

9

Sexual Reproduction

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ✧ reproduction and modes of reproduction
- ✧ asexual and sexual reproduction
- ✧ human reproduction
- ✧ viviparous and oviparous animals
- ✧ life cycles of frog and butterfly
- ✧ determination of sex in human beings

TEACHING AIDS

Pictures/charts/models/animations on binary fission in *Amoeba*; budding in *Hydra*; process of fertilisation; human reproductive system; development of human embryo; viviparous and oviparous animals; life cycle of frog and butterfly.

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, the teacher should define reproduction and discuss the modes of reproduction.
- ✧ Students should be explained about asexual reproduction in *Amoeba* and *Hydra*.
- ✧ The teacher should explain sexual reproduction in animals as well as unisexual and bisexual animals.
- ✧ Now, the teacher should discuss human reproduction by explaining male and female reproductive systems, process of fertilisation and development of embryo.
- ✧ The teacher should define viviparous and oviparous animals.
- ✧ Now, the teacher should describe life cycle of frog and butterfly, and define metamorphosis.
- ✧ The teacher should explain the method of determination of sex in human beings.
- ✧ 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 can assign Activity 1 as home assignment and discuss the result in the class.
- ✧ Students should be encouraged to study the life cycle of butterfly in nature and other animals such as lizard, cockroach, hen, etc. At the same time, they should be instructed not to harm animals while observing them.
- ✧ The students should be asked to write one example each of oviparous and viviparous animals.

EXPECTED LEARNING OUTCOMES

The students know about

- ✧ reproduction and modes of reproduction.
- ✧ asexual reproduction.
- ✧ process of sexual reproduction.
- ✧ unisexual and bisexual animals.
- ✧ human reproduction including male and female reproductive systems and the development of foetus.
- ✧ viviparous and oviparous animals.
- ✧ life cycle of some animals such as frog and butterfly.
- ✧ determination of sex in human beings.

EVALUATIVE QUESTIONS

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

1. What is meant by reproduction?
2. Write the differences between external and internal fertilisation.
3. Write two examples of viviparous animals.
4. Describe the life cycle of a frog.
5. What are caterpillars?
6. Define budding with example.
7. Mention the differences between asexual and sexual reproduction.