

Our Living World

I. Answer the following questions :

Ans. 1. They grow, move, breathe, need food and water, reproduce their own kind, respond to changes in surroundings and feel, have a definite life span and eventually die.

2.

| Living Things | Non-living Things |
|---|--|
| 1. All living things grow. | 1. Non-living things do not grow. |
| 2. All living things move on their own. | 2. Non-living things do not move on their own. |
| 3. All living things breathe. | 3. Non-living things do not breathe. |
| 4. All living things need food and water. | 4. Non-living things do not need food and water. |
| 5. All living things reproduce their own kind. | 5. Non-living things do not reproduce their own kind. |
| 6. All living things feel and respond to changes in the surroundings. | 6. Non-living things do not feel and respond to changes in the surroundings. |
| 7. All living things have a definite life span. | 7. Non-living things do not have a definite life-span. |
| 8. All living things eventually die. | 8. Non-living things never die. |

3. They both are made up of matter. They both occupy space and have mass. Weather conditions effect living and non-living things alike.

4. Green plants prepare their food from water and carbon di-oxide in the presence of sunlight.

5. Their leaves and flowers show movement. The sunflower turns itself towards the sunlight.

6. For touching, seeing, tasting, smelling and hearing.

II. Fill in the blanks :

- Ans.**
1. Non-living things do not **move** on their own.
 2. Living and non-living things are made up of **matter** .
 3. A housefly lives for about **two** weeks.
 4. A seed grows into a **plant**.
 5. A chair is an example of **non-living thing**.
 6. Fish swim with the help of **fins**.

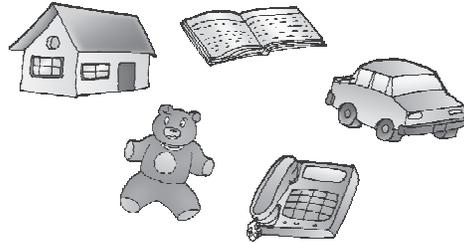
III. Picture 'A' describes living things and picture 'B' describes non-living things. Tick (✓) the true sentences for each :

Ans.



Picture A

- They grow.
- They need water, air and food.
- They produce young ones.
- They can move on their own.
- They are living things.
- They are non-living things.



Picture B

- They do not grow.
- They need water, air and food.
- They produce young ones.
- They cannot move on their own.
- They are living things.
- They are non-living things.

IV. Read the features of living and non-living things listed below. Encircle (O) the features that things in the picture possess.

- | | |
|-----------------------------|-------------------------------------|
| 1. It is a living thing. | 2. It is a non-living thing. |
| 3. It needs food and water. | 4. It does not need food and water. |
| 5. It can move on its own. | 6. It cannot move on its own. |

| | | | |
|-----------------|-----------------|-----------------|-----------------|
| 1 2 3 4 5 6 |
| 1 2 3 4 5 6 |

V. Match the columns :

Ans.

Column 'A'

- (i) birds
- (ii) plants
- (iii) dogs
- (iv) human beings
- (v) butterflies

Column 'B'

- (c) eggs
- (d) seeds
- (e) puppies
- (b) babies
- (a) caterpillars

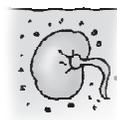
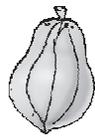
VI. Name the following :

Ans.

1. Three sense organs of the human body.
(a) eyes (b) ears (c) nose
2. Three non-living things in your room :
(a) table (b) chair (c) pen
3. Three animals that lay eggs :
(a) hen (b) frog (c) fish

I. Answer the following questions :

- Ans.**
1. Roots support the plant. They absorb water and minerals from the soil. Roots store food.
 2. Stem supports the upper parts of the plant. It conducts water and minerals. It conducts food. It stores food.
 3. The main function of the leaves is to prepare food for the plant. That is why they are called the kitchen of a plant.
 4. Plants breathe through stomata.
 5. Carbon-dioxide from the air, water from the soil, energy from the sunlight and chlorophyll present inside the leaves.
 6. **Flowers** : They are of various designs, colours and fragrances. They attract insects. Insects help in pollination. A flower grows into a fruit.
Fruits : They are the ripe seed cases of flowering plants. Edible fruits are important in our diet.
Seeds : They help in the reproduction of plants. When seeds begin to grow, it is called germination.
 7. Plants are useful to us in the sense that they are the source of our life. We depend on them for food, clothing, shelter, medicines and many other useful things. Plants also produce the pure air we breathe. Plants are important food sources for human beings and animals.
 8. When seeds begin to grow, it is called germination. It takes place under the proper climatic conditions in suitable type of climate. For it water, air and warmth is required.



Germination of seed

II. Fill in the blanks :

- Ans.**
1. The **stem** of plant grows above the ground.
 2. The **root** holds soil particles firmly to support the plant.
 3. **Leaves** are known as the 'food factories' of the plant.
 4. Leaf blade has many tiny pores called **stomata**.
 5. The most beautiful part of a plant is **flower**.
 6. Flowers grow into **fruits**.
 7. A strong and hard stem of a tree is called **trunk**.
 8. **Stem** carries water and minerals to the various parts of the plant through roots.

