



SCIENCE & TECHNOLOGY

TEACHER MANUAL CLASS 1 TO 5



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Book - 1

Chapter - 1 Living and Non-Living Things

Thinking

bull; man; plant; tree

Thinking

Let's have fun with our brain!!!

(a) Bus — non-living; **(b)** Tiger — living; **(c)** Crow — living; **(d)** Chair — non-living; **(e)** Truck — non-living

Exercise

(A) Read the sentences. Look at the words given in the bracket. Pick the correct word and complete the sentence :

1. living; 2. building; 3. plant; 4. natural

(B) ✓ if right, ✗ if wrong :

1. ✗ 2. ✓ 3. ✗ 4. ✓

(C) Make a sentence with using these words :

1. Living things can move.; 2. Man-made things are not natural.; 3. Natural things provide us many things.; 4. Non-living things do not breathe.

(D) Answer the following questions :

1.

Living Things	Non-living Things
(a) Living things have life.	(a) Non-living things do not have life.
(b) They can move on their own. example - cat	(b) They can not move on their own. example - chair.

2. **(a)** mountain and lakes; **(b)** chair and fan; 3. Living things need food to stay alive while non-living things have no life so they do not need food.

Hots

Natural non-living things are provided by nature while man-made non-living things are made by man.

Activity

Do yourself

Life Skills

Do yourself

Chapter - 2 Different Kinds of Plants

Thinking

Let's have fun with our brain!!!

1. Shrub; 2. Herbs; 3. Tree; 4. Creeper; 5. Climber

Exercise

(A) Select the correct option :

1. (a); 2. (c); 3. (b)

(B) Fill the correct word in the bracket :

1. thorn; 2. shape; 3. climbers; 4. trees; 5. trunk

(C) Write 'T' for tree, 'H' for herbs, 'S' for shrub, 'Cr' for creepers and 'Cl' for climbers :

S; Cr; T; H; S

(D) Answer the following questions :

1. The plants that are shorter than trees and have brown, woody stems are called shrubs. For example - rose, jasmine. 2. The plants that have a long and thin stem lying on the ground are

called creepers. **3.** Big plants are called trees. **4.** The plants that need very little water and have spikes and thorns are called desert plants.

Hots

The cactus mostly grow in the desert because of the atmospheric conditions.

Activity

Do yourself

Like-Skills

food; cloth; medicines; wood and fruits.

Chapter - 3 Food We Get From Plant

Thinking

Let's have fun with our brain!!!

b. Tomato is a fruit. Cauliflower and broccoli are flowers. **c.** Corn is a seed of plant. Spinach and lettuce are leaves. **d.** Peas are seeds of plant. Cucumber and tomato are fruits. **e.** Cucumber is a fruit. Corn and peas are seeds.

Exercise

(A) Select the correct option :

1. (c); **2.** (c); **3.** (b); **4.** (c)

(B) Tick (✓) or (X) according to sentences :

1. X **2.** ✓ **3.** ✓ **4.** X

(C) Write the 'V' for vegetables, 'F' for fruits and 'C' for cereals and 'P' for pulses:

V; V; P; C; F; F; V; F; P; C; P; V; F; P; F

(D) Answer the following questions.

1. We need food to stay alive. **2.** Cereals and pulses are seeds of plant that we eat. **3.** Protein is present in pulses.

Hots

Do yourself

Activity

Do yourself

Life-Skills

Yes, I know the meaning of this line. It means that an apple has such nutrients which protect us from diseases and make us healthy.

Chapter - 4 Wonderful World of Animal

Exercise

(A) Select the correct option :

1. (b); **2.** (a); **3.** (c)

(B) Give two examples of each of the following :

1. Pigeon, crow; **2.** Ant, butterfly; **3.** Dog, cat; **4.** Lion, tiger; **5.** Rabbit, rat; **6.** Cow, goat; **7.** Elephant, camel

(C) Tick (✓) or (X) according to sentences :

1. X **2.** X **3.** X **4.** ✓ **5.** X

(D) Answer the following questions :

1. Animals that are kept in farms are called domestic animals. **2.** Wings help the bird to fly. **3.** The feelers in insects help them to sense the things around them.

Hots

An Ostrich can not fly in spite of having wings because of its big size and heavy weight.

Activity

Do yourself

Life-Skills

1. They have thick skin. 2. They have thick hairs on their body. 3. Some of them are used to carry load such as yak. 4. Most of them are carnivore. 5. They live in groups.

Chapter - 5 Food and Homes of Animals

Thinking

Write down the names of the home against the animals in which they live.

den; trees; burrow; nest; cave; river

Exercise

(A) Select the correct option :

1. (b); 2. (b); 3. (c)

(B) Give two examples of :

1. Cow, deer; 2. Lion, tiger; 3. Crow, bear; 4. Lizard, frog; 5. Hen, sparrow

(C) Tick (✓) or (X) according to sentences :

1. X 2. X 3. ✓ 4. X 5. ✓

(D) Answer the following questions :

1. Animals that eat only plant are called Herbivores. 2. Lion lives in cave. 3. Animals need a shelter or home to protect their young ones. 4. Some animals eat both plant and flesh are called omnivores.

Hots

They live in big groups and are big animals. They do not need shelter as they love to wonder in the forest.

Activity

Trees; hole; colony; kennel; shed

Life-Skills

1. Tiger and dolphin; 2. Dodo and dinosaur

Chapter - 6 Knowing Your Body

Thinking

Let's have fun with our brain!!!

leg; hand; nose; finger; stomach; eye; ear; chin; nose; lip

Exercise

(A) Select the correct option :

1. (c); 2. (b); 3. (b); 4. (b)

(B) Fill the correct words in blanks :

1. two; 2. one; 3. two; 4. fingers, two 5. one

(C) Tick (✓) or (X) according to sentences :

1. X 2. ✓ 3. X 4. ✓ 5. ✓

(D) Answer the following questions :

1. We can write, hold things, make drawing and clap with our hands. 2. We can walk, run, kick and jump with our legs. 3. We have ten fingers and two toes in our hands and legs.

Hots

Each and every part of our body is helpful in doing many works such as eyes to see, ears to listen, nose to smell, tongue to taste, hands to write, legs to walk, fingers to hold things, neck to turn our head etc. If any part of our body does not work, we will be unable to do our work ourselves.

Activity

Do yourself

Life-Skills

1. My body parts are very important. 2. They are very useful. 3. They make me to do work of any kind. 4. We should take care of them. 5. They make life comfortable.

Chapter - 7 Our Sense Organs

Thinking

Let's have fun with our brain!!!

sweet; sweet; sweet; hot; bitter

Exercise

(A) Fill the blanks with correct words given in brackets :

1. eyes; 2. smell, breathe; 3. tongue; 4. taste; 5. skin

(B) Tick (✓) or (X) according to sentences :

1. X 2. X 3. ✓ 4. X

(C) Draw a line to join the correct word with the correct picture :

Do yourself

(D) Answer the following questions :

1. Eyes, ears, nose, tongue and skin are our five sense organs. 2. Nose is used to smell and to breathe. 3. We feel the thing is soft, hard, rough, smooth, cold or hot with our skin.

Hots

I will use my tongue to know if its a slice of an apple or a slice of an onion if my eyes are closed or I cannot see.

Activity

Do yourself

Life-Skills

Do yourself

Chapter - 8 Stay Healthy

Thinking

Write 'yes' or 'no' :

yes; yes; yes; yes

Exercise

(A) Fill the correct word in blanks from the words given in bracket :

1. good; 2. clean; 3. exercise; 4. sleep; 5. handkerchief

(B) Tick (✓) or (X) according to sentences :

1. ✓ 2. X 3. ✓ 4. X 5. X

(C) Draw a line to join the correct word with the correct picture :

Do yourself

(D) Answer the following questions :

1. We should brush our teeth daily to keep them clean. 2. We should drink clean water to keep ourselves healthy. 3. (a) We should bath daily. (b) We should comb our hair daily. (c) We should wash our hands before and after meals. (d) We should cover our mouth while sneezing or coughing. (e) We should brush our teeth twice a day.

Hots

We use a comb to brush our hair, a tooth brush to clean our teeth, a nail cutter to cut our nails, a soap to wash our body, a mug to bath, a tongue cleaner to clean our tongue.

