Bal Bharati PUBLIC SCHOOL Gadarwara

Class-12A
Subject- Physics

From - 23rd Jan 24 to 26th Jan 24

Topic Subtopics No. Of periods	E Energizing Learner	N Navigate content	G Generating meaning	A Appling to real life	G Gauge the meaning	E Extend
	• Before stating the class • To start the class	• Teach and review	• Move to long term memory through reflection.	• Demonstrate skill	• Look how much you have learnt	• Extended activities
4(Tue, Wed, Thu and Sat) **Topic: Ray optics** **Subtopics:** 1. Reflection 2. Refraction 3. Example of Reflection 4. Example of Reflection 5. Prism	Students will be shown the picture of reflection and refraction and will be asked questions like 1. What is the difference between reflection and refraction. 2. Where you have seen the reflection and refraction in our daily life. **Learning outcome:** 1. Students will be able to known about the reflection and refraction and the condition of the reflection and refraction. 2. Students will be able to understand the use of reflection and refraction in our daily life,	**Definition**: When a ray of light approaches a smooth polished surface and the light ray bounces back, it is called the reflection of light. The incident light ray that land on the surface is reflected off the surface. The ray that bounces back is called the reflected ray. Students will be told about the usage reflection and refraction related to our daily life. Like **Applications of Concave Mirror** • Shaving mirrors. • Head mirrors. • Ophthalmoscope. • Astronomical telescopes. • Headlights. • Solar furnaces. **Uses of Convex mirror:** • When convex mirrors are used, the magnification of objects becomes simple. • It is used in	**Key points:** 1. Law of reflection is defined as: The principle when the light rays fall on the smooth surface, the angle of reflection is equal to the angle of incidence, also the incident ray, the reflected ray, and the normal to the surface all lie in the same plane. 2. The incident ray refracted ray, and the normal to the interface of two media at the point of incidence all lie on the same plane. The ratio of the sine of the angle of incidence to the sine of the angle of refraction is constant. This is also known as Snell's law of refraction. 3. Use of refraction and reflection in our daily life. 4. They are used to show the image. A lens uses refraction to form an image of an	**Hands-On Practice** • Each students will know the daily application of reflection and refraction • Show the phenomenon of reflection and refraction related to our daily life like: • it is used as a spy hole in doors (where we can see visitor from a small opening) • It is used in spectacles to correct the vision. ... • They are	• Solve the numerical related to the reflection and refraction. • Solve the conceptual related to the reflection and refraction. • Solve the application-based question related to the reflection and refraction.	Worksheet and sample question paper related to reflection and refraction.

		sunglasses. • It is used as a rear-view mirror in automobiles. • It's utilised in ATMs and other places for security reasons. • It's used as a reflector for street lights. **Uses of Convex lens:** • The light rays that pass through a convex lens converge or are brought closer together. There are various uses of a convex lens like in a microscope, magnifying glasses, camera, correction of hypermetropia, etc. **Uses of Concave lens:** Concave lenses are used in telescopes and binoculars to magnify objects. As a convex lens creates blurs and distortion, telescope and binocular manufacturers install concave lenses before or in the eyepiece so that a person can focus more clearly.	object for various purposes, such as magnification. Spectacles worn by people with defective vision use the principle of refraction. Refraction is used in peepholes of house doors, cameras, movie projectors and telescopes • Mirrors: Mirrors reflect light to form an image of an object. • Glass surfaces: Windows, eyeglasses, and similar glass surfaces reflect light. • Water: Light reflects off of still water, such as pools or lakes.	used in camera to focus on a single object, Hence we get a clearer picture. • It is used in Flashlights.		

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