16 Air Around Us

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ✧ air is present everywhere
- ✧ atmosphere
- ✧ composition of air
- ✧ how oxygen becomes available to organisms living in soild and water
- ✧ uses of air

TEACHING AIDS

Pictures/charts/models/animation on composition of air; fishes in sea; smoke from chimneys, automobiles; dust storm; process of photosynthesis; mountaineers carrying oxygen cylinders; windmill; sky diver landing with a parachute (all as given in chapter).

LESSON PLAN

- ✧ The teacher will start the chapter with Gear Up discussing the questions given in the section.
- ✧ Now, with the help of teaching aids, teacher should define the wind, the atmosphere and discuss the composition of air.
- ✧ Teacher should discuss the presence of air all around by performing Activity 1.
- ✧ Teacher should discuss the presence of oxygen gas in air and its necessity for burning by performing Activity 2.
- ✧ Teacher should discuss the use of carbon dioxide gas in extinguishing fire by performing Activity 3.
- ✧ Teacher should discuss the presence of water vapour and dust in air by performing Activities 4 and 5.
- ✧ The teacher should explain the availability of oxygen for the organisms living in soil and water by performing Activities 6 and 7.
- ✧ Teacher should discuss the role of respiration and photosynthesis in maintaining the balance of carbon dioxide and oxygen in air.

- ✧ Teacher should discuss various uses of air.
- ✧ Students should be asked to solve Check Points 1 and 2.
- ✧ 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 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 should write few examples, i.e., flapping of pages of a book, moving blades of windmills, ruffling of hair, and ask the students how all these activities are possible.
- ✧ The teacher should ask students one-by-one about the percentage of different components of air.
- ✧ The teacher should ask the students to tell few uses of air other than those given in the book.
- ✧ Students should be encouraged to go through Table 16.1 to revise the important information about air.

EXPECTED LEARNING OUTCOMES

The students understand and know the

- ✧ presence of air around us.
- ✧ atmosphere and components of air.
- ✧ availability of oxygen to the organisms living in soil and water.
- ✧ role of respiration and photosynthesis in maintaining the balance of carbon dioxide and oxygen in air.
- ✧ various uses of air.

EVALUATIVE QUESTIONS

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

1. How can you say that air is present everywhere?
2. Give the percentage of different components of air.
3. What is meant by photosynthesis?
4. Why are earthworms called friends of farmers?
5. Define respiration.
6. Which two processes maintain the balance of carbon dioxide and oxygen in air?
7. Give four uses of air.