Activity

Do yourself

Life-Skills

Do yourself

Chapter - 9 Clothes We Wear

Thinking

Let's have fun with our brain!!!

1. Summer clothes come from the cotton plant. 2. Winter clothes are made of sheep wool.

Exercise

(A) Select the correct option :

1. (c); 2. (b); 3. (a)

(B) Fill the correct word in blanks.

1. cotton; 2. woolen; 3. raincoat

(C) Tick (✓) or (X) according to sentences :

1. X 2. ✓ 3. ✓ 4. X 5. ✓

(D) Answer the following question :

1. We wear clothes to protect and cover our body. 2. There are three main seasons in our country _____ summer, winter and rainy. 3. We wear raincoat to protect ourselves from rain in rainy season.

Hots

Do yourself

Activity

Do yourself

Life-Skills

Synthetic clothes are made from chemicals and silk is made from the silk worm.

Chapter - 10 Shelter

Thinking

Let's have fun with our brain!!!

dinning room, bed room, living room, bath room

Exercise

(A) Fill the correct word in the blank :

1. shelter; 2. protects; 3. home; 4. comes; 5. materials

(B) Draw a line to join the correct word with the correct picture :

Do yourself

(C) Tick (✓) or (X) according to sentences :

1. X 2. ✓ 3. X 4. ✓ 5. X

(D) Answer the following question :

1. We need a house to protect ourselves from heat, rain, cold and dust. 2. The house made up of mud, bamboos and straw is called a kutchra house. 3. We have different rooms for different purposes in a house.

Hots

1. wall; 2. window; 3. floor; 4. ceiling

Activity

Do yourself

Life-Skills

I put the things in their proper places and throw the waste things into a dustbin.

Chapter - 11 The Huge Sky

Exercise

(A) Select the correct option :

1. (b); 2. (c); 3. (b)

(B) Fill the correct word in blanks :

1. heat; 2. moon; 3. Neil Armstrong; 4. moon; 5. seven

(C) Tick (✓) or (X) according to sentences :

1. X 2. X 3. ✓ 4. ✓

(D) Answer the following questions :

1. The Sun gives us heat and light. 2. The moon is a satellite. It changes its shape everyday. It reflects the sun's light. 3. No, I can not count the stars.

Hots

Due to revolution of the moon around the earth its position with respect to the earth changes. So it appears to change its shape.

Activity

Do yourself

Life-Skills

There are eight planets in our Solar System. They are — Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

Chapter - 12 Our Earth**Thinking**

Let's have fun with our brain!!!

1. mountain; **2.** plain; **3.** plateau; **4.** hill; **5.** valley

Exercise

(A) Select the correct option :

1. (b); **2.** (a); **3.** (b)

(B) Fill the correct words in blanks :

1. blue; **2.** ocean; **3.** plateau; **4.** river; **5.** lake

(C) Tick (✓) or (X) according to sentences :

1. X **2.** ✓ **3.** X **4.** ✓

(D) Answer the following questions :

1. The earth is called the blue planet because its most of the surface is covered with water. **2.** A very large sea is called an ocean. **3.** Three-fourth of the earth's surface is covered water and one-fourth is land.

Hots

I live in plains. It is a flat land. It is full of greenery. This is much suitable to grow crops. Many industries are situated here. The climate is hot.

Activity

Do yourself

Life-Skills

1. The earth has been polluted. **2.** Man is cutting trees. **3.** Man spread out a lot of garbage on it. **4.** Man is damaging its beauty. **5.** Man is negligent towards it.

Book - 2

Chapter - 1 Types of Plant

Thinking

Let's have fun with our brain!!!

Neem; Tomato; Pea; Mehndi

Exercise

(A) Fill the correct word in the blanks :

1. plants; 2. air; 3. support; 4. trees

(B) Match the appropriate answer :

1. herbs; 2. trees; 3. shrub; 4. creepers 5. climbers

(C) Write 'T' for True and 'F' for False statement :

1. F; 2. T; 3. T

(D) Answer the following questions :

1. Plants are useful for us in many ways as they give us food, purify air, give oxygen and many more. 2. Creepers can not stand straight because they have thin and weak stems. 3. Herbs live for one or two seasons.

Hots

Do yourself

Activity

Do yourself

Life-Skills

Sugar

Chapter - 2 Plants Are Our Green Friends

Thinking

Let's have fun with our brain!!!

1. Rice and barley; 2. Cumin and mint; 3. Sugar and jaggery; 4. Rose and jasmine

Exercise

(A) Select the correct option :

1. (c); 2. (c); 3. (b); 4. (c)

(B) Fill the correct word in the blanks :

1. teak, sheesham; 2. cotton; 3. flower; 4. sugar, jaggery

(C) Write 'T' for true and 'F' for false statement :

1. T; 2. F; 3. T; 4. T

(D) Answer the following questions.

1. Plants purify our surroundings by giving out oxygen and taking in carbon dioxide. 2. Carrot and radish. 3. We use spices in our food to add taste to it. 4. Neem, tulsi and mint have medicinal value.

Hots

From animals — milk, egg, silk, mutton

From plants — pulses, rubber, paper, cotton, wood, jute, medicine

Activity

Do yourself

Life-Skills

They purifies air and causes rain. They are helpful in cooling the atmosphere.

Chapter - 3 Useful Animals

Thinking

1. Dog; 2. Honey; 3. Cow; 4. Hen; 5. Sheep; 6. Donkey

Exercise

(A) Select the correct option :

1. (a); 2. (c); 3. (a); 4. (a); 5. (c)

(B) Fill the correct word in the blanks :

1. pet; 2. honey bee; 3. goat; 4. leather; 5. honey, wax

(C) Write 'T' for true and 'F' for false statement.

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

(D) Answer the following questions :

1. Donkey is called the beast of burden because it carry our loads. 2. Children should drink milk everyday to make them healthy and strong and to get calcium. 3. The animals who can be tamed and live in farms are called domestic animals such as cow and goat.

Hots

We wear cotton clothes in summer which is got from a cotton plant.

Activity

Do yourself

Life-Skills

Do yourself

Chapter - 4 Animals That Live in Jungle

Thinking

Let's have fun with our brain!!!

Den; Hole; Burrow; Colonies, Trees; Cave; Trees; Hive

Exercise

(A) Fill the correct word in the blanks :

1. zoo, forest; 2. tree; 3. dodo, dinosaur; 4. tiger, dolphin;

(B) Write 'T' for the true and 'F' for false statement :

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

(C) Write (P) for plant-eating animals and (F) for flesh-eating animals.

F; P; P; F; F; F; F; F; P; F; F; F

(D) Answer the following questions :

1. Animals who live in deep and dense forest are called wild animals such as tiger and elephant. 2. Tiger, elephant and rhinos. 3. Extinct means disappeared from the earth forever. 4. Crocodile and frog.

Hots

1. Alligators have wider u-shaped snouts while crocodiles front ends are pointed and shaped. 2. Hares are generally larger and have longer hind legs while rabbits are smaller and have smaller hind legs. 3. Turtle have webbed feet while to tortoise have limbs.

Activity

Do yourself

Life-Skills

We should not cut the trees down and provide their natural shelter and we should not kill them.

Chapter - 5 Good Food For Health

Exercise

(A) Select the correct option :

1. (b); 2. (c); 3. (c); 4. (a)

(B) Fill the correct word in the blanks :

1. warm; 2. junk; 3. diseases; 4. water; 5. sick

(C) Write 'T' for true and 'F' for false statement :

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

(D) Answer the following questions :

- 1.** We need food for energy and water to digest food. **2.** The food that protect us from diseases is called protective food. **3.** The food that give us energy is called energy giving food. **4.** Body building food make our bones strong. **5.** Two good food habits are — (a) Eat food at proper time (b) Wash hands before and after meals.

Hots

Its colour has been changed because it has iron in it.

Activity

Do yourself

Life-Skills

Raw — carrot, raddish, cucumber, peas and tomato.

Cooked — Potato, brinjal, pumpkin, cabbage and lotus stem.

Chapter - 6 Bones And Muscles

Thinking

Let's have fun with our brain!!!

