Veda International School

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(ICSE Board)

Chapter-5

GRADE:4 **Topic: Adaptations In Plants** **Month:August**

Subject: Science

Q.I New words:

1. **Adaptation**
2. **Habitat**
3. **Terrestrial**
4. **Aquatic**
5. **Floating plants**
6. **Insectivores**
7. **Venus flytrap**
8. **Pitcher plant**
9. **Sundew plant**
10. **Mangroves**

Inbuilt Questions Textbook Exercises

Activity Page No. 43

Match the following pictures of plants with their habitats.

1. (c) 2. (d) 3. (a) 4. (b)

Exercise For Revision Page No. 45-46

A. Fill in the blanks.

1. habitat 2. Autumn 3. Swamps 4. Mangroves

B. Tick() the correct answers.

1. (d) 2. (a) 3. (c) 4. (b) 5. (c)

C. Circle the odd ones.

1. lotus 2. Neem

Exercise For Revision Page No. 48

A. Tick() the correct answers.
1. (b) 2. (c) 3. (c) 4. (c)

B. Match the following.
1. (c) 2. (a) 3.(b)

Exercise
II. Short Answer Questions:

Q1: What is meant by adaptations ?
Ans: The features that help a plant or an animal to survive in their natural surroundings are called adaptations.
Q2: Give two differences between terrestrial and aquatic plants?
Ans: Root Systems: Terrestrial plants typically have well-developed root systems to anchor them in soil and absorb water, while many aquatic plants may have reduced or floating roots.

Gas Exchange: Terrestrial plants exchange gases like oxygen and carbon dioxide with the atmosphere, while aquatic plants may have adaptations like stomata on the upper surface of leaves or specialized structures for gas exchange underwater.

Q3. Why are pine trees conical in shape?
Ans: Pine trees are conical in shape to reduce the accumulation of snow. The conical shape allows snow to slide off the branches.

Q4. Why do some leaves have waxy coating?
Ans: The waxy coating on leaves prevents from decaying in water and also it makes them waterproof.

Q5. Why do plants that grow in marshy regions have breathing roots?
Ans: Plants in marshy regions have breathing roots because marshy regions have sticky and clayey soil. Air cannot reach the roots of these plants. Thus ,the roots grow out of the soil. Such roots are called breathing roots.

III. Long Answer Questions:
Q1. Describe the adaptations in plants that grow in plain and marshy regions.
Ans: Adaptations in plants that grow in plain regions:

(1) Trees have many branches that spread around.

(ii) Branches of trees have many flat and thin leaves. These leaves help in releasing excess water from the plants, keeping them cool.

(iii) Most of the trees can survive in very hot climates. They shed their leaves in autumn. New leaves grow again in spring.

Adaptation in plants that grow in marshy regions.

(i) Air cannot reach the roots of these plants. Thus, the roots grow out of the soil. Such roots are called breathing roots.

(ii) Roots have tiny openings at their tips.

Q2: How do plants adapt themselves in – a) a desert b) a mountain regions?

Ans. Plants that adapt themselves in a desert have following adaptations.

(i) They develop their leaves into spines that helps them in reducing loss of water through transpiration.

(ii) Their stems are green and have chlorophyll. Thus, they prepare their our food.

(iii) Their stems are fleshy to store food and water.

(iv) Their roots go deep under the ground to absorb water.

Plants that adapt themselves in a mountain region have following adaptations -

(i) Plants tall straight thin and conical in shape. Their shape helps snow slide off easily.

(ii) Their leaves are thin and needle like.

(iii) Their leaves have a few stomata to prevent loss of water.

(iv) Their leaves have a waxy coating to reduce loss of water and prevent damage from snow.

Q3: How many types of aquatic plants are there? Compare any two on the basis of their stems, roots and leaves.

Ans: Aquatic plants are of three types

(i) Floating plants

(ii) Fixed aquatic plants

(iii) Underwater plants

Differences between floating plants and fixed aquatic plants on the basis of their stems, roots and leaves are-

Floating plants

(i) Stems

Stems are light and spongy.

(ii) Roots

Roots are not well developed. They are not fixed in the soil.

(iii) Leaves

Leaves have a thin waxy coating.

Fixed aquatic plants

Stems are hollow and light.

Roots are fixed to the bed of the pond.

Leaves are flat and broad, have stomata on the upper surface of the leaves and also have a waxy coating.

Teacher Signature: Mrs. Rupa P **Principal Signature**