BAL BHARATI PUBLIC SCHOOL, PITAMPURA, DELHI – 110034

SUBJECT: SCIENCE

CLASS VI: Getting to know Plants

Week: 8th December to 11thDecember, 2020

No of blocks: 2 or 3

TOPIC: Herbs, shrubs and trees

GUIDELINES FOR STUDENTS:

Dear Students

- Refer to the following content of the chapter.
- These notes will help you to understand the concept of the lesson.
- Do the assignment questions in the Science notebook.
- Suitable Video links have been provided for better understanding of the concept.
- Do read NCERT too for better understanding of these concepts.

SUBTOPICS:

- Herbs, shrubs and trees
- Stem

INSTRUCTIONAL AIDS /RESOURCES:

- NCERT LINK FOR THE CHAPTER:

  https://ncert.nic.in/ncerts/l/fesc107.pdf

- YouTube Links

LEARNING OUTCOMES:

Learners will be able to:-

- Identify the herbs, shrubs and trees
- Compare herbs, shrubs and trees
- Discuss the function of stem

HERBS, SHRUBS AND TREES

https://youtu.be/shod6kZDv1U

Activity 1

Look closely at the stem and branches of:

1. Plants much smaller than you.

2. Plants that are about your size

3. Plants which are much taller than you.

Feel their stems and try to bend them gently to see if they are tender or hard. Take care that the stem does not break. See how thick their stems are! Notice from where the branches grow in some plants — close to the ground or higher up on the stem.

Group all the plants observed in the table given below. Based on these characters most plants can be classified into three categories: herbs, shrubs and trees.

		STEM					
S.No.	Column (Height)	Green	Tender	Thick	Hard	Category of plant	Paste or draw plant parts

Herbs:

- Herbs are small plants which have a soft green stem.
- Their height is usually less than 1 meter.
- Examples: Wheat, paddy, cabbage, grass etc

(Few more Examples):

Shrubs:

- These are bushy and medium- sized plants
- They are somewhat bigger than herbs and are between 1-3 metres in height.
- Their branches start from just above the ground.
- Examples: Lemon, Henna, Rose, Bougainvillea, etc.

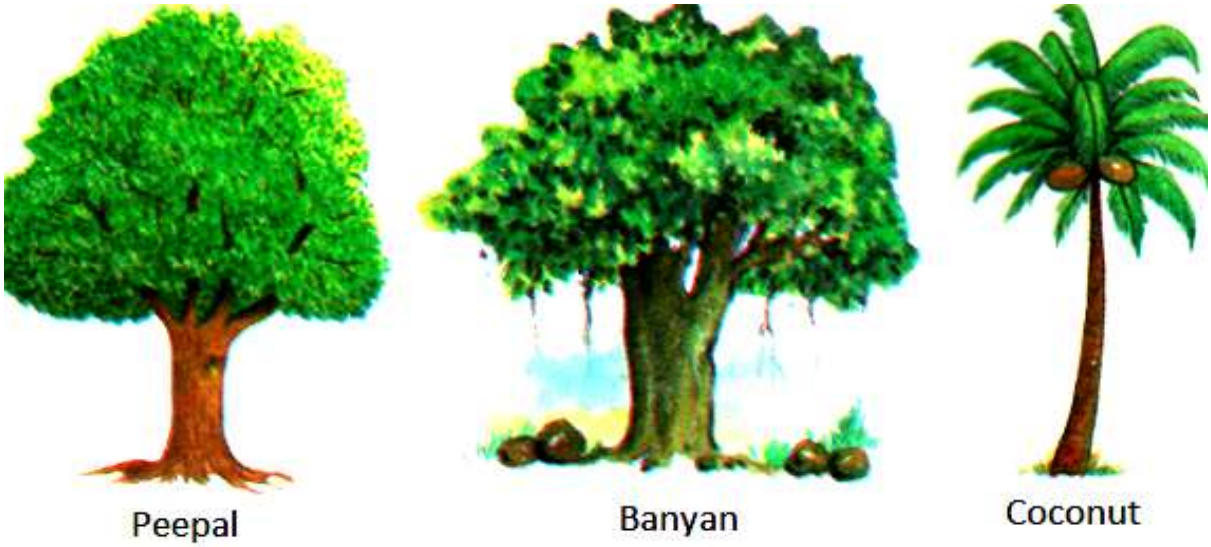
(Few more examples)

Trees:

- These are tall and large plants with hard and woody stem. They are usually more than 3 metres in height.
- A single main-stem arises from the ground.
- The main-stem is called trunk.
- The trunk gives out many branches at certain height.

- The branches bear leaves, flowers and fruits.
- Examples: Mango, Banyan, Acacia, Coconut, Peepal, Willow, Oak, etc.

(Few more Examples)



Creepers

Observe the given plants

Plants with weak stems that cannot stand upright and spread on the ground are called creepers

Climbers:

Plants that take support on neighbouring structures and climb up are called climbers

Stem:

Activity 2

https://youtu.be/KIug9Foou3s

We would require a glass, water, red/ blue ink and a soft stem. Pour water to fill one-third of the glass. Add a few drops of red/blue ink to the water. Cut the base of the stem and put it in the glass. Observe the set-up. Does the colour appear in the stem?

You will find that the colour rises in the stem. If this is kept for a longer period, the colour appears in the veins of leaves also. How do you think the colour reached there? From this activity, we see that the stem helps in upward movement of water. The water and minerals go to leaves and other plant parts attached to the stem. Just like the red ink, minerals dissolved in water also move up in the stem, along with the water.

Experiment figure 1:- Showing that the stem conducts water and minerals.

We can modify this activity with herbs having white flowers. Put one branch with a white flower in the water in glass A and added a few drops of red ink to the water. Split it half way along its length and put the two ends in the water in glasses B and C. Put a few drops of red ink in glass B and blue ink in glass C. Guess what would happen to the flower in glass A and the flower put jointly in B and C. When you had cut across the stem in the activity 2, did you notice a number of spots of red colour arranged in a ring inside the stem? Try this activity yourself!

Experiment figure 2:- Showing that the stem conducts water and minerals

Let's do an assignment:

Q1. Classify neem in one of the given categories:

a) Herb b) shrub c) tree d) none of the above

Q2. Identify the herb from the given figures:

a)

b)

Q3. Differentiate between creepers and climbers. (Any two points)

Q4. How stem is like a two-way street?

Q5. State the function/s of stem in a plant.

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