Ankle; Wrist; Knee; Shoulder; Elbow

Exercise

(A) Fill the correct word in the blanks :

- 1.** bones; **2.** muscles; **3.** skeleton; **4.** joint; **5.** 206

(B) Write 'T' for true and 'F' for false statement :

- 1.** F; **2.** F; **3.** T; **4.** T

(C) Give one word for the following :

- 1.** skeleton; **2.** proper diet; **3.** exercise; **4.** posture

(D) Answer the following questions :

- 1.** Bones support the body and give it shape. **2.** Muscles help us to move play, sit and stand. **3.** We should do exercise daily to make our body strong. **4.** The place where two bones meet is called a joint.

Hots

An elephant's trunk moves with the help of muscles present in it.

Activity

Do yourself

Life-Skill

Longest bone is thigh bone and longest muscle.

Chapter - 7 Staying Safe

Thinking

Let's have fun with our brain!!!

(a) X (b) X (c) ✓ (d) X (e) X

Exercise

(A) Fill the correct words in the blanks :

- 1.** Floor; **2.** Road; **3.** Zebra crossing; **4.** Green

(B) Write 'T' for True and 'F' for False statement :

- 1.** F; **2.** F; **3.** F; **4.** F

(C) Circle the correct word :

- 1.** toys; **2.** should not; **3.** at proper place; **4.** zebra crossing

(D) Answer the following questions :

- 1.** We should follow safety rules to avoid accidents. **2.** We should not scatter our toys on the floor because someone can trip over them and fall down. **3.** The meaning of three traffic light is stop, be ready and go. **4.** Two safety rules at home are— (a) Never play with sharp objects. (b) Keep things at their proper place.

Hots

We can not get driving licence at the age of 18 because this age comes under minor state which is meant not to be enough matured to handle things.

Activity

Do yourself

Life-Skills

1. Never get off from a running train.
2. Never take your hand out from a moving train.

Chapter - 8 Housing And Clothing

Thinking

Let's have fun with our brain!!!

1. Pucca house;
2. Flat;
3. Igloo;
4. House boat;
5. Caravan

Exercise

(A) Fill the correct word in the blanks.

1. snow;
2. houseboat;
3. caravan;
4. bungalow;
5. sloping

(B) Write 'T' for True and 'F' for False statement :

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

(C) Match the appropriate answer withdraw a line :

1. Igloo;
2. Caravans;
3. Houseboat;
4. Pucca house;
5. Kachcha house

D. Answer the following questions :

- 1.

Kachcha House	Pucca House
(a) A kachcha house is made up of mud, straw and bamboo.	(a) A pucca house is made up of brick, stone and cement.
(b) These are found in villages.	(b) These are found in cities.
(c) These are not much strong.	(c) These are strong houses.

2. Houseboats are found in Jammu and Kashmeer. They are called Shikaras. In Kerala Kettuvallams and in China Sampans. 3. Houses on hills have sloping roofs so that rain water or snow can not rest on them. 4. We use an umbrella or a raincoat to go out when it rains. 5. (a) The house made up with snow is called an igloo. (b) The house that is made on wheels and can be moved from one place to another is called a caravan. (c) The house that is made on boats is called a houseboat.

Hots

We keep windows in all kinds of houses to get in fresh air and sun light.

Activity

Do yourself

Life-Skills

Burj khalifa (828 m)

National Grand Theater of China.

Chapter - 9 Air

Thinking

Let's have fun with our brain!!!

1. Germs;
2. Dust;
3. Smoke;
4. Oxygen

Exercise

(A) Tick (✓) out the right word appeared in the following statement :

1. breathing;
2. clean;
3. warms;
4. feel;
5. smoke

(B) Write 'T' for true and 'F' for false statement :

1. F; 2. F; 3. F; 4. T

(C) Answer the following questions :

1. Air is necessary for life because we can not live without air. 2. Polluted air is harmful to us because it has carbon dioxide and other unwanted things that are not good for our health. 3. Dust, germs and smoke make air polluted. 4. We should cover our mouth while sneezing and coughing because they have germs in them that can mix with air.

Hots

Without air life is not possible on the earth because air is necessary for life.

Activity

Do yourself

Chapter - 10 The Wind

Thinking

Let's have fun with our brain!!!

(a) Wind; (b) Kite; (c) Strong wind; (d) Force of wind; (e) Storm

Exercise

(A) Fill the correct word in blanks :

1. breeze; 2. direction; 3. trees; 4. force; 5. storm

(B) Write 'T' for true and 'F' for false statement :

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

(C) Match the appropriate answer with draw a line :

1. cannot see; 2. air with great force; 3. strong wind; 4. gentle moving air; 5. tell the direction of wind

(D) Answer the following questions :

1. When air blows softly and gently, it is called breeze. 2. Storms can cause damage to property, people, plant and animal. Thus they can be harmful. 3. Morning air is called wind. Wind mills are used to produce electricity. 4. Air has weight. It occupies space. It has force. It is used to breathe.

Hots

No, we can not fly a kite during a storms or a gale because their speed is not suitable for kite flying.

Activity

Do yourself

Life-Skills

1. It is helpful in breathing. 2. It is used to produce electricity. 3. Air in the morning is beneficial for health. 4. Air is used to inflate a balloon.

Chapter - 11 Drinking Water

Thinking

Let's have fun with our brain!!!

1. Washing clothes in water bodies. 2. Bathing of animals in water bodies.

Exercise

(A) Fill the correct word in the blanks :

1. three-fourth, one-fourth; 2. ground water; 3. salt; 4. life

(B) Write 'T' for true and 'F' for false statement :

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

(C) Give one example of following :

1. Hand pump; 2. River; 3. Typhoid; 4. Rain

(D) Answer the following questions :

1. Bathing and washing. 2. Water collected in the water bodies is known as surface water. 3. Rain water seeps into the ground and stored there. This water is called ground water. 4. The water work department provide water to cities and towns after purify it.

Hots

Such water can cause typhoid, cholera and jaundice.

Activity

Do yourself

Chapter - 12 Different Forms of Water

Thinking

Let's have fun with our brain!!!

1. Ice (solid); **2.** Water (liquid); **3.** Water heating (gas)

Exercise

(A) Fill the correct word in the blank :

1. ice; **2.** blue planet; **3.** liquid; **4.** melting

(B) Write 'T' for true and 'F' for false statement :

1. F; **2.** T; **3.** T; **4.** F

(C) Match the appropriate answer with draw a line :

1. Water; **2.** Ice; **3.** Steam; **4.** Freezing; **5.** Condensation

(D) Answer the following questions :

1. The three forms of water are solid, liquid and gas. **2.** Liquid form of water is most commonly used. **3.** Water is always moving from seas, rivers and lakes to the sky and sky to the water bodies. This is called the water cycle. **4.** Change of water vapour into water on cooling is called condensation.

Hots

There will be no rain on the earth.

Activity

Do yourself

Life-Skills

Ganga, Ganga

Chapter - 13 The Sun and its Shadow

Thinking

Let's have fun with our brain!!!

Morning (10 am); Noon (12 o'clock); Evening (4 pm)

Exercise

(A) Fill the blanks word in the blanks :

1. east, west; **2.** sun; **3.** star; **4.** opposite; **5.** shadow

(B) Write 'T' for true and 'F' for false statement :

1. T; **2.** F; **3.** F; **4.** T; **5.** F

(C) Rewrite these sentences after removing the error :

1. The sun gives us heat and light. **2.** All plants make their own food with the help of the sun's rays. **3.** The sun rises in the east and sets in the west. **4.** The sun shines at day. **5.** A shadow is formed when light travel in straight path.

(D) Answer the following questions :

1. A shadow is a dark shape formed on the ground which appears when light is unable to pass through an object. **2.** If the light is above the object, the shadow will be formed under the object. **3.** The energy produced by the sun is called Solar energy. **4.** Shadow is shorter at noon because light falls just above the object. **5.** The Sun appears to be small because it is very far from the earth.

Hots

The eight planets and the other part of solar system are — Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

Activity

Do yourself

Life-Skills

Transparent— glass, water

Opaque— boy, tree

Chapter - 14 Rocks on Earth**Thinking****Let's have fun with our brain!!!**

Soft; Marble; Granite

Gold; Silver; China Clay; Talc

Exercise**(A) Fill the correct word in blanks :**

1. Sand stone, granite; 2. marble; 3. rocks; 4. Quarts; 5. Coal

(B) Write 'T' for true and 'F' for false statement :

1. F; 2. T; 3. T; 4. F

(C) Match the appropriate answer with draw a line :

1. Black and found in the forms of layers; 2. Running steam engines; 3. Making pottery; 4. Hard and white in colour

(D) Answer the following questions :

1. The hard substance of which the earth is made is called rocks. 2. Rocks are found on land, under the soil and at the bottom of the rivers and oceans. 3. Hard rocks—sand stone, granite; Soft rocks—slate and coal 4. Rocks are made up of certain substances called minerals. We get minerals from rocks.

