

Transportation in Animals and Plants

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ✧ transport of materials
- ✧ mode of transport
- ✧ circulatory system
- ✧ excretion in animals
- ✧ transport of substances in plants
- ✧ transpiration and its importance

TEACHING AIDS

Pictures/charts/models/animations on blood corpuscles in human blood, blood vessels, valves inside a vein, human heart, circulation of blood in human body; human excretory system, V.S. of skin; path of water and minerals in plants, structure of stomata.

LESSON PLAN

- ✧ The teacher should start the chapter with ‘Gear Up’ and discuss the question given in the section.
- ✧ Now, the teacher should discuss the transport of substances like nutrients, water and oxygen in living organisms from single-celled organisms to complex multicellular animals and plants.
- ✧ The teacher should discuss the modes of transport, i.e., circulatory system in animals and vascular system in plants.
- ✧ Now, the teacher should explain circulatory system, its parts, functions and working.
- ✧ The teacher should make students perform Activities 1 and 2 for a clear understanding of circulatory system.
- ✧ Now, the teacher should discuss excretion in animals and types of body wastes.
- ✧ Then, the teacher should explain excretory system and its parts in human beings.
- ✧ The teacher should also explain the process of dialysis by demonstrating Activity 6.

- ✧ The teacher should also discuss other organs of excretion in human body.
- ✧ Now, teacher should discuss transport of water, minerals and food in plants.
- ✧ Teacher should explain the process of transpiration in plants by demonstrating Activities 7 and 8 and the parts of plants taking part in transpiration, factors affecting it and its importance.
- ✧ Students should be asked to solve 'Check Points' 1, 2 and 3.
- ✧ At last, the teacher will sum up the lesson by going through the points given under the head 'Wrap Up Now'.
- ✧ The teacher will help the students to solve all the questions given in exercises under the head 'Practice Time' and will also discuss the topics given under the head 'Formative Tasks'.

BOOST UP

- ✧ The teacher should call each student and ask them to tell the main parts of the circulatory system and their functions.
- ✧ The teacher should give Activities 3 and 4 as home assignment and ask students to discuss the results in the class.
- ✧ The teacher should demonstrate Activity 5 to aid the knowledge of students in the area and application of urine examination.
- ✧ The teacher should encourage the students to observe the effects of transpiration in nature.

EXPECTED LEARNING OUTCOMES

The students know about

- ✧ transport of materials and modes of transport in living organisms.
- ✧ circulatory system and excretory system in human beings.
- ✧ transport of substances in plants.
- ✧ transpiration and its importance

EVALUATIVE QUESTIONS

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

1. What is meant by circulatory system?
2. Mention few functions of blood.
3. What is the difference between RBCs and WBCs?
4. Where is heart located?
5. Where are kidneys present?
6. Briefly explain the process of dialysis.
7. Write two functions of vascular system in plants.