SUMMARY

1. In different regions of India, a lot of variation in the food items is seen. People eat different varieties of food.
2. The raw materials which are required to prepare a particular food item are called ingredients.
3. Plants and animals are the main sources of food.
4. Honey is a tasty and nutritious food item prepared by honey bees.
5. Rearing of honeybees on a large scale is known as Apiculture.
6. Animals that eat only plants are known as herbivores.
7. Animals that eat flesh of other animals are known as carnivores.
8. Animals that eat both plants as well as other animals are known as omnivores.
9. Parasites live on or inside the body of other animals.
10. Animals that eat dead plants and animals are known as scavengers.
11. Living organisms, who feed on dead plants and animals to decompose them, are known as decomposers.
12. Food chain is a series of organisms linked together for transferring the nutrients.

Exercises

Section – A

Quick Response From Class

A. Oral questions:

1. What are the main ingredients used to cook biryani?
2. How is food useful for us?
3. How do scavengers help the environment?
4. How does carnivores differ from herbivores?

B. Science quiz:

1. Name two plants whose seeds are eaten.
2. Can a food chain start from an animal? If no, then give its reason.
3. Name two parasites which live inside animal's body.

Worksheet

A. Give answer in one word:

1. Out of deer and snake, which one is herbivorous animal?
2. Who are the producers in food chain?
3. In the food chain, grass → goat → lion, who is a carnivore?

B. Circle the odd ones with appropriate reason:

1.	Sheep	horse	lion	deer
2.	Fleas	hookworm	bugs	leopard
3.	Butter	cheese	egg	cabbage

2. Honeybees collect nectar from flowers by working hard. Can you give the reason why do honeybees collect nectar? What values do you learn from honeybees?
3. Avni went to a zoo where she saw deer eating grass and tigers eating meat.
   (i) Between deer and tiger, which one is carnivore?
   (ii) Between deer and tiger, which one is herbivore?
   (iii) Make the food chain of grass, deer and tiger.
4. Ishi loves to cook food in the kitchen. She has prepared a yummy food. Is she a 'producer'? Justify your answer.

Some Interesting Activities

1. Look at the delicious burger. What are its ingredients? Name the sources from which these ingredients are obtained.
2. Make some food chains from grains, grass, rat, frog, grasshopper, squirrel, eagle, snake, goat and lion.
3. Cut the pictures of ten plants from old books, magazines or newspapers and paste them in your scrapbook. Write the edible part of each plant in front of its picture.

Field Visit

1. Visit a nearby zoo and find out what the herbivores, carnivores and omnivores eat.
2. Visit a garden and note down the name of the organisms you observed in the garden in your notebook. Observe how these organisms interact and depend on each other for their food.

Group Discussion

Discuss in the class:

1. The different food items obtained from plants and animals.
2. The ingredients of idli, dhokla and suji halwa.

Research Project

1. Find out how honeybees collect the honey.
2. Find out the main food items eaten by people in different regions of India as well as in other countries.

Exercises

Section – A

Quick Response From Class

A. Oral questions:

1. Name one insectivorous plant.
2. Name the pigment present in the leaves due to which they are green in colour.
3. What is autotrophic mode of nutrition?

B. Science Quiz:

1. Which gas is released during photosynthesis?
2. What is the ultimate source of energy for all living organisms?
3. Name the structure which carries water and minerals from the roots to the leaves of a plant.

Worksheet

A. Fill in the blanks:

1. Rhizobium bacteria provide ..... to the leguminous plants.
2. Plants store food in the form of .....
3. Cuscuta shows ..... mode of nutrition.
4. The chlorophyll traps the ..... and converts it into chemical energy.
5. In leaves, stomata are surrounded by ..... cells.

B. Give answer in one word:

1. Name the bacteria which live in leguminous plants.
2. Name the process by which green plants prepare their food.
3. Name the mode of nutrition in green plants.

C. Circle the odd ones with appropriate reason:

1.	Pitcher plant	Utricularia	Drosera	Lichens
2.	Sunlight	Water	Nitrogen	Carbon dioxide
3.	Soil	Nitrogen	Potassium	Phosphorus

Section – B

A. Say whether the statements are true or false:

1. Organisms that depend on other organisms for their food are called autotrophs. .....
2. The beneficial relationship between two organisms is called symbiosis. .....
3. Saprophytes can trap and digest insects. .....
4. A parasite gets its nutrition from other living organism. .....
5. Venus fly-trap is an insectivorous plant. .....

B. Match the items given in Column A with that in Column B:

Column A	Column B
1. Lichens	(a) parasite
2. Sundew	(b) saprophyte
3. Mistletoe	(c) Symbiotic relationship
4. Fungi	(d) Insectivorous plant

C. Very short answer type questions:

1. Name two main modes of nutrition in plants.
2. Name any two leguminous plants.
3. Name the pores through which leaves exchange carbon dioxide and oxygen.
4. Give one example of a plant in which photosynthesis occurs in the part of the plant other than leaves.
5. Name the relationship between an alga and fungus in lichens.

D. Short answer type questions:

1. How can you decolourise a leaf?
2. How does a pitcher plant digest its prey?
3. Why is Mistletoe called partial parasite?
4. Why do some plants eat insects?
5. Why do farmers spread manures and fertilisers in their fields?

E. Long answer type questions:

1. How nutrients are replenished in the soil? How is the growing of leguminous crop in the fields beneficial to the farmers?
2. Write an experiment to show that carbon dioxide and sunlight are necessary for photosynthesis.
3. (a) What are the various modes of nutrition in plants? Explain with one example of each.
   (b) What is the importance of photosynthesis for the existence of life on earth?
   (c) What is symbiosis? Explain it with one example.
4. Differentiate between parasitic and insectivorous plants. Give two examples of each.

HOTS

1. Photosynthesis maintains balance between oxygen and carbon dioxide in the atmosphere. How can you justify it?
2. Pankaj found a new non-green plant species that is found on the green plants. What is this non-green plant-a parasite, a saprophyte or an insectivorous plant? Give reason.

Some Interesting Activities

1. Collect some leaves of various colours from different plants and try to observe stomata in them through a magnifying glass.
2. List some organisms which are made of only single cell and which are made of many cells.

Field Visit

Visit a nursery near your home. Why are nurseries useful? What types of plants are grown there? Note down your views in your notebook.

Group Discussion

Discuss in the class:

1. Modes of nutrition in plants seen around your home.
2. Various types of plants and fungi.