Hots

1. Kitchen slab; 2. Copper

Activity

Do yourself

Life-Skills

Red sand stone

Book - 3

Chapter - 1 Food for Animals

Thinking

1. Omnivores; 2. Frog; 3. Bees; 4. Butterfly; 5. Rabbit, rat

Exercise

(A) Fill the correct words in the blanks :

1. healthy; 2. herbivores; 3. crow; 4. butterfly; 5. rabbit

(B) Write (T) for True and (F) for False statement :

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

(C) Some animals name are given below. Write O for Omnivores, C for Carnivores and H for Herbivores :

H; H; H; C; O; O; H; O; C; O; O; H

(D) Answer the following questions :

1. Food help the animal to live and stay healthy. 2. The animals that eat flesh of other animals are called carnivores. For example— lion and tiger. 3. The plants that eat insects are insect-eating plants, such as pitcher plant and venus fly trap. 4. Some animals swallow their food without chewing. When they rest they bring this food back into their mouth and keep chewing it for hours. This is known as chewing the cud. 5. Omnivores have sharp and strong teeth.

Hots

It can be beneficial for us to suck the nectar of flower by insects like bee as they produce honey and wax from the nectar of flower which is beneficial in health terms.

Activity

Do yourself

Life-Skills

Plants depend on animals because they are helpful in scattering the seeds and providing manure to them.

Chapter - 2 Light, Sound and Force

Thinking

Let's have fun with our brain!!!

1. The Sun can produce its own light. 2. We get energy from the food we eat. 3. We need less force to move light weight things. 4. When the path of light is blocked by anything, a shadow is formed. 5. Soft and pleasant sounds sooth us.

Exercise

(A) Select the correct option :

1. (b); 2. (b); 3. (a); 4. (c)

(B) Fill the correct word in blanks :

1. plants; 2. light; 3. irritate; 4. energy

(C) Match the appropriate answer with draw a line :

1. can hurt your ears; 2. energy to cars; 3. need to work; 4. light bounces back

(D) Answer the following questions :

1. The objects that give out light of its own are the luminous objects. 2. We can make a shadow of an object by putting the object in the path of light. 3. Light helps us to see in the dark.
4.

Pleasant Sound	Unpleasant Sound
(a) Pleasant sound is soft.	(a) Unpleasant sound is hard.
(b) It is soothing to our ears.	(b) It irritates us.
(c) We enjoy this sound.	(c) It is harmful for our health.

Hots

When we throw an object towards the sky, it comes back on the earth because of the force of the earth. This force of earth is called Gravitational force.

Activity

Do yourself

Life-Skills

Harmonium, guitar and violin

Chapter - 3 Measurement

Thinking

kilo; meter; liter; kilo; dozen; kilo; liter; kilo

Exercise

(A) Select the correct option :

1. (c); 2. (a); 3. (c); 4. (c)

(B) Fill the correct word in blank :

1. grams; 2. meter; 3. weight; 4. 98.6° Fahrenheit

(C) Rewrite the wrong statement correctly :

1. A meter rod is used to measure the length. 2. A weighing machine is used to measure weight. 3. Liquid are measured in liters. 4. Weight is measured with the help of a balance or weighing machine.

(D) Answer the following questions :

1. $240 \div 40 = 6$, 6 litre milk is get in ₹ 240. 2. $55 \times 5 = 275$, 275 people can eat 5kg rice. 3. In ancient time, people looked at the position of the Sun in the sky. They told the time measuring shadows. 4. $90 \div 5 = 18$, $18 \times 12 = 1 \times 50$ the cost of 1 banana is ₹ 1.50

Hots

Length — 166 cm

Width — 126 cm

Activity

Do yourself

Life-Skills

Do yourself

Chapter - 4 Soil

Thinking

Let's have fun with our brain!!!

clown; vase; saucer; peacock; brick

Exercise

(A) Select the correct option :

1. (c); 2. (b); 3. (a); 4. (b); 5. (c)

(B) Fill the correct word in blanks :

1. nutrients; 2. loamy; 3. clayey; 4. size; 5. desert

(C) Write (T) for true and (F) for false statements :

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

(D) Answer the following questions :

1. Soil is formed from rocks. 2. Soil is made up of gravel, sand, clay and humus. 3. Soil is used to make pots, toys and is the home of many organisms. 4. Loamy soil is good for plants because it can hold enough air and water. 5. Soil has air— Take some soil in a jar. Pour water over it. You will see air bubbles from as you pour water. This happens because soil has air.

Hots

Manure are made from natural substance while fertilizers are made from chemicals.

Activity

Do yourself

Life-Skills

Five uses of soil except planting are pot making, habitat for many organism, tile making, toy making and brick making.

Chapter - 5 Safety And First Aid

Thinking

Let's have fun with our brain!!!

✕; ✓; ✓; ✕

Exercise

(A) Select the correct option :

1. (c); 2. (a); 3. (b); 4. (a)

(B) Fill the correct word in the blanks :

1. carelessness; 2. run; 3. doctor; 4. wet

(C) Match the following columns :

1. with dettol and cold water; 2. when you touch the object; 3. when walk on wet bathroom; 4. follow the safety rule

(D) Answer the following questions :

1. Safety rules on the road— (a) Do not run on the road. (b) Always cross the road at the zebra crossing. 2. We should look both sides of the road when we cross a busy road. 3. First aid is the immediate help given to an injured person. 4. We should not touch electric appliances with wet hands as they gives us an electric shock.

Hots

The meaning of three traffic light is stop, ready and go.

Activity

Do yourself

Life-Skills

1. ✕ 2. ✓ 3. ✓ 4. ✕ 5. ✓

Chapter - 6 Housing and Clothing

Thinking

Let's have fun with our brain!!!

stilt house; kuchcha house; igloo; houseboat; tent

Exercise

(A) Fill the correct word in the blanks :

1. town, city; 2. sloping; 3. summer; 4. igloo; 5. insects

(B) Write (T) for True and (F) for false statement :

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

(C) Match the appropriate answer with draw a line :

1. pucca house; 2. polyester; 3. jute; 4. sheep; 5. caravan house

(D) Answer the following questions :

1. An igloo finds in very cold regions. They are used to live in. 2. We can keep our house clean by throwing waste thing in a dustbin and keeping all the thing in their proper place. 3. Sunlight is important for a house for sunlight kills the germs. 4. We should have open space in our house for getting in sunlight and fresh air. 5. We need clothes to protect ourselves from heat, cold, rain and insects. 6. We do not buy a house which do not have proper drainage system because it can not be good for our health. 7. We get cotton and jute from plants. They are used to make clothes and bags.

Activity

Do yourself

Life-Skills

Do yourself

Chapter - 7 Insects and Birds

Thinking

Let's have fun with our brain!!!

1. Mosquito; **2.** Feelers; **3.** Teeth; **4.** Talons; **5.** Flight feathers

Exercise

(A) Fill in the correct word in the blank :

1. six; **2.** down; **3.** ostrich; **4.** hen; **5.** tail

(B) Write (T) for True and (F) for False statement :

1. F; **2.** T; **3.** F; **4.** T; **5.** T

(C) Match the following :

1. suck nectar of the flower; **2.** can causes rashes; **3.** cannot fly; **4.** stitch the leaves to make their nests; **5.** can fly for short distance

(D) Answer the following questions :

1. Feelers of an insect help it to feel its surroundings. **2.** Mosquito, spider and cockroach spread diseases. **3.** A birds body is suitable for flying because its bones are hollow and filled with air. **4.** A duck's beak is flat and have hole in its lower beak so when it catch its food, water flows out and food remains in its mouth. **5. (a)** It helps them to take a flight. **(b)** It helps them to reach high. **(c)** They help in flying. **(d)** It helps in changing direction.

Hots

Some birds migrate to reproduction of their young ones and to avoid cold weather.

Activity

Do yourself

Life-Skills

Scales; Claws; Wings

Chapter - 8 Parts of the Plant

Thinking

Let's have fun with our brain!!!

