

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ✧ reproduction and its modes
- ✧ asexual reproduction, vegetative reproduction and sexual reproduction
- ✧ mechanism of sexual reproduction
- ✧ seed dispersal
- ✧ germination of seed

TEACHING AIDS

Pictures/charts/models/animations on budding in yeast, binary fission in a bacterium, fragmentation in *Spirogyra*, *Rhizopus* showing its sporogonium; root tubers of sweet potato and *Dahlia*, stem tuber of potato, rhizome of ginger, bulb of onion, vegetative propagation in *Bryophyllum*, grafting; parts of flower; types of pollination, germination of pollen grains on stigma; seeds of maple; fruits of coconut *Xanthium*; germination of seed.

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.
- ✧ The teacher should discuss the process of reproduction and its various modes in plants.
- ✧ The teacher should discuss the process of budding in yeast by demonstrating Activity 1.
- ✧ The teacher should discuss the process of spore formation in *Rhizopus* by demonstrating Activity 2.
- ✧ Now, teacher should discuss vegetative reproduction and its natural as well as artificial methods.
- ✧ The teacher should discuss vegetative propagation in potato by demonstrating Activity 3.
- ✧ Now, teacher should describe sexual reproduction in plants.

- ❖ The teacher should also discuss the mechanism of sexual reproduction in plants by describing pollination and its agents.
- ❖ The teacher should discuss fertilisation and formation of fruit and seed.
- ❖ Now, teacher should discuss the dispersal of seeds, agents of dispersal, its need and advantages.
- ❖ The teacher should describe the process of germination of seeds.
- ❖ The teacher should ask the students to solve 'Check Points' 1 and 2.
- ❖ The 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

- ❖ The teacher should make arrangement to demonstrate the spores of *Rhizopus* under microscope.
- ❖ Students should be encouraged to observe the natural and artificial methods of vegetative propagation around them.
- ❖ Students should be encouraged to collect pictures of various flowers, their agents of pollination, mode of fruit and seed dispersal and pictures of seeds.

EXPECTED LEARNING OUTCOMES

The students know about

- ❖ reproduction and its modes in plants.
- ❖ different forms of asexual reproduction.
- ❖ natural and artificial methods of vegetative propagation.
- ❖ pollination, its types and agents.
- ❖ formation of fruit and seed, their dispersal and germination of seed.

EVALUATIVE QUESTIONS

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

1. Define reproduction.
2. Explain the modes of reproduction in plants.
3. Name the male and female parts of a flower.
4. Mention the mechanism of sexual reproduction.
5. Explain the agents of pollination.
6. What is meant by fertilisation?