

Chapter 6

Air and Atmosphere

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ❖ air and wind
- ❖ air is present everywhere
- ❖ composition of air
- ❖ importance of air

Teaching Aids

Pictures/charts/models/animation on composition of air; importance of air; availability of air; how oxygen in air is replaced; air pollution and its causes

Teaching Strategy

- ❖ Teacher will start the chapter by defining air and wind and will explain presence of air everywhere by demonstrating Activities 1 and 2.
- ❖ Teacher will discuss composition of air by demonstrating Activities 3, 4, 5, 6 and 7.
- ❖ Now, teacher will define combustion, and discuss different types of fuels, i.e., coal, petrol, diesel, kerosene, LPG and natural gas and will explain similarities between respiration and combustion.
- ❖ Teacher will explain differences between respiration and combustion.
- ❖ Now, teacher will ask the students to solve 'Check Point 1'.
- ❖ Teacher will then discuss importance of air, availability of air for living things and the necessity of air to grow plant parts under the soil by demonstrating Activity 8 and the need of air for the animals living in water by demonstrating Activity 9.
- ❖ Teacher will discuss how oxygen in air is replaced, and a balance is maintained by photosynthesis and respiration.
- ❖ Teacher will explain air pollution, air pollutants, causes and harms of air pollution and measures to control air pollution.

- ❖ Now, teacher will ask the students to solve 'Check Point 2'.
- ❖ At last, teacher will sum up the lesson by going through the points given under the head 'Wrapping It Up'.
- ❖ Teacher will finally help students to answer the questions given under the head 'Test Yourself'.

Boost Up

- ❖ Teacher can help students to perform the activities given in chapter.
- ❖ Teacher can make students revise new terms given under the head 'Know These Terms'.
- ❖ Teacher can encourage students to learn the facts given under the head 'Something More'.
- ❖ Teacher can show animations related to the topics taught, if possible.
- ❖ Teacher should ask the students to differentiate between air and wind.
- ❖ Students should be encouraged to do Activity 4 showing exhaled air contains carbon dioxide, Activity 5 showing carbon dioxide gas extinguishes fire, Activity 6 showing air contains water vapour and Activity 7 showing dust particles float in air.

Expected Learning Outcomes

The students understand and know:

- ❖ air and wind.
- ❖ composition of air.
- ❖ need of oxygen for burning.
- ❖ importance and availability of air.
- ❖ how oxygen in the air is replaced and a balance is maintained.
- ❖ air pollution and the ways through which air gets polluted.
- ❖ harms of air pollution.
- ❖ control of air pollution

Evaluative Questions

The teacher should ask the following questions to evaluate the students.

1. Write the difference between air and wind.
2. Mention the percentage of oxygen and nitrogen in air.
3. Define combustion.
4. Name the gas used by plants in photosynthesis.
5. Write two uses of nitrogen gas.
6. What helps birds to fly?
7. Define air pollution. Name any two air pollutants.
8. Write two causes of air pollution.