1. Plants are found all over the world. **2.** The roots grow underground. **3.** Roots hold the plant firmly in the soil. **4.** Other parts of the plant such as leaves, buds and flowers grow on the stem. **5.** The leaves of the plant are known as the food factory of plant. **6.** Fruits have seed inside them.

Exercise

(A) Select the correct option :

1. (b); **2.** (a); **3.** (b); **4.** (a); **5.** (b)

(B) Fill the correct word in the blank :

1. fibrous, tap; **2.** stomata; **3.** flower; **4.** seed; **5.** shoot

(C) Match the appropriate answer with draw a line :

1. It holds the plant in soil. **2.** It makes seed, so we can grow new plant. **3.** It helps the plant stand up straight. It carries water and food to all parts of the plant. **4.** It makes food from sunlight, carbon-dioxide and water.

(D) Answer the following questions :

1. Leaf of the plant is called food factory of a plant because they make food. **2.** Stem helps the plant stand up straight. It carries water and food to all parts of the plant.

3.

Fibrous Root	Top Root
(a) It does not go very deep.	(a) It goes very deep.

(b) Its branches out in all directions.	(b) It gives out branches which spread out.
(c) Plants like wheat, rice and onion have fibrous root.	(c) Plants like pea, bean, mustard etc have tap root.

4. Flowers are the most beautiful part of the plant because it make the plant beautiful and attractive.

Hots

We have to turn the soil of any plant regularly so that its fertility may remain.

Activity

Do yourself

Life-Skills

Mushroom; Fungi

Chapter - 9 Living and Non-living Things

Thinking

Let's have fun with our brain!!!

1. ball; 2. hen; 3. car; 4. horse; 5. monkey

Exercise

(A) Select the correct option :

1. (c); 2. (b); 3. (b); 4. (c); 5. (d)

(B) Write L for living things and N for non-living things :

1. N; 2. L; 3. L; 4. L; 5. N; 6. L; 7. N; 8. N; 9. N; 10. N

(C) Write (T) for True and (F) for False statement :

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

(D) Answer the following questions :

1. Plants breathe through stomata which are tiny pores on leaves. 2. Living things need to eat to grow and get energy.

3.

Living Things	Non-living Things
(a) They breathe.	(a) They do not breathe.
(b) They can move.	(b) They can not move.
(c) They need food to grow.	(c) They do not need food to grow.

4. A mimosa plant closes its leaves when we touch it. 5. A table and chair can not reproduce because they are non-living things.

Hots

Some objects can do many things that living thing do. But they are not alive because they do not have life and can not grow and reproduce.

Activity

Five living things — dog; cow; man; trees; rat

Five non-living thing — bench; ball; fountain; door; wheels

Life-Skills

Earthworm and frog

Fish and sea horses

Chapter - 10 Our Body

Thinking

Let's have fun with our brain!!!

1. tongue; 2. nose; 3. eyes; 4. tongue; 5. ears; 6. skin (hands)

Exercise

(A) Fill the correct word in the blanks :

1. muscle; 2. excretory; 3. nose; 4. brain; 5. reproductive

(B) Write (T) for True and (F) for False statement :

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

(C) Match the following :

1. the basic unit of body 2. pumps the blood and sent to all parts of the body 3. removes unwanted water in the form of urine 4. break food into simpler substances 5. it is able to produce their own kind babies

(D) Answer the following questions :

1. It is important because it gives shape to our body and protects the inner delicate parts. 2. The group of cells which does a particular work is called a tissue. 3. Eyes, nose, ear, tongue and skin are our sense organs. They help us to see, smell, hear, taste and feel respectively. 4. The soft, fleshy part that cover all the bones of our body is called muscles. Muscles make our body able to move or do some action. 5. Excretory system is important for our body because it removes and throws out the waste from our body in the form of sweat, urine, breathing out.

Hots

Because it shares space in the left side of the chest with the heart.

Activity

Do yourself

Life-Skills

eyes; nose; ear; leg; knee; head

Chapter - 11 Air, Water and Weather

Thinking

Summer — hot, coolers

Spring — warm and pleasant, bird chirp, blossom, flowers

Autumn — yellow, leaves, fall

Monsoon — swim, suits, frogs, puddles, umbrella

winter — cold, room, heater, tea and samosas

Exercise

(A) Select the correct option :

1. (c); 2. (b); 3. (b); 4. (a); 5. (c); 6. (a)

(B) Name these :

1. Wind; 2. Oxygen; 3. Carbon-dioxide; 4. Pond; 5. Breeze

(C) Write (T) for True and (F) for False statement :

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

(D) Answer the following questions :

1. Dirty air is said to be polluted. When unwanted substances like smoke mixes in the air, air gets polluted. 2. Uses of air — to breathe; to make fire; to dry our clothes. 3. The three forms of water are solid, liquid and gas. The process of water changing into water vapor by heating and then back into water on cooling is called water cycle. 4. The factors that affect the weather of a place are sun, wind, clouds and rain. 5. We should plant trees around our houses to get fresh air as they purifies air and produce oxygen which is used by us for breathing.

Hots

(a) We can fall sick. (b) We can make this water suitable for drinking by boiling it.

Activity

Do yourself

Life-Skills

1. flying kite; 2. dry cleaning; 3. breaking; 4. blowing a candle; 5. heating

Chapter - 12 The Sun, Earth and Moon

Thinking

Let's have fun with our brain!!!

- 1.** Round; **2.** Sun; **3.** 29; **4.** Craters

Exercise

(A) Fill the correct word in the blanks :

- 1.** round; **2.** earth, sun; **3.** round and round; **4.** earth; **5.** satellites

(B) Write (T) for True and (F) for False statement :

- 1.** F; **2.** F; **3.** F; **4.** F; **5.** T

(C) Match the following :

- 1.** planet; **2.** crater; **3.** huge ball of fire; **4.** group of stars **5.** a thin layer of air

(D) Answer the following questions :

- 1.** The Sun gives us light and heat. **2.** There is no life on the moon because there is no air and water on the moon. **3.** Constellations is a group of stars. Ursa Major, Scorpius, Orion are some constellations. **4.** The round and cup-shaped hollows on the moon are called craters.

Hots

No, fire can not be light a fire because there is no air which is helpful in lighting fire.

Activity

- 1.** Mercury **2.** Neptune

Life-Skills

Columbia

Book - 4

Chapter - 1 Plants - Our Green Friends

Exercise

(A) Fill the correct word in the blanks :

1. kitchen; 2. sun; 3. decaying; 4. transpiration; 5. alcohol

(B) Write one word :

1. Chlorophyll; 2. Stomata; 3. Glucose; 4. Leaves; 5. Alcohol

(C) Write (T) for True and (F) for False statement :

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

(D) Answer the following questions :

1. **(a)** The food making process by the plants is known as photosynthesis. **(b)** Tiny pores which are present under surface of leaf that help in exchange of gases. **(c)** Chlorophyll is the green colour substance present in plants. **(d)** The food that plants make is called glucose. **(e)** The process in which extra water gives out from the plant through stomata.

3. A plant need sunlight, carbon-dioxide, water and minerals to make food. 4. The food made by the plant turned into glucose and glucose into starch. This food is stored in roots, leaves, stems, fruits and seeds. 5. Human beings and animals need food and oxygen from plants and plants get carbon-dioxide from human beings and animals when they breathe out.

Hots

1. Weeding grows through their natural surrounding and their seeds dispersed through air and animals and birds. 2. Photosynthesis is called an air purifying process because it needs carbon-dioxide and it gets from our atmosphere.

Activity

Do yourself

Life-Skills

Sweet potato, Onion

Lotus stem, Garlic

Chapter - 2 Adaptation in Plants

Exercise

(A) Fill the correct word in the blanks :

1. under water; 2. cactus and prickly pear; 3. coniferous; 4. mangrove; 5. deciduous

(B) Write (T) for True and (F) False statement :

1. F; 2. T; 3. T; 4. F; 5. T; 6. T

(C) Match the following :

1. desert; 2. coastal area; 3. soil poor in minerals 4. hot plain; 5. evergreen; 6. places with enough sunlight

(D) Answer the following questions :

1. Plants develop special features to adapt themselves to the surroundings. This process is called adaptation. 2. Plants that grow on land are called terrestrial plants. Pine and mango, rice and coconut are terrestrial plants. 3. A cactus stores water in its fleshy stem and makes its food in this part thus it survives in desert. 4. Insectivorous plants eat the insects by trapping them. 5. Grass family plants are useful in the following manner—

They provide us food. Fodder for animals is got from them. They provide raw material for making paper. Dried grass is used in packaging goods. They prevent soil erosion.

