CANDY TREE

Amazing SCIENCE

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HELP KIT

6-8

1 Food and Food Habits

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. d. 2. d. 3. b. 4. c.

B. Fill in the blanks :

Ans. 1. energy, 2. vitamins, minerals 3. food factories 4. cocoa
5. vitamin D 6. Honey 7. wild animals

C. State True or False :

Ans. 1. True 2. False 3. False 4. True 5. True 6. True. 7. True 8.False

D. Define each of the following terms :

1. Apiary : The place where honey bees are reared is called an apiary.
2. Olericulture : The commercial production of vegetables is called olericulture.
3. Apiculture : The work or rearing honeybees on a large sale is known as apiculture.
4. Autotraphs : Green plants are called autorophs or producers.
5. Heterotrophs : Organisms that cannot produce their own food.
6. Omnivores : Animals that eat both plants and animals.

E. Write one difference between the following :

1. Autorraphs can prepare their own food. Hetrotrophs cannot prepare their own food.
2. Herbivores eat grass and leaves while carnivores eat flesh.
3. Commercial production of vegetables is called olericulture. Rearing honey bees is called apiculture.
4. Omnivores eat both plants and flesh. Scavengers feeds on dead and decaying animals.

F. Match the following columns :

1.	Spinach	a.	Milk-yielding animal
2.	Onion	b.	Vegetable
3.	Deer	c.	Carnivore
4.	Cow	d.	Stem
5.	Tiger	e.	Herbivore

G. Give two examples of each of the following :

1. Pulses : black grams, peas grams
2. Beverages : Tea, coffee
3. Milch animals : cow, buffalo
4. Marine fishes : Hilsa, catfish
5. Carnivores : Lion, Tiger
6. Freshwater fishes : Catla, rohu
7. Predators : Vulture, eagle
8. Ruminant : Cow, buffalo

H. Very Short Answer Type Questions :

Ans. 1. All living things need energy to live and grow.
2. Animal products which are eaten as food are meat, egg, milk, honey, curd, etc.

3. Animals which provides meat and egg are poultry.
4. Lion and Bear
5. Honey is a sweet liquid made by bees from the nectar of flowers. Honey is collected from bee hives.

I. Short Answer Type Questions :

Ans. 1. We need food :
to get energy
for growth and development
for repair and maintenance of body
to fight diseases
to regulate all the body functions.

2. **a. Vegetable curry :** Vegetable, salt, oil, spices and water.
b. Vegetable rice : Rice, grains and water, vegetables.
c. Egg curry : Egg, oil/ghee, spices, vegetables and water.
d. Chapati/Roti : Atta (flour) and water.

J. Long Answer Type Questions :

Ans. 1. Plants and animals are the main sources of food for human being. Plants are producers and store the food in their parts. The food we get from plants part are.

(a) Food from roots are turnip, carrot, sweet potatoes and radish etc. edible part.
(b) Food from stems are ginger, potatoes, garlic and onion etc.
(c) Food from seeds are corn, green gram (moong), wheat and rajma etc.
(d) Food from flowers are broccoli, rose, cauliflower etc.
(e) Food from leaves are cabbage, spinach, mustard and fenugreek etc.
(f) Food from fruits are grapes, mango, orange and apple etc.

2. All livings beings do not need the same kind of food because some living beings are producers, herbivores, carnivores and omnivores.
3. The animal products used as food by human beings are meat, egg, honey, milk, paneer, cheese, butter, ghee and curd etc.
4. **Herbivores**
Herbivores have well-developed molars and premolars for grinding and chewing plants. Some herbivores have many molars while some herbivores like the white-tailed deer, have tall molars with flat upper surfaces for chewing. Some herbivores, like cows, store semi-digested food in a portion of their stomach and bring it back to the mouth for a second chewing.
Carnivores
Carnivores have sharp and pointed teeth to tear flesh. Their canines and incisors are very well-developed. Carnivores need canines to kill and tear meat. Some birds have clawed, pointed toes and sharp, pointed beaks to grab and stab the flesh of their prey.
Omnivores
Mammals like grizzly bears and human beings, and birds like crows and woodpeckers are omnivores. Omnivores survive well in many environments because they eat both plants and animals.

K. Higher Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

2 Components of Food

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. d. 2. a. 3. a. 4. b. 5. d

B. Fill in the blanks :

Ans. 1. carbohydrates 2. animal, plant 3. Vitamins and minerals
4. iodine 5. marasmus

C. Match the following :

1. Protein deficiency	a. Iodine
2. Citrus fruits	b. Warmth and energy
3. Iodised salt	c. Vitamin a
4. Fats	d. Kwashiorkor
5. Papaya	e. Vitamin C

D. Complete the following crossword with the help of the clues provided :
Do yourself

E. State Time or False :
1. False 2. False 3. True 4. False 5. False

F. Name the following
1. potato, beetroot 2. iodine 3. calcium 4. obesity
5. carbohydrates

G. Give reasons for the following :
1. The body of children is building new tissues in short period.
2. Same as first
3. It provides roughage.
4. Due to lack of iodine in body.

H. Very Short Answer Type Questions :

Ans. 1. (i) Carbohydrates (ii) Fats.
2. Fats provides us energy.
3. The functions of proteins are to growth, repair and maintain of our body.
4. (i) Egg (ii) Milk.
5. When we do not take a balanced diet, our body gets deficient in one or more nutrients, it is called malnutrition.

I. Short Answer Type Questions :

Ans. 1. The food that we eat contains some essential components that our body needs. These components are called nutrients. These are carbohydrates, fats, proteins, minerals and vitamins.
2. Fats provides energy. Fats are used as energy stores in our body.
3. Fibres present in the food materials are known as dietary fibres or roughage. Fibres absorb water and excess of fats from the food and help the body to get rid of undigested food.
4. Water is important for us because it is a good solvent and it helps in transportation of various substances and carrying the digested food to all parts of the body.
5. The lack of nutrients in our food lead to deficiency diseases.

J. Long Answer Type Questions :

Ans. 1. A diet that has the right amount of all the nutrients is called a balanced diet. Eating a balanced diet keeps us healthy. The quantity of various

nutrients in a balanced diet varies according to the age, health, and work done by a person.

2. Fast food items contain a lot of carbohydrates and fats. Eating such food in good amount may cause obesity. Obesity is a condition in which excess body fats gets accumulated and affects the health of a person. Obesity is also caused due to less physical activity and it can lead to other complications like health problems. Certain food items containing chemicals like food colours and preservatives are also harmful for health. We should avoid such food.

