

01 The theme of World Soil day 2020, according to the Food and Agriculture Organization (FAO) campaign, is “Keep soil alive, protect soil biodiversity”.

- (a) What is soil biodiversity ?
- (b) Why is soil biodiversity important ?

Your solution here:

02 Terms related to agricultural practices are given below. Rearrange them in the correct sequence.

Harvesting, sowing, manuring, tilling and ploughing, irrigation, weeding.

Define the terms in the given box.

Your solution here:

03 As a part of eco-club activity, students were asked to raise a kitchen garden in the school premises. They were provided with some materials given in the box.

Khurpi, water-can, spade, shovel

List the other materials you would require. How will you plan the garden ? Write the steps.

Your solution here:

04

Rajan felt worried about the condition of water scarcity in his village during the cropping season. He went to Ministry of Agriculture and Farmers Welfare of his area to get the solution of this problem. There he came to know about effective method of irrigation and drought resistant varieties of crop.

He requested the head of department of the ministry to arrange some workshop on this topic to educate the farmers in these methods.

- (a) Name modern methods of irrigation that help us to use water economically.
- (b) What is drought resistant varieties of crop ?
- (c) Can you name some crops that require less amount of water ?
- (d) What value of Raj an is shown here ?

Your solution here:

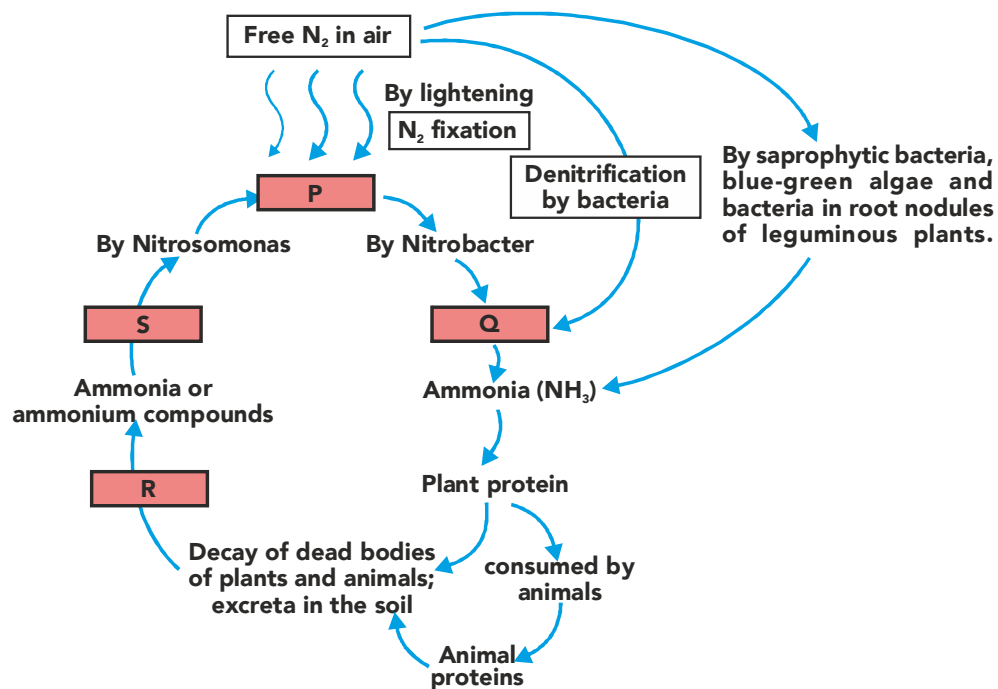
05

Despite being one of the growing economies, our country still has a large section of population going hungry and malnourished. Do you think an efficient crop production mechanism is the only solution to this? Discuss in the class what else needs to be done to root out hunger and malnutrition from our country.

Your solution here:

06

Try to understand the regular circulation of nitrogen through air, soil, plants and animals given in the figure and answer the following.



- i) Name the methods by which gaseous nitrogen of air may be fixed into soil.
 - a) Physico chemical – discharge of electricity in atmosphere (lightening, thunder storm etc.)
 - b) Biochemical –
 - 1) Activity of certain saprophytic bacteria. (Eg: Clostridium, azoto bacter aerobic).
 - 2) Activity of symbiotic. Eg: Bacteria (Rhizobium).
 - 3) Activity of blue-green algae. Eg: Nocstoc anabaena.
- ii) Identify products 'P' and 'Q'.
- iii) What is nitrification ?
- iv) State the significance of the nutrient cycle shown in the given figure.

Your solution here: