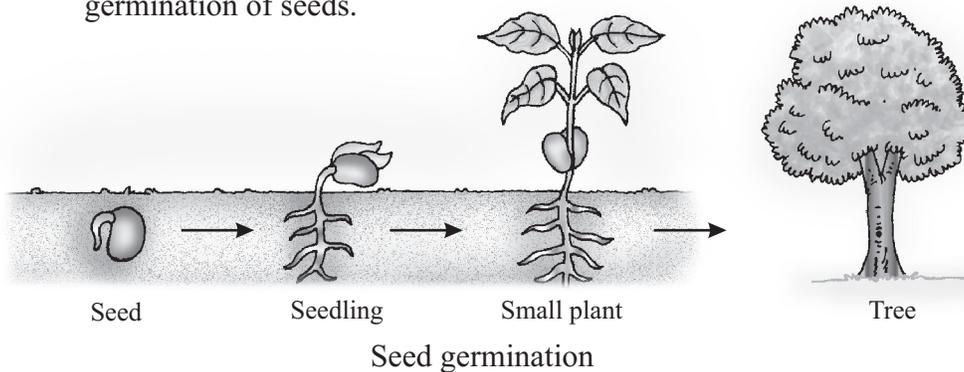




## Chapter 2 : Life Functions

- I. 1. The process of taking oxygen from the air to burn the food and release of carbon-dioxide out of the body is called respiration.
2. Plants breathe through tiny holes on the leaf surface called stomata.
3. Animals also have sense organs to sense the world around them. Insects have feelers with which they can taste, feed and smell things around them. Dogs have a well-developed sense of smell. Snakes have long tongue to pick up chemical particles from air and ground. Fish have a sixth sense called the lateral line along their body sides. This line helps in detecting vibrations in water.
4. Birds, reptiles, frogs, fish and insects lay eggs. Such animals are called egg-laying animals.
5. Most flowering plants produce seeds. Seeds on germination give rise to new plants. Moisture, oxygen and temperature are necessary for germination of seeds.



6. Waste produced can be in the form of solid, liquid or gas. The faeces are solid and are excreted out through the anus. Ammonia, urea and uric acid are water soluble wastes and are excreted in the form of urine. Some salts are excreted in the sweat. Carbon dioxide is exhaled out as a waste product of respiration.

Plants also excrete waste in the form of excess of carbon-dioxide and water through the stomata. Some plants like rubber plant excrete latex as a waste product which is used to make rubber. Other excrete gums and resins.

- II. 1. Fish–Gills, 2. Bird–Lungs, 3. Non-flowering–Mushroom 4. Flowering plants–seeds, 5. Insects–Spiracles
- III. 1. seeds 2. reproduction 3. tracheae 4. spiracles 5. non-flowering
- IV. 1. oxygen 2. clutch 3. mammal 4. egg-laying animal  
5. brayophyllum
- V. 1. seed → seedling → small plant → tree  
2. Stomata, Lateral line, Feelers
- VI. 1. F 2. T 3. T 4. T 5. F

## UNIT II : PLANT LIFE

### Chapter 3 : Plant Distribution

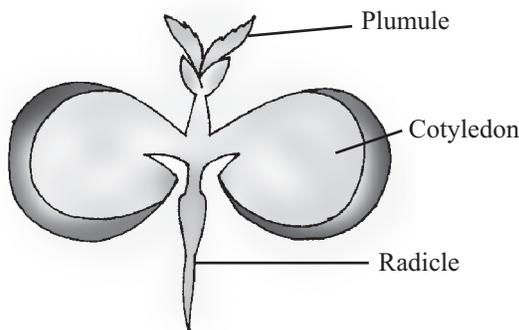
- I.
  1. Adaptation is the phenomenon of development of certain special features in the living organisms to improve their chance of survival in the given environment.
  2. Plants which trap the insects are termed as insectivorous plants. e.g. Venus fly-trap and pitcher plant.
  3. Wind can carry small, dry and light seeds. Seeds of acer and drumstick are winged. Other like the seeds of dandelion, milk-weed (caltropis) and cotton have hairy outgrowths. The seed of dandelion, has parachute of tiny hair which helps to fly.
  4. Plants have many ways to protect themselves. Some plants like rose produce thorns on them some develop spines or prickles. These prevent animals from eating them. Trees grow a hard covering of bark to protect their soft tissues inside. If these soft tissues are damaged, a protective covering over the wound is grown, thus repairing the damaged part.  