3.

S.No.	Sources	Minerals	Importance in the body
1.	Milk	Calcium	For building bones and teeth, helps blood to clot
2.	Eggs	Phosphorus	For building bones and teeth
3.	Fish	Phosphorus	For buildings bones and teeth
4.	Green Vegetables	i. Calcium ii. Iron iii. Sodium	For buildings bones and teeth, helps blood to clot. Making blood in the body, Maintains water balance in the body

K. High Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

3 Fibre to Febric

Exercise

A. Multiple Choice Questions (MCQs) :

Choose the correct option :

Ans. 1. d. 2. a. 3. a. 4. d.

B. Fill in the blanks :

Ans.
1. We wear clothes to make ourselves look **good.**
2. Clothes made of **cotton** are widely worn in summer.
3. The process of removing seeds from the cotton fibre is called **ginning.**
4. **Jute** is the world's cheapest natural fibre.
5. Due to **scales** and **crimps**, wool can be woven to make fibre.

C. State True or False :

Ans. 1. False 2. True 3. True 4. False 5. True

D. Very Short Answer Type Questions :

Ans.
1. (i) Cotton (ii) Wool. 2. (i) Silk (ii) Wool.
3. The fibres obtained artificially by chemical processes are called synthetic fibres. **Example :** Nylon, rayon.
4. (i) Main sources of wool : sheep, goat
   (ii) Main source of silk : Cocoon

E. Short Answer Type Questions :

Ans. 1. The uses of cotton are :
   (i) Mixed with 1-2% synthetic fibre, it forms a very resistant, long lasting and wrinkle-free fabric.
   (ii) Cleaned and carded raw cotton is used as bandage for covering wounds.
   (iii) It is filled in pillows, quilts and mattresses.
2. The optimum conditions for the growth of jute are soil and temperature.
3. In hot climate, cotton clothes are more suitable because it is soft, allows air to pass and absorb sweat.

4 Sorting Materials into Groups

Exercise

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. c. 2. c. 3. c.

B. State True or False :

Ans. 1. True 2. True 3. False 4. False 5. True.

C. Fill in the blanks :

Ans. 1. It is convenient to arrange things **grouping.**
2. **Glass window** and **Acrylic sheets** are transparent materials.
3. The mass per unit volume of a substance is known as **density.**
4. A substance which is less **dense** than water will sink.
5. Light does not pass at all through **opaque** materials.

D. Match the following :

Ans.

1. Air	b. Transparent
2. Butter paper	a. Translucent
3. Sodium	d. Soft metal
4. Salt	e. Soluble in water
5. A gas that dissolves in water	c. Oxygen

E. Very Short Answer Type Questions :

Ans. 1. The grouping together of things with similar properties is called classification.
2. Opaque are the objects through which you cannot see at all. Light does not pass at all through these materials.
3. When chalk powder and sand are added to water, these do not dissolve in water.
4. The mass per unit volume of a substance is known as density.

F. Short Answer Type Questions :

Ans. 1. A method of grouping similar things together is called classification. This is done on the basis of similarities and dissimilarities between different things around us.
2. Transparency is the property of transparent materials. It is the ability to see through transparent materials. Since light passes fully through these materials, we can easily see clearly through them.

3. a. Glass window—**Transparent**
b. Oily paper—**Translucent** c. Wood—**Opaque**
d. Plastic used to cover books—**Translucent** e. Thin muslin cloth—**Translucent**
4. **Materials Things**
a. Cotton : Ear buds, pillow, cotton bed sheet, cloth, towel
b. Leather : purses, shoes, bags, jackets, sandal
c. Paper : Books, Notebooks, Newspaper, Magazines, Diary
d. Plastic : Pen, slippers, water tank, pipe, plastic mug
e. Metal : Bucket, jewellery, pen, bikes, fans
f. Wood : Tables, chairs, pencils, doors, windows

G. Long Answer Type Questions :

Ans. 1. **The importance of classifying things are :**
(i) helps in sorting out the objects.
(ii) make it easier to locate any object quickly i.e., saves time
(iii) is convenient to arrange things systematically.
(iv) helps to identify any object.
(v) helps in having systematic knowledge about things.
(vi) enables us to differentiate between members of different groups.

2.

Transparent materials	Translucent materials	Opaque materials
There are materials through which we can see clearly. Light passes fully through these materials.	These are the materials through which we can see only partially. Light passes only partially through these materials.	These are the materials through which we can not see at all. Light does not passes at all through these materials.
Example : Glass window etc.	**Example :** Oily paper etc.	**Example :** Wood wall etc.

3. a. Vinegar dissolves in water when added to it.
b. Saw dust does not dissolve in water when added to it.
c. Cooking oil des not dissolve in water, it is float on water when added to it.
d. Salt are dissolved in water when added to it.
e. Lime juice dissolves in water.
f. Sugar dissolves in water.
g. Kerosene oil not dissolve in water, it is float on water.
h. Sand does not dissolve in water.

H. Higher Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

5 Separation of Substances

Exercise

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. d. 2. a. 3. c. 4. b. 5. c.

B. Fill in the blanks :

Ans. 1. **Wheat** and **Rice** grains are stored for a long period.
2. The method of separating a mixture into its components by hand is called **handpicking.**
3. **Winnowing** the method of separating husk from grains with the help of wind.
4. A **sieve** is often used at home at home to separate the bigger particles in wheat flour.
5. To separate salt and sugar from water we use **evaporation.**

C. State True or False :

Ans. 1. True 2. True 3. False 4. True 5. False.

D. Give reasons for the following :

Ans. 1. A mixture of sugar and water can not be separated by filtration because sugar particles are smaller than the holes.
2. Filtration is a better method of separating an insoluble solid component as compared to decantation because most of the insoluble solid components are removed from liquid by the filtration.

E. Very Short Answer Type Questions :

Ans. 1. Air, soil, alloy etc.
2. A method of separating to a mixture of solids into its components by hand.
3. Decantation
4. The process by which two substances (an insoluble solid and a liquid) are separated by passing the mixture through a filtering device is called filtration.

