CLASS-10

PHYSICAL SCIENCE

LESSON PLAN

CHAPTER: 12 – ELECTRO MAGNETISM

PERIOD NUMBER	CONCEPTS / TEACHING POINTS	PAGES IN TEXT BOOK		TEACHING PROCEDURE	TEACHING LEARNING MATERIAL	EVALUATION
		FROM	TO			
1.	Electro magnetism –Oersted	258	259	Conversation	Wooden plank, Battery, Copper wire, Plug key, Compass	What is electro magnetism ?
	Oersted's experiment			Activity		What is the main theme of Oersted's experiment ?
						What are the apparatus needed to perform Oersted's experiment ?
2.	Magnetic field –Activity	260	262	Activity	Bar magnet, A4 sheet, Iron fillings, Magnetic Compass-4	What is a Magnetic field ?
	Direction of magnetic field, strength			Activity		What are magnetic lines of forces ?
	Magnetic lines of force			Activity		Are Magnetic lines curved ?
3.	Uniform , non uniform magnetic fields	262	263	Conversation	Chart and Video Clips of Flux	What is the unit of Magnetic Flux ?
	Magnetic flux – Magnetic field Induction			Conversation		What is Magnetic Flux density ?

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4.	Magnetic field due to current – Activity	263	264	Activity	Stand, Copper wire, Compass – 10, Battery, Plug key, Wooden weight	What is the shape of Magnetic field lines ?
	Right hand thumb rule			Conversation	Chart, Video clips	What is right hand thumb rule ?
5.	Right hand thumb rule	265	266	Conversation	Chart, Video clips	What is a solenoid ?
	Magnetic field due to circular coil			Activity	Wooden box, circular Copper wire, Compass, Battery, Plug key, Solenoid	
	Magnetic field due to Solenoid			Activity		How can you perform an activity to observe Magnetic field in a solenoid ?
6.	Magnetic force on moving charge and current carrying wire	266	268	Conversation	Chart, Video clips	What is CRT TV ?
						What is the formula for force on moving charge in a wire ?
7.	Time period of charged particle	268	270	Conversation	Chart, Video clips	In Right hand rule , the thumb indicates …….?
	Magnetic force on current carrying wire which is placed along a magnetic field			Conversation		In Right hand rule , the index finger indicates …?
8.	Result force applied on a current carrying wire - Experiment	270	271	Activity	Wooden plank, Y – stands-2, Copper wire, Horse shoe magnet, Battery, Plug key	What are the apparatus needed for doing this activity ?

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9.	Electric motor – Principle and Working	271	273	Conversation	Chart, Video clips, Model of electric motor	What is the use of electric motor ? What is the principle of Electric motor ?
10.	Electro magnetic induction	273	275	Activity	Bolt, Copper wire, Ring magnet, no volt coil, Iron rod, Extension box	What is meant by induction ?
	Faraday's laws			Conversation	Chart, Video clips,	What do you know about Faraday's laws ?
11.	Electro magnetic induction	275	277	Activity	Copper wire, Bar magnet, Compass, Battery, Plug key	What is formula for induced e.m.f. ?
	Faraday's laws – Lenz's rule				Chart, Video clips,	What is Lenz law ?
12.	Conservation of energy – Faraday's laws	277	279	Conversation	Chart, Video clips,	What is law of conservation of energy ? What is the use of Galvanometer ?
13.	Induced Electro motive force – problems	279	280	Conversation	Chart, Video clips,	What are the applications of Faraday's laws ?
	Faraday's law of electro magnetic induction			Conversation		What are terms in F = Bil ?
	and Its applications			Conversation		What are the terms in Ɛ = Blv ?

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14.	Electric generator –	280	283	Conversation	Charts and Video clips of working of generator	What is the use of a generator ?
				Conversation		What is the difference between A.C. and D.C. ?
	A.C. and D.C. currents			Conversation		What is the difference between electric motor and electric generator ?

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