the rules of solution concentration in cold drinks made during the summer.
2. Students will utilize the methods in separation of mixtures in their daily life situations.
3. Students will identify where Tyndall effect is affected.

Explicit Teaching/Teacher Modelling (I Do)	**Group Work (We Do)**	**Independent Work (You Do)**	**Notes for:**
1. Discussion and Explain "A Pure Susbstance" with some consumable items in our daily life	1. Give examples of consumable items	1. What is a pure substance?	1. Give examples of pure substances?
2. Discussion and explain the concept of mixture.	2. Group discussion on the properties of the mixture and pure substance	2. What is a mixture?	2. Is the mixture heterogeneous? Give reason.
3. Explain types of mixtures with	3. Students collect the information of	3. Students give examples of	3. What constituents are

Examples and conduct activities. 4. Review of Byju's tab content 5. Discussion and explain the concept of solutions and their properties. 6. Conduct an activity on the concentration of a solution. 7. Solving the problems on concentration of a solution. 8. Explain Suspension and properties of a Suspension with examples. 9. Explain Colloid and properties of a Colloid with examples. 10. Discussion on Physical and Chemical changes 11. Review of Byju's tab content 12. Explain types of Pure Substance (Elements) 13. Explain and conduct activity on Pure Substance (Compounds) 14. Explain the difference between mixtures and compounds 15. Explain the flow chart of matter 16. Review of Byju's tab content	homogeneous and heterogeneous mixtures 4. Viewing the content in Byju's Tab 5. "All the solutions are mixtures, but not all mixtures are solutions"- Discuss 6. Students prepare the saturated and unsaturated solutions. 7. Solved the problems on mass percentage of a solution. 8. Collect information of suspension 9. Students give examples of Tyndall effect in our daily life. 10. Group discussion on Physical properties of matter 11. Viewing the content in Byju's Tab 12. Students give examples of metals and non-metals 13. Students involved in group activity 14. Collect information on elements and compounds 15. Viewing the content in Byju's Tab	homogeneous and heterogeneous mixtures. 4. Viewing the content in Byju's Tab 5. Students complete the homework 6. Identify the main difference between saturated and unsaturated solutions. 7. Students express the properties of a solution 8. What is Tyndall effect? 9. Students give common examples of colloids 10. Students complete the homework 11. Viewing the content in Byju's Tab 12. Students express the properties of metals and non-metal 13. Students complete the homework. 14. Draw the flow chart of matter 15. Viewing the content in Byju's Tab	in milk? 4. Define solution, solvent and solute. 5. When do you say that a solution is dilute solution? 6. A solution contains 40 g of common salt in 320 g of water. Calculate the concentration in terms of mass by mass percentage of the solution? 7. Does starch show Tyndall effect? 8. What is the main principle of sublimation? 9. Why is water considered as compound? 10. Why blood is a mixture? 11. Give an account of elements known to us.

Check For Understanding Questions	TLM's (Digital + Print)
1. Factual: 1. Is blood a heterogeneous mixture? 2. What does suspension and colloid have in common? 3. Why is it not possible to distinguish particles of a solute from the solvent in solution? **2. Open Ended/Critical Thinking:** 1. Colloids are heterogeneous mixtures. Why? 2. Is a substance always homogeneous? 3. Which is the more stable suspension or colloid? why **3. Student Practice Questions & Activities:** 1. Classify each of the following as a homogeneous or heterogeneous mixture. *Soda water, Wood, Air, Soil, Vinegar, Filtered tea* 2. Which separation techniques will you apply for the separation of the following? (a) Sodium chloride from its solution in water (b) Tea leaves from tea (c) Iron pins from sand 3. How would you confirm that a colourless liquid given to you is pure water? 4. Write the steps you would use for making tea. Use the words solution, solvent, solute, dissolve, soluble, insoluble, filtrate and residue.	1. Used prepared Quiz paper. 2. Utilized digital classroom. 3. Provide video links QR codes, DIKSHA App 4. YouTube video links 5. Byju's Tab 6. IFP

Assessment:

1. Give some daily life experiences where you can observe the "Tyndall effect".
2. Compare the properties of mixtures and compounds.
3. Explain the following giving examples
   (a) Saturated solution (b) Pure substance (c) Colloid (d) Suspension
4. Classify the following into elements, compounds and mixtures.
   (a) Sodium (b) Soil (c) Sugar solution (d) Silver (e) Calcium carbonate (f) Coal (g) Air (h) Soap (i) Methane (j) Blood

SIGNATURE OF THE TEACHER SIGNATURE OF THE HEADMASTER

VISITING OFFICER WITH REMARKS