F. Short Answer Type Questions :

Ans. 1. **Saturated solution :** A solution in which no more solute can be dissolved at a fixed temperature is called a saturated solution.
Unsaturated solution : A solution in which some more solute can be dissolved at a fixed temperature is called an unsaturated solution.
2. Evaporation is the process of converting a liquid into its vapour.
3. We need to separate the different components of a mixture because it is necessary to remove undesirable and harmful substances before use.
4. Condensation is the process of converting liquid form of a substance into a solid form. **For example** : When a liquid form of water condenses, it form ice.

G. Long Answer Type Questions :

Ans. 1. Sea water has common salt dissolved in it. Many other salts are also dissolved in it. In order to separate common salt from sea water, the sea water is trapped in shallow pits and is left in the sun for long. The sun's heat evaporates all the water leaving the salts behind. This mixture of salts is then purified to obtain common salt.

2. The process of beating harvested crops to separate the grains from the stalks is called threshing. It is done manually (by hand) or with the help of machines. Manual threshing is done by holding a pile of crop and beating it on a rock or a hard surface. This loosens and separates the grain from the stalk. Sometimess, threshing is also done by crushing the harvested stalks using bullocks.

H. Higher Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

6 Things Around Us

A. Multiple Choice Questions (MCQs) :

Ans. 1. c. 2. a. 3. b. 4. a.

B. Fill in the blanks :

Ans. 1. The living things, which consist of a single cell are called **unicellular.**
2. The period during which an organism completes its life cycle is called **life cycle.**
3. **Autotrophs** plants make their own food by the process of photosynthesis.
4. Taking in **Oxygen** from the air and giving out **Carbon di-oxide** is called breathing.
5. The portion of food left after **absorption** is called waste.

C. State True or False :

Ans. 1. True 2. False 3. False 4. True 5. True.

D. Give one word answer :

Ans. 1. Name the living things whose bodies consist of more than one cell — **Multicellular**
2. Name the process in which wastes are removed from the body — **Excretion**
3. Name a unicellular organism — **Amoeba**
4. Name the gas which is produced during respiration — **Carbon di-oxide (CO_2)**
5. Name an animal which does not exhibit locomotion — **Sponge**

E. Give three differences between each of the following :

Ans. 1.

Growth of plants	Growth of animals
1. Mitosis cell division division is present.	Meiosis cell is present.
2. Indefinite growth.	Definite growth.
3. Growth only root tip or shoot tip.	Growth of all parts of body.

2.

Plants	Animals
1. Plants are autotrophs.	Animals are heterotrophs.
2. Growth are indefinite.	Growth are definite.
3. Do not movement.	Present movement or locomotion.

3.

Respiration	Breathing
1. Production of energy by oxidation of food in living cells.	Taking oxygen from air and giving out CO_2.
2. CO_2 is produced.	Giving out CO_2.
3. Respiration is present in cell.	Breathing oxygen nose human beings, gills in fish etc.

4.

Living things	Non-living things
1. Mode of cells.	Lack cells.
2. Need to food to grow and develop.	Do not respire.
3. Reproduce their own kind.	No reproduction.

F. Very Short Answer Type Questions :

Ans. 1. Heterotrophs are organisms which cannot produce its own food and depend on other living beings for its nutrition.

2. The throwing away of unwanted or harmful waste products from the body is called excretion.
3. Plants
4. Latex is a sap (waste) produced by rubber plant.

G. Short Answer Type Questions :

1.

Characteristics	Living Things	Non-living things
1. Cellular organisation	made of cells	Lack cells
2. Nutrition	Need food to grow and develop	Do not need food
3. Respiration	Use oxygen to produce energy	Do not respire and give out carbon dioxide
4. Excretion	Removal of wastes from the body	No excretion
5. Reproduction	Reproduce their own kind	No reproduction
6. Life-cycle	Follow a definite life cycle	No life cycle from birth till death
7. Growth	Use food to grow and become big	Grow by adding material externally
8. Response	Respond to stimuli	Do not respond to stimuli
9. Movement	They show movement on their own	Move only when external force is applied

2. All living oragnisms small or big, plant or animal respond to their environment. It is the reaction of an oragnism to a change in its environment. It is called responsiveness.

3. The period during which an organism completes its life cycle is called life span.
4. The plants react to the stimuli of light and gravity. The growth of the plant stems towards the result of their response to light is called 'phototropism'. The growth of plant roots down in the Earth under the force of gravity is called 'geotropism' in plants.

H. Long Answer Type Questions :

Ans. 1.

Characteristics	Living Things
1. Cellular	made of cells
2. Nutrition	Need food to grow and develop
3. Respiration	Use oxygen to produce energy
4. Excretion	Removal of wastes from the body
5. Reproduction	Reproduce their own kind
6. Life-cycle	Follow a definite life cycle from birth till death
7. Growth	Use food to grow and become big
8. Response	Respond to stimuli
9. Movement	They show movement on their own

2. All living organisms reproduce. All animals such as human beings, dogs, cats or cows give birth to new animals like themselves. We all know that baby birds hatch from eggs. The birds sits on the eggs to keep them warm. Baby birds come out of the eggs after a few days. Frogs, snakes, spiders and mosquitoes also hatch from eggs. Most plants are produced from seeds.
3. Production of energy by oxidation of food in living cells is called respiration. In this process, carbon dioxide is produced. Respiration is necessary to get energy. It can be of two types : Aerobic and Anaerobic respiration. Respiration in which oxygen is requires is aerobic respiration while in which oxygen is in used is an aeropic respiration.
4. Plants are fixed in the soil. They exhibit only slight movements, for example, the touch-me-not plant (mimosa pudica) curls up its leaves when it is touched. Flowers like daisy and lily close at night and open in the morning. The sunflower always faces the sun.
5. Do Yourself

I. Higher Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

7 Plants-Form and Function

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. b. 2. b. 3. c. 4. a.

B. Fill in the blanks :

Ans. 1. The **root** system consists of root and its branches.
2. **Tap** roots spread out in the soil giving support to the plants.
3. The places on the stem where leaves are borne are known as **nodes.**
4. **Stamen** are the male reproductive organs of the flower.

C. Very Short Answer Type Questions :

Ans. 1. (i) Carrot (ii) Radish.

2. Plants need support to stand. In some plants, the leaflets (small top leaves) get modified into wire-like structures called tendrils.

3. The ovary is a part of pistil like structures called ovules.

D. Short Answer Type Questions :

Ans. 1. **The root system is useful for plants in the following manners :**

Anchorage : It holds the plant in place in the ground, thus, preventing it from being blown away by strong winds.

