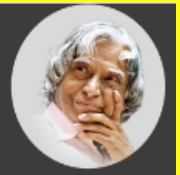
Srini Science Mind

Abdul Kalam Physical Science Group



NEW

8th class

PHYSICAL SCIENCE

MODEL LESSON PLAN

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

MODEL LESSON PLAN

CLASS: 08 **SUBJECT:** PS **Name of the Teacher:** M.SRINIVASA RAO **Name of the School:** A.G.K.M.H.School, Gudivada

Name of the Lesson/Unit	Topic	No.of Periods Required	Timeline for teaching		Any specific information
			From	To	
Chemical Effects of Electric Current (Chapter-8)	Conductors and Poor conductors	1	xx/xx/xxxx	xx/xx/xxxx	
	Do Liquids Conduct Electricity?	6	xx/xx/xxxx	xx/xx/xxxx	
	Good/Poor Conducting Liquids	3	xx/xx/xxxx	xx/xx/xxxx	
	Chemical Effects of Electric Current	3	xx/xx/xxxx	xx/xx/xxxx	
	Electroplating	3	xx/xx/xxxx	xx/xx/xxxx	

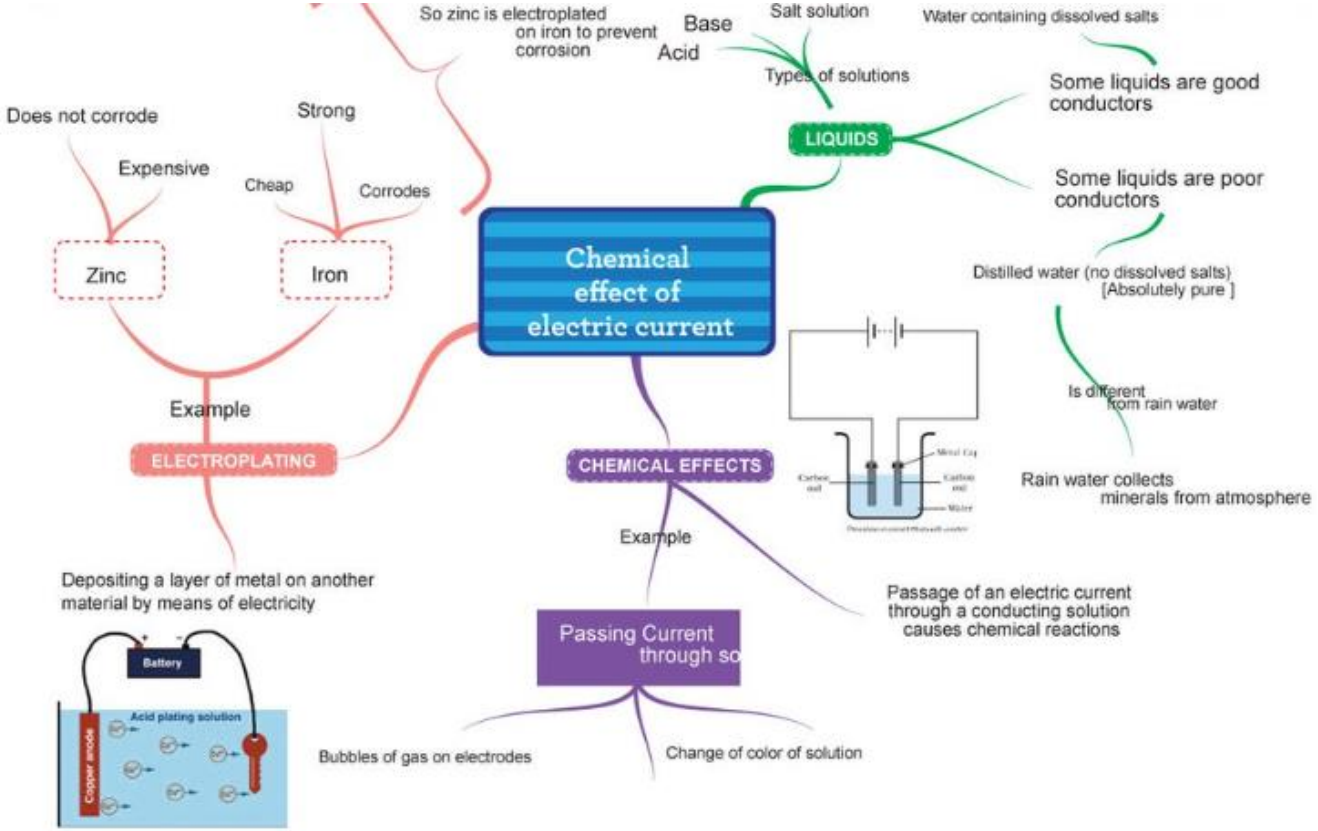
Prior Concept/Skills:

1. What should be applied to household iron tools to prevent them from getting damaged by moisture or water?
2. What is the bulb used in testers?
3. What is the difference between conductors and insulators of electricity?

