

EXPERIENTIAL LEARNING

CLASS: VII

SUBJECT: SCIENCE

CHAPTER: 1 – NUTRITION IN PLANTS

SUB – TOPIC: HOW NUTRIENTS ARE REPLENISHED IN THE SOIL

NAME OF THE ACTIVITY: MAKING A TERRARIUM

MATERIALS REQUIRED: Wide mouthed bottle with lid, soil, pebbles, succulents and cacti.

METHODOLOGY OF ACTIVITY:

- Students are divided into 4 groups and asked to bring the materials required.
- Teacher demonstrates the making of terrarium as follows.
 - Clean wide mouthed bottle is taken.
 - A layer of pebbles (to collect water) is laid.
 - On top of it, a thick layer of moist garden soil is spread.
 - In one corner a small container with water is kept.
 - Then 2 or 3 types of succulent and cacti with short roots are placed in the soil.
 - A piece of bark of a tree with ants / mites is also kept.
 - Bottle is closed and is kept under the sun.
 - This is self – maintaining terrarium.

OBSERVATION:

- Students will be asked to observe this terrarium and find that the components are interdependent.
 - Plants do photosynthesis using water and carbon- di-oxide and give out oxygen.
 - Ants / mites take in oxygen and give out carbon- di-oxide.
 - Soil contains decomposers which will help in recycling of minerals.
1. How do ants breathe inside a closed bottle?
 2. What is the role of water in a small container?
 3. From where do the plants get carbon dioxide for photosynthesis?

CURIOSITY QUESTIONS:

Forest is a place where many plants grow well. However its soil is not enriched by adding manures or fertilizers by human beings. Forest is a self sustaining ecosystem. How is it possible?

ANSWER GUIDE:

- List the different modes of nutrition in plants.
- What causes the decay of dead plants and animals?
- How do saprotrophs help plants?