Hots

1. Herbs; 2. Shrubs; 3. Trees

Activity

Do yourself

Life-Skills

1. Tobacco 2. Afeem 3. Lima bean

Chapter - 3 Animals - Growing in Numbers

Exercise

(A) Fill the correct word in the blanks :

1. tadpole; 2. moulting; 3. frog, fish; 4. pupa; 5. nymph

(B) Write (T) for true and (F) for false statement :

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

(C) Match the following :

1. tadpole; 2. nymph; 3. pupa; 4. give birth to young ones; 5. shedding of old skin

(D) Answer the following questions :

1. Animals need to reproduce for the continuity of their kind or race. 2. Frogs lay their eggs in water. Eggs take 3 to 21 days to hatch. Egg hatch into an embryo. The egg yolk provides the food to it. After some days, the embryo become a tadpole. It has long tail and breathes through gills. Slowly many body parts begin to develop. With passing of time, tadpoles change their look and look like adult frog. 3. Most animals reproduce in two ways either by laying eggs or by giving birth to young ones. 4. Animals that give birth to their young ones and feed them with their own milk are mammals. 5. Cockroach lay eggs which hatch into smaller babies called nymph. After moulting several times, they become adults. 6. Lizards and snakes produce so many eggs because many of them are eaten by other animals and only a few survive. 7. Butterflies lay their eggs on leaves of plant. They have hard shell and lined with wax. The young ones are called larva or caterpillar. It eats leaves and grow fat. It shed its skin and take on a new skin. This goes on till it enters the pupal stage after two week. The pupa weaving a fine fibre around itself that forms a 'cocoon'. When the adult is ready to come out, the cocoon breaks open and the beautiful butterfly comes out.

Hots

Yes, plant also reproduce like animal.

Activity

Do yourself

Life-Skills

They did not stop reproduction. They could not survived in the changed atmospheric conditions and become extinct.

Chapter - 4 Adaptation in Animals

Exercise

(A) Fill the correct word in the blanks :

1. fat; 2. gills; 3. special; 4. hibernation; 5. tiger, lion, carnivores

(B) Write (T) for true and (F) for false statement :

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

(C) Write the one word :

1. terrestrial animal; 2. aquatic animals; 3. arboreal animals; 4. chameleon; 5. gill; 6. stick insects; 7. amphibians

(D) Answer the following questions :

1. (i) Adaption of a camel are — (a) They have broad, flat feet to walk on sand; (b) They have thick lips to protect themselves from prickly desert plants; (c) They have long eye lashes to keep the sand out. (d) They store food in the form of fat in its hump. (ii) Adaptation of polar bears are — (a) They have two layers of fur and a thick layer of fat to protect themselves from cold; (b) They can swim for many hours in ice cold water without getting tired; (c) They can close its nostrils while diving; (d) They have short strong claws on its power to catch prey and grip ice. 2. Adaptation of a frog — (a) It can breathe with its skin in water and with its lungs on land; (b) It has webbed feet that help it to swim in water. It has long hind legs that help it to jump on land; (c) It has long and sticky tongue to catch flying insects; (d) Its colour matches its habitat so that its predator or prey can not see it easily. 3. Animals migrate in search of food, for a warmer climate, laying eggs and bringing up their young ones in a safer place. Siberian crane and salmon fish migrate from their native place. 4. Some animals do not migrate when the weather turns

cold so they go in a long winter sleep which is called hibernation. **5.** Animals can be grouped in the following categories according to their feeding habits— herbivores, carnivores, omnivores, parasites and decomposer. **6. (a)** A long winter sleep in caves or burrows to save energy; **(b)** To escape from one place to another due to the very cold weather and scarcity of food; **(c)** The ability to merge with the surroundings to guard against enemy; **(d)** To copy the colour of other animals and behave like them; **(e)** To acquire special changes in the body of living beings or their life styles so that they can survive in their habitat.

Hots

They hibernate themselves to protect themselves from cold.

Activity

1. Polar bear, penguin, squirrels, frogs etc hibernate themselves.
2. Siberian crane, whooping crane, arctic tern etc migrate themselves.

Life-Skills

1. bats
2. platypus

Chapter - 5 Food And Digestion

Exercise

(A) Fill in the correct word in the blanks :

1. saliva; 2. small; 3. bile juice; 4. mouth; 5. body building; 6. food pipe or oesophagus; 7. salivary gland, parotid gland, sublingual gland; 8. anus

(B) Write (T) for true and (F) for false statement :

1. T; 2. T; 3. T; 4. T; 5. F; 6. T; 7. T

(C) Give reasons :

1. It is so because saliva changes starch in the bread to sugar. 2. It is so because he work physically and people who do physical work need a rich diet of carbohydrates. 3. It is so because it is fibrous and help in digestion and get rid of constipation. 4. We chew our food well so that it break into small pieces to be digested easily. 5. It is so because coolness of a refrigerator stops germs to grow and it keeps the food fresh.

(D) Answer the following questions :

1. Proteins are helpful to build the body and make new cells. They are also helpful in the repairing of worn out tissues. Carbohydrates give us energy to work. So both of these are important for us. 2. We need food to get energy to work and to keep us warm. 3. Digestion starts in mouth. When we start eating, it breaks into smaller pieces and saliva makes it pulpy. The tongue push it into the throat. Now it reaches to the stomach through the food pipe (oesophagus). Here the food is churned become semi-solid. Now the food moves into the small intestine. The liver, gallbladder and pancreas help the small intestine to complete the digestion of food. The food is now in simple form. It passes through the wall of the intestines into the blood. The undigested food then moves from the large intestine into the rectum. It is finally passed out through the anus. 4. The stomach is a hollow muscular bag. The strong muscles of the stomach churn the food well with the help of digestive juice. The food makes in semi-solid form in stomach. 5. (a) Essential substances for our body which is present in the food. (b) A diet that contains all the nutrients and water in the right amount. (c) Fibrous substance of food is roughage which helps in digestion. (d) The substances which helps to prevent germs and moulds from growing are called preservatives. 6. Water is necessary for our body because it helps in digestion of food. It helps our body to work well and maintain our body temperature. 7. (a) Those are helpful in building the body and making new cells. (b) These are helpful in getting energy. (c) These are helpful in protecting ourselves from diseases. (d) They are helpful in getting energy to do work. (e) These are helpful in keeping ourselves fit and healthy. 8. A diet that contains right amount of nutrients, roughage and water is called balanced diet. It is important to stay healthy and grow well.

Hots

Fruits and vegetables contain all the nutrients and roughage. They keep us healthy and fit. Therefore it is called healthy food.

Activity

Do yourself

Life-Skills

1. Chew food properly.
2. Eat fresh food.
3. Wash hands before and after eating.
4. Eat healthy food.
5. Eat food on proper time.

Chapter - 6 Teeth And Dental Care

Exercise

(A) Fill the correct word in the blanks :

1. bone; 2. dentine; 3. pulp; 4. crown; 5. dentures

(B) Match the appropriate answer with draw a line :

1. front teeth; 2. grinding teeth; 3. milk teeth; 4. dentures; 5. root; 6. tearing teeth

(C) Answer the following questions :

1. Teeth are important to us to bite and chew our food, to speak and to get the shape to our face.
2. Milk teeth come out in the age of seven to nine months and they began to fall at the age of six or seven years. These are the first teeth. Permanent teeth replaced the milk teeth. When we are 21 years, we have a full set of 32 teeth. If they fall off, they do not grow back.
3. Flossing is removing food particles stuck between our teeth that can not be removed by brushing. We should floss our teeth everyday keep them clean and healthy completely.
4. We have four types of teeth. They are - incisors, canines, pre-molars and molars.
5. We can prevent our teeth from decay by brushing, flossing, eating rightly and visit a doctor regularly.

Hots

People bring their teeth in proper shape through this wire. This wire is called dental braces.

