

LESSON PLAN**SPECIFIC OBJECTIVES**

The students will learn about

- ✧ light – a form of energy
- ✧ reflection of light
- ✧ image formation by plane mirror
- ✧ multiple reflections
- ✧ the colours of the sunlight
- ✧ the human eye
- ✧ visually challenged people

TEACHING AIDS

Pictures/charts/models/animations on laws of reflection, regular and irregular reflections, lateral inversion; multiple reflections by plane mirror, kaleidoscope, periscope; dispersion of white light, rainbow, structure of human eye, image formation by human eye; Braille script.

LESSON PLAN

- ✧ The teacher should start the chapter with Gear Up and ask students the questions given in this section.
- ✧ The teacher should define light and its characteristics. Teacher should also discuss luminous and illuminated objects.
- ✧ The teacher should define laws of reflection by demonstrating Activity 1 and explain regular and irregular reflections and their significance.
- ✧ The teacher should explain the image formation by a plane mirror with the help of Activity 2.
- ✧ The teacher should discuss multiple reflections by plane mirror and demonstrate Activity 3.
- ✧ The teacher should discuss applications of multiple reflections by working of kaleidoscope with the help of Activity 4 and also explain the working of periscope.
- ✧ The teacher should discuss the colours of the sunlight and phenomenon of dispersion of light with the help of Activity 5.

- ❖ The teacher should explain the structure and working of human eye and demonstrate the Activity 6.
- ❖ The teacher should discuss care of eyes and eye defects.
- ❖ The teacher should discuss about visually challenged people, Braille script and historical background of its development.
- ❖ Students should be asked to solve Check Points 1, 2 and 3.
- ❖ At last, the teacher will sum up the lesson by going through the points given under the head 'Wrap Up Now'.
- ❖ The teacher will help the students to solve all the questions given in exercises under the head 'Practice Time' and will also discuss the topics given under the head 'Formative Tasks'.

BOOST UP

- ❖ The teacher can assign Activity 4 as Group activity in the class.
- ❖ Students should be encouraged to keep concern about the health of their eyes.
- ❖ Students should be asked to observe reflection of light and dispersion of light in the nature and find their applications in everyday life.
- ❖ The teacher should discuss the challenges faced by visually challenged people in their everyday life and our duties towards them.

EXPECTED LEARNING OUTCOMES

The students know about

- ❖ light and its characteristics.
- ❖ illuminated and luminous objects.
- ❖ reflection of light and laws of reflection.
- ❖ regular and irregular or diffused reflections.
- ❖ images formed by a plane mirror.
- ❖ multiple reflections and multiple images formed by a plane mirror.
- ❖ applications of multiple reflections – kaleidoscope and periscope.
- ❖ different colours of sunlight – dispersion of light.
- ❖ structure and working of the human eye, eye defects and care of eyes.

EVALUATIVE QUESTIONS

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

1. Define light.
2. Write laws of reflections.
3. Mention the differences between regular and diffused reflections.
4. What is meant by lateral inversion?
5. What is periscope used for?
6. When is a rainbow formed?
7. Which lens is used to rectify myopia?