Absorption : It takes in water and minerals from the soil.

Transport : Roots transport water and minerals from the soil to the stem.

Storage : Modified roots store food in them.

2. (i) Silt root : Pine
(ii) Prop root : Banyan
(iii) Nodulated root : Pea

3. Sepals, petals, stamens, pistil, stigma, style, an then, etc.

4. Potato, ginger

E. Long Answer Type Questions :

Ans. 1. Shoot system of a plant grows outside the soil.
It is divided into four parts :

1. Stem 2. Leaves (Leaf)
3. Flower 4. Fruits

The function of the stem :

(i) It bears leaves, flowers, and fruits.
(ii) The stem holds the plants upright.

The function of the Leaf :

(i) Chlorophyll are present in leaf which is responsible for photosynthesis.

The function of fruits :

(i) Fruits are edible parts of a plant.

The function of flower :

(i) A flower is a reproductive part of a plant.
(ii) After being pollination, the flower produces seeds.

2. **Do yourself**

3. Pollination is the transfer of pollen grains from the anther to the stigma of a flower. This can be done by wind, water, birds and insects.

4. The basic structure of flower :

1. Sepals : These are the small green, leaf like structures present at the base of a flower. They protect the petals in the bud stage and provide support to the petals when the bud opens to form a flower.

2. Petals : These are the flat, broad, generally coloured structures present in a flower. They may be in one or more layers. They may be separate or joined to one another. They attract the flies and insects.

3. Stamens : These are placed inside the petals and can be seen completely only after removing the petals. They are the male reproductive organs of the flower. They consist of 2 partsa long, thin tube like structure called the filament and a sac like structure attached to it at the top called anther. The anther produces a yellow powdery substance called pollen.

4. Pistil : It is the innermost part of a flower. It is the female reproductive organ of a flower. It consists of a top portion called the stigma, followed by a tube called style. The style ends in a thickened ovary. The ovary contains small, bead like structures called ovules.

F. **Higher Order Thinking Skills (HOTS) Questions :**

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

8 Body Movements

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. d. 2. a. 3. b.

B. Fill in the blanks :

Ans. 1. A group of cells that perform a special job together is known as a **tissue.**
2. Animals that do not have a **backbone** are called invertebrates.
3. A **snail** has a shell over its body.
4. Birds like **ducks** and **swans** can swim in water.
5. **Immovable** joints do not allow any movement.

C. Very Short Answer Type Questions :

Ans. 1. Streamlined structure
2. Calcium carbonate
3. The joints in the body are the places where two bones are joined together. Where as the bones are held together at the joints by strong, stretchy bands called ligaments.
4. Hollow and light weighted.

D. Short Answer Type Questions :

Ans. 1. Animals need to move because of shelter, food etc.
2. **Vertebrates :** Animals that have a backbone are called vertebrates. For example, fish, frog, lizard, horse, and birds.
Invertebrates : Animals that do not have a backbone are called invertebrates. For Example, earthworm, snail, cockroach, etc.
3. It provides shape to the body.
It protects the soft internal organs like the heart, stomach and liver.
It provides a framework which supports the body and keep it upright.
Blood cells are made in the soft substance (bone marrow) present in the bones which form the skeleton.
4. **Examples of freely movable Joint :**
(i) Joints in the shoulder (ii) Joints in the elbow
(iii) Joints in the neck (iv) Joints in the knee
5. Do Yourself

E. Long Answer Questions :

Ans. 1. **a. Cockroach :** Cockroach do not have bones and their body is covered with a hard outer skeleton called exoskeleton, meaning skeleton present outside the body. The outer skeleton is made of different units joined together and it helps in movement.

b. Earthworm : During movement, the earthworm first extends the front part (anterior part) of the body, keeping the remaining part (the rear part or posterior part) of the body fixed to the ground. Then it fixes the front part and releases the rear part. It then shortens the body and pull the rear part forward. In this manner, the earthworm moves forward.

Such movements involve repeated contractions and expansions of the muscles. In the soil, the body secretes a slimy substance which helps in movement.

c. Snail : A snail has a shell over its body. They are soft-bodied and do not have any bones. When a snail moves, a muscular foot comes outside and attaches to the ground, it contracts to form a wave like motion and the snail moves forward.

d. Fish : Fish have a streamlined body. The head and the tail are narrow; the middle portion of the body is broader. This kind of shape offers least resistance to the flow of water and makes it easier for them to swim through water.

Fish have fins and a flexible backbone that help them to swim. Most fish have a special structure called swim bladder that can be filled with air to emptied to help them move up and down in water.

e. Bird : They have streamlined bodies which makes it easier for them to move in air. Bones are hollow and light which makes their body light.

They have wings with feathers. Flapping of wings provides both thrust and lift in the air. Strong breast muscles help in flapping of wings during flight.

f. Snakes : Snakes have a long backbone. They have a large number of thin muscles. They are connected to each other even though they are far from one another. They also interconnect the backbone, ribs and skin. The snake's body curves into many loops. Each loop of the snake gives it a forward push by pressing against the ground. Since, its long body makes many loops and each loop gives it this push, he snake moves forward very fast but not in a straight line. Many snakes can swim in water also.

2. Fish have a streamlined body. The head and the tail are narrow; the middle portion of the body is broader. This kind of shape offers least resistance to the flow of water and makes it easier for them to swim through water. Aeroplane, ship, and boat also have streamlined shapes to reduce resistance to the flow of air and water.

   Fish have fins and a flexible backbone that help them to swim. Most fish have a special structure called swim bladder that can be filled with air to emptied to help them move up and down in water.

F. Higher Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

9 The Habitat of the Living

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. b. 2. c. 3. b.

B. Fill in the blanks :

Ans. 1. Birds live in **nest** on trees or in the **branches** of trees.
2. The degree of hotness or coldness is called **temperature.**
3. **Mesophytes** are the plants growing in habitats having a moderate climate.
4. **Toad**, **frog** and **salamander** are some common amphibians.
5. Animals which are adapted for the aerial mode of life are known as **aerial animals.**

C. State True or False :

Ans. 1. True 2. False 3. True 4. True 5. True

D. Very Short Answer Type Questions :

Ans. 1. The place or area where a particular organism lives in nature is called its habitat.
2. **Aquatic plant :** Hydrophytes
Desert plants : Xerophytes
3. The animals which are adapted for surviving both on land and in water are called amphibians.
4. Hydrophytes are the plants Hant grow in will moistured or swampy places.
5. Animals living in cold regions have a thick layer of fats called blubber.

E. Short Answer Type Questions :

Ans. 1. Soil is formed by the breaking down of rocks into small pieces. Over hundreds of years, rocks are broken down into smaller and smaller pieces by the action of water, wind, roots of plants.
2. The growth and distribution of animals is highly effected by light and temperature. The animals can not temperature. The animals can not survive in excess hot or cold. Most of the variety of animals are found in equatorial region.
3. The percentage of oxygen balanced in air is 21%.
4. (i) Such animals have a streamlined body which is covered with feathers.
(ii) Their forelimbs are modified into wings, which help them to fly.
(iii) They have hollow, light, spongy bones with air cavities.
5. Animals like squirrel, bear and dornmouse store food as fats in their body during summer. In winter when food is not available, they simply go off to sleep. This is known as hibernation.

F. Long Answer Type Questions :

Ans. a. **(i) Body scales :** Body is covered with scales. These are hard and rigid structures to protect the body and make the skin waterproof. Also, they determine the age of fish. The body is covered with a slippery coating.
(ii) Body shape : The shape of fish is streamlined. It is laterally compressed which helps in swimming. Fishes have head, trunk and tail whereas neck is absent in it.
(iii) Gills : Gills are the organs for respiration in fishes. Gills are capable of absorbing oxygen from the water flowing over their surface.

b. (i) A camel has long legs which help to keep the upper part of the body away from the heat of the sand on the ground.
(ii) After drinking water once, it can live for many days without water.
(iii) A camel excretes a small amount of urine and its dung is dry.

c. They have existence root systems that go deep into the soil in search of

water.
Leaves are reduced to spines.
Leaves have thick outer layer of cuticle to prevent the excess loss of water by evaporation
d. (i) Lotus have well-developed and branched roots which have root hairs and root cap.
(ii) They have a well-developed, strong stem which may be green or woody.
(iii) Leaves are large, broad and thin, and fall in autumn to reduce transpiration.

2. Do yourself
3. Ozone layer helps animals to protect them from harmful ultraviolet rays. It absorbs ultraviolet rays from the sun light. It is present in the atmosphere. It is a protective layer.
4. (i) A camel does not sweat.
(ii) Its feet have thick pads which protect it from the hot desert sand.
(iii) A camel has long eyelashes which do not allow flying sand to reach its eyes in a sandstorm.
(iv) A camel can close its nostrils, so that sand does not enter the respiratory system during a sandstorm.
(v) Fat stored in its hump acts as a food reserve.
5. The abiotic components comprise various non-living things such as temperature, rainfall, air, sunlight, soil and altitude. Living things such as plants, animals and microbes present in a particular habitat constitute its biotic components, for example, the habitat of a tiger must have a number of small animals so that it can feed on them. The tiger also needs thick vegetation to hide itself and wait for its prey.

G. Higher order Thinking Skills (HOTS) Questions

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

10 Measurement and Motion

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. b. 2. a. 3. b.

B. Fill in the blanks :

Ans.
1. When one object moves with respect to another, it is said to be in **motion.**
2. **Handspan** is the distance between the tip of thumb to the tip of the little finger of a stretched open hand.
3. An object is said to be at **rest** if its position does not change with respect to its surroundings.
4. The motion in which a body moves about a fixed axis without changing its position is known as **rotatory** or **circular** motion.
5. An aeroplane flying in a particular direction at a constant speed exhibits **rectilinear** motion.

C. State True or False :

Ans. 1. True 2. False 3. True 4. True 5. True.

D. Match the following :

Ans.

1.	Length of foot	a.	Foot
2.	Arm's length	b.	Cubit
3	. Metre	c.	Standard unit of length
4.	Motion	d.	The most common phenomenon
5.	Vibratory motion	e.	Fast or rapid oscillatory motion

E. Very Short Answer Type Questions :

Ans. 1. In motion.
2. Spaceship
3. If a body moves along a curved path its motion is called curvilinear.
4. Error in reading measurement due to the wrong position of the eye is called parallax error.

F. Short Answer Type Questions :

Ans. 1. It is essentioal to have standart system of units because length measurements using hand spans, arm's lengths, footsteps, sticks and thread strings are crude methods of measurement of length and give inconsistent results because hand spans, arm's lengths, footsteps, sticks and thread strings of different people will be of different size.
2. The thickness of a notebook containing 300 sheets is 30 mm.
So,
The thickness of each sheet is $300 \div 30 = 10$ mm.
3. When a body covers equal distances in equal intervals of time along a straight line, it exhibits uniform motion.
4. An object exhibiting translatory motion changes its direction frequently. This kind of motion is called random motion, for example motion of the ball during a hockey match.

G. Long Answer Type Questions :

Ans. 1. When a body covers equal distances in equal intervals of time along a straight line, it exhibits uniform motion, for example, an aeroplane flying in a particular direction at a constant speed and a train moving in a particular direction at a constant speed show uniform motion. When a body travels unequal distances in equal intervals of time along a straight line, it exhibits non-uniform motion, for example, a vehicle on a busy road, blinking of eyes and a football moving on the ground.
2. In ancient times used different parts of their bodies to measure length. The distance of a step, the width of a finger, the length of finger (angul), etc. were some of the widely used units of length.
Some other body parts used for measuring length and the names of their corresponding units are :
(i) Distance between the tip of the thumb to the tip of the little finger of a stretched open hand hands pan
(ii) Length of foot a foot
(iii) Distance between the end of outstretched arm and chin a yard
(iv) Arm's length a cubit (from elbow to fingertip)
(v) Length of a step a pace
3. Motion are of many types :
1. Translatory motion 2. Rotatory or circular motion
3. Vibratory motion 4. Oscillatory motion

5. Periodic motion

1. **Translatory motion :** The motion in which all the particles of a body move through equal distance in a given time.
   For example : A man walking on the road.
2. **Rotatory or circular motion :** The motion in which a body moves about a fixed axis without changing its position.
   For example : A moving fan.
3. **Vibratory motion :** When pluck the string of a guitar or sitar, it moves to and fro very fast.
   For example : A stretched string produces sound.
4. **Oscillatory motion :** Motion of an object about a mean position along the same path. **For example :** A child on a swing.
5. **Periodic motion :** Where an object repeals its motion after a fixed interval is called periodic motion.
   For example : The movement of hands of a clock.

