

LESSON PLAN

SPECIFIC OBJECTIVES

- The students will learn about
- ❖ pollution and pollutants
 - ❖ air pollution and air pollutants
 - ❖ sources, causes and measures to control air pollution
 - ❖ acid rain
 - ❖ greenhouse effect and global warming
 - ❖ water pollution and water pollutants
 - ❖ 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

- ❖ Teacher will start the chapter by going through the points given in 'Know these points before you start' section.
- ❖ Teacher will define the term pollution and pollutants.
- ❖ Now, teacher will discuss air pollution, various air pollutants, their sources and causes.
- ❖ Teacher will ask students to solve Check Point 1.
- ❖ Teacher will discuss acid rain, its formation and adverse effects on the environment by demonstrating activity given in the book.
- ❖ Teacher will discuss greenhouse effect and global warming and their consequences on the environment and man, and measures to control them.
- ❖ Now, teacher will ask students to solve Check Point 2.
- ❖ Teacher will discuss water pollution, its causes and measures taken to reduce it.

- ❖ Teacher will define potable water and discuss water treatment plant and the ways applied to purify water.
- ❖ 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.
- ❖ Teacher should motivate students to explore some more effects of acid rain.
- ❖ Students should be asked to find out some more measures taken to control global warming.

EXPECTED LEARNING OUTCOMES

The students know about

- ❖ pollution, air pollution, its sources, causes and control.
- ❖ natural and man-made causes of air pollution, major air pollutants and their harms.
- ❖ acid rain, its causes and impacts on environment.
- ❖ smog, fly ash and CFCs.
- ❖ greenhouse effect and global warming.
- ❖ water pollution, its causes and measures taken to reduce water pollution.
- ❖ sewage, algal bloom and polluted state of river Yamuna.
- ❖ 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?