

# Srini Science Mind



Abdul Kalam Physical Science Group

**NEW** 

## 9th class

# PHYSICAL SCIENCE

### **LESSON PLAN with BYJU's Content**



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### **MODEL LESSON PLAN**

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

Name of the	Topic	No.of Periods	Timeline fo	or teaching	Any specific
Lesson/Unit		Required	From	То	information
Matter In	Physical Nature of Matter	3			
	Characteristics of Particles of Matter	3			
Our	States of Matter	3			
Surroundings (Chapter – 1)	Can Matter Change its State?	4			
	Evaporation	3			

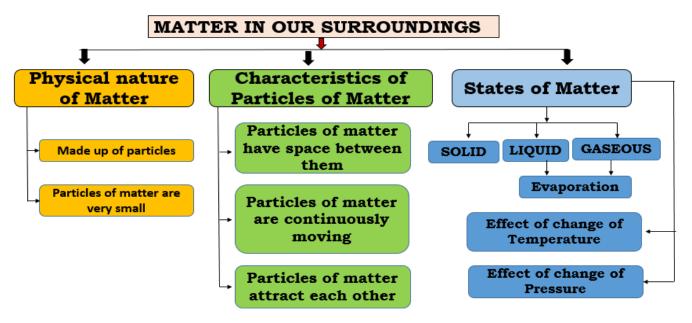
#### **Prior Concept/Skills:**

- 1. Give examples of matter in our surroundings?
- 2. What is the "Panch Tatva"?
- 3. In how many states does matter exist?
- 4. What is the hidden phenomena in dying wet clothes in outside?

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Learning Outcomes:	No. of Periods
1. Classification of matter based on their states (solid/ liquid/gas).	2
2. Communicates the findings and conclusions effectively of "Can matter change its state?"	2
3. Analyses and interprets figures of the properties of three state of matter.	1
4. Conduct a simple investigation to seek answers to queries about "What is the effect of temperature on state of substances"?	1
5. Conduct a simple investigation to seek answers to queries about "What is the effect of compression on different states of substances"?	1
6. Draws the conclusion of matter is made up of particles.	1
7. Draws a flow chart of the interconversion of the three states of matter.	1
8. Draws labeled diagrams of process sublimation.	1
9. Calculates using the data given such as conversion of Celsius scale to Kelvin scale and vice versa.	2
10. Relates processes and phenomena with causes/effects such as process of evaporation with cooling effect.	1
11. Applies scientific concepts in daily life and solving problems of evaporation.	1
12. Relates processes and phenomena with causes and effects of evaporation is the cooling process.	1
13. Seek answers to queries on their own "Why should we wear cotton clothes in summer?"	1

#### TEACHING LEARNING PROCESS

#### **Induction/Introduction:**



#### **Experience and Reflection:**

- 1. Students are able to understand the interconversion of the three states of matter and applies in various situations.
- 2. Students will identify where the effect of a change in temperature and the effect of a change in pressure of matter.
- 3. Students are able to understand the applications of evaporation in our daily life and utilized it.

<b>Explicit Teaching/Teacher Modelling</b>	Group Work	Independent Work	Notes for:
(I Do)	(We Do)	(You Do)	
1.Discussion and conduct experiment on salt dissolve in water.	1. Students conduct this activity.	Viewing the content in     Byju's Tab	1. Write the physical nature of matter?
2. Explain and conduct activity on the particles of matter are very small (Potassium permanganate crystals, beakers, water)	2. The same activity can be done using Sugar/ Dettol instead of Potassium permanganate crystals	2. Students observe the dissolve process and record the timely.	2. What is the smallest part of matter called?
3. Discussion and conduct an activity on particles of matter have space between them (Sugar/ Salt/ Dettol/ Potassium permanganate crystals, beakers, water, Spoon)	3. Students conduct activities and making questions.	3. Students complete the homework.	"There is enough space between particles of matter."

