

Plants – Form and Functions

LESSON PLAN

SPECIFIC OBJECTIVES

- The students will learn about
- ❖ flowering and nonflowering plants
 - ❖ different types of flowering plants
 - ❖ parts of a flowering plant
 - ❖ root system; characteristics, types, functions and modifications of roots
 - ❖ shoot system; stem and its characteristics, functions and modification
 - ❖ leaves – the food factories of the plant
 - ❖ structure, functions and modification of a leaf
 - ❖ flower, its structure and functions

TEACHING AIDS

Pictures/charts/models/animation on herbs, shrubs, trees; climbers and creepers; a flowering plant showing all its parts; taproot, fibrous roots; modification of roots for storing food, support, climbing; modification of stem for storing food, support, protection; structure of leaf, modification of leaves; structure of flower (all as given in the chapter).

LESSON PLAN

- ❖ Teacher will start the chapter by going through the points given in 'Know these points before you start' section.
- ❖ Teacher will define flowering and nonflowering plants.
- ❖ Teacher will discuss the classification of flowering plants on the basis of size and structure as herbs, shrubs and trees, and on the basis of life span as annual, biennial and perennial plants.
- ❖ With the help of suitable teaching aids, teacher will discuss the parts of a flowering plant, i.e., shoot system and root system.
- ❖ Teacher will differentiate between tap root and fibrous roots.

- ❖ Teacher will discuss the characteristics, types, functions and modifications of roots.
- ❖ Now, teacher will ask students to solve Check Point 1.
- ❖ Teacher will discuss about shoot system; stem and its characteristics, functions and modifications with the help of activities given in the chapter.
- ❖ Teacher will ask students to solve Check Point 2.
- ❖ With the help of suitable teaching aids and by performing activities given in the chapter, teacher will discuss the structure, functions and modifications of leaves and define why leaves are called the food factories of the plant.
- ❖ Then, teacher will ask students to solve Check Point 3.
- ❖ Teacher will define the flower, its parts and role in the life cycle of a plant.
- ❖ Teacher will ask students to solve Check Point 4.
- ❖ 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.

EXPECTED LEARNING OUTCOMES

The students understand and know the

- ❖ differences between herbs, shrubs and trees; annual, biennial and perennial plants.
- ❖ parts of a flowering plant.
- ❖ modifications of root, stem and leaves.
- ❖ flower, its parts and functions.

EVALUATIVE QUESTIONS

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

1. What are herbs? Give two examples.
2. Mention two differences between taproot and fibrous root.
3. What is meant by annual, biennial and perennial plants?
4. Define root system with its types.
5. Why are leaves called kitchen of the plant?
6. What does shoot system consist of?