Some plants like in upas tree produce poisonous substances. The poisons may be concentrated in the leaves, fruits, bark or flowers, thus enabling them to defend themselves from enemies. The leaves of wild cherry contain acids that kill the animals feeding upon them.
  5. In the pitcher plant, the end of a petiole is modified to form a pitcher with a lid formed by the lamina of the leaf. The insect is trapped in the pitcher and is eventually digested.
  6. Carrying away of the seeds or spores by natural agents from one place to another is called dispersal. The agents of dispersal are wind, water, animals or by explosive mechanism.
- II.
  1. food, water
  2. creepers and climbers
  3. xerophytes
  4. petiole
  5. rafflesia
  6. mangroves
- III.
  1. Floating-water plant
  2. insectivorous
  3. desert plant
  4. hard shell
  5. poisonous
  6. thorns
- IV.
  1. F : In deserts, the conditions are very dry as there is scarcity of water.
  2. F : In swampy areas, soil does not contain air.
  3. F : Stomata in lotus are found on the upper surface of the leaf.
  4. F : In caltropis, seed dispersal occurs by wind.
  5. F : Non-flowering plants produce spores and do not-produce seeds.
  6. F : On drying, the balsam burst abruptly.
- V.
  1. Xanthium and tiger nail
  2. Ferns and mosses
  3. Dandelion and milk-weed
  4. Coconut and lotus

- VI. 1. The leaves are reduced to spines to avoid water loss.
2. They leave long tendrils to twine themselves around a support in order to climb upwards.
3. They bear stomata on their upper surface and not on the lower surface.
4. In venus-fly trap, each half of a leaf is provided with sensitive hair.
5. The roots of mangroves come out from the water in order to get air.

#### **Chapter 4 : Plant Reproduction**

- I. 1. The ability to produce new individuals which resemble the parents is called reproduction. It is essential in order to maintain the continuity of life.
2. Not all the seeds produced by a plant get chance to grow into new plants. Under-developed seeds do not grow. Some of the seeds are eaten by animals or get destroyed by excessive heat or cold. Some are washed away by wind or rain. Others may not get the right soil or enough water and air for germination.
3. Some seeds like beans, peas, etc. have two cotyledons and hence are called dicotyledons. Others like maize, wheat, rice, etc. have only one cotyledon and hence are called monocotyledons.
- 4.



Present between the seed leaves, is the baby plant called the embryo. An embryo consists of baby shoot called the plumule and a baby root called the radicle.

5. The stages in seed germination are discussed below :
  - (i) At first, the seed absorbs water in order to swell up.
  - (ii) A few hours later, a tiny root comes out of the soft moist seed coat.
  - (iii) This is followed by appearance of shoot.
  - (iv) The tiny root (radicle) grows downward while the tiny shoot (plumule) grows upward towards sunlight. This tiny plant with seed leaves is called a seedling.
  - (v) During germination, the food stored in the cotyledon gets used up by the embryo and the cotyledon shrinks.

- (vi) Gradually, the leaves appear on the shoot which make and store food for the growing plant.
- (vii) Later, the stem grows stronger and bears more leaves. Soon, the buds appear which grow into flowers, which in turn produce seeds.
- 6. Some of the flowering plants reproduce by vegetative parts like roots, stems and leaves. This method of reproduction by roots, stems or leaves is called as vegetative propagation.
- II. 1. radicle 2. underground 3. cotyledons 4. plumule  
5. bryophyllum 6. rabi
- III. 1. F. Dicotyledons consist of two cotyledons.  
2. F. The seed absorbs water in order to swell up.  
3. T  
4. F. Crops should be protected from diseases
- IV. 1. algae 2. maize 3. beans 4. millets
- V. The factors essential for seed germination are air, water and appropriate temperature.
- VI. seed → seedling → sapling → plant.
- VII. 1. In stem cutting, a stem with buds is cut-off from the parent plant. This cut portion is now put in the moist soil and watered regularly. This in turn envelops roots and leaves to grow into a new plant.  
2. Layering : In this method, side branch of a plant is bent towards the ground and this portion is covered with moist soil. The growing tip is exposed. New roots develop after sometime. This branch is cut-off from the parent plant and grows into a new plant.  
3. In grafting, a cutting of one plant is attached to the stem of the plant which is rooted in the soil. Due to this, the two portions fuse together. This method is useful as we can get plants with described characters.

### **Chapter 5 : How plants make food ?**

- I. 1. The part of a plant that remains and grows underground is called the root.  
2. The part of a plant that remains above the ground is called the stem.  
3. Roots holds the plant firmly in the soil and also absorbs water and salts from the soil some roots also store food.  
Stems carry water and salts absorbed by the roots to different plants parts. It also carries the food made by leaves to different parts of a plant. The stem also supports branches, leaves, flowers and fruits.  
4. The process by which the green plants make food is called photosynthesis. Photosynthesis takes place in the presence of sunlight and chlorophyll. During this process, chlorophyll traps sunlight and

carbon-dioxide and water get converted into glucose and oxygen. The food thus prepared is carried from the leaves to other parts of a plant.

5. The food made by the plant is used in many ways :
- Food provides energy to the plant. This energy is used by the plant to grow and produce flowers, fruits and more leaves.
  - Food is used to build and repair damage.
  - Extra food produced is stored in a plant as starch.

- II. 1. green pigment    2. tiny pores    3. stored food in plant  
4. provides energy    5. plant food.

III.



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

## UNIT III : ANIMAL LIFE

### Chapter 6 : Life-Styles

- I. 1. The process of taking in oxygen and giving out carbon-dioxide is called breathing.
2. Animals move from one place to another in search of food, shelter and to escape from their enemies.
3. Insects like grasshopper and cockroaches breathe air through small openings along the body sides called spiracles. These openings lead to the system of air-tubes called tracheae.
4. Animals that eat both plants and flesh of other animals are called omnivores. Some of their examples are bear, crow, dog and man.
5. The teeth on herbivores are well-suited to eat green. Front teeth are sharp and help in cutting and biting and back teeth are broad and strong for chewing.
6. Man is the most advanced of all animals on the planet earth as they possess a highly developed brain to think and do the work properly. They have the ability to stand erect, walk, run or jump with the hindlimbs called legs. They use their forelimbs for feeding, working, defense or

attack. They also have a flexible backbone as to bend, stoop and turn easily. Humans have been able to invent devices themselves, so as to make their life easier. They have the exceptional power of observation.

II. 1. alveoli 2. tadpole 3. tracheae 4. bat 5. gills

III. 1. F 2. F 3. T 4. T 5. F

IV. ×, ✓, ✓, ✓, ×, ✓

V. 1. bronchioles 2. earthworm 3. amoeba 4. bat 5. piranha

VI. 1. (b) 2. (a) 3. (a) 4. (a) 5. (a)

VII. 1. Penguin - swimming 2. Grasshopper - hopping 3. Frog - hopping  
4. Sparrow - perching 5. Fish - swimming

### **Chapter 7 : Survival**

- I. 1. The living place of an animal is called its habitat.  
2. Mimicry is a process by which an animal is able to change its body colour and disguise in order to resemble another animal, plant, stick, leaf, flower etc. of the surroundings.

Animals specially insects, disguise themselves to escape from enemies. Some hide by looking like leaves, sticks, while others look like flowers. The chameleon changes colour according to its surroundings.

3. Insects and fish produce millions of eggs. Even if some of the eggs are eaten up by other animals or damaged due to some other means, some will survive and will hatch into young. Thus, the young ones reach adulthood.  
4. Mass movement of animals from one place to another in order to escape cold, to find food or to reach the breeding grounds is called migration. Many animals like insects, birds and fish migrate.  
5. Some cold-blooded animals like frogs and lizards cannot tolerate cold. Thus, they hide themselves in warmer places and go for a long winter sleep. During summer they eat sufficient food and store it as body fat for the use in winter. Mammals such as squirrels and mice curl up and go to sleep for months at a time. This process of winter sleep is called hibernation.

II. 1. habitat 2. stick 3. alters or pointed horns 4. migration  
5. hard

III. 1. F 2. T 3. F 4. T 5. F

IV. 1. Chameleon 2. Arctic tern 3. Squirrel 4. Frog.

### **UNIT IV : MACHINES, FORCE AND ENERGY**

#### **Chapter 8 : Energy**

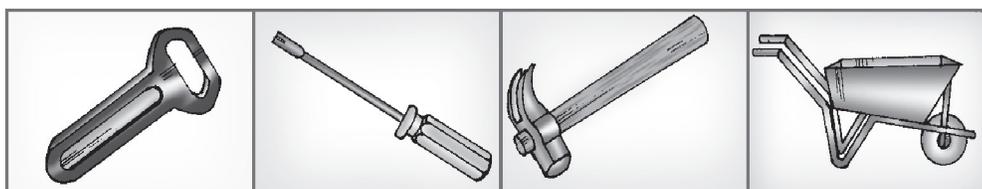
- I. 1. Energy is the ability to do work.

2. Food stored inside the body is a form of chemical energy.
  3. Wind energy is used in windmills to pump out water or for grinding. If windmills are connected with a turbine, small amount of electricity is produced.
  4. Nuclear energy is made from uranium in an atomic power station.
  5. The economic use of sources of energy is called energy conservation.
- II. 1. solar energy                      2. wind energy    3. electrical energy
4. Mechanical energy    5. water energy    6. sound energy
- III. 1. F    2. F    3. T    4. F    5. T

### Chapter 9 : Simple Machines

- I. 1. Any tool or device that makes the work simpler and easier is called a machine.
2. The types of lever are first-class levers, second-class levers and third-class levers.
  3. An inclined plane is a slope. It is used to roll heavy drums up or down and to pull heavy loads to great heights.
  4. Screws or bolts are used to join and hold two pieces of wood or metal.
  5. A simple pulley consists of a grooved wheel with a rope passing through it. The wheel is able to rotate about a fixed axle. The load is tied to one end of the rope and the effort is applied from the other end.

II.



Bottle-opener  
(second-class lever)

Screw driver  
(second-class lever)

Hammer  
(first-class lever)

Wheel barrow  
(second-class lever)

- III. 1. machine    2. second-class    3. slope    4. wedge

## UNIT V : EARTH AND ATMOSPHERE

### Chapter 10 : Natural Resources

- I. 1. Natural resources are the resources which are provided to us by nature. Some of the natural resources are air, water, and, plants, animals, rocks and minerals.
2. The air contains oxygen which we need for living. Other gases present in it are also useful. Air is required for burning, air pressure helps in sucking soft-drinks, air is also used for drying wet clothes and food grains. Moving air is used running flour mills and producing electricity. Water is used for drinking, cooking, washing, cleaning and other

purposes. It also houses many aquatic animals and plants. Water can also be used as a means of transport. Water is also used to produce electricity.

3. The three different types of rocks are igneous rocks, sedimentary rocks and metamorphic rocks.

(i) **Igneous rocks** : These rocks are formed from the solidification of molten mass called magma. These rocks mainly contain mica, quartz and feldspar as minerals. The example of such rocks include granite and pumice.

(ii) **Sedimentary rocks** : These rocks are made up of layers of sediment. They were formed millions of years ago. Such rocks include sandstone, limestone, shale and dolomite.

(iii) **Metamorphic rocks** : The intense heat and pressure inside the earth changes the igneous and sedimentary rocks into metamorphic rocks. The examples of such rocks include slate, marble, gneiss, quartzite and china clay.

4. Both coal and petroleum are valuable underground resources. Both were formed millions of years ago from the remain of dead plants and animals. Hence, they are called fossil fuels.

5. Tunnels are dug underground to reach the deposits of coal. Petroleum is an oil which is extracted by drilling holes underground.

II. 1. air 2. fertile 3. dams 4. minerals

III. 1. Igneous rocks 2. Sedimentary rocks 3. Metamorphic rock

4. Fossil fuel 5. Precious stone

### Chapter 11 : Air

I. 1. The gaseous envelope covering the earth is called the atmosphere.

2. Atmosphere is made up of different vertical layers. The layer close to the earth is called troposphere. It extends to a height of 15 kilometres from the surface of the earth. The layer that lies above the troposphere, is about 35 kilometres thick. This is where jet planes usually fly.

3. Air is a mixture of gases. Air is mainly composed of 78% nitrogen, 21% of oxygen and the remaining 1% argon and carbon-dioxide. Air contains a very small amount of carbon-dioxide i. e. 0.03%.

4. Take a balloon. Blow it with your mouth. You will notice that the balloon becomes bigger. This shows that air occupies space.

5. (i) Air occupies space.

(ii) Air has weight.

