

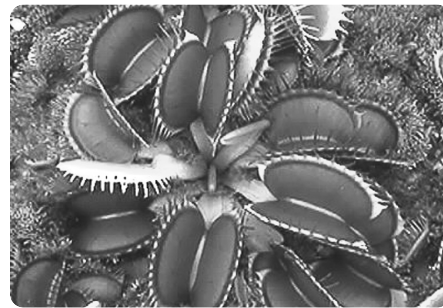
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Nutrition in Plants

Picture Study

Skills Covered: • Observation • Critical and logical thinking
• Decision-making

Look at the pictures of plants given below. Write their names in the space provided. Answer the questions that follow.



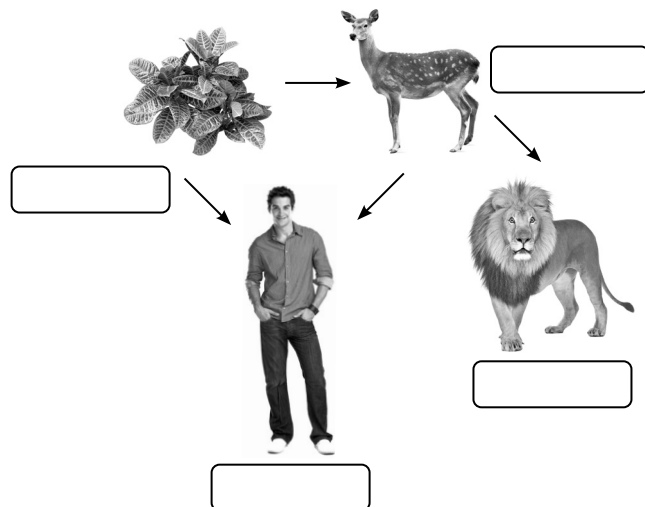
1. Name the type of plants shown in the pictures.
2. Define this type of plant. What is its other name?
3. Are these plants autotrophs or heterotrophs or both?
Autotrophs Heterotrophs
4. What do these plants eat?

Apply Your Learning

Skills Covered: • Observation • Critical and logical thinking • Experiential learning
• Social and emotional skills • In-depth learning

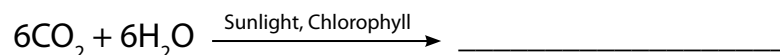
A. Look at the picture that depicts the categories of animals based on their eating habits. Write the category of the animals in the boxes given in the picture. Answer the questions that follow.

1. Write the names of food items that you ate in this week. Classify them into food obtained from plants and food obtained from animals.
2. What are heterotrophs?
3. Give two examples of each of the following.
 - (a) Animals that eat only plants
 - (b) Animals that eat the flesh of other animals
 - (c) Animals that eat both plants and animals



B. Observe the image given alongside. Answer the questions related to the image.

1. Write the name of the process shown in the image.
2. Name the raw materials required for this process.
3. What is the name of the green pigment that helps in this process?
4. Which part of a plant takes in water and minerals from the soil?
5. Complete the equation.



6. How does photosynthesis maintain a balance between oxygen and carbon dioxide in the atmosphere?



Life Skills

Skills Covered: • Observation • Critical and logical thinking • Investigation
• Decision-making • Social and emotional skills

Plants are a boon to mankind. Life would not be possible without plants. They release oxygen gas which is required for all living organisms to breathe. They also provide us food and other materials for use. Plants also help to reduce soil erosion. We should not cut trees and reduce forest cover. They cause loss of natural habitat. Forests must be protected at all times.

1. By which process do plants release oxygen?
2. Name three things that plants give us.
3. How do plants help to prevent soil erosion?
4. Why should we protect forests?



Let's Explore

Skills Covered: • Critical and logical thinking • Investigation
• Curiosity

Search the Internet about photosynthesis to know how this process takes place to prepare food for plants. Read about the conditions required for this process. Also read about the plants in which photosynthesis does not take place.

1. What is photosynthesis?
2. What are the conditions required for photosynthesis?
3. Does photosynthesis take place only in green plants? Yes No
4. Name one plant in which photosynthesis does not take place.

