

Science Booster 5

1

Plant Reproduction

LESSON PLAN

SPECIFIC OBJECTIVES

The students learn about

- ✧ growing plants from seeds
- ✧ dispersal of seeds
- ✧ growing plants from other parts of plant
- ✧ crops and vegetables

TEACHING AIDS

Picture/chart/animation of a seed showing its parts, germination of seed showing different stages, different agents of seed dispersal (as given in chapter); grafting of rose, potato plant growing from eyes on potato, plants growing from root in sweet potato, plants growing from *Bryophyllum* leaves; mould and mushroom; **pictures** of rabi and kharif crops (as given in chapter), farmers ploughing the field, irrigating the crop, spraying insecticides; containers for storing grains

LESSON PLAN

- ✧ The teacher will start the chapter with 'Gear Up' section by asking five things and other benefits that we get from plants.
- ✧ Now, teacher will explain that all the flowering plants produce seeds enclosed inside the fruits and seeds contain a baby plant inside them.
- ✧ With the help of teaching aids and by performing Activity 1, the teacher will discuss various parts of seed and explain about monocotyledonous and dicotyledonous seeds.
- ✧ Teacher will discuss the conditions necessary for germination of seeds and with the help of teaching aids and Activity 2, will explain how germination of seeds takes place.
- ✧ Now, to check the understanding of students about the topic, teacher will ask them to solve 'Check Point 1'.

- ❖ Teacher will define the dispersal of seeds and its need for plants. Teacher will also introduce different agents of seed dispersal and with the help of teaching aids, will explain how these agents help in the dispersal of seeds.
- ❖ Now, teacher will define vegetative propagation and with the help of suitable examples, will explain the different means of growing plants from parts of plants other than seeds (as given in chapter).
- ❖ Teacher will introduce non-flowering plants and explain that these plants do not produce seeds but they reproduce by spores.
- ❖ Now, teacher will define crop and discuss its two types with the help of teaching aids showing suitable examples (as given in the chapter).
- ❖ Teacher will discuss the suitable conditions for growing different crops (as given in chapter).
- ❖ Now, teacher will define the term agriculture, its need and how a good and healthy crop can be grown. Teacher will also discuss how crop is stored and protected from rats, birds, insects, etc.
- ❖ Now, teacher will ask the students to solve 'Check Point 2'.
- ❖ The teacher will sum up the chapter by going through the points given under the head 'Wrap up now'.
- ❖ Finally, the teacher will help students to solve all the exercises given under the head 'Practice Time'.

BOOST UP

Teacher should show

- ❖ the sample of bean seed as a whole and a split one to show all its parts.
- ❖ the sapling of a plant.
- ❖ samples of different types of seeds.
- ❖ the growing of new plants from the eyes on potato, roots in sweet potato and *Bryophyllum* leaf.
- ❖ some samples of kharif and rabi crops.

EXPECTED LEARNING OUTCOMES

The students

- ❖ know about different parts of seeds, monocotyledonous and dicotyledonous seeds.
- ❖ learn about conditions necessary for germination of seeds and its stages.
- ❖ understand dispersal of seeds and know various agents involved in it.
- ❖ understand vegetative propagation and know about growing plants from plant parts other than seeds.
- ❖ know about non-flowering plants.
- ❖ learn about types of crops, conditions necessary for growing crops, protection against pests and storage of seeds.
- ❖ understand the significance of plants.

EVALUATIVE QUESTIONS

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

1. What is a seed coat?
2. What is an embryo?
3. What is a seedling?
4. What is dispersal of seeds?
5. What is vegetative propagation?
6. Name some rabi crops.
7. Name some kharif crops.
8. Why are plants important to us?