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Microorganisms

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ✧ microorganisms, their characteristics and habitats
- ✧ major groups of microorganisms, i.e., bacteria, fungi, algae, protozoa and viruses
- ✧ economic importance of microorganisms
- ✧ food preservation and its related methods
- ✧ nitrogen fixation and nitrogen cycle

TEACHING AIDS

Pictures/charts/models/animations on bacteria of different shapes, root nodules of legumes; some common fungi, algae, protozoans and viruses; various types of preserved food items; nitrogen cycle.

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 define microorganisms, their discovery, general characteristics and habitats.
- ✧ Now, teacher should explain major groups of microorganisms and demonstrate Activity 1.
- ✧ The teacher should discuss economic importance of microorganisms and demonstrate Activities 2, 3 and 4.
- ✧ The teacher should define food preservation, its need and benefits and its various methods.
- ✧ The teacher should define nitrogen fixation, its methods and nitrogen cycle.
- ✧ The teacher will ask the students to solve Check Points 1, 2, 3, 4 and 5.
- ✧ 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 encourage students to collect the pictures of some microbial diseases in plants.
- ✧ Teacher should also discuss the drawbacks of consuming canned and preserved food.

EXPECTED LEARNING OUTCOMES

The students know about

- ✧ microorganisms, their characteristics and habitats.
- ✧ major groups of microorganisms.
- ✧ economic importance of microorganisms.
- ✧ methods and benefits of preserving the food.
- ✧ nitrogen fixation, its methods and nitrogen cycle.

EVALUATIVE QUESTIONS

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

1. Define microorganisms and write their characteristics.
2. Where are bacteria found?
3. Name one unicellular and one multicellular organism.
4. Why are viruses regarded as connecting link between living and nonliving things?
5. Name two bacterial diseases.
6. Mention different methods of food preservation.