

DETAILED CONTENTS

Each chapter of the book consists of exercises in various forms

BE PROMPT

- Filling in the blanks
- True or False
- Multiple choice questions (MCQs)
- Identifying the error(s) in the given statements

SHORT AND PRECISE

- Flowcharts
- Giving reasons
- Short answer questions

AT LENGTH

- Explaining the terms
- Differentiating between concepts
- Long answer questions
- Identifying the error(s)

Chapter Name	Details of Contents	Activities	Some More Assessment Tools
1. Plant Life	<p>LEAF</p> <ul style="list-style-type: none"> • Parts of a Leaf • Types of Leaves • Arrangement of Leaves • Venation of Leaves • Functions of a Leaf • Modifications of Leaves <p>FLOWER</p> <ul style="list-style-type: none"> • Parts of a Flower • Types of Flowers • Functions of a Flower <p>REPRODUCTION IN PLANTS</p> <ul style="list-style-type: none"> • Pollination • Fertilisation <p>FRUIT</p> <ul style="list-style-type: none"> • Types of Fruits • Parts of a Fruit • Functions of a Fruit <p>SEED</p> <ul style="list-style-type: none"> • Structure of a Seed • Types of Seeds • Germination of Seeds • Conditions Required for Germination 	<p>1.1 To study the shape, size and colour of leaves</p> <p>1.2 To study the type of venation in leaves</p> <p>1.3 To show that water is lost through leaves during transpiration</p> <p>1.4 To observe modification of leaves in a pea plant</p> <p>1.5 To observe modification of leaves in a cactus plant</p> <p>1.6 To study vegetative propagation in <i>Bryophyllum</i></p> <p>1.7 To study the different parts of a flower</p> <p>1.8 To observe different kinds of plants, leaves and flowers</p> <p>1.9 To discuss the process of fertilisation</p> <p>1.10 To classify fruits as dry fruits and fleshy fruits</p> <p>1.11 To show germination of seeds</p> <p>1.12 To study the conditions required for germination</p>	<ul style="list-style-type: none"> • Observe and Perform: Observe pictures and identify types of leaf modification. • Apply Your Learning: 1. Can flowers pollinate in complete absence of wind? 2. Can a completely dried out mango seed, which looks dead, germinate? • Life Skills: Create awareness among people about how trees sustain life on earth. • Integrate Your Learning: Integrate plant life with geography—find out about various types of vegetations across the India. • Projects and Activities: 1. Study of leaves on the basis of their size, shape, venation and margins. 2. Make a herbarium. • Review Your Learning: Assessment sheet
2. The Cell	<p>DISCOVERY OF THE CELL</p> <ul style="list-style-type: none"> • Cell Theory <p>VARIATION IN CELL NUMBER, SHAPE AND SIZE</p> <ul style="list-style-type: none"> • Number of Cells • Shape of Cells • Size of Cells <p>CELL: THE FUNCTIONAL UNIT OF LIFE</p> <ul style="list-style-type: none"> • Structure of the Cell <p>CELL ORGANELLES</p> <ul style="list-style-type: none"> • Plastids • Vacuoles <p>DIFFERENCES BETWEEN PLANT AND ANIMAL CELLS</p>	<p>2.1 To study onion peel cells</p> <p>2.2 To study cheek cells</p>	<ul style="list-style-type: none"> • Observe and Perform: Identify whether the given diagram is of an animal cell or a plant cell. • Apply Your Learning: Do dead cells play an important part in the body of plants and animals? • Life Skills: Find out the importance of microscope in unveiling the secrets of science. • Integrate Your Learning: 1. Integrate with history—find out about the ancient methods and instruments used in cytology. 2. Integrate with chemistry—find out about the chemical composition of cells. • Projects and Activities: 1. Make a report on different cell organelles found inside the plant and animal cells. 2. Make models of plant and animal cells. 3. Study permanent slides of different cells. • Review Your Learning: Assessment sheet