H. Higher Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

11 Fun with Magnets

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. b. 2. b.

B. Fill in the blanks :

Ans.
1. Magnetite was also called **lodestone.**
2. Artificial magnets generally have a strong power of **attraction.**
3. A freely suspended magnet always rests in the **north-south** direction.
4. The two poles cannot exist **independently.**
5. **Magnetic lines of force** are the paths along which the force of a magnet acts.

C. Very Short Answer Type Questions :

Ans.
1. A material which attracts magnetic materials like iron, cobalt, nickel is magnet.
2. Lodestone was used to guide the sailors and travellers.
3. Iron or steel. 4. Yes, it becomes a magnet.
5. North-North or south-south (Like poles)

D. Short Answer Type Questions :

Ans.
1. Magnets align themselves in a north-south direction because unlike poles attract to each other.
2. A needle stroked with a lodestone, when suspended freely, pointed in N-S direction. Columbus used this needle during his voyage.
3. (i) it is dropped forcefully on floor many times.
   (ii) if it is heated to very high temperature
   (iii) by rough handling of it
   (iv) by hammering if forcefully

4. If the bar was broken into two pieces then both pieces behave as a perfect magnet and two pole are present in both bar magnets.
5. When two magnets are placed near each other, they both are attracted towards each other.

E. Long Answer Type Questions :

Ans. 1. A magnet can be made of a piece of a magnetic material, such as iron or steel. If the magnet kept near the needle is removed, the iron needle loses its magnetism. Thus, the iron bar is only temporarily magnetized by induction. Such a magnet is known as a temporary magnet.

2. Tie the magnet in the centre with a piece of thread and hang it as shown in the figure alongside. Rotate the magnet and leave it for some time. The magnet will come to rest pointing in the north-south direction. Thus, you can know the direction by using a magnet.

3. Few properties of magnet :
   (i) A magnet attracts magnetic substances.
   (ii) A freely suspended magnet always rests in the north-south direction.
   (iii) Poles existin pair.
   (iv) The magnetic pull or magnetic influence is stronger near the ends of a magnet.
   (v) Unlike poles attract. (vi) Like poles repel.

4. Magnets are used in credit cards and ATM cards to store information.
   (i) Magnet in a magnetic compass can help to find the direction.
   (ii) Electromagnets are used in the door bells, electric motors, generators, television sets, computers, telephones, etc.
   (iii) Magnets are used in special trains called Maglev. These trains float on the track instead of running on wheels.
   (iv) You can use a magnet to find a pin/needle dropped on the floor.
   (v) Magnets are used by doctors to pull out small iron particles from the wounds of the victims of accidents.
   (vi) Electromagnets are used for separating iron from scrap in junk yards.
   (vii) Electromagnets are used to lift heavy loads in warehouses.

F. Higher Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

12 Light : Shadow and Reflection

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. c. 2. b. 3. d. 4. d.

B. Fill in the blanks :

Ans. 1. We cannot see anything if there is no **light.**

2. Objects which allow the light to pass through them are called **transparent.**

3. The property of light travelling in a **straight line** is called rectilinear propagation of light.

4. A **luminous** object forms a light shadow.

5. A **pinhole camera** can be used to measure the height of objects like a building or a tree.

C. Write true or false :

Ans. 1. True 2. True 3. True 4. False 5. True.

D. Match the following :

Ans.

1.	Luminous objects	c.	Sources of light
2.	Glass	a.	Transparent object
3.	Shadow	e.	Always back in colour
4.	Pinhole Camera	b.	Rectilinear preparation of light ways
5.	Translucent object	d.	Light passes partially

E. Very Short Answer Type Questions :

Ans. 1. Non-luminous objects can be seen with the help of light and after reflection of light.

2. Tree 3. Firefly 4. Butter paper

5. Wall is opaque object, light do not pass through from the wall.

F. Short Answer Type Questions :

Ans. 1. An opaque object casts a dark shadow because it blocks all the light rays in the path.
A translucent object produces a weak shadow.
A transparent objects does not a cast a shadow at all.

2. **Luminous objects :** The objects which emit light of their own.
Non-luminous objects : The objects that do not have light of their own but are visible when light falls on them.

3. **Transparent objects :** Objects that allow light to pass through them fully. **Ex. :** Glass, Pure water.
Translucent objects : Objects that allow light to pass through them partially. **Ex. :** Plastic, ruby.
Opaque objects : Objects that do not allow light to pass through them. **Ex. :** Metal, Books.

4. When a beam of light shines on an opaque object, the light rays which reach the objects are stopped while those rays which pass by the edges continue on their path. A region without light forms behind the object, called a shadow.

5. When a beam of light shines on an opaque object, the light rays which reach the objects are stopped while those rays which pass by the edges continue on their path. A region without light forms behind the object, called a shadow. An opaque object casts a dark shadow because it blocks all the light rays in its path.

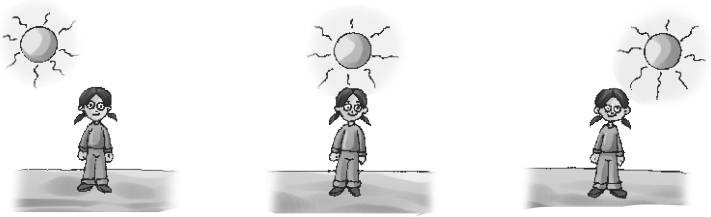
G. Long Answer Type Questions :

Ans. 1. i. The length of a shadow changes with the change in the position of the object with respect to the source of light.
ii. The shadow is always black in colour irrespective of the colour of the object and the colour of the light.
iii. The image in a mirror is laterally inverted, as there is an interchange of right and left between the object and its image in a mirror.
iv. A shadow is formed on a screen.

2. The size of the shadow varies depending on the size of the source of light and the distance between the object and the source of light. The shadow gets smaller as the distance between the object and the sour of light

increases. Now shadow is seen at a stage, when the distance between the screen and the object becomes too big.

Our shadow changes in length and direction during the day as the sun changes its position in the sky.



3. **Pinhole Camera**

   A pinhole camera is a simple application of rectilinear propagation of light rays.

   (i) Take a rectangular cardboard box or a shoe box with one end open and the other covered. Paint it black from inside. Cover the opens end of the box with a smooth, thin tracing paper using a tape. This acts as a screen.