II. The end with the full blown balloon will come down as it contains more air. Hence, air has weight.

III. 1. air 2. atmosphere 3. space 4. burning.

## Chapter 12 : Pollution

- I. 1. Pollution is defined as addition of unwanted wastes in the environment which harmfully affect our lives. Man has exploited the environment to a large extent. This has disturbed the balance in nature. Both the living organisms and the environment are interdependent. If any one of them acts against the other, the other reacts equally. For example, if the environment is polluted by man in any one way or the other, the man in turn faces the health hazards.
  2. Wastes can be biodegradable or non-biodegradable. Biodegradable things decompose. These include leaves and other plant matter. These turn into compost which in turn can be used as manure to enrich the soil on the other hand, the things which cannot be decomposed are called non-biodegradable things. They cannot be broken down naturally. Some of the non-biodegradable things are plastic containers and bags, tin cans, bottles, etc.
  3. Addition of unwanted substances called the pollutants in the air and water is called air and water pollution respectively.
  4. Ozone layer of the atmosphere prevents the harmful ultra-violet rays from the sun reaching the earth.
  5. Emission of toxic gases from factories, vehicles and burning of fuels like coal and oil cause *acid pollution*. Acid rain causes damage to soil, plants, historical monuments and other buildings.
- II. 1. decomposed 2. manure 3. cholera 4. non-biodegradable  
5. acid
- III. 1. It causes headache, nausea, irritation in the eyes, lung infection, skin diseases, etc.
  2. Water pollution cause many water-borne diseases like cholera, dysentery, jaundice, hepatitis, gastric problems, etc.

## UNIT VI : THE UNIVERSE

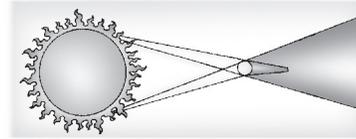
### Chapter 13 : Shadows and Eclipses

- I. 1. The sources that give out light are called luminous objects. Some natural luminous objects are sun and the stars. Artificial luminous objects are lamps, tube lights and bulbs.
  2. The objects that allow the light to pas through them completely are called **transparent objects**. The objects that allow the light to pass through them partially are called **translucent objects**. The objects that do not allow the light to pass through them are called **opaque objects**.
  3. A shadow is formed whenever there is obstruction in the path of light. The shadow is very long in the morning.
  4. An eclipse is the partial or complete hiding of one heavenly body by

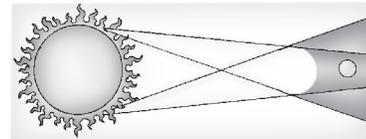
another or by its shadow. The eclipses are of two main kinds : — solar eclipse and lunar eclipse.

### 5. Solar Eclipse

Solar eclipse occurs when the moon comes between the sun and the earth. The moon being opaque blocks out the light coming from the sun. Total eclipse occurs when whole of the sun's light is blocked. While when only a part of the sun's light is blocked out, partial eclipse occurs.



Solar Eclipse



Lunar Eclipse

### Lunar Eclipse

Lunar eclipse occurs when the earth lies in between the sun and the moon. Thus, the shadow of the earth falls on the moon. Lunar eclipse too can be partial or total.

II. 1. shadow 2. umbra 3. penumbra 4. opaque 5. eclipse

III. Solar eclipse, Lunar eclipse

IV. 1. straight 2. opaque 3. long 4. full 5. Earth

## UNIT VII : THE HUMAN BODY

### Chapter 14 : Bones and Muscles

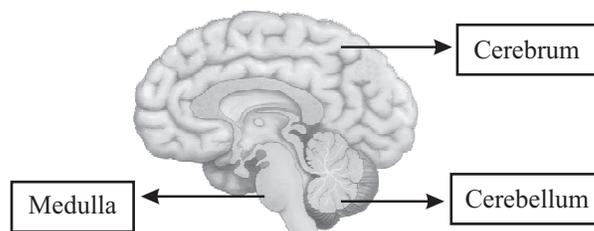
- I. 1. Our body is just like a machine as it helps us to move, work, listen, see, eat, drink, think and sleep. A great deal of work is going on inside our body all the time.
  2. Muscles are fleshy bundles of thin and tough elastic like materials in the body.
  3. The skeleton gives shape and support to the body. Without the skeleton, our body would collapse. It also protects the internal organs like the brain, heart and lungs.
  4. Joints are the places where two bones are joined together. The bones are held together by strong, stretchy tissue called ligaments. The different kinds of joints present in the body are as follows :  
Hinge joint, Ball and socket joint, Pivot joint and Gliding joint.
  5. Voluntary muscles are those muscles in the body which are under our control. We can run, walk, bend, stretch and lie with the help of voluntary muscles. Involuntary muscles are those muscles which are not under our control. For example, we cannot control the movement of our stomach. It is controlled by muscles that work on their own. Hence, these are involuntary muscles.
- II. 1. A group of organs together make up an organ system.