Chapter Name	Details of Contents	Activities	Some More Assessment Tools
3. Human Body	<p>THE DIGESTIVE SYSTEM</p> <ul style="list-style-type: none"> • Mouth • Tongue • Teeth • Oesophagus (Food Pipe) • Stomach • Small Intestine • Large Intestine, Rectum and Anus • Salivary Glands • Liver • Pancreas <p>THE PROCESS OF DIGESTION</p> <ul style="list-style-type: none"> • Food in the Mouth • Food in the Stomach • Food in the Small Intestine <p>ABSORPTION OF DIGESTED FOOD</p> <ul style="list-style-type: none"> • Food in the Large Intestine <p>ASSIMILATION OF DIGESTED FOOD</p> <p>THE RESPIRATORY SYSTEM</p> <ul style="list-style-type: none"> • Nose and Nasal Cavity • Pharynx, Larynx and Trachea • Bronchi, Bronchioles and Alveoli • Lungs <p>MECHANISM OF RESPIRATION</p> <p>RESPIRATORY DISEASES</p> <p>THE CIRCULATORY SYSTEM</p> <ul style="list-style-type: none"> • The Heart • Blood Vessels • Blood <p>CIRCULATION OF BLOOD</p> <p>HEARTBEAT</p> <p>KEEPING THE HEART HEALTHY</p> <ul style="list-style-type: none"> • Healthy Eating Habits • Exercise 	<p>3.1 To observe a model of the digestive system</p> <p>3.2 To demonstrate the action of diaphragm in breathing</p> <p>3.3 To find out the breathing rate during different physical activities</p> <p>3.4 To count the pulse rate</p> <p>3.5 To count the pulse rate after exercise and rest</p> <p>3.6 To observe the model of human circulatory system</p> <p>3.7 To identify different types of blood vessels and components of blood</p>	<ul style="list-style-type: none"> • Observe and Perform: Observe diagrams of human organ systems and label them. • Apply Your Learning: Identify the disease based on the symptoms. • Life Skills: Organize a Yoga camp in the school • Integrate Your Learning: 1. Integrate with chemistry—find out how catalysts differ from enzymes. Write chemical reactions that take place during digestion. 2. Integrate with health and physical education—find out how physical activities affect different organ systems. • Projects and Activities: 1. Make a model of digestive system. 2. Make PowerPoint presentations on different topics related to digestive system. • Review Your Learning: Assessment sheet
4. Health and Hygiene	<p>HEALTH DISEASE</p> <ul style="list-style-type: none"> • Communicable Diseases • Non-communicable Diseases • Prevention of Non-communicable Diseases <p>HYGIENE</p> <ul style="list-style-type: none"> • Personal Hygiene • Community Hygiene 	<p>4.1 To enlist communicable diseases and their source of infection</p> <p>4.2 To find out whether your diet is balanced or not</p> <p>4.3 To survey how many students consume unsafe food outside the home</p> <p>4.4 To make a report on unhygienic conditions around you</p>	<ul style="list-style-type: none"> • Observe and Perform: Identify the diseases based on the symptoms shown in the pictures. • Apply Your Learning: 1. Why is it important to cover nose while sneezing. 2. What changes in diet will you advice a friend who is on a high protein diet? • Life Skills: Organize a cleanliness drive with the help of your teachers. • Integrate Your Learning: Integrate with physical education—make a report on physical activities that can be performed to stay fit. • Projects and Activities: Prepare a report on any one communicable and one non-communicable disease. • Review Your Learning: Assessment sheet
5. Adaptation	<p>HABITAT—LIVING PLACE OF AN ORGANISM</p> <ul style="list-style-type: none"> • Components of a Habitat <p>ADAPTATION</p> <p>ADAPTATIONS IN AQUATIC HABITATS</p> <ul style="list-style-type: none"> • Aquatic Plants • Aquatic Animals <p>ADAPTATIONS IN DESERTS</p> <ul style="list-style-type: none"> • Adaptations in a Camel • Adaptations in a Cactus <p>ADAPTATIONS IN MOUNTAINS</p> <ul style="list-style-type: none"> • Plants • Animals <p>ADAPTATIONS IN AIR</p> <ul style="list-style-type: none"> • Aerial Birds • Aerial Plants 	<p>5.1 To find out the names of the living things found in different habitats</p> <p>5.2 To learn about the habitats of living things</p>	<ul style="list-style-type: none"> • Observe and Perform: Observe the living organisms in the pictures and identify their habitats. • Apply Your Learning: Find out features that help different creatures adapt to their surroundings. • Life Skills: Find out about the special features that help different creatures meet their needs. • Integrate Your Learning: Integrate with geography and language—find out about the plant and animal life of different regions across the world. Also find out the names of these organisms in the local languages. • Projects and Activities: 1. Observe charts of different organisms, draw their sketches and write their special features. 2. Prepare a report on your visit to the zoo. • Review Your Learning: Assessment sheet