

CLASS-10  
PHYSICAL SCIENCE  
LESSON PLAN

**CHAPTER: 03 – REFLECTION OF LIGHT BY DIFFERENT SURFACES**

PERIOD NUMBER	CONCEPTS / TEACHING POINTS	PAGES IN TEXT BOOK		TEACHING PROCEDURE	TEACHING LEARNING MATERIAL	EVALUATION
		FROM	TO			
1.	Reflection of light – Concepts	45	46	Activity	Torch light, transparent glass, wooden plank piece, oily paper, plane mirror	Differentiate between shadows and images?
	Pin hole camera			Activity	Two cylindrical barrels with different radii, thick black paper or chart paper, thin white paper, needle, rubber bands, coconut oil drops	What is the property of image in pin hole camera? Is the size of image in pin hole camera big or small or same size?
2.	Nearest distance for light reflection	46	48	Conversation	Chart	What is Fermat principle?
	Finding the images formed by Mirror - Activity			Activity	Plane mirror	On which principle that a mirror works?
3.	Reflection of light by plane mirrors	48	50	Lab Experiment	Thermocole sheet, plane mirror, wooden cube (block), bell pins-8, white papers-4	What are the laws of reflection?
	Angle of incidence, reflection- Plane of reflection			Lab Experiment		Is angle of incidence is equal to angle of reflection?
	Laws of reflection			Lab Experiment		
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p><b>NAGA MURTHY- 9441786635</b>            Contact at : <a href="mailto:nagamurthysir@gmail.com">nagamurthysir@gmail.com</a>            Visit at : <a href="http://ignitephysics.weebly.com">ignitephysics.weebly.com</a></p> </div>						

4.	Formation of image by plane mirror	50	52	Activity	Thermocol sheet, plane mirror, wooden cube (block), bell pins-8, white papers-4, Chart	What are the properties of image formed by plane mirror?
	Characteristics of image			Conversation		Is the image formed by plane mirror laterally inverted?
	Size, Distance – lateral inversion			Conversation		
5.	Reflection of light by spherical mirrors	52	54	Activity	Foam piece of 6x2 cm, pencils-5	What is called converging beam of light rays?
	Radius of curvature, Principal axis, pole			Activity	Ball, cutter, pencil	What is C for a spherical surface?
	Parallel beam of rays			Activity	Wooden block, iron nails-2, candle, match box	What is principal axis of a spherical mirror?
6.	Reflection of light by Concave mirror –ray diagram	54	55	Conversation	Chart. Video that shows the ray diagrams of concave mirror and convex mirror	What is the difference between convex and concave mirror?
	Reflection of light by Convex mirror –ray diagram			Conversation		What is focus of a spherical mirror?
7.	Reflection of light by spherical mirrors	55	57	Lab experiment	V-stand, concave mirror, Candle, match box, meter scale or long tape, white screen	If object is placed at C of concave mirror, then the image will form at .....
	Distance of object and image			Lab experiment		What is the relation between R and f ?
	Size of object and image			Lab experiment		

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8.	Ray diagram for reflection in concave mirror	57	61	Conversation	Chart	Which mirror forms real and virtual images?
	Place of object and place of image			Conversation		Which mirror is used by dentists?
	Real and virtual images			Conversation		
9.	Ray diagram for reflection in convex mirror	61	62	Conversation	Chart	Which mirror forms always diminished images?
	Place of object and place of image			Conversation		Which mirror is used as rear view mirror?
	Real and virtual images			Conversation		
10.	Derivation of formula for curved mirrors	62	64	Conversation	Chart	What is the mirror formula?
	Sign convention to the mirror formula			Conversation		Is the focal length of concave mirror positive?
						From which point the distances be measured for mirrors?
11.	Mirror magnification formula	64	65	Conversation	Chart	What is the magnification formula for a mirror?
12.	Archimedes story & Making of solar cooker	65	66	Conversation & Activity	Chart, Photographs related to Archimedes, video of Archimedes and solar cooker	Where should be the vessel kept in a solar cooker?