

An Enquiry on Plants around Us

CBSE, EVS, Class - IV, Chapter - 19

What if roots are absent !

M. Ramakrishnan

Plants and plant parts are interesting topics for children, it is also enjoyable to have discussions on the topic because there are lots of exciting observations that can be shared. Three possible activities that can be done with children of fourth standard are discussed in this article. These activities can be linked to the nineteenth lesson in fourth standard EVS text book 'Abdul in the garden'. These activities will help children to observe, learn and come closer to the nature.

Objective of these activities are:

- Identify various kinds of plants and plant parts
- Enquire and understand the importance of roots
- Understand the importance of plants and develop sensitivity towards them.

Activity 1- Field observation

Children can be taken to the nearby field or inside school campus to observe plants. Students can be asked to form small groups, these groups will have to note down their observations. They can write or draw what they see. Some guided questions for observation and an observation checklist table can be given beforehand. Major characteristics such as height of the plant (tall, medium, and short), nature of the stem, branching of the stem are to be looked. The table below can be used for the activity.

Height of the plant			
Plant name	Short	Medium	Tall

Nature of the stem				
Plant name	Green	Tender	Thick	Hard

Branching of the plant			
Plant name	No branching	Base branching	Upper branching

After the data collection, the class can sit together and analyze the data which has been collected. Based on the data, plants can be categorized into herbs, shrubs and trees. Herbs are short, green, tender stemmed with base branching. Shrubs are medium sized plants with tender or thick stem, they commonly possess base branching. Trees are long, hard stemmed plants with upper branching.

Provide students a chance to pluck any weed plant (grass or any other small plants), and observe different parts of the plant. Ask them to replant the plucked plant in a pot or coconut shell or a plastic bottle and observe its growth for 3-4 days. Some plants can be watered and some can be left unattended. Students have to note down

their observations.

Activity 2- Seed germination-

Soak few different seeds one night before the activity. Tie a piece of cotton on the mouth of a glass tumbler and place different seeds on it. The cotton must remain wet throughout. Observe the seeds from the next day onwards and note down what is seen. Use a variety of seeds like green peas, maize, Bengal gram, green gram, rice to observe the differential growth of different seeds. use the table below for observation.

Observation sheet.

Activity 3- Experiment to demonstrate ascent of

Seed	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7



sap through root-

Materials required:

- Glass tumbler
- Water
- Ink (preferably red or black)
- Small balsam plant.

Procedure: Keep the balsam plant inside a glass of water mixed with ink. Ask students to share their observations the next day. Ink will be seen moving up inside the stem. Carry out a discussion on how the water might have moved up the stem.

Some questions for discussion.

What happens if roots are absent in plants?

Do you think roots of each plant will have different length? Why do you think that way?

Teacher can organize the learnings through group presentation and discussion.

Students can work together to develop a School garden. Plants can be grown in plastic bottles, pots, in the school ground, this will take care of space requirement. Teachers could also look for a variety of plants that can be grown- flowering plants, vegetables, climbers, crawlers etc. This will help the school to develop a garden and also give students a wonderful learning experience.



M. Ramakrishnan, P.S.T, G.P.S, Vadamangalam