Link and Learn (Geography)

Skills Covered: • Integrated learning • Critical and logical thinking
• In-depth learning

Plants are found in nature. They are mainly found in forest regions. The vegetation in India includes grass, shrubs and trees. There are different types of natural vegetation in India that consists of a variety of plants and trees. The vegetation of a region is influenced by the climate of that place.

1. What do you mean by natural vegetation?
2. What are the major types of natural vegetation in India?
3. Where is mangrove forest found in India?
4. Name four trees that are found in the mountain vegetation of India.

Higher Order Thinking Skills

Skills Covered: • Critical and logical thinking
• Analytical reasoning

Give reasons for the following statements.

1. Plants are green in colour.
2. Insectivorous plants eat insects even though they make their own food.
3. The by-product of photosynthesis is essential for the survival of all living organisms.
4. The leaves of cactus are reduced to spines.
5. Photosynthesis does not take place in all parts of a variegated leaf of a plant.
6. Life will not be possible on earth without photosynthesis.

Multiple Choice Questions

Skills Covered: • Critical and logical thinking
• Decision-making • Reasoning

Choose the correct answer.

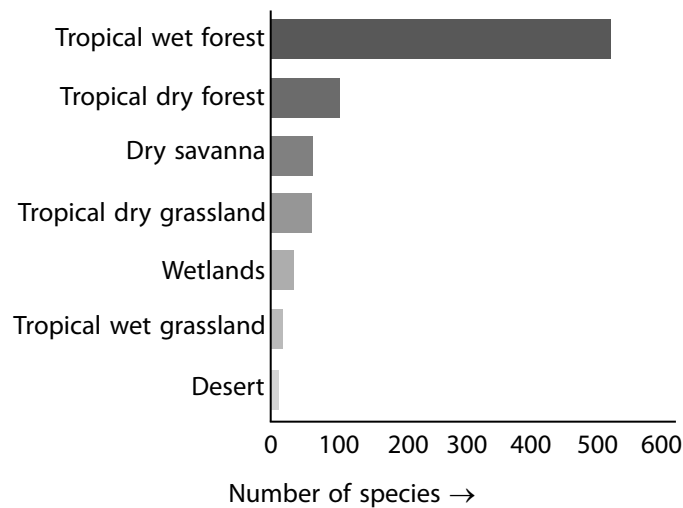
1. Which of the following is not a heterotroph?
(a) Deer (b) Tiger
(c) Snake (d) Grass
2. Insectivorous plants trap and eat insects to obtain _____ from them.
(a) nitrogen (b) oxygen
(c) hydrogen (d) carbon
3. Which of the following is/are the raw material(s) for the preparation of food by plants?
(a) Sunlight (b) Chlorophyll
(c) Carbon dioxide (d) All of these
4. Which of the following gases is a product of photosynthesis?
(a) Carbon dioxide (b) Oxygen
(c) Nitrogen (d) Hydrogen
5. Which of the following plants does not have variegated leaves?
(a) Croton (b) Coleus
(c) Cactus (d) Money plant
6. Which of the following is/are saprophyte(s)?
(a) Mushroom (b) Yeast
(c) Mould (d) All of these
7. Bladderwort is an example of _____ plant.
(a) symbiotic (b) carnivorous
(c) parasitic (d) saprophytic
8. In which of the following plants is symbiotic relationship observed?
(a) Sundew plant (b) Croton
(c) Money plant (d) Lichen

Case Study

Skills Covered: • Observation • Critical and logical thinking • Experiential learning
• In-depth learning • Investigation

Endangered Plant Species

There is a variety of plant species found in the world. The variety and adaptations of different plants depend on the climate of that place. Plants with thorns are found in desert regions and tropical rainforests are found in regions with heavy rainfall. Some of the plant species become endangered due to loss of natural habitat. A graph showing the number of plant species at risk in different habitats is given below.



Website: Statista (Number of Plant Species at Risk)

1. Which type of forests is at greatest risk of becoming endangered?
2. Approximately how many plant species are endangered in tropical dry forests?
3. In which type of forests will you find approximately 10 endangered species?
4. Find out and write the names of any two endangered species of plants in Southern California.
5. Find out and write the name of any two rare plant species in Gujarat and Karnataka.
6. Why are plant species becoming endangered?