III. Write whether the following statements are 'true' or 'false' :

- | | | |
|-------------|---|--------------|
| Ans. | 1. Plants have life. | True |
| | 2. Carrots and radish store food in their roots. | True |
| | 3. A fibrous root system has several tiny roots. | True |
| | 4. Some plants have climbing roots arising from the stem. | False |
| | 5. Plants make food in the leaves. | True |
| | 6. The stem absorbs water and minerals from the soil. | True |
| | 7. Animals cannot make their own food. | True |

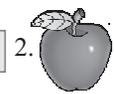
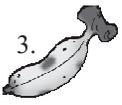
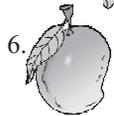
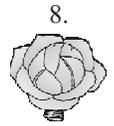
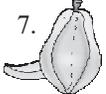
IV. Name the part of the plants :

- | | | |
|-------------|---|----------------|
| Ans. | 1. It supports the plant. | stem |
| | 2. It absorbs water from the soil. | root |
| | 3. Food of the plant is made here. | leaf |
| | 4. Air enters the plants through them. | stomata |
| | 5. Fine tubes present on the leaves. | veins |
| | 6. It holds the plant firmly to the soil. | root |
| | 7. It contains seeds inside the body. | fruit |
| | 8. It turns into fruits after sometime. | flower |

V. Match the following columns :

- | | | |
|-------------|-----------------------------|-------------------|
| Ans. | Column 'A' | Column 'B' |
| | 1. Helps in breathing | (b) Stomata |
| | 2. Grow below the soil | (d) Root |
| | 3. Makes food for the plant | (e) Leaves |
| | 4. A type of root | (f) Tap root |
| | 5. Changes into fruit | (c) Flower |
| | 6. Protect seed within | (g) Fruit |
| | 7. Support the leaf | (a) Leaf stalk |

VI. Complete the given word grid with the help of pictures :

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Ans. | 1.  | <table border="1"> <tr><td>J</td><td>A</td><td>S</td><td>M</td><td>I</td><td>N</td><td>E</td></tr> <tr><td>A</td><td>P</td><td>P</td><td>L</td><td>E</td><td></td><td></td></tr> <tr><td>B</td><td>A</td><td>N</td><td>A</td><td>N</td><td>A</td><td></td></tr> <tr><td>L</td><td>E</td><td>A</td><td>F</td><td></td><td></td><td></td></tr> <tr><td>R</td><td>O</td><td>S</td><td>E</td><td></td><td></td><td></td></tr> <tr><td>M</td><td>A</td><td>N</td><td>G</td><td>O</td><td></td><td></td></tr> <tr><td>P</td><td>A</td><td>P</td><td>A</td><td>Y</td><td>A</td><td></td></tr> <tr><td>C</td><td>A</td><td>U</td><td>L</td><td>I</td><td>F</td><td>L</td><td>O</td><td>W</td><td>E</td><td>R</td></tr> </table> | J | A | S | M | I | N | E | A | P | P | L | E | | | B | A | N | A | N | A | | L | E | A | F | | | | R | O | S | E | | | | M | A | N | G | O | | | P | A | P | A | Y | A | | C | A | U | L | I | F | L | O | W | E | R | 2.  | 4.  |
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| A | P | P | L | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | A | N | A | N | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| R | O | S | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M | A | N | G | O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | A | P | A | Y | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | A | U | L | I | F | L | O | W | E | R | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3.  | | 6.  | 8.  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5.  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7.  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

VII. Write examples of :

- Ans.**
- | | |
|-------------------|---------------|
| 1. (i) Radish | (ii) Carrot |
| 2. (i) Potato | (ii) Ginger |
| 3. (i) Pines | (ii) Spruce |
| 4. (i) Cactus | (ii) Ocotillo |
| 5. (i) Watermelon | (ii) Cucumber |
| 6. (i) Mango | (ii) Banyan |
| 7. (i) Apple | (ii) Orange |
| 8. (i) Mango | (ii) Litchi |

3

Animals' Food and Their Feeding Habits

I. Answer the following questions :

- Ans.**
1. The carnivores have sharp, pointed front teeth for piercing and tearing the flesh. At the back, they have broad, flat teeth for chewing the flesh.
 2. To grow, to remain healthy and for getting energy.
 3. They have a long, hollow tube in their mouth.
 4. By swallowing.
 5. Herbivores first swallow the food without chewing it. After they taken their full, they bring the food back into their mouth and chew it properly. This process is known as chewing the cud.
 6. A lion eats animals such as deer or goat. Goat eats plants. Plants make their own food. This is a food chain.

II. Fill in the blanks :

- Ans.**
1. Animals need **food** to live and grow.
 2. A **butterfly** has a large sucking tube to suck nectar.
 3. A tiger is a **flesh** eating animal.
 4. Gnawing animals have a pair of **sharp** teeth.
 5. Grass eating animals have **flat** teeth to grind their food.

