

**LESSON PLAN****SPECIFIC OBJECTIVES**

The students will learn about

- ✧ pollution
- ✧ air pollution, its sources and causes
- ✧ air pollutants, measures to control air pollution
- ✧ acid rain
- ✧ greenhouse effect and global warming
- ✧ water pollution, its causes and measures to reduce water pollution
- ✧ potable water

**TEACHING AIDS**

**Pictures/charts/models/animations** on volcanic eruption, industrial emission; haze over a city; damaged vegetation due to acid rain; planting saplings by school children; choked drain due to water pollution, algal bloom, water treatment plant, different types of water purifiers.

**LESSON PLAN**

- ✧ The teacher should start the chapter with Gear Up and ask students the questions given in this section.
- ✧ The the teacher should define the term pollution, and discuss air pollution, its sources, causes and measures to control.
- ✧ The teacher should discuss acid rain, its formation and adverse effects on environment by demonstrating Activity 2.
- ✧ The teacher should discuss greenhouse effect and global warming and their consequences.
- ✧ The teacher should discuss water pollution, its causes and measures taken to reduce it. Teacher should demonstrate Activity 4 to test the quality of water from various sources.
- ✧ The teacher should define potable water, discuss about water treatment plant and the ways applied to purify water.

- ✧ 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 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 Activities 1 and 3 as home assignment and discuss the results in the class.
- ✧ The teacher should motivate students to explore some more serious effects of acid rain.
- ✧ Students should be asked to find out the measures taken to control global warming.

### **EXPECTED LEARNING OUTCOMES**

The students know about

- ✧ pollution, air pollution, its sources and causes.
- ✧ natural and man-made causes of air pollution, major air pollutants.
- ✧ acid rain, its causes and impacts on environment.
- ✧ measures taken to control air pollution.
- ✧ greenhouse effect and global warming.
- ✧ water pollution, its causes and measures taken to reduce water pollution.
- ✧ potable water, water treatment plant and ways to purify water.

### **EVALUATIVE QUESTIONS**

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

1. Define air pollutants and write two major air pollutants.
2. Mention two natural causes of air pollution.
3. How is acid rain formed?
4. Mention few measures taken to control air pollution.
5. What is meant by greenhouse effect?
6. Write two causes of water pollution.
7. What is the water fit for drinking called?