4. Explain and conduct lab activity on Particles of matter are continuously moving.	4. Students describe the process of Particles of matter are continuously moving.	4. Viewing the content in Byju's Tab	4. Define Diffusion?	
5. Discussion and conduct lab activity on particles of matter attract each other.	5. Group discussion on characteristics of particles of matter.	5. Students involve in group activity	5. What are the characteristics of particles of matter.	
6. Explain the states of matter.	6. Students collect information on the states of matter.	6. Students draw the flow chart of the states of matter	6. Which property of the gas is utilized when natural gas is supplied for	
7. Discussion and conduct activity on "Properties of solids?	7. Students give examples of solids	7. Viewing the content in Byju's Tab	vehicles?	
8. Discussion and conduct activity on "Properties of liquids?	8. "Does the shape of the liquid remain the same? – Group discussion	8. Students complete the homework.	7. Differentiate between properties of three states of matter.	
9. Discussion and conduct activity on "Properties of gases?	9. Students conduct activity on the properties of gases	9. Students conduct activities.	of matter.	
10. Explain and show the magnified schematic pictures of the three states of matter.		10. Students draw the schematic pictures of the three states of matter.	8. List two properties that liquids have in common with gases?	
11. Explain and conduct activity on effect of change of temperature.	10. Students arrange the experimental setup of given apparatus and conduct activity	11. Viewing the content in Byju's Tab		
12. Explain, melting point of solids. conversion of temperature (Kelvin scale to Celsius scale vice versa)	11. Students have done the problems on the conversion of temperature.	12. Students draw the sublimation of ammonium chloride	9. Define boiling point?	
13. Discussion and conduct an activity On effect of change of pressure.	12.Students collect information on the effect of change of pressure on matter.	13. Students complete the homework.	10. What is the effect of pressure on a gas?	
14. Discussion and explain evaporation		14. Students write the definition of evaporation.		
15. Conduct activity on factors affecting evaporation	13. Students describe the evaporation process.	15. Viewing the content in Byju's Tab	11. Define evaporation?	

16. Discussion on applications of evaporation in day to day life situations.	14. Students collect information on the evaporation in daily life situations.	16. Students give examples of the rate of evaporation increases.	12. On what factors evaporation depends?
17. Review of Byju's tab content	15. Viewing the content in Byju's Tab	17. Viewing the content in Byju's Tab	

Check For Understanding Questions	TLM's	
1. Factual:	(Digital + Print)	
1. Why are liquids and gases called fluids?		
2. Is air a matter or not?	1. Used prepared	
3. Why gas is called as lightest state of matter?	Quiz paper.	
2. Open-End/Critical Thinking:	2. Utilized digital	
1. Why are light and sound not considered as matter?	classroom.	
2. Which state of matter has the most energy?	3. Provide video	
3. Is evaporation a physical change?	links	
3. Student Practice Questions & Activities:	QR codes,	
1. Arrange the following substances in increasing order of forces of attraction between the particles.	DIKSHA App	
Water, Sugar, Oxygen.	4. YouTube video	
2. What produces more severe burns, boiling water or steam?	links	
3. Define "Evaporation"? What are factors affecting evaporation?	5. Byju's Tab	
4. Convert the following temperatures to the Celsius scale.	6. IFP	
(a) 293 K (b) 470 K		
5. Give two reasons to justify—		
(a) Water at room temperature is a liquid. (b) An iron almirah is a solid at room temperature.		

#### **Assessment:**

1. Convert the following temperatures to the kelvin scale.

(a)  $25^0$  C

(b)  $373^0$  C

- 2. Why is ice at 273 K more effective in cooling than water at the 3same temperature?
- 3. What are the characteristics of the particles of matter?
- 4. Collect the information of differences between in the characteristics of states of matter.
- 5. List out the some measurable quantities, their units and symbols.

SIGNATURE OF THE TEACHER

SIGNATURE OF THE HEADMASTER