III. Match the following columns :

- | Ans. | Column 'A' | Column 'B' |
|-------------|-------------------------------------|-------------------------|
| | 1. A pair of sharp long front teeth | (d) squirrel |
| | 2. Have long sucking tube | (c) butterfly |
| | 3. Have no teeth | (b) snake |
| | 4. Have flat biting teeth in front | (e) cow |
| | 5. Always starts from a plant | (a) a food chain |

IV. Encircle the animal that does not belong to the group :

Ans. Animal that

- | | |
|----------------------------|---|
| 1. eat flesh | lion, fox, dog, <u>rhinoceros</u> |
| 2. swallow food as a whole | snake, frog, fish, <u>buffalo</u> |
| 3. eat plants | cow, <u>lion</u> , deer, goat, zebra |
| 4. gnaw food | rat, rabbit, squirrel, <u>crocodile</u> |

V. Name one animal for each, who has it?

- | | | |
|-------------|--|------------------|
| Ans. | 1. Needle like tube to such nectar. | butterfly |
| | 2. Sharp pointed front teeth. | tiger |
| | 3. A long, sticky tongue. | frog |
| | 4. Flat and sharp front teeth. | cow |
| | 5. An animal that has a hole-like mouth. | snake |

Now You Do

(I) Solve the following cross-word with the help of clues given below:

Ans.



(II) Observe any 5 animals living around you and note their eating habits in the following table:

Ans. Do it yourself.

4

Learning About Birds

I. Answer the following questions :

- Ans.**
1. Most birds have light body parts. Their body is shaped like aeroplanes. They have well-formed wings, strong flight muscles and a tail for changing direction.
 2. Down feathers help to keep the birds warm. Body feathers help the birds to give shape to its body. Flight feathers help the birds in flying and changing the direction.

3. Perching birds have three toes in front and one at the back. The toes help them to hold on to the branch. These birds thus sleep while perching, without falling from the trees.
4. They have three toes in front which are joined together with their skin. These help in swimming by pushing back water.
5. Strong, hooked beaks.
6. They have heavy and cushion like toes. They do not sink into the desert sand as they run fast.

II. Fill in the blanks :

- Ans.**
1. **Swimming** birds have webbed feet.
 2. The beak of duck has **strainers** along the edge.
 3. **Flesh eating** birds have talons.
 4. **Flight** feathers help the birds to fly.
 5. The body of a bird is **shaped like aeroplanes**.
 6. Beaks and claws tell us about the **eating** habits of birds.

III. Write whether the following statements are 'true' or 'false' :

- Ans.**
- | | |
|--|--------------|
| 1. Most birds have light and boat-shaped bodies. | True |
| 2. Birds chew their food with the help of their teeth. | False |
| 3. Webbed feet help the ducks to swim. | True |
| 4. Woodpeckers have long sharp beaks. | False |
| 5. Most birds are strong and heavy. | False |
| 6. Flight feathers of birds are fluffy. | False |

IV. Give one word for each of the following :

- Ans.**
- | | |
|---|---------------------|
| 1. Feathers which keep the birds warm. | Down feather |
| 2. The bird that has a long beak for poking into flowers. | Humming bird |
| 3. This bird has webbed feet. | Duck |
| 4. This bird has a curved beak to crack nuts. | Hornbill |
| 5. A bird that has toes which do not sink into the desert sand. | Ostrich |

V. Write two examples of each :

- Ans.**
- | | | |
|-----------------------------------|----------------|-----------------|
| 1. Strong and hooked beak | Vulture | Owl |
| 2. Sharp, strong and pointed beak | Pigeon | Sparrow |
| 3. Hooked beak | Parrot | Hornbill |
| 4. Short, hard and horny beak | Pigeon | Peacock |
| 5. Broad and flat beak | Duck | Swan |
| 6. Broad and short beak | Swallow | Finch |

VI. Write the two arrangement of the following :

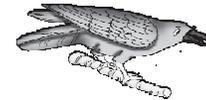
- | | | |
|-------------|--------------------|--------------------|
| Ans. | 1. Swimming bird | Duck, Swan |
| | 2. Perching bird | Crow, Sparrow |
| | 3. Scratching bird | Hen, Ostrich |
| | 4. Climbing bird | Parrot, Woodpecker |
| | 5. Running bird | Ostrich, Hen |

VII. Find the name of the birds in the word grid :

Ans.



| | | | | | | |
|---|---|---|---|---|---|---|
| P | I | G | E | O | N | V |
| A | M | E | L | K | O | U |
| D | U | C | K | J | S | L |
| P | A | R | R | O | T | T |
| B | D | O | I | P | R | U |
| E | G | W | N | O | I | R |
| E | A | G | L | E | C | E |
| F | H | Q | R | S | H | T |



5

Birds' Nesting Habits and Care of the Young Ones

I. Answer the following questions :

- Ans.**
1. Birds build their nests in safe and hidden places like rooftops , broken walls, old buildings, on poles, the hollow of trees and bushes.
 2. Birds use leaves, twigs, grass, feathers, wool, cotton, rags, mud or pebbles to make their nests.
 3. Both the birds, male and female take care of the eggs and protect them from enemies. Young ones hatch out from the eggs. The parents feed them and protect them from bad weather too. When their feathers grow the parents teach them to fly and look for food on their own.
 4. A tailor bird builds it nests with two or three leaves near one another and stitches them together. It uses it sharp, curved beak as a needle for

stitching and use cotton, wool and silk as thread. It stuffs the leaves with cotton, hair or feathers to make its nest cosy.

5. The mother bird lays its eggs in the nest. The eggs are kept warm by sitting on them. After some time young ones hatch out from the eggs.
6. Penguins grow their nest on the ground. They use pebbles and stones to make their nest.

