

# 4

## Soil Erosion and Conservation

### LESSON PLAN

#### SPECIFIC OBJECTIVES

The students learn about

- ✧ soil, its formation and composition
- ✧ importance of soil and its conservation
- ✧ soil erosion and its effects
- ✧ soil pollution, its causes and effect

#### TEACHING AIDS

Pictures/animation on the formation of soil, erosion of soil by wind and water; picture/model of layers of soil, deforestation, effects of soil erosion; pictures/animation/model on afforestation, terrace farming, dams, embankments, soil pollution, farmers spraying pesticides, barren land due to soil pollution

#### LESSON PLAN

- ✧ The teacher will start the chapter with 'Warm Up' section by giving a brief idea of soil.
- ✧ Now, teacher will discuss about soil and its importance to the living beings.
- ✧ Teacher will ask students to perform Activity 1.
- ✧ With the help of teaching aids, teacher will explain the formation of soil (as given in the chapter).
- ✧ Showing picture/model, teacher will explain the three layers of soil and their features (as given in the chapter).
- ✧ Now, teacher will discuss about soil erosion and factors affecting it.
- ✧ With the help of teaching aids, the teacher will explain the processes of soil erosion by wind and water (as given in chapter).
- ✧ Teacher will discuss soil erosion due to human activities such as deforestation, over ploughing, overgrazing by cattle, leaving bare land after harvesting crops. (as given in chapter).
- ✧ To check the understanding of students, teacher will ask them to solve 'Checkpoint 1'.
- ✧ By showing pictures/animation on barren land, landslide, siltation, etc., teacher will explain the effects of soil erosion.
- ✧ With the help of pictures/animation/models on afforestation, terrace farming, dams and embankments, teacher will discuss the ways to conserve soil.
- ✧ With the help of teaching aids, teacher will discuss about soil pollution, its causes and effects.
- ✧ Now, teacher will ask students to solve 'Checkpoint 2'.
- ✧ The teacher will sum up the chapter by going through the points given under the head 'At One Go'.
- ✧ Finally, the teacher will help students to solve all the exercises given under the head 'Check Your Study'.

### **BOOST UP**

- ✧ If possible, teacher should display the samples of soil from its different layers.
- ✧ To explain the role of plants in preventing soil erosion, teacher should demonstrate Activity 2 given in the chapter.
- ✧ Teacher should discuss the ways to reduce soil pollution.

### **EXPECTED LEARNING OUTCOMES**

The students

- ✧ know about soil, its formation and composition.
- ✧ understand the importance of soil and need to conserve it.
- ✧ know about soil erosion and its effects.
- ✧ know about soil pollution, its causes and effects.

### **EVALUATIVE QUESTIONS**

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

1. What is soil?
2. Why is soil important to us?
3. What are the three layers of soil?
4. Name the factors that cause soil erosion.
5. Which human activities cause soil erosion?
6. Name the ways for conservation of soil.
7. What is the effect of soil pollution?