

CLASS-09
PHYSICAL SCIENCE
LESSON PLAN
CHAPTER: 05 – GRAVITATION

PERIOD NUMBER	CONCEPTS / TEACHING POINTS	PAGES IN TEXT BOOK		TEACHING PROCEDURE	TEACHING LEARNING MATERIAL	EVALUATION
		FROM	TO			
1.	Motion of planets			Conversation	Chart, Electric motor, wooden block, circular disc or plate, Battery	Is the motion of the earth around the sun is uniform?
	Uniform circular motion			Activity		What is uniform circular motion?
2.	Drawing velocity vectors for a body in uniform circular motion			Conversation	Chart, Videos related to centripetal force	What is centripetal force?
						What is the formula for acceleration of a body in uniform circular motion?
3.	Universal law of Gravitation (Newton's law)			Conversation	Chart, Videos related to Universal Law of Gravitation and Newton	What is the symbol for universal gravitation constant?
						Who stated law of universal law of gravitation?

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4.	Universal gravitational constant			Conversation	Chart	What is the value of G ?
	Universal law of gravitation - problems			Conversation		What is the mass of earth ?
5.	Acceleration is independent of masses for a free fall body			Conversation	Charts, related videos of free fall bodies	What is a free fall body? Is free fall body feels weight loss?
6.	Direction of gravitation Gravitation – problems 2,3			Conversation	Charts	What is the velocity of a body at Maximum height?
7.	Gravitation – problems 4,5			Conversation	Chart	What is 'g' ?
8.	Weight			Conversation	Chart, Spring balance, small weight, Transparent cup, Rubber band, Needle or scissors, Stone suitable for cup	What is 'g' in the representation $W = mg$?
	Weight of a free fall body			Activity		How do you feel when you are in Giant wheel?
	The changes during the free fall of a body			Activity		
9.	Centre of gravity			Activity	Glass tumbler, wooden stick (Match stick type), fork spoons-2	What is meant by centre of gravity?
	Balancing position of a body					How can a rope walker balance his body?

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10.	Locating centre of gravity			Activity	Charts, Card pieces of Rectangular shape and Triangle shape, Thread, Small Weight, Pencil	What is the Centre of gravity of an uniform object?
	Centre of gravity of uniform object			Activity		What is the centre of gravity of a triangular disc?
	Centre of gravity of rectangular scale and triangular board			Activity		How can we identify the centre of gravity of an irregular shape?
11.	Locating centre of gravity			Conversation	Chart, Non uniform card board, Thread, Small weight, Pencil, Circular ring, Related videos on centre of gravity	Is centre of gravity always lie on the object?
	Centre of gravity of non-uniform object			Conversation		
	Centre of gravity of non uniform card board			Activity		Is centre of gravity changes ?
	Centre of gravity of a ring			Activity		
12.	Stability			Conversation	Cylindrical objects-2, Funnels-3, Dancing toy, Other objects, related videos	Water is in a pot. If we make a hole at the bottom of pot, is the centre of gravity of water changes?
	Shift of centre of gravity – and its effects			Activity		

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