

Compact Science 7

1

Nutrition in Plants

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ✧ nutrition and its modes
- ✧ autotrophic mode of nutrition in plants – photosynthesis
- ✧ raw materials necessary for photosynthesis
- ✧ green leaves – the food factories of plants
- ✧ heterotrophic mode of nutrition in plants, i.e., parasitic plants, saprophytes, symbiotic plants, insectivorous plants – partial heterotrophs

TEACHING AIDS

Pictures/charts/models/animations on process of photosynthesis, open and closed stomata; *Cuscuta*, *Mistletoe*, bread mould, mushroom, root nodules of a legume, lichen; pitcher plant, Venus flytrap, etc.

LESSON PLAN

- ✧ The teacher will start the lesson with ‘Science Vocabulary’ section by telling the meaning/definition of new terms which are used in the chapter.
- ✧ Now, teacher should explain the nutrition and its necessity along with modes of nutrition.
- ✧ The teacher should explain autotrophic mode of nutrition in plants and its required raw materials.
- ✧ The teacher should make students understand why green leaves are called the food factories of plant. The teacher should also explain the functioning of stomata.
- ✧ The teacher should discuss about heterotrophic mode of nutrition in plants by describing parasitic plants, saprophytes, symbiotic and insectivorous plants.
- ✧ Students should be asked to solve ‘Check Points’ 1 and 2.

- ✧ Finally, teacher will help the students to solve the questions given in exercises under the head 'Let's Drill Our Skills' and to complete the flowchart given under the head 'Let's Memorise'.

BOOST UP

- ✧ Students may be asked to make a presentation on why green leaves are called food factories of plants.
- ✧ Students may be asked to collect pictures of parasitic, saprophytes, symbiotic and insectivorous plants other than those given in the book.
- ✧ The teacher should demonstrate activities given in the chapter.

EXPECTED LEARNING OUTCOMES

The students know about

- ✧ concept of nutrition, nutrients and modes of nutrition.
- ✧ autotrophic mode of nutrition in plants.
- ✧ green leaves as the food factories of plants and functioning of stomata.
- ✧ heterotrophic mode of nutrition in plants.

EVALUATIVE QUESTIONS

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

1. What do you mean by nutrition and nutrients?
2. Are autotrophs called producers?
3. Define photosynthesis and write its essential raw materials.
4. What is the difference between partial and total parasites?
5. Define saprophytes.
6. Why is an alga called autotroph?