Learning Outcomes:	No. of Periods
1. Classifies solids based on properties as conductors and poor conductors.	1
2. Differentiates materials of liquids as electrical conductors and insulators.	2
3. Relates processes with causes of acids conduct electricity.	1
4. Conducts simple investigations to seek answers to queries about Does pure water conduct electricity?	1
5. Draws labelled diagram of passing current through water	1
6. Explains processes of chemical effects of electric current.	2
7. Discusses and appreciates stories of scientific discoveries of British chemist William Nicholson.	1
8. Explains processes of electroplating	2
9. Applies learning of scientific concepts in day-to-day life in uses of electroplating	1
10. Makes efforts to protect the environment of conduct electroplating.	1
11. Conducts simple investigations to seek answers to queries of Why coating of zinc is deposited on iron to protect it from corrosion and formation of rust.	1
12. Makes efforts to protect the environment of conduct electroplating.	1
13. Draws flow chart of applications of electroplating	1

TEACHING LEARNING PROCESS

Induction/Introduction:



Experience and Reflection:

1. Students will learn the applications of electroplating in daily life and take care of the tools at home to longer time.
2. Students will play their part in protecting the environment from pollution caused by electroplating in daily life.
3. Students will be able to identify which of the liquids they use are electrical conductors and which are poor conductors.

Explicit Teaching/Teacher Modelling (I Do)	Group Work (We Do)	Independent Work (You Do)	Notes for:
1. Discussion and conduct an activity on the good conductor and poor conductor as a tester.	1. Students will give examples of conductors and poor conductors of solids.	1. Students give definitions of good conductor and poor conductor.	1. What is the significance of conductors in your daily lives?

2. Explain and Conduct an activity on "Does lemon juice or vinegar conduct electricity?.	2. Students conduct the activity.	2. Students draw the diagram of testing conduction of electricity in lemon juice or vinegar.	2. When an electric current is passed through vinegar or lemon juice then the bulb glows very dimly. Why?
3. Demonstration and Explain LED	3. Why LED glow even when a weak electric current flows through it. – Discuss	3. Students complete the homework.	3. How many terminals in LED?
4. Discussion and conduct an activity on Whether the compass needle shows deflections near the electric circuit.	4. Students represent the information of good/poor conducting liquids in tabular form.	4. Comparing the deflections of needle in the compass.	4. Why does compass needle get deflected?
5. Explain liquids are good and poor conductors of electricity.		5. Students give examples of liquids being good and poor conductors of electricity.	5. Why do liquids conduct electricity?
6. Explain and conduct an activity on distilled water is free of salts, it is a poor conductor.	5. Why pure water does not conduct electricity? – discuss		6. Why is distilled water a poor conductor?
7. Explain and conduct an activity on chemical effects of electric current with passing current through water.	6. Students draw the diagram of passing current through water.	6. Students will give reasons, What are the other substances which, when dissolved in distilled water, make it conduct?	7. What happens when electric current pass through water?
8. Conduct an activity to test whether some fruits and vegetables conduct electricity.	7. Students conduct an experiment on the conduction of electricity through various fruits and vegetables. Display results in tabular form.	7. Students explain "How do fruits and vegetables conduct electricity?"	8. Which fruit or vegetable is the best conductor of electricity?
9. Explain the process of electroplating.		8. Students read the history of British chemist, William Nicholson.	9. What is main principle of electroplating?
10. Discussion and conduct an activity on electroplating with a simple electric circuit.	8. Students describe the electroplating method	9. Students arrange the materials in the correct manner.	10. Why are metals electroplated?
11. Discussion and explain the applications of electroplating in	4. Students collect the information of applications of electroplating.	10. What are the applications of electroplating in daily life	11. Is electroplating permanent?

daily life.			

Check For Understanding Questions	TLM's (Digital + Print)
1. Factual: 1. Why does the concentration of the electrolyte remain constant during electroplating? 2. Is electroplating a displacement reaction? 3. Does electroplating occur only on anode? **2. Open Ended/Critical Thinking:** 1. Why direct current is used in electroplating? 2. Why does potato turn green on passing current? 3. Why is electroplating hazardous to the environment? **3. Student Practice Questions & Activities:** 1. When the free ends of a tester are dipped into a solution, the magnetic needle shows deflection. Can you explain the reason? 2. Is it safe for the electrician to carry out electrical repairs outdoors during heavy downpour? Explain. 3. Does pure water conduct electricity? If not, what can we do to make it conducting? 4. In case of a fire, before the firemen use the water hoses, they shut off the main electrical supply for the area. Explain why they do this.	1. Used prepared Quiz paper. 2. Utilized digital classroom. 3. Provide video links QR codes, DIKSHA App 4. You Tube video's link.

Assessment:

1. Prepare a list of objects around you that are electroplated.
2. What are the applications of the chemical effect of electricity in our daily life? Give examples.
3. Why is chromium used for electroplating? Why the objects which have chromium plating are not made of chromium itself?

SIGNATURE OF THE TEACHER

SIGNATURE OF THE HEADMASTER

VISITING OFFICER WITH REMARKS