

Vision Empower & XRCVC
Teacher Instruction KIT
Plants of Backyard

Syllabus: Karnataka State Board

Subject: EVS

Grade: 2

Textbook Name: ENVIRONMENTAL STUDIES - Text cum Workbook (Revised) - Second Standard

Chapter Number & Name: 3. Plants of backyard

1. OVERVIEW

1.1 OBJECTIVE AND PREREQUISITES

Objective

- Recognize the local plants and trees
- Names of important parts of a plant
- Compare the height of plants, shape of leaves, flowers and colours

Prerequisite Concept

- Awareness regarding varieties of plants and trees around us.
EVS-Grade1-Chapter 2- Plants around us

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*Note: The fields marked with * are mandatory*

2. LEARN

2.1 KEY POINTS

The various parts of a plant are roots, stem, leaves, flowers and fruits. For a tree, the different parts are roots, trunk, branches, leaves, flowers and fruits. Plants differ from each other in terms of the size, shape, colour of leaves, stems and flowers. We can identify the types of plants by their stems. The stems differ in hardness and colour. They may be soft, hard, woody, green and brown. There are two types of plants called climbers and creepers. Creepers need support to grow. Creepers grow on land. Climbers climb up with some support on to trees, houses, roofs and similar structures. Leaves come in a variety of sizes, shapes and colours.

2.2 LEARN MORE - NA

3. ENGAGE

3.1 INTEREST GENERATION ACTIVITY

INTRODUCTION TO THE TOPIC

Activity 1: A walk in the school garden

Materials required: NA

Prerequisites: NA

Activity flow:

Arrange for a visit to the garden for the children to explore nature. Make them aware of the varieties of plants and trees in the garden by feeling the leaves and flowers. Remind them to be gentle with the plants. Compare the size and shape of the trunks of different trees.

After coming back from the garden, discuss how they felt like being in the garden and encourage them to share their observations. Inform them that the stems and trunk of different plants and trees are also different from each other by their shape and size.

Activity 2: Explore a plant *

Materials required: One or two varieties of small potted plant

Prerequisites: NA

Activity flow:

Keep the potted plants on a table. Allow children to come and explore the plants. Instruct them to be careful and gentle with the plants. After observing the plants, ask them to share their observations.

3.2 CONCEPT GENERATION ACTIVITY

COMMON PLANTS AND TREES

Activity 3: More about plants *

Materials Required: A corn with the outer cover

Prerequisites: NA

Activity Flow:

1. Begin by asking if they can name a tall grass that can be eaten. If so, then ask them to describe what it is and what it tastes like. (sugarcane - it tastes sweet)
2. Name a small plant which is worshipped by many people. (tulsi)
3. Where do pumpkins grow? (in a plant which grows along the ground)
4. What do we call a vegetable which is soft and round and we use it in most of our curries and it can be eaten raw? Scientifically, it is a fruit. (tomato)
5. This fruit is very hard from outside but soft from inside. We make chutney out of it. (coconut)
6. Do you know what corn is? Can you describe it? (individual answers - they are small sweet kernels) Corn is also called maize.

Hand over the corn to children and let them feel the outer cover and the inside part. Then go around and let children touch and feel the corn kernels. Have a discussion about what they felt.

Tell children that these are some of the plants and trees we find commonly around us.

PARTS OF A PLANT

Activity 4: Different parts of a plant *

Materials Required: A real small plant with roots and a small potted plant with fruits like chilli or tomato

Tactile diagram of a plant with the following parts written in braille – roots, stem, leaves, flower, fruit

Prerequisites: NA

Activity Flow:

Begin the discussion by asking what are the different parts we have in our body. Do plants and trees also have different parts like us? If so, what are those?

Pass around the plant and allow children to touch and feel the plant. Ask them if they can identify the different parts. Fill in if they have missed out any name and summarise. Inform that the roots grow under the ground.

Now introduce the tactile diagram and show them how to match the real object with the diagram. Help them read out the different parts of the plant labelled in the diagram.

Discuss the common parts - roots, leaves, flowers, fruits

Discuss the parts which are not common between a plant and tree - the trunk and branches in trees and the stem in a plant.

Inform students that the soft stem of a plant grows into a thick trunk and spreads into branches. Tell them that any small plant which has soft green stems and are used for flavouring, food, medicine or perfume are called herbs. Examples are basil/tulsi, mint/pudina, coriander/dhania etc.

CREEPERS AND CLIMBERS

Activity 5: Identifying creepers and climbers *

Materials Required: Any item made of wool like a cap, sweater or muffler

Prerequisites: NA

Activity Flow:

Have you heard of a bitter gourd, snake gourd or a grape vine? What are those? Are they herbs or are they trees? (individual answers)

Introduce the terms: creeper and climber - Plants that grow along the ground are called creepers. Bitter gourd and snake gourd are creepers. Grape vine is a climber. Climbers grow up. They need support of a wall, pillar or a stick to climb up.

Do you know how big and heavy a pumpkin is?

It is big like a football and heavy like a big bottle filled with water. Demonstrate the size by holding their hands and showing how big it can be.

Can a pumpkin plant grow upwards like a climber?