   (ii) Make a hole with a pin at the centre of the opposite, closed side. The light will enter the box through this hole.

   (iii) Stand in a darkroom and point the hole towards the objects outside a window. The objects should be in bright light.

   We can see images of trees or people outside the window on the tracing paper screen. However, all the images will be upside down or inverted. They will also be diminished in size.

4. Take a three equal size cardboards. Make a very small hole through the centre of each. Make them stand on a table with the help of some support like modelling clay. Place the cardboards in such a way that their holes are in a straight line. Light a candle at one side of the table in such a way that the flame is in line with the holes. Look at the flame from the other and through the holes.

   Now, move the middle cardboard slightly so that the holes are not in straight line. Thus we conclude that light travels in a straight line.

5. If we hold a mirror in front of us in a dark room, we will not be able to view our reflection in the mirror because. There is no light in room, so there will be no reflection of light and as we know that a non-luminous object can not be seen in the absence of light.

H. Higher Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

13 Electricity and Circuits

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. c. 2. b. 3. a. 4. d.

B. Fill in the blanks :

Ans. 1. We cannot imagine today's world without **electricity.**
2. The first cell was made by **Alessandra Volta**, an Italian scientist.
3. In case of a fire in electric wires never use **water** to extinguish it.
4. When the circuit allows the flow of current it is said to be **closed** or **complete circuit.**
5. All materials which current to pass through them are called **conductors.**

C. State True or False :

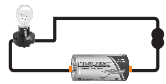
Ans. 1. True 2. False 3. True 4. True.

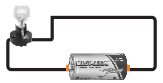
D. Give one word for the following :

Ans. 1. **Electronic switch**
2. **Complete circuit**
3. **Voltanic cell**
4. **Insulator**
5. **Voltaic cell**

E. Draw and label the diagram :

Ans. 1. 

2. 

3. 

F. Very Short Answer Type Questions :

Ans. 1. The flow of elections in a closed circuit is called electric current.
2. Materials, which do not allow the flow of current.
3. **Electric circuit :** A closed path for current to flow through an electric device.

G. Short Answer Type Quesions :

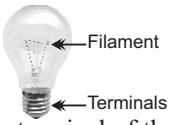
Ans. 1. Materials which allow electricity to pass through them are called conductor of electricity. Metals are good conductor. Materials which do not allow electicy to pass through them are insulation.
2. A closed path for current to flow through an electric device is known as electric curcuit.
3. The combination of two or more cell is called a battery. The cells can arranged in a series or in parallel. To arrange cells in series is considered the correct way.

H. Long Answer Type Questions :

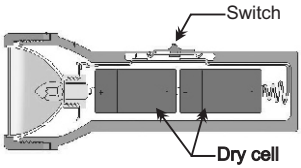
Ans. 1. The wire bulb is called filament and it is made up of tungsten. It is this filament which glows when a bulb is switched on. The filament is supported by two thick wires on two sides. Out of these wires, one is connected to a metal piece at the tip of the base and the other is connected to the metallic base. These form the two terminals of the bulb. They connect the bulb to the household electric circuit. Electricity passes through one terminal, through the filament and passes out through the other terminal.

When electricity flows through the tungsten wire, it gets heated up and glows.

2. Metals, which are good conductors, are used for making electric wires, switches, plugs, sockets and inner parts of electrical devices.



3. Inside a torch, two cells are so placed that the negative terminal of the first cell is in contact with the positive terminal of the second cell. Not only in case of a torch, but wherever more than one cells are used, they are placed in the same manner.
4. When you connect the two ends of a cell to a bulb using copper wires, the bulb lights up. This is because you have provided a path for electric current to flow from the positive terminal of the battery to the negative terminal through the bulb. Such a path of an electric current is known as a circuit. When the circuit allows the flow of current it is used to be complete or closed. Does the bulb grow if you disconnect one of the wires from the cell or break one of the wires? It does not, because the path of the current is now obstructed and they can no longer flow through the wire. The circuit is now, said to be broken or open.



I. Higher Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

14 Water

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. d. 2. b. 3. a.

B. Fill in the blanks :

Ans. 1. **Water** is essential for all living organisms including humans.
2. The **Earth** is also called the watery planet.
3. The continuous circulation of water from the **Earth's surface** to **Air** and from the **Air** back to the **Earth's surface** is called water cycle.
4. A dry spell may lost for **fourteen** days or more.
5. A flood that rises and falls rapidly with little or no advance warning is called a **Tsunami.**

C. Very Short Answer Type Questions :

Ans. 1. Transpiration is the process of loss of water by plants in the form of water vapour.
2. (i) Make sure that your house has no leak taps.
(ii) Turn off the taps immediately after use.
3. A long period when there is little or no rain.
4. Floods occur when soil and vegetation cannot absorb all the water.

D. Short Answer Type Questions :

Ans. 1. Water is essential for sussistance of life because water is essential for all living organisms including humans. We need water for drinking, cooking, cleaning utensils, washing clothes and bathing. Water is also needed by plants. Industries also require water for manufacturing various products.

2. To clean their spectacles, people often breathout on glasses to make them wet because we release to water vapour while breathing out.

3. Storing rain water that collects on roofs instead of letting it go down the drain, is a practical solution in case of droughts. This technique is known as rooftop rainwater harvesting. This involves collecting rainwater from rooftops in dugout ponds,
vessels, or underground tanks to store water for long periods. Another option is to allow water to go into the ground directly from the roadside drains that collect rainwater.

4. When it rains or snows, some of the water is retained by soil, some is absorbed by vegetation, some evaporates and the remainder which reaches river channels is called run-off. Floods occur when soil and vegetation cannot absorb all the water.

E. Differentiate between the following :

Ans. 1. **Drought**
Drought is a condition of abnormally dry weather with in geographic region, where some rain might usually be expected, its called drought.
Floods
When it rains or snow, some of water is retained by soil some is absorbed by vegetation, some exporates and the remainder which reaches river channels, its called floods.
Fresh Water
(i) Fresh water is obtained by rain, underground water, wells etc.
(ii) Salinity is no present.
Saline water
(i) Saline water is present in seas and oceans.
(ii) Salinity is present.

