

LESSON PLAN

SPECIFIC OBJECTIVES

- The students will learn about
- ❖ light and its properties
 - ❖ beam of light
 - ❖ image formed by a plane mirror and uses of plane mirrors
 - ❖ images formed by curved or spherical mirrors, i.e., concave and convex mirrors and uses of curved mirrors
 - ❖ lenses, their types, image formation by lenses and uses of lenses
 - ❖ colours of light

TEACHING AIDS

Pictures/charts/models/animations on luminous and nonluminous objects; transparent, translucent and opaque objects; parallel, divergent and convergent beams of light; plane mirror, curved mirrors, rear-view mirror, kaleidoscope, periscope; convex and concave lenses; dispersion of light through prism, rainbow.

LESSON PLAN

- ❖ Teacher will start the chapter by going through the points given in 'Know these points before you start' section.
- ❖ Teacher will describe light and explain its properties.
- ❖ Teacher will define luminous and nonluminous objects as well as opaque, transparent and translucent materials by giving examples.
- ❖ Now, teacher will define rectilinear propagation of light by describing parallel, convergent and divergent beams of light.
- ❖ Teacher will describe image formation and nature of image formed by a plane mirror by performing activities given in the chapter.
- ❖ Then, teacher will explain uses of plane mirror.
- ❖ Teacher will ask students to solve Check Point 1.

- ✧ Now, teacher will discuss spherical mirrors, i.e., concave and convex mirrors and their uses.
- ✧ Teacher will explain nature of image formed by spherical mirrors at various positions.
- ✧ Teacher will ask students to solve Check Point 2.
- ✧ Now, teacher will define lenses, i.e., concave and convex lenses, nature of image formed and uses of lenses.
- ✧ Teacher will define colours of light by demonstrating activities given in the chapter.
- ✧ Now, teacher will ask students to solve Check Point 3.
- ✧ Teacher will make students revise the new terms given under the head 'Know These Terms'.
- ✧ Finally, teacher will help students to solve the questions given in exercises under the head 'Practice Time' and 'Think Zone'.

BOOST UP

- ✧ Teacher should demonstrate and explain activities given in the chapter.
- ✧ Teacher should discuss the information given under the head 'Something More'.
- ✧ Teacher should discuss the conversation of Annu and Mannu given in between the topics.
- ✧ Students should be encouraged to explore more uses of plane and spherical mirrors as well as lenses in everyday life and scientific studies.

EXPECTED LEARNING OUTCOMES

The students know about

- ✧ light and its properties.
- ✧ luminous, nonluminous objects; opaque, transparent and translucent materials.
- ✧ shadow; ray of light and beam of light.
- ✧ plane and spherical mirrors, nature of their images and uses.
- ✧ lenses, their types, nature of images formed by them and their uses.
- ✧ different colours of light.

EVALUATIVE QUESTIONS

The teacher may ask the following questions for evaluating the understanding of students.

1. How are we able to see the objects?
2. Write the nature of image formed by a plane mirror.
3. Write two uses each of convex and concave mirrors.
4. Define radius of curvature.
5. What are bifocal spectacles?
6. What is dispersion of light?
7. How many colours are there in white light?
8. Name the colours of rainbow.