

CLASS-10
PHYSICAL SCIENCE
LESSON PLAN
CHAPTER: 11 – ELECTRIC CURRENT

PERIOD NUMBER	CONCEPTS / TEACHING POINTS	PAGES IN TEXT BOOK		TEACHING PROCEDURE	TEACHING LEARNING MATERIAL	EVALUATION
		FROM	TO			
1.	Electric circuits – conductors – insulators	228	230	Conversation	Chart, Video clips of Lorentz and Drude theory	What is the difference between conductors and insulators ?
	Electric current - units			Conversation		What is the unit for electric current ? What is the formula for calculate Electric Current ?
2.	Direction of electrons – drift speed	230	232	Conversation	Conversation	What is meant by drift speed ?
	Direction of electric current			Conversation		How can we say that the opposite direction of electrons is the direction of current ? What is the charge of electron ?
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; width: fit-content; margin: 0 auto;"> <p>NAGA MURTHY- 9441786635 Contact at : nagamurthysir@gmail.com Visit at : ignitephysics.weebly.com</p> </div>						

3.	Potential difference – formula – units	232	235	Conversation	Charts and Video clips for Potential difference	What is Potential difference ?
	Derivation of formula for voltage difference			Conversation		What are the units for Potential difference ?
	Working of battery			Conversation		
4.	Electro motive force	235	236	Conversation	Charts and Video clips for e.m.f.	Is e.m.f. possessed by a battery ?
	Connection of batteries – connections of bulbs			Conversation		What is meant by series connection of batteries ?
5.	Ohm’s law - experiment	236	238	Lab Experiment	1.5 V dry cells-5, Wire, Volt meter, Ammeter, Iron spoke of 10 cm, LED, Plug key	How should an Ammeter connect in the circuit ? What do you understand about Ohm’s law ? Is LED obey Ohm’s law ?
6.	Ohm’s law – limitations	238	240	Conversation	Chart	What are Ohmic conductors ?
	Ohmic and non ohmic conductors			Conversation		What is the shape of graph between V and I for non ohmic conductors ?
	Resistance , resistivity- Electric shock -			Conversation		
	Multimeter			Activity	Multimeter	What is the use of multimeter ?
	Ohm’s law – limitations			Conversation	Chart	
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7.	Factors that affect resistance	240	243	Conversation	Chart	What are the affecting factors of resistance ?
	Nature of the substance			Activity	1.5 V dry cells-5, Wire, Ammeter, Iron spoke of 10 cm, Aluminium spoke of 10 cm, Plug key	How nature of substance affect the resistance ?
	Temperature			Activity	Iron spoke of 10 cm, Hot Iron spoke of 10 cm	What is the relation between temperature and resistance ?
	Length			Activity	Iron spoke of 10 cm, Iron spoke of 20 cm	If you take 20 cm gold wire and 40 cm gold wire, Which has more resistance ? Can you guess?
	Area of cross section			Activity	Iron spoke of 10 cm, Iron spoke of 10 cm with more thickness	
8.	Specific resistance – formula – units	243	243	Conversation	Chart	What are the units for resistivity ?
	Specific resistance – affecting factors			Conversation		What is difference between resistance and resistivity ?
	Specific resistance values for various materials			Conversation		
	Resistivity - applications			Conversation		
9.	Electric circuit	244	245	Activity	Chart, 1.5 V dry cells-5, Wire, Ammeter, volt meter , bulb, Plug key, three resistances	What is an electric circuit ?
	Series connection of resistances-resultant resistance			Activity		What is the use of ammeter in an electric circuit ?

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10.	Electric circuit	246	247	Conversation	Chart, 1.5 V dry cells- 5, Wire, Ammeter, volt meter , bulb, Plug key, three resistances	What is the resultant resistance if three resistors of 2 Ohm are connected in parallel ?
	Parallel connection of resistances-resultant			Activity		
11.	Kirchhoff's law's (Junction & loop law)	247	248	Conversation	Chart and Video clips about Kirchhoff's laws	What is Kirchhoff's Junction law ? What is a loop law ?
12.	Electric power	248	251	Conversation	Chart	What is the formula for electric power ? The unit of electric power consumption in houses is called ?
	Over load – Danger - Precautions			Conversation		What is the use of Fuse in house hold circuits ?

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