F. Long Answer Type Questions :

Ans. 1. Water is used for drinking, cooking, cleaning utensils, washing clothes and bathing. Water is also needed by plants. Industries also require water for manufacturing various products. Our requirement of electricity is growing day by day. Flowing water is used for producing electricity in hydroelectric power plants. In thermal power plants, steam is used to rotate the generator that produces electricity. Water has essential minerals dissolved in it that support life. Its property of dissolving oxygen makes it sustain aquatic life and become a habitat for a large number of marine or aquatic animals and plants.

2. Floods not only damage property and endanger the lives of humans and animals but have other effects as well.
Rapid run-off causes soil erosion as well as sediment deposition problems downstream. Spawning grounds for fish and other wildlife

habitats are often destroyed.

3. (i) Never drain the water when there may be another use for it. You can reuse the water (used for washing vegetables, etc.) for watering plants.
   (ii) Make sure that your house has no leak taps.
   (iii) Turn off the taps immediately after use.
   (iv) For taking bathe, use a bucket instead of a shower.
   (v) Adopt rainwater harvesting.
   (vi) Avoid flushing the toilets unnecessarily. A lot of water gets washed away.
   (vii) Do not let water run as you brush, shave or wash your hands or face.
4. Take a glass and make a mark on it with a sketch pen. Fill water in the glass upto the mark Now put it into a plate marked as A. Again fill water upto the mark in the glass and pour it in another plate marked as B. Fill the water in the glass upto mark once again and cover the glass with another plate.
   Leave plate A and the glass (covered with plate C) under the sun. Keep plate B in shade. Observe the level of water in each one of them after every 30-45 minutes.

G. High Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

15 Rain, Thunder and Lightning

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. c. 2. b. 3. b. 4. b.

B. Fill in the blanks :

1. **Ice** is water in the solid state.
2. The process of conversion of a liquid into its gaseous state is called **vaporization.**
3. Condensation takes place at a particular temperature called **freezing point.**
4. When the temperature of air increases, it **expands.**
5. **Benjamin Franklin** concluded that electricity got generated in the clouds during a thunderstorm.

C. State True or False :

Ans. 1. True 2. False 3. False 4. True 5. False.

D. Very Short Answer Type Questions :

Ans. 1. Solid, liquid and gas.
2. Solid, liquid and gas are three states of water present in the nature.
3. The process of conversion of a solid into its liquid state.
4. The process of conversion of a liquid into its solid state.

E. Short Answer Type Questions :

Ans. 1. Thunder and lighting occur together in the clouds. These occur due to

meeting of clouds.

2. When we put some water in a pan over a flame and heat it continuously, see bubbles throughout the water after some time. This is called boiling. Boiling occurs at a particular temperature called boiling point.
3. Boiling point of water : 100°C
   Condensation point of water : 0°
4. The process of conversion of a gas or vapour into its liquid state is called condensation. The temperature at which condensation starts, is called condensation point.
5. The freezing point and melting point of water are 0°C.

F. Long Answer Type Questions :

Ans. 1. (i) Boiling is a fast process while evaporation is a slow process.
(ii) Boiling takes place at a particular temperature while evaporation can take place at all temperatures.
(iii) During boiling, movement of bubbles with sound can be observed while during evaporation neither movement nor sound is observed.
(iv) Boiling takes place throughout the bulk of a liquid while evaporation takes place only at the surface of a liquid.

2. When the temperature of air increases, it expands. This makes the air lighter and it rises in the atmosphere, taking water vapour with it. As the air rises, it begins to cool. The water vapour condenses on dust particles present in the atmosphere to form millions of tiny droplets. Tiny ice crystals will be formed instead if it is very cold. This cluster of tiny water droplets floating in air is what we call a cloud.
3. Many water drops, under suitable conditions, come together to form large-sized water drops. Some water drops become so heavy that they begin to fall on the ground as rain, hail or snow. This process of water drops coming back on the Earth in the form of rain, hail or snow is called precipitation.
   This way there is a continuous exchange of water among land, water bodies and atmosphere. This cyclic exchange of water is called water-cycle.

G. Higher Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.

16 Garbage In, Garbage Out

A. Multiple Choice Questions (MCQs) :
Choose the correct option :

Ans. 1. a. 2. c.

B. Fill in the blanks :

Ans. 1. **Waste** is a material that has no longer any value to the person who is responsible for it.

2. **Vegetables peels** and **wrappers** are produced in our day-to-day life in

every household.

3. **Non-biodegradable waste** does not decompose and remains as such for a long, long time.
4. **Com posting** is a simple and almost effortless process of recycling.

C. Very Short Answer Type Questions :

Ans. 1. Leftover, useless and unwanted by products from an industrial, commercial, domestic or any other activity are termed as wastes.

2. It is acted upon by microorganisms and decomposes into simpler substances.
3. Newspaper, magazines.

D. Short Answer Type Questions :

Ans. 1. The consequences of not sorting cut waste regularly are :
(i) The wastes can not be recycled.
(ii) We will have no place to live.

2. Microorganisms present in air and soil, act upon biodegradable waste decompos them, are called decomposers.
Various microorganisms like bacteria break biodegradable waste into simpler forms.
3. Garbage is taken to a landfill site by trucks.

E. Long Answer Type Questions :

Ans. 1. Plastic is a man-made material. It is light, tough, easy to manufacture and cheap. It is also an insulator.
Plastic has become such an important part of our lives that it is difficult to imagine life without it. Combs, brushes, switches, bags, watches, etc. are all made from plastics. Can you add more items to this list?
The biggest drawback of using plastic is that it does not decompose easily. A plastic object may take up to 400 years to decompose completely. That is why, plastic waste is such a major threat to our environment.

2. Biodegradable or organic wastes like vegetable peels, waste food, leaves, dead flowers, and egg shells can be recycled, they are converted into manure by burying them in compost pits. Recycling of organic wastes like vegetable peels, waste food, leaves, etc., by burying them in compost pits is called composting.
Composting is a simple and almost effortless process of recycling. The biodegradable wastes are degraded by the action of small organisms like bacteria and fungi. There is also a different kind of composting where a kind of earthworm called red worms (or red wrigglers) act on wastes and degrade them. This type of composting with the help of a type of earthworm called red worms, is called vermicomposting. Red worms break down the organic matter into nutrient-rich manure which increases soil fertility. Vermicompost can be made 3-4 weeks and it appears as loose soil-like material.

F. Higher Order Thinking Skills (HOTS) Questions :

Ans. Do yourself.

Project/Activity

Ans. Do yourself.