Activity

Do yourself

Life-Skills

1. Cardamom
1. Sensodyne 2. Dabar Babool

Chapter - 7 Safety And First Aid

Exercise

(A) Fill the correct word in the blank :

1. tetanus; 2. zebra crossing; 3. prevention; 4. lower; 5. wet; 6. save

(B) Write (T) for true and (F) for false statement :

1. F; 2. T; 3. T; 4. F

(C) Give reasons :

1. as it has such substances which can lesson the effect of an insect bite.
2. as they catch fire very easily and fastly.
3. as your uneasiness may make the patient more uncomfortable.
4. as it barred the extra blood to reach the brain.
5. as it prevents the irritation and itching.

(D) Answer the following questions :

1. Safety rules at home — **(a)** Always keep floor clean and dry; **(b)** Never touch electric appliance with wet hands; **(c)** All the things should be kept at proper places; **(d)** Things like matchbox, candles, knives etc. keep away from the reach of children.
2. We should always cross the road at the zebra crossing.
3. The immediate help that is given to an injured person before giving the proper medical aid. If you are bitten by an insect, wash the affected part with water put an ice pack for 10 minutes. Apply some soothing cream, a soft pad soaked in ammonia water or calamine lotion.
4. In case of burning, firstly remove the heat source, put out flames or remove burning, for minor burns dip the part in cold water or hold the remove burning, for minor burns dip the part in cold water or hold the burnt part under running water some time. Do this at once.
5. In case your nose bleeds stay calm and sit and press the nose tightly with your fingers. Keep your both nose close tightly for 5 minutes. Breathe through your mouth and bend forward avoid

swallowing the blood. **6.** If a person faints make him lie down for a while. Keep the head low for the extra blood to reach the brain.

Hots

As running make the fire burn rapidly.

Activity

Red to stop, yellow to be ready and green to move or go.

Life-Skills

102; 101; 100

Chapter - 8 Clothes We Wear

Exercise

(A) Give one word of the following :

1. wool; **2.** cotton; **3.** dry cleaning; **4.** nylon, rayon; **5.** nurse or doctor; **6.** moths, silverfish; **7.** Kimono

(B) Write (T) for True and (F) for false statement :

1. T; **2.** F; **3.** T; **4.** F; **5.** T

(C) Give reasons :

1. as they absorb sweat, allow air to pass freely and let the body heat to escape. **2.** as they prevent body heat to escape from the body, absorb heat and keep the body warm. **3.** as they soothe the skin and do not cause any harm to the body because they are made from natural fiber. **4.** as the heat of the Sun make them dry completely and soar the extra moist from the clothes. **5.** as they are coded clothes for the professionals. **6.** as they are not liked by the cloth-eating insects and keep them away from the clothes.

(D) Answer the following questions :

1. Natural fibres are obtained from the natural objects like plants or animals. They let the air pass through the clothes and allows the skin to breath on the other hand, syntheic fibers are not obtained from natural objects. These are made from crude oil and chemicals. They do not let the air pass through the clothes and may harm to the skin. **2.** We wear light coloured clothes in summer as they absorb less heat and keep the body cool. **3.** Woolen clothes are put in sun before storing and naphthalene balls or dried neem leaves are kept in the folds fo the clothes. **4.** One can take care of clothes in three way. These are cleaning them properly, mending them immediately and storing them with naphthalene balls or dried neem leaves. **5.** Raincoat are weared in rainy season as they save us from to get wet in rain.

Hots

As the two cotton sheets tends to keep the heat inside.

Activity

Do yourself

Life-Skills

1. sheep; **2.** goat; **3.** lama; **4.** camel; **5.** rabbits

Chapter - 9 Solar System

Exercise

(A) Select the appropriate option :

1. (c); **2.** (b); **3.** (a); **4.** (a); **5.** (b)

(B) Fill the correct word in the blanks :

1. Sun; **2.** orbit; **3.** satellite; **4.** Saturn; **5.** Sun

(C) Write (T) for true and (F) for false statement :

1. F; **2.** T; **3.** F; **4.** F; **5.** F

(D) Answer the following questions :

1. The Sun, the eight planets and their satellites make together the Solar System. **2.** The eight plants according to their distance from the Sun are Mercury, Venus, Earth, Mars, Jupiter, Saturn,

Uranus and Neptune. **3.** The group of stars in the sky that forms shape of an animal or a person are called constellations. Big dipper (Saptarishi) and Ursa Major are constellations.

4.

Star	Planet
(a) A star has light of its own.	(a) Planets do not have light of their own.
(b) A star does not revolve around any heavenly body.	(b) Planets revolve around a star.
(c) Star can produce heat and light of its own.	(c) Planets can not produce light and heat of their own.

5. Man-made satellite which revolves round the earth is called artificial satellite. They are used as follows— for conducting scientific experiments; for weather forecasting and communication; to enable us to watch television programs, live broadcast from different parts of the world; to make long distance phone calls (STD and ISD)

Hots

When shadow of the moon falls on the earth as moon comes between the sun and the earth is called solar eclipse.

Activity

Do yourself

Life-Skills

1. They revolves round the earth. **2.** They are very beneficial for us. **3.** They helps us to communicate on phones or internet. **4.** They are a source to transit messages through long distances. **5.** They provide as information of other planets too.

Chapter - 10 The Earth - Our Unique Planet

Exercise

(A) Select the correct option :

1. (a); **2.** (a); **3.** (b); **4.** (a); **5.** (b)

(B) Fill the correct word in blanks :

1. Core; **2.** 24; **3.** rotation; **4.** west, east; **5.** northern pole

(C) Write (T) for true and (F) for false statements :

1. F; **2.** F; **3.** T; **4.** F; **5.** T

(D) Answer the following questions :

1. The presence of rocks, water and air made life possible on the earth. **2.** The Sun appear to rise in the east and sets in the west because the earth rotates from west to east on its axis. **3.** The rotation of the earth causes day and night. At a time, only half the earth faces the Sun. This part of the earth has day. The other part which is away from the Sun has night. **4.** Rotation— The spinning of the earth on its axis is called rotation. It takes 24 hours to finish one rotation. This equal one and one night. It causes day and night. Revolution— The revolving of the earth in its orbit around the sun while rotation is called revolution. It takes 365 days to finish one revolution. This equals one year. It causes seasons. **5.** The earth looks like a spherical ball. It consists of three major layers — **(a)** Crust : This is the outermost layer of the earth. We live on it; **(b)** Mantle : This lies below the crust. It consists of molten rocks called magma; **(c)** Core : This is the innermost layer of the earth. It is extremely hot. It has hot gases and molten rocks material trapped under high temperature and pressure.

Hots

Jupiter, Mars, Mercury, Neptune, Pluto, Venus

Activity

Do yourself

Life-Skills

Neil Armstrong, Valentino Tere shkona

Chapter - 11 Force, Work And Energy

Exercise

A. Fill the correct word in blanks :

1. push, pull; 2. gravitation; 3. energy; 4. energy; 6. non-renewable; 7. solar energy, wind energy

B. Write (T) for true and (F) for false statement :

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

C. Write the one word :

1. Solar energy; 2. coal; 3. force; 4. magnetic force; 5. Sun; 6. non-renewable sources; 7. renewable sources

D. Answer the following questions :

1. The push or pull of one object on the other is called force. Muscular force and magnetic force are the two kind of sources. 2. Coal and petroleum are called fossil fuel because they obtained from the fossils which are the remains of plants and animals which died millions of years ago and buried under the pressure of the earth. 3. Work is the change in the position of an object when it is forced. 4. Source of energy are — Sun, water, wind and atomic energy; Forms of energy are — Muscular energy, wind energy, water energy, fossil fuel energy, electrical energy and solar energy. 5. Renewable sources of energy are the sources that will always be available in plenty. Example - solar energy, hydro energy, wind energy etc. Non-renewable source of energy are the sources that may finish petroleum and electricity. 6. (i) Mechanical Force — The force applied with the help of tools is called mechanical force. (ii) Gravitational force — The force by which the earth pulls the object towards itself is called gravitational force. (iii) Muscular force — When muscles are used to move or stop an object is called muscular force.

Hots

It happens that the gravity of the moon is not as much as the earth has.