The pumpkin is a big and heavy vegetable. The plant will not be able to support and hold it up. The vegetable will fall off to the ground.

Thus, we understand that the fruits and vegetables of creeper and climber plants are different. The fruits and vegetables of a creeper plant is heavier than the climber plant. A pumpkin or watermelon is much heavier than a cucumber or bitter gourd or grapes.

If there are climbers or creepers growing around the school, take the children for a walk and help them understand the difference between the plants by exploring the area.

PLANTS ARE DIFFERENT FROM EACH OTHER

Activity 6: Understand the difference between plants *

Materials Required: Different kinds of leaves and flowers (rose, jasmine, lily, marigold, lotus, bougainvillea), A4 size paper for each child and glue, a bunch of dry leaves and flowers

Prerequisites: NA

Activity Flow:

We have learnt about different kinds of plants and trees in the last few classes. Are they all the same? How are they different? (They are different by their size, feel/texture, leaves, stem, flowers etc.)

Allow children to touch and feel different kinds of leaves. Tell them to observe the size, shape, and the texture. Help them understand the veins on the leaves.

Similarly, allow them to touch and feel the flowers and ask them to note how they are different from each other in terms of smell, size, colour, shape and number of petals. Some of the common flower names are rose, jasmine, lily, marigold, lotus and bougainvillea. Describe how each of them differ from each other.

For example:

Rose – It comes in many colours like red, yellow, orange, white and pink. Roses have 20-40 petals and they have a beautiful fragrance.

Jasmine – It comes in white, pink and yellow. They have 4-9 petals. They have a very strong and beautiful fragrance. The garland is very commonly used to decorate hair in South India.

Lily – Lilies commonly grow in white, yellow, pink, red and orange. They have 6 petals and also have a beautiful fragrance.

Marigold – This flower has many petals that are layered on top of each other and becomes smaller near the centre of the flower. They are yellow to orange-red colour.

Lotus – This flower has 18 petals. They mainly grow in 6 colours including white, pink, yellow, red, blue, and purple. It grows in freshwater lakes and shallow ponds.

Distribute a few leaves and flowers (preferably dry) to the children along with the glue. Ask them to paste the leaves on the paper.

3.3 LET'S DISCUSS: RELATE TO DAILY LIFE

Discuss few interesting facts about plants with students:

1. 85% of plant life is found in the ocean.
2. Bananas contain a natural chemical which can make people feel happy.
3. The Amazon rainforest produces half the world's oxygen supply.
4. Cricket bats are made of a tree called Willow and baseball bats are made out of the wood of the Hickory tree.
5. Apple is 25% air, that is why it floats on water.
6. Apple, potatoes and onions have the same taste, to test this eat them with your nose closed.
7. The tears during cutting an onion are caused by sulfuric acid present in them.
8. Strawberry is the only fruit that bears its seeds on the outside. The average strawberry has 200 seeds.
9. Around 2000 different types of plants are used by humans to make food.
10. Bamboo is the fastest-growing woody plant in the world;

4. EXERCISES & REINFORCEMENT

4.1 REINFORCEMENT

Activity 8: Make a list of plants and trees (writing, HW suggestion) *

Materials Required: Writing materials

Prerequisites: Children should be comfortable writing in braille

Activity Flow:

Ask students to name as many plants and trees they know. Discuss which of these are creepers and climbers. After having a discussion, ask them to make a list of 5 plants, 5 trees and 5 creepers and climbers on their writing sheet. Help them with the spellings if required.

Here is a list of a few activities that can be conducted:

- Visiting a nearby park with flowers or a botanical garden would help children experience varieties of plants and trees.
- Sing along the following rhyme:

*Plants, trees and creepers,
Are the different type of plants.
Stem, leaf and flower
Are different parts of the plants.*

*Mango, Neem and Coconut trees,
Have creepers spread around their trunks.
The rain and wind bow down the trees
But cannot dent their majesty;*

*Tall and short, thick and thin
Many trunks are there around.
With big and small green leaves,
Spread around all of them.*

*Jasmine, Champa, Sampige
Spread their fragrance here and there,
Red and orange, pink and white
Fill us all with joy so bright*

- (HW suggestion) Ask students to prepare a speech and say a few lines about any of their favourite plant and give reasons to tell why it is their favourite.

Teaching Tips

NA

References

[1] Interesting facts about plants

<https://parenting.firstcry.com/articles/50-interesting-plant-facts-for-kids/>

4.2 IMPORTANT GUIDELINES

Exercise Reading

It is very important that the children practice their learnings as well as their reading. Hence have the children read out the newly learned concepts from their textbooks or other available resources.

Perform Textbook Activity

It is good practice to have the children perform the textbook activities. Your textbook activities might not be accessible hence go through this resource to learn how to make textbook content accessible.

Provide Homework

To evaluate their understanding and to help the student revise and implement the new learnt concept ensure to provide them with homework. Students should perform one or two of the questions mentioned above or from the textbook exercises with the teacher in class and the remaining may be given for homework. Also, ensure that the student knows their special skills linked to independently using their accessible books as it will be critical to doing homework independently.

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