2. The framework of bones inside our body is called the skeleton.
  3. Bone marrow is a jelly-like material inside the bone.
  4. Thirty-three small bones called vertebrae together make up the long backbone or the vertebral column it is also called the spine.
  5. The last two pairs of lower ribs, at the bottom of the ribcage, which are not attached to the breast bone are called floating ribs.
  6. Joints are the place where two bones are joined together.
  7. A muscle is joined to a bone by tough band of tissues called tendons.
  8. Our heart is made up of special muscles called the cardiac muscles.
- III. 1. 206      2. 650      3. 14      4. 12 pairs
- IV. 1. hard and tough, soft and spongy      2. skull      3. ligaments
4. voluntary

### Chapter 15 : The Nervous System

- I. 1. The nervous system is made up of the brain, the spinal cord and the nerves.
2. The different parts of the brain are the Cerebrum, Cerebellum and Medulla.
- Cerebrum controls our memory, thoughts, intelligence and learning. It also controls the sense organs.
- Cerebellum controls the action of the muscles and helps us to keep the balance.
- Medulla controls the involuntary actions such as breathing and circulation.
3. Our sense organs are eyes, ears, nose, tongue and skin.
  4. We should take care of our eyes and try to avoid any kind of injury.
    - The eyes should be washed with cold water.
    - Never study in dim light.
    - Sit at least six feet away from a television while watching it.
    - Sit erect while reading. Hold the book about 12 inches away from your eyes.
  5. The different taste zones of the tongue are bitter, sour, salty and sweet.
  6. The skin covers the whole body.

II.



- III. 1. Master organ of the body is called the brain.  
 2. Cerebrum is the largest part of the brain.  
 3. Spinal cord is the thick bundle of nerves connected to the brain stem.  
 4. Reflex actions are the automatic actions which we do before thinking.  
 5. The hole in the middle of the iris is called the pupil.  
 6. Motor nerves carry orders from the brain or the spinal cord to the muscles and glands and advise them what they should do.
- IV. 1. (d) 2. (h) 3. (a) 4. (g) 5. (b) 6. (f) 7. (c) 8. (e)
- V. 1. Cerebrum is much bigger in human-beings than in animals. That is why human-beings are more intelligent than other animals.  
 2. Never use a hair pin to clean ear as it may injure the ear drum.
- VI. 1. F 2. F 3. T 4. F 5. T

### **Chapter 16 : Food, Health and Diseases**

- I. 1. Food has some special substances called the nutrients. Some of these nutrients provide energy to the body, some help to grow and some help the body to fight diseases.  
 2. Health is a state of social, physical and mental well-being.  
 3. For good health we need.
  - a balanced diet      ● enough exercise and rest
  - fresh air to breathe      ● clean water to drink
  - clean place to live in.
 4. Disease is a condition that does not allow the body to work properly.  
 5. The diseases which are caused due to the lack of nutrients are called deficiency diseases.
- II. 1. (f) 2. (e) 3. (d) 4. (b) 5. (c) 6. (a)
- III. 1. Fresh fruits and vegetables  
 2. Green leafy vegetables  
 3. Ghee, butter, oil, nuts  
 4. Potato, corn, wheat, jaggery, sugar.

### **UNIT VIII : SAFETY AND FIRST-AID**

#### **Chapter 17 : First-Aid**

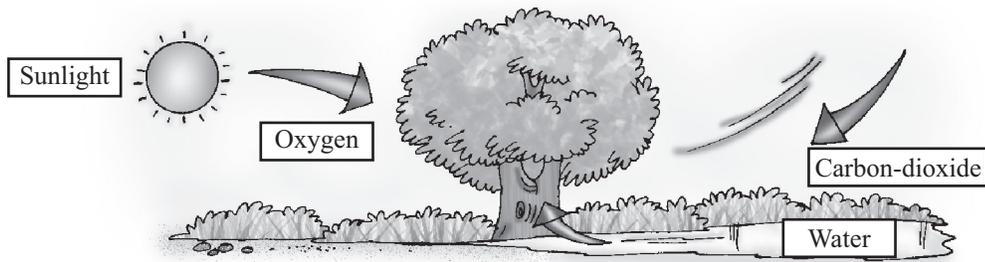
- I. 1. A sudden and unexpected event which causes an injury to the body is called an accident. It is caused due to carelessness.  
 2. The immediate help given to an injured or sick person before the doctor arrives is called **first-aid**.  
 3. The three main aims of first-aid are :
  - To save life.

