

LESSON PLAN

SPECIFIC OBJECTIVES

- The students will learn about
- ❖ light – a form of energy
 - ❖ reflection of light
 - ❖ multiple reflections and their applications
 - ❖ the colours of sunlight
 - ❖ the human eye – structure, functions, defects and care
 - ❖ eyes of other animals
 - ❖ visually challenged people

TEACHING AIDS

Pictures/charts/models/animations on laws of reflection, regular and irregular reflections, multiple reflections by plane mirror, kaleidoscope, periscope; dispersion of white light, rainbow, structure of human eye, image formation by human eye; eyes of other animals (as given in the chapter); Braille script.

LESSON PLAN

- ❖ Teacher will start the chapter by going through the points given in 'Know these points before you start' section.
- ❖ Teacher will define light and discuss its characteristics.
- ❖ Teacher will discuss transparent, translucent and opaque objects.
- ❖ Teacher will define reflection of light and will also explain regular and irregular reflections and their significance.
- ❖ Teacher will define laws of reflection by demonstrating activity given in the chapter.
- ❖ Now, teacher will ask students to solve Check Point 1.
- ❖ Teacher will discuss multiple reflections by plane mirror and demonstrate related activities given in the chapter.

- ❖ Teacher will discuss applications of multiple reflections by explaining working of kaleidoscope and periscope.
- ❖ Teacher will discuss the colours of sunlight and the phenomenon of dispersion of light with the help of activity given in the chapter.
- ❖ Then, teacher will ask students to solve Check Point 2.
- ❖ Now, teacher will explain the structure and working of human eye, defects of vision and care of eyes.
- ❖ Teacher will discuss features of eyes of other animals.
- ❖ Teacher will discuss visually challenged people, Braille script and historical background of its development.
- ❖ 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 keep their eyes healthy.
- ❖ Students should be asked to observe reflection of light and dispersion of light in the nature and find their applications in everyday life.
- ❖ 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.
- ❖ opaque, transparent and translucent objects.
- ❖ reflection of light and laws of reflection.
- ❖ regular and irregular or diffused reflections.
- ❖ multiple reflections 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.
- ❖ special features of eyes of other animals.
- ❖ visually challenged people, Braille script.

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 multiple reflection?
5. What is periscope used for?
6. When is a rainbow formed?
7. Which lens is used to rectify myopia?
8. What is Braille script?