II. Fill in the blanks :

- Ans.**
1. **Cuckoo** does not make nest of its own.
 2. Vulture makes its nest high upon a **tree**.
 3. Penguin lives in the **South** pole of the earth.
 4. Partridge makes its nest in the **ground**.
 5. The parent birds protect their young ones from their **enemies**.

III. Write the special features of following nest :

- Ans.**
1. Two or three leaves are stitched together for nest.
 2. It is built high upon a tree.
 3. A woodpecker makes its nest in the tree trunks.
 4. It weaves the grass and twigs in and out rapidly by making knots of it.
 5. It is built on the ground.

IV. Match the following columns :

- | Ans. | Column 'A' | Column 'B' |
|-------------|--|-----------------------|
| | 1. build a long tunnel-shaped nest | (f) Kingfisher |
| | 2. never builds a nest of its own | (a) Cuckoo |
| | 3. builds nest in the corner of a bush | (d) Bulbul |
| | 4. builds nest in a tree trunk | (e) Woodpecker |
| | 5. builds nest on very high trees | (c) Eagle |
| | 6. build nest on the ground | (b) Fowl |

V. Name these birds :

- | | | |
|-------------|--|--------------------|
| Ans. | 1. Makes a hollow cup-shaped nest | Fowl |
| | 2. Stitches leaves to make nest | Tailor bird |
| | 3. Weaves a beautiful nest | Weaver bird |
| | 4. Lays eggs in the nest of other birds | Cuckoo |
| | 5. Lives in hollow of tree or wall | Owl |
| | 6. Uses pebbles and stones for making nest | Penguin |

Human Body : A Wonderful Machine

I. Answer the following questions :

- Ans.**
1. Brain.
 2. All the 206 bones of human beings are joined together as a framework called the skeletal system. This system gives our body shape, form and support. Muscles make up the muscular system. This system works closely with the skeletal system and forms part of the body's framework.
 3. Two lungs, windpipe and nose.
 4. The reproductive system helps all living beings including human beings to produce their offsprings. Male and female have different reproductive organs.
 5. The Skeletal System, The Muscular System, The Circulatory System, The Respiratory System, The Excretory System, The Reproductive System.
 6. (i) We should take bath daily.
(ii) We should dry our body with a clean towel and should put on clean clothes.
(iii) We should wash our eyes daily with clean water.
(iv) We should not rub our eyes.
(v) We should not touch our eyes with dirty clothes or hands.
(vi) We should use ear buds to clean our ears.
(vii) We should use a clean handkerchief or a tissue paper to clean our nose.
(viii) We should brush our teeth after every meal and clean our tongue with tongue cleaner in the morning.

II. Fill in the blanks :

- Ans.**
1. **Skeletal** system provides shape and support to our body.
 2. A group of cells together forms a **tissue**.
 3. **Excretory** system helps our body to remove waste material.
 4. Sense organs help us to sense the **things** around us.
 5. All sense organs send messages to the **brain** for proper reaction.
 6. **Heart** pumps blood to all parts of our body.
 7. The waste undigested food from the large intestine is thrown out of the body through the **anus**.

III. Match the following columns :

| | | |
|-------------|--------------------|-----------------------------|
| Ans. | Column 'A' | Column 'B' |
| | 1. Produce babies | (h) The reproductive system |
| | 2. Kidneys | (g) The excretory system |
| | 3. Brain | (f) The nervous system |
| | 4. Small intestine | (e) The digestive system |
| | 5. Heart | (d) The circulatory system |
| | 6. Lungs | (c) The respiratory system |
| | 7. Muscles | (b) The muscular system |
| | 8. Skull | (a) The skeletal system |

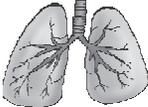
IV. Write names of the various organs of :

| | | | | |
|-------------|-----------------------------------|-------------|---------------|-----------------------|
| Ans. | 1. Nervous system : | (i) brain | (ii) nerves | (iii) spinal cord |
| | 2. Digestive system (any three) : | (i) teeth | (ii) stomach | (iii) small intestine |
| | 3. Circulatory system : | (i) heart | (ii) veins | (iii) arteries |
| | 4. Respiratory system : | (i) lungs | (ii) windpipe | (iii) nose |
| | 5. Excretory system : | (i) kidneys | (ii) lungs | (iii) skin |

V. Who am I?

| | | |
|-------------|---|-----------------|
| Ans. | 1. I take blood from the heart to every part of the body. | arteries |
| | 2. I become big when you breathe in. | lung |
| | 3. I work like filters and clean the blood. | lungs |
| | 4. I join the nose to the lungs. | windpipe |
| | 5. I take food from the mouth to the stomach. | foodpipe |

VI. Complete the table :

| Ans. | Organ | Name | Work-it does |
|-------------|---|---------------------------------|-------------------------|
| |  | Heart; Circulatory system | Circulation of blood |
| |  | Lungs Respiratory System | Respiration |

VII. Give one word for each of the following :

- | | | |
|-------------|---|---------------------|
| Ans. | 1. The 'master organ' of the body. | Brain |
| | 2. The system made up of bones. | Skeleton |
| | 3. Organ that pumps the blood. | Heart |
| | 4. Few organs together doing one major work for the body. | Organ System |
| | 5. The basic unit of a body. | Cell |

7

Safety Rules and First-Aid

I. Answer the following questions :

- Ans.**
1. Before crossing, look at your right, then left and then right again. Then cross the road.
 2. Electric items, blade, knife, glass items, matches.
 3. By obeying the rules of game.
 4. Safety rules are those rules which avoid accidents and protect us. Such as, we must cross the road at the zebra crossing.
 5. After an accident, the first medical-aid given to the injured person, is called first-aid. It is very useful to an injured person. It provides injured person the necessary relief, and sometimes save his life.

II. Fill in the blanks :

- Ans.**
1. Playing with live wires will give **electric shocks**.
 2. It is always safe to cross the road at the **zebra** crossing.
 3. Disinfect a cut with **dettol**.
 4. Do not light **fire** or **put it off by yourself**.
 5. If someone swallows poison, give him white part of an **egg**.

III. What would yo do if :

- Ans.**
1. I will wrap a blanket around him.
 2. I will not move his injured part.
 3. I will switch off the main switch first.
 4. I will give him white part of an egg.
 5. I will keep the burnt finger in ice-cold water for sometime.

IV. Match the following columns :

- | Ans. | Column 'A' | Column 'B' |
|-------------|-----------------------------|-----------------------------------|
| | 1. Use dettol or savlon | (d) to disinfect the wound |
| | 2. Wrap the blanket | (a) to put out the flame |
| | 3. Give milk or egg albumin | (b) if someone swallows poison |
| | 4. Switch off the main | (e) if one gets an electric shock |
| | 5. Cross the road | (c) at the zebra-crossing |

V. Write two safety rules, which you should follow :

- Ans.**
1. At home :
 - (i) Not playing with electric wires.
 - (ii) Not playing with matchstick.
 2. On the road :
 - (i) Using zebra-crossing for crossing the road.
 - (ii) Going on left side of the road.

8

Unit – 3 Human Needs

Housing and Clothing

I. Answer the following questions :

- Ans.**
1. It should have separate rooms for sitting, sleeping, bathing, cooking, study and storage. It should be well-lit and airy. Doors and windows should have a wire-netting to keep flies and mosquitoes away. It should have proper water supply and proper drainage system.
 2. Sunlight keeps the house dry and free from germs.
 3. By sweeping the house atleast twice a day. By washing washbasins, toilets and bathroom daily with some antiseptic. By throwing garbage at a proper dumping place. By having a fixed place for keeping things.
 4. It provides fresh air, sunlight and a place to play.
 5. Clothing is one of our basic needs. We need clothes to protect our body. Clothes make us look attractive and smart.
 6. We should clean our homes properly. We should cover the dustbins so that flies do not breed in the rubbish. We should keep our clothes clean.

II. Fill in the blanks :

- Ans.**
1. Our house protects us from **unpleasant weather** and **other dangers**.
 2. **Sunlight** must come into the rooms to keep them dry and germ free.
 3. The floor of the house should be **cleaned** everyday.
 4. **Netting** on windows keep mosquitoes and flies away.
 5. People doing specific jobs wear special dresses called **uniforms**.
 6. **Cleanliness** is the way to a healthy living.

III. Match the following columns :

- | Ans. | Column 'A' | Column 'B' |
|-------------|----------------------|---------------------------|
| | 1. Fabric | (e) yarn |
| | 2. Colourful clothes | (c) parties |
| | 3. Germs | (d) infection |
| | 4. Wool | (a) sheep |
| | 5. Good hygiene | (b) healthy living |

IV. Tick (✓) the right answer :

- Ans.**
- In summers, we wear clothes made of:
(a) wool (b) cotton
(c) fur (d) all of these
 - Which of the following are short, hair-like structures?
(a) fibres (b) yarn
(c) fabric (d) clothes
 - A house made of bricks and cement is called a :
(a) kachcha house (b) hut
(c) tent (d) pucca house

9

Unit – 4 The Environment

Air, Water and Weather

I. Answer the following questions :

- Ans.**
- Air is made up of several gases and other things. It contains nitrogen, oxygen, carbon-dioxide, water vapour, small germs and dust particles.
 - The heat of the sun changes the water in the seas, oceans, rivers, lakes, ponds and streams into water vapour through the process of evaporation. This water vapour being lighter than air, rises up high in the sky. The air higher up is cooler. When the water vapour comes in contact with this cold air, it changes into tiny drops of water. These tiny drops of water cling together to form clouds.
 - Solid, liquid and gas. By heating water we can convert it into water vapour.
 - The sun, the wind, the clouds and the rain.
 - When the weather remains almost the same for a long time period, it is called a season. There are four major seasons in India : Summer, rainy, winter and spring. In summer, the days are sunny and warm. In rainy season, the weather remains humid and most of the days are cloudy. In winter, some parts of country become very cold and have snowfall. In spring, it is neither too hot nor too cold. Flowers bloom in the gardens in this season.
 - Evaporation :** If we boil water, it changes into steam or water vapour. This process is known as evaporation.
Condensation : When vapours are cooled they are changed into water. This process is known as condensation.
 - Because this is the time when sun shines bright directly overhead.

II. Fill in the blanks :

- Ans.**
- In summer, we wear **cotton** clothes.
 - At the noon time, the sun shines directly **overheads**.

3. Soft and gentle wind is called **breeze**.
4. The rainy season is called **monsoon**.
5. When there is heavy rain, large **streams** are formed.
6. **Weather** can change many times a day.
7. In **winter** we like the warmth of the sun.

III. Write whether the following statements are 'true' or 'false' :

- | | | |
|-------------|--|--------------|
| Ans. | 1. Too much rain can cause floods. | True |
| | 2. Houses in many places have flat roofs. | True |
| | 3. Accidents do not occur on foggy days. | False |
| | 4. In winter, we do not like the heat of the sun. | False |
| | 5. When the wind blows softly, it is called a storm. | False |
| | 6. Noon time is the hottest time of the day. | True |

IV. Match the following columns :

- | | | |
|-------------|---|------------------------------|
| Ans. | Column 'A' | Column 'B' |
| | 1. Ice | (b) solid form of water |
| | 2. Water droplets present on dust particles | (a) clouds |
| | 3. Slow wind | (e) breeze |
| | 4. Umbrella | (c) rainy season |
| | 5. Nitrogen | (d) a gas present in the air |

V. Give one word for each of the following :

- | | | |
|-------------|---|---------------------|
| Ans. | 1. Change of water-vapour into water. | condensation |
| | 2. Gently blowing wind. | breeze |
| | 3. Substance that dissolves in a liquid. | solute |
| | 4. A fast blowing wind. | storm |
| | 5. A liquid that contains a dissolved material. | solvent |

VI. Name the following :

- | | | | |
|-------------|----------------|---------------|-----------------------|
| Ans. | 1. (i) Solid | (ii) Liquid | (iii) Gas |
| | 2. (i) Sugar | (ii) Salt | (iii) Copper sulphate |
| | 3. (i) Nails | (ii) Wood | (iii) Wax |
| | 4. (i) The sun | (ii) The wind | (iii) The rain |
| | 5. (i) Summer | (ii) Winter | (iii) Rain |

10

Rocks and Soils

I. Answer the following questions :

- Ans.** 1. Soil is the uppermost layer of earth's crust. Soil is important for all living things for these reasons. Plants take in water and minerals from the soil to grow and make food. Man and all animals depend on the plants for their food. Some animals like ants and earthworms make their homes in the

soil. We depend on soil for metals, plaster, clothes, petrol and wood directly or indirectly.

2. A long time ago, there was no soil on the earth. The entire surface of the earth was covered with rocks. The rocks at different places were different in colour and texture. The force of water and wind and the changes in weather, kept breaking the rocks into small pieces. When these rocks broke into very small pieces, they formed soil.

3. When plants and animals die their bodies rot and get mixed with the soil. Soil contains tiny pieces of rocks and rotten pieces of dead plants and animals.

4. **Sandy soil** : It is grey or light brown. It cannot hold water for long time. It is not good for the growth of plants.

Clayey soil : It has small pieces. It feels smooth when touched. Only some plants like paddy can grow in it, because it need a lot of water. It is also not good for plant growth.

Loamy soil : It is a mixture of sandy and clayey soil. This soil is best for growth of plants. It is porous in nature and can retain water in itself.

Gravel : It is made up of big and small pieces of rocks. It does not hold water. It is very poor in humus composition. It is also not good for growth of plants.

5. Soil is formed in mainly layers. The arrangement of different layers of soil, is called soil profile. The various layers of soil are different from each other. The dark coloured top layer is called topsoil.

Below top soil is a light coloured layer consists of small rock pieces. This is called the sub-soil.

The bottom layer is bed rock, which is made up of solid rock.

Top soil is rich in humus. Plants grow in it because it is very fertile. The roots develop up to the sub-soil.

6. All plants grow well, if manure is added to the soil. It contains a lot of humus. For this reason farmers add manure to the soil.

II. Fill in the blanks :

- Ans.
1. The animal and plant remains form the **humus**.
 2. Paddy grows well in **clayey** soil.
 3. Sandy soil is found in **beaches** and **desert**.
 4. **Clayey** soil is used to make toys and pots.
 5. Most plants grow well in **loamy** soil.

III. Match the following columns :

- | Ans. | Column 'A' | Column 'B' |
|------|-------------------------------|-----------------------|
| | 1. Rock | (e) has stones |
| | 2. Liquid core of molten rock | (a) inside the earth |
| | 3. Coal | (c) fuel |
| | 4. Hard rock | (b) granite |
| | 5. Sandy soil | (f) larger particles |
| | 6. Clayey soil | (g) smaller particles |
| | 7. Loamy soil | (h) rich in humus |
| | 8. Gravel | (d) soil |

IV. Write whether the following statements are 'true' or 'false' :

- | | | |
|-------------|---|--------------|
| Ans. | 1. Clayey soil is found in a desert. | False |
| | 2. Loamy soil is good for plants. | True |
| | 3. Soil is of many different colours. | True |
| | 4. Soil does not contain air. | False |
| | 5. Humus is made of rotten plants and dead animals. | True |
| | 6. Paddy grows well in sandy soil. | False |
| | 7. Air occupies space between soil particles. | True |

V. Write :

- | | | |
|-------------|---------------|----------------|
| Ans. | 1. (i) Cactus | (ii) Palm |
| | 2. (i) Rice | (ii) Cabbage |
| | 3. (i) Wheat | (ii) Sugarcane |

VI. Name the following :

- | | | |
|-------------|--|---------------|
| Ans. | 1. It is found in the soil and is very important for plants. | humus |
| | 2. Rocks are made up of them. | stones |
| | 3. Soil, that can hold water, but not air. | clayey |
| | 4. Soil that cannot hold much water. | sandy |
| | 5. One metal which we get from a mineral. | iron |

VII. Rearrange the letters given in the brackets and then fill in the blanks :

- Ans.**
1. **Loam** (amlo) is the best soil for the plants.
 2. **Humus** (mhsuu) makes the soil fertile.
 3. Soil is formed by the breaking of **rocks** (sockr)
 4. **Clay** (yacl) is used to make pots and toys.
 5. **Sand** (ansd) is found on the beach or in a desert.

VIII. Tick (✓) the correct answer :

- Ans.**
1. Which of these do not live in the soil?
(a) earthworms (b) micro-organisms
(c) butterflies (d) snakes
 2. Which of these is made from sand?
(a) plastic (b) glass
(c) rubber (d) gum
 3. Which of these things is not a natural part of the soil?
(a) air (b) water
(c) glass (d) sand
 4. Which of these is the heaviest material in the soil?
(a) clay (b) humus
(c) pebbles (d) all of these
 5. Which of these is the lightest material in the soil?
(a) sand (b) clay
(c) soil (d) none of these

Light, Sound and Force

I. Answer the following questions :

- Ans.**
1. Light travels in a straight line.
 2. A shadow is formed when something blocks the path of the light.
 3. Sound is a form of energy which can be heard. Sound comes from the vibrations of an object. We use the bonebox, in our throat to speak.
 4. Vibration is the quick movement of an object up and down or from side to side.
 5. The pull or push is called force.
 6. Energy is the capacity to do work. We all do some type of work, so we need energy.
 7. Sound is a form of energy. Sound needs a medium to travel. Without air it is not possible to hear sound. Sound travels through solids, liquids and gases.
 8. Natural sound, man-made sound and unwanted sound called noise.

II. Fill in the blanks :

- Ans**
1. **Light** is a form of energy which can be seen.
 2. Anything that gives out light is called a **luminous** object.
 3. **Reflection** is the return of light after striking a surface.
 4. **Our lips** and **tongue** shape, give sounds to the word.
 5. We use the **bone box** in our throat to speak.
 6. To move something we have to **push** or **pull** it.
 7. Our body gets energy from **food**.
 8. The **sun** is our main natural source of light.

III. Write whether the following statements are 'true' or 'false' :

- Ans.**
- | | |
|--|--------------|
| 1. Only the sun can produce its own light. | False |
| 2. When the path of light is blocked, a shadow is formed. | True |
| 3. We get energy from the sleep, to do work. | False |
| 4. Slow 'to and fro' movement of something produces sound. | False |
| 5. Music can damage your ears, if played very loudly. | True |
| 6. You need more force to move heavy objects. | True |

IV. Match the following columns :

- | | | |
|-------------|-------------------|---------------------------|
| Ans. | Column 'A' | Column 'B' |
| | 1. Work | (c) moving things |
| | 2. Petrol | (b) energy to cars |

3. Loud sound (e) **can hurt your ears**
 4. Energy (d) **needed to work**
 5. Objects that give out light (a) **luminous objects**

V. Tick (✓) the right answer :

- Ans.**
- Which of the following types of objects creates shadow?
 (a) opaque (b) translucent
 (c) transparent (d) none of these
 - Which of the following is a non-luminous object?
 (a) the sun (b) candle
 (c) the stars (d) book
 - Unpleasant sound is called:
 (a) music (b) noise
 (c) songs (d) all of these
 - We get energy to do work from:
 (a) food we eat (b) games we play
 (c) books we study (d) music we listen
 - Objects that allow some light to pass through them are called:
 (a) transparent (b) translucent
 (c) opaque (d) none of these

Unit – 6 Our Universe

12

The Sun, The Moon and The Stars

I. Answer the following questions :

- Ans.**
- Patterns of the stars in the sky are called constellations. Ursa Major, scorpius and Orion are three important constellations.
 - The moon actually does not change its shape. It appears to change its shape because we do not always see the full bright side of the moon.
 - The sun alongwith all the planets together with their satellites, form the solar system.
 - After two weeks of the new moon day, the moon is on the opposite side. The full side facing us gets sunlight. We can then see the full moon.
 - It is dry and barren. There is no water and air on the surface of the moon. With the result there is no possibility of life.

6. Neil Armstrong and Edwin Aldrin. They saw mountains and huge ditches called craters there.
7. The sun is very important because it provides heat and light to earth.

II. Fill in the blanks :

- Ans.**
1. Our solar system has **eight** planets.
 2. The **moon** is a natural satellite of the earth.
 3. The sun is a huge ball of burning **gases**.
 4. The moon takes about **27¹/₃** days to go round the earth.
 5. The word solar means **of the sun**.
 6. **Milky way** and **Andromeda** are examples of galaxies.
 7. The sun is actually **a star**.

