

CLASS-09  
PHYSICAL SCIENCE  
LESSON PLAN  
**CHAPTER: 09 – WORK AND ENERGY**

PERIOD NUMBER	CONCEPTS / TEACHING POINTS	PAGES IN TEXT BOOK		TEACHING PROCEDURE	TEACHING LEARNING MATERIAL	EVALUATION
		FROM	TO			
1.	Work – energy – Introduction	139	141	Conversation	Chart, Video clips on work and Energy, Toy car, Stones, Books	Rama is studying Science. Is she doing any work ?
	Work			Conversation		What is work ?
	Scientific meaning for work			Activity		Give an example for mechanical work ?
2.	Work – Meaning - Definition	141	143	Conversation	Chart	What is the formula for work ? 10N forces is applied on an object. The object lifted up to 20m. Then How much work was done on the object ?
3.	Work concept	143	145	Conversation	Chart	10N forces is applied on an object. The object moves 20m. Then How much work was done on the object ?
	Problems - solutions			Conversation		

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4.	Energy	145	146	Activity	Toy car, Spring, Wooden block, Marbles, Plastic plate, Glass plate, Sand, Tray	What is energy ?
	Energy transfer and the work			Activity		Can any force do work without energy transfer ?
	Increase or decrease in the energy of an object			Activity		
5.	Energy resources	147	147	Conversation	Video clips, Chart	Name some energy sources ?
	List of energy resources			Conversation		Name some forms of energy ?
	Different forms of energy			Conversation		Energy possessed by an object due to its state is called ?
	Energy in human body			Conversation		Which energy utilized to move a fan ?
6.	Kinetic energy	148	150	Activity	Ball, Marbles, Wooden block, Sponge	What is kinetic energy ?
	Expansion of formula			Conversation		What is the formula for kinetic energy ?
7.	Kinetic energy	150	150	Conversation		Chart
	Problems - solutions			Conversation	What is the kinetic energy of a ball of 100 g mass, moving with 20 cm/s ?	

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8.	Potential energy	150	151	Activity	Spring, Arrows and bow	What is potential energy ?
	Energy of a stretched rubber band			Activity	Rubber band, Elastic rope	Which energy possessed by the water in over head tank ?
				Conversation		Name any two objects which possess potential energy.
9.	The energy of an object at some height	152	153	Activity	Stand, Thread, Wooden piece, Iron nail, Sand, Steel glass, Weights hanger	The energy possessed by a body due to its position is called ..... ?
	Potential energy – Expansion of formula			Conversation	Chart	What is the formula for Potential energy ?
	Problems - solutions			Conversation		A block of 2 Kg lifted up to 3 m. Find the Potential energy of the body ?
				Conversation		
10.	Mechanical energy	153	154	Conversation	Chart, Video clips	Name any two mechanical energies.
	Conservation of energy					What is the energy transformation in electric bulb ?
	Energy conversions					Give an example for energy conversion.

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11.	Conservation of mechanical energy	155	156	Activity	Simple pendulum, Chart	Which type of energies that a moving pendulum has ?
	Calculating the total energy of a free fall body at different heights			Conversation		What do you say about total energy of system of a freely falling body ?
12.	Power	156	157	Conversation	Chart, Video clips	What is Power ?
	Power – examples					What is the formula for power ?
	Problems - solutions					A person performs 100 J of work in 10 seconds. Calculate the power ?

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