- To keep the injured or sick person comfortable till proper medical help arrives.
  - To prevent worsening of the condition of the injured.
4. Tourniquet is a wide strip of cloth that is wrapped tightly around the wound two or three times or knotted.
  5. To support the broken limb, apply a splint. In case of the broken arm, use a triangular piece of cloth to make a sling for supporting the broken bone. Keep the victim still till the doctor comes.
  6. In case of an accident, we all should know what help should be given to injured person.
- II. 1. burns    2. extinguisher    3. nose    4. match-stick    5. water
- III. 1. A fractured arm should not be moved as it may result in pain.
2. Blisters must not be pricked as it may result in the formation of wounds.
  3. Nylon clothes should not be worn in the kitchen as they catch fire easily.
  4. Water should never be thrown on an electric fire as there is a danger of electric shock.
  5. In case of petrol or kerosene fires, throw lots of sand on the fire to cut off the air supply. This will stop the fire. Water must not be used as it will make the fire burn more brightly. This is because petrol is lighter than water. So, it will float above the water and keep burning.
- IV. 1. In case of a wound, wash it with soap and plenty to water, using cotton or a clean cloth. Dry the wound and apply any antiseptic cream. Cover the wound with a clean plaster or bandage.
2. In case of a fracture, apply a splint in the limb. In case of the broken arm, use a triangular piece of cloth to make a sling for supporting the broken bone.
  3. In case of a dog bite wash the wound will with soap and water. Take the victim to the doctor immediately.

### **Model Test Paper-1**

- I. 1. Living things have life but non-living things do not have life.
2. The process of taking in oxygen in the air to burn the food and release of carbon-dioxide out of the body is called respiration.
3. The mammals that lay eggs are called egg-laying mammals.
4. Adaptation is the phenomenon of development of certain special features in the living organisms to improve their chance of survival in the given environment.
5. Some of the flowering plants reproduce by vegetative parts like roots, stems and leaves. This method of reproduction by roots, stems or leaves is called as vegetative propagation.

II.



III. 1. oxygen 2. maize 3. algae 4. bajra

IV. 1. (c) 2. (d) 3. (a) 4. (f) 5. (b) 6. (e)

- V. 1. The green colouring pigment in the leaves.  
2. The ability to produce new individuals which resemble the parents is called reproduction.  
3. The phenomenon of development of certain special features in the living organisms to improve their chance of survival in the given environment.  
4. The process by which seeds turn into new plants is called germination.  
5. Some plants like Rafflesia lack green leaves, thus cannot prepare their own food. They absorb the food made by the other plants. Such plants are termed as parasites.

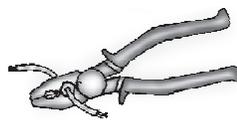
### Model Test Paper-2

- I. 1. Animals that eat both plants and the flesh of other animals are called omnivores.  
2. The living place of an animal is called its habitat.  
3. Hibernation is the process of winter sleep.  
4. Energy is the ability to do work.  
5. Any tool or device that makes the work simpler and easier is called a machine.

II.



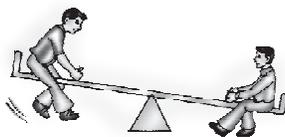
Bottle opener  
(Second-class lever)



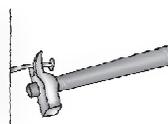
Fliers  
(First-class lever)



Scissors  
(First-class lever)



See-saw  
(First-class lever)



Hammer  
(First-class lever)

- III. 1. gills    2. tadpole    3. stick    4. hard    5. energy
- IV. 1. Energy is the ability to do work.
2. Any tool or device that makes the work simpler and easier is called a machine.
3. A lever is a rigid rod that can move around a fixed point on which it rests.
4. The mass movement of animals from one place to another and again returning back to the original place.
5. The front limbs of animal are called forelimbs.
6. Mimicry is a process by which an animal is able to change its body colour and disguise in order to resemble another animal, plant, stick, leaf, flower, etc of the surroundings.
7. The living place of an animal is called habitat.
8. The winter sleep of animals is called hibernation.
9. Fulcrum is the point of rest.
10. Lever is a rigid rod that can move around a fixed point.