III. Match the two columns :

| Ans. | Column 'A' | Column 'B' |
|-------------|-------------------|--------------------------|
| | 1. The sun | (c) star |
| | 2. The moon | (e) satellite |
| | 3. The earth | (f) planet |
| | 4. Scorpius | (d) constellation |
| | 5. Aryabhata | (b) astronomer |
| | 6. Neil Armstrong | (a) astronaut |

IV. Write whether the following statements are 'true' or 'false':

- | | | |
|-------------|---|--------------|
| Ans. | 1. You can light a fire on the moon. | False |
| | 2. The stars go away from the sky during the day. | False |
| | 3. When the lighted portion of the moon cannot be seen at all, we call it new moon. | True |
| | 4. The stars form some definite beautiful patterns in the sky. | True |
| | 5. The moon is a planet. | False |
| | 6. Without the sun there would be no life on the earth. | True |
| | 7. The moon is closer to us than the sun. | True |

V. Give one word for each of the following :

- | | | |
|-------------|--|-----------------------|
| Ans. | 1. Huge ditches on the surface of the moon. | craters |
| | 2. Star patterns. | constellations |
| | 3. Round objects that move around the sun. | planets |
| | 4. The moon when it is in between the earth and the sun. | New moon |

VI. Tick (✓) the right answer :

- | | | |
|-------------|---|-------------------------------------|
| Ans. | 1. Who among the following was not an astronomer? | |
| | (a) Galileo | <input type="checkbox"/> |
| | (b) Varahamihira | <input type="checkbox"/> |
| | (c) Newton | <input checked="" type="checkbox"/> |
| | (d) Aryabhata | <input type="checkbox"/> |

2. The brightest star in the Northern Hemisphere is :
 (a) The Pole Star (b) Powerful Star
 (c) Crescent (d) The Sun
3. A group of stars which forms the shape of a hunter :
 (a) Orion (b) Leo
 (c) Ursa Major (d) Scorpius
4. The whole of the lighted moon is called :
 (a) Crescent moon (b) Full moon
 (c) No moon (d) New moon

13

Our Planet : The Earth

I. Answer the following questions :

- Ans.**
- The earth was like a big ball when it was formed.
 - Crust, mantle, core are the three layers of the earth.
 - From very far away the earth looks like an orange.
 - The part of the earth which faces the sun has the day and other part, which is away from the sun, has night. It is so because at one time only the half part of the earth faces the sun.
 - Revolution and the position of the earth around the sun, determines the seasons.
 - Air is everywhere. The envelop of air surrounding the earth, is called atmosphere.
 - The eight planets of the solar system are-the Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. All these planets revolve around the sun. Planets do not have the light of their own. They shine because the sunlight falls on them and they reflect it.
 Mercury is the smallest and nearest planet to the sun. Venus is the closest planet to the earth. It is the brightest object in the sky except the moon. Earth is the only planet suitable for life. Jupiter is the largest planet.

II. Fill in the blanks :

- Ans.**
- The earth is slightly **flat** at both the ends.
 - A **globe** is the model of the earth.
 - The outside layer of the earth is **crust**.
 - Rotation** refers to the spinning of the earth on its axis around itself.

5. Our solar system has **eight** planets in all.
6. The earth spins on its axis once in **24** hours.
7. About **71%** of earth's surface is covered with water.
8. The position of the earth around the sun determines **seasons**.
9. The earth spins on its axis from **west to east**.

III. Write whether the following statements are 'true' or 'false':

- | | | |
|-------------|--|--------------|
| Ans. | 1. The planets have no light of their own. | True |
| | 2. There is life on every planet. | False |
| | 3. The earth is moving all the time. | True |
| | 4. The earth spins on its axis causing changes in seasons. | False |
| | 5. About 30% of earth's surface is water. | False |
| | 6. The earth takes 24 hours to complete one rotation. | True |
| | 7. The planet nearest to the sun is Mercury. | False |
| | 8. Days and nights are caused by the revolution of the Earth around the sun. | False |

IV. Give one word for each of the following :

- | | | |
|-------------|--|----------------------------|
| Ans. | 1. The only planet that supports life. | earth |
| | 2. The central part of the earth. | core |
| | 3. One spins of the earth on its own axis. | rotation |
| | 4. An imaginary line straight through the centre of the earth. | axis |
| | 5. The imaginary path of the earth around the sun. | orbit |
| | 6. The space surrounding the earth by all the heavenly bodies. | universe |
| | 7. A model of the earth. | globe |
| | 8. The lower part of the earth. | southern hemisphere |

V. Find and mark the names of eight planets in the box :

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| J | U | P | I | T | E | R | S | U |
| M | E | R | C | U | R | Y | P | R |
| V | E | N | U | S | J | L | Y | A |
| M | A | R | S | A | T | U | R | N |
| K | R | E | A | R | T | T | P | U |
| L | T | V | E | N | U | S | O | S |
| M | H | N | E | P | T | U | N | E |

VI. Tick (✓) the right answer :

- Ans.**
1. As the earth rotates, the part which faces the sun has :
(a) day (b) morning
(c) noon (d) night
 2. The core of the earth is :
(a) hottest part
(b) coldest part
(c) neither hot nor cold
(d) both hot and cold
 3. The earth moves around the :
(a) moon (b) sun
(c) stars (d) asteroids
 4. When we look from the space, our earth looks like a :
(a) ball (b) bat
(c) orange (d) a flat surface