### Model Test Paper-3

- I. 1. The three different types of rocks are igneous rocks, sedimentary rocks and metamorphic rocks.
- (i) **Igneous rocks** : These rocks are formed from the solidification of molten mass called magma. These rocks mainly contain mica, quartz and feldspar as minerals. The examples of such rocks include granite and pumice.
- (ii) **Sedimentary rocks** : These rocks are made up of layers of sediment. They were formed millions of years ago. Such rocks include sandstone, limestone, shale and dolomite.
- (iii) **Metamorphic rocks** : The intense heat and pressure inside the earth changes the igneous and sedimentary rocks into metamorphic rocks. The examples of such rocks include slate, marble, gneiss, quartzite and china clay.
2. The gaseous envelope covering the earth is called the atmosphere.
3. It causes headache, nausea, irritation in the eyes, lung infection, skin diseases, etc.
- Water pollution causes many water-borne diseases like cholera, dysentery, jaundice, hepatitis, gastric problems, etc.
4. Both coal and petroleum are valuable underground resources. Both were formed millions of years ago from the remains of dead plants and animals. Hence, they are called fossil fuels.

5. Pollution is defined as addition of unwanted waste in the environment which harmfully affect our lives. Ozone layer of the atmosphere prevents the harmful ultra-violet rays from the sun reaching the earth.
- II. 1. mineral 2. gem 3. dams 4. acid 5. breathing.
- III. 1. sedimentary 2. straight 3. Loamy 4. non-biodegradable  
5. long
- IV. 1. (e) 2. (d) 3. (c) 4. (b) 5. (a)
- V. 1. Minerals are chemical substances having crystalline form.  
2. The resources which are provided to us by nature are called natural resources.  
3. Solar eclipse occurs when the moon comes between the sun and the earth.  
4. Lunar eclipse occurs when the earth lies in between the sun and the moon.  
5. Non-biodegradable things are the things which cannot be decomposed naturally.

#### **Model Test Paper-4**

- I. 1. Joints are the places where two bones are joined together. The bones are held together by strong, stretchy tissue called ligaments. The different kinds of joints present in the body are as follows :  
Hinge joint, Ball and socket joint, Pivot joint and Gliding joint.  
2. The different taste zones of the tongue are bitter, sour, salty and sweet.  
3. Health is a state of social, physical and mental well being.  
4. The diseases which are caused due to the lack of nutrients are called deficiency diseases.  
5. Sudden and unexpected event which causes an injury to the body is called an accident. It is caused due to carelessness.
- II. 1. In case of a dog bite wash the wound well with soap and water. Take the victim to the doctor immediately.  
2. In case of a wound, wash it with soap and plenty of water, using cotton or a clean cloth. Dry the wound and apply any antiseptic cream. Cover the wound with a clean plaster or bandage.  
3. In case of bleeding from the nose :
  - Loosen the clothing around the neck.
  - Sit upright with your head held back and arms folded above the head.
  - Pinch the nose between the thumb and the forefinger for about 10 minutes and breathe through the mouth. This will stop the bleeding.

- Keep an ice-pack or wet cloth on your nose and on the back of your neck.
- Breathe through your mouth. Do not blow your nose for a few hours after the bleeding stops. Still if bleeding does not stop, call for a doctor.

III.	Cause due to deficiency of	Cured by giving
Night blindness	Vitamin A	Butter, ghee, milk, curd fish, egg, carrot
Beri-Beri	Vitamin B	cereals, beans, peas and other pulses
Rickets	Vitamin D	Milk, cheese, egg and sunlight
Anaemia	Iron	Egg yolk, meat raising, dried fruits
Goitre	Iodine	Sea food, iodized salts

- IV. 1. Cerebrum is the largest part of the brain.  
 2. Motor nerves carry orders from the brain or the spinal cord to the muscles and glands and advise them what they should do.  
 3. The immediate help given to an injured or sick person before the doctor arrives is called first-aid.  
 4. Germs are the organisms that cause diseases.  
 5. A diet containing all the nutrients, water and roughage in sufficient amounts is called a balanced diet.
- V. 1. infectious 2. extinguisher 3. health 4. smell 5. skin