Activity

Do yourself

Life-Skills

Do yourself

Chapter - 12 Matter And Materials

Exercise

A. Select the correct option :

1. (b); 2. (b); 3. (b); 4. (c); 5. (b)

B. Fill the correct word in the blank :

1. container; 2. intermolecular space; 3. matter; 4. stirring, heating; 5. freezing

C. Write (T) for true and (F) for false statement :

1. F; 2. F; 3. T; 4. F; 5. F; 6. F

D. Answer the following questions :

1. There are three different states of matter. They are— (a) Solid - wood, ice; (b) Liquid - water, milk; (c) Gas - oxygen, nitrogen 2. 3. (a) The temperature at which a liquid changes into solid is called the freezing point; (b) The temperature at which a liquid changed into gas is called the boiling point. 4. When a liquid changes into a gas/water vapour on heating. It is known as evaporation. 5. When a gas cools down and becomes a liquid due to the fall in temperature is called condensation. 6. The mixture of a solute and a solvent is called solution. When a solute dissolves in a solvent it makes a solution. 7. Anything that occupies space and has mass is called matter. As a stone has a particular shape and occupies space, it is a matter. In the same way, water occupies space and took the shape of the container in which it is poured. It can also be called a matter.

Hots

Physical change — Spinning of cycle wheel, inflating a balloon, melting of ice-cream, burning of candle, lighting chemical change - Bursting of fire cracker, cooking of food, rusting of iron.

Activity

Do yourself

Life-Skills

Petrol; diesel; coal

Chapter - 13 Our Environment

Exercise

A. Fill the correct word in the blanks :

1. dyes, fertilizers; 2. ozone; 3. gases, dust; 4. landfills; 5. 60 6. harmful; 7. air; 8. jaundice, typhoid

B. Write (T) for true and (F) for false statements :

1. F; 2. F; 3. T; 4. T; 5. F; 6. F

C. Give reasons :

1. Polluted air has carbon-dioxide. This gas traps Sun's heat and does not allow it to escape. This trapped heat warms the surface of the earth and causes global warming. 2. It is so because these rays affect plant and animal life on the earth and causes diseases like various cancers and damage to eyes. 3. Rain that falls down on us contains harmful gases. Rain water with harmful gases goes into the soil and the results in soil pollution. 4. Polluted water contains such substance that must not be present in water. It affects the purity of water and causes diseases. 5. Construction and destruction cause soil and air pollution because both of these activities produce those substances which are harmful and unnecessary for soil as well as for air.

D. Answer the following questions :

1. Pollution is addition of harmful things to the environment. There are four type of pollution. They are air pollution, water pollution, noise pollution and soil pollution. 2. The rising temperature of the earth is called global warming. Countries like Bangladesh and island like Tuvalu and Marshal fear floods are affected with global warming. 3. Rain that contains harmful gases is called acid rain. It harms wildlife, buildings, surface and soil. 4. Ozone layer have thinned because of the chemicals given out into the air. 5. (a) Causes of air pollution — (i) Forest fires pollute the air; (ii) Smoke from factories and vehicles causes air pollution. (b) Causes of water pollution— (i) Leakage from oil tankers; (ii) Chemical wastes from factories, household waste and sewage being dumped into ponds, rivers and lakes. 6. Air pollution reduce vision. Dust or dirt particles remains in the air and stop light from passing through and man has to do more effort to see which affects the health of eyes.

Hots

Polythene bags are non-degradable waste and are harmful for us because on burning, they produce carbon dioxide and on dumping in soil. Causes soil pollution and throwing in water bodies it affects the water beings. So we should use paper page instead of them.

Activity

Do yourself

Life-Skills

Plants are our valuable treasure. They give us food, shelter and clothing. They are natural habitats for many animals. They purify air and checks soil erosion. So we should plant more and more trees.

Book - 5

Chapter - 1 How Plants Increase in Numbers

Exercise

(A) Fill the correct word in the blanks :

1. seed coat; 2. pollination; 3. explosion; 4. germination; 5. root system

(B) Write T for True and F for False statement :

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

(C) Match the appropriate answer with draw a line :

1. China; 2. South west Asia; 3. Egypt; 4. Indonesia; 5. Syria

(D) Answer the following questions :

1. A seed consists of tree parts : **(a)** Seed Coat — It is tough skin of the seed that protect the seed leaves; **(b)** Seed leaves (cotyledons) — These contain food for baby plant or embryo. Some seeds have one cotyledons and some two cotyledons. One cotyledons seeds are called monocotyledons and two cotyledons seeds are called dicotyledons; **(c)** Embryo — It is a small baby plant that grows into a big plant.

2. The process of changing seed into a seedling is called germination. In the beginning of germination, the seeds absorb water and swells. This make the seed coat soft and split open easily. The root is growing downwards to form the root system called 'radicle' and later grow upwards to form the shoot system called 'plumule'. **3.** For germination seeds need these three things— **(a)** Water : It swells the seed coat and the baby plant comes out; **(b)** Oxygen : It is needed to breathe; **(c)** Warm temperature : It is needed to keep the seeds active. **4.** Seed dispersal is the process of spreading seeds that allow plants to reproduce. They are scattered by the following agents : Some seeds are dispersed by wind. Such seeds are tiny, light and have special tuft of hair or wings that help them to carried away by the wind from one place to another; Seeds of plant living in water or a place near it are spongy and have thick light fibre coat. This help them to float in water and travel to distant places to germinate; Some fruits burst open or explode when they become dry. The force of explosion helps the to scatter away. **5.** Generally plants reproduce from a seed but there are some plants which do not do so. They reproduce from stem, roots, leaves or spores. **6.** Seed dispersal is necessary for a plant because plants can not move and it is not possible for all the seeds to grow near the mother plant. **7.** Tea grows in places at a height of 1000 to 2000 metres. It is continuously trimmed to keep it to a height 2-3 metres so that it is easy to pluck its leaves. It requires a lot of water and is grown on hilly areas. It requires warm weather and many hours of sunshine.

Hots

They do so because a plant need space to grow well and to keep them away from other plants.

Chapter - 2 Necessary Nutrient In Balanced Diet

Exercise

(A) Fill the correct word in the blanks :

1. person; 2. DPT vaccine; 3. Vitamin C; 4. Vitamin D; 5. Acquired Immuno Deficiency Syndrome

(B) Write T for True and F for False statement :

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

(C) Match the appropriate answer with draw a line :

1. vitamin A; 2. milk; 3. malaria; 4. change milk into curd; 5. orange

(D) Answer the following questions :

1. Daily diet which have nutrients in right amount is called balanced diet. **2.** Water is essential for our body because it helps in proper digestion, to get rid of wastes in the form of urine and sweat and maintain weight. **3.** Vitamin and mineral keep us healthy. They help our body to fight diseases. If we do not get them in sufficient quantity, we have to suffer with dangerous diseases. **4.** Communicable Diseases : These diseases spread by micro-organisms which can not be seen by naked eyes; Non-Communicable Diseases : These diseases spread from one person to another. **5.** Prevention of communicable diseases— We must make efforts to control the breeding and spread

of germs; House must be airy with sufficient sunlight; Heating food till it boils; Kitchen floor, toilet and bathroom must be washed with disinfectants regularly; Only clean water should be used to drink. **6.** Bacteria— Cholera, plague; Virus— Common cold, flu; Protozoa — Malaria, dysentery; Fungus— Infection of eyes and skin.

Hots

Fat takes longer time to digest because it needs much physical work to burn.

Activity

Do yourself

Life-Skills

BCG, DPT, Polio, MMR, Flu

Chapter - 3 Simple Machines

Exercise

(A) Select the correct option :

1. (c); 2. (a); 3. (b); 4. (b); 5. (c)

(B) Give one word for the following :

1. pulley; 2. lever; 3. wedge; 4. wheels and axle; 5. inclined plane

(C) Correct the wrong statement :

1. Wheel and axle move together. 2. All simple machines decrease force. 3. Pulley is used to fetch water from the well. 4. Screw is used to carry things from one place to another. 5. A car is a complex machine.

(D) Answer the following questions :

1. A lever is a bar that can be moved about a fixed point. It has three parts— fulcrum (f), load (l), effort, (e) 2. Complex machine — Car, washing machine, refrigerator, air conditioner, mixer grinder; Simple machine — lever, pulley, inclined plane, wedge and wheel and axle. 3. There are three types of lever which are categorized as the first class lever, the second class lever and the third class lever. 4. A pulley is a grooved wheel with a rope or cable around it. It can be movable or fixed to a support. It is very useful in villages as it is used on well to pull water from the wells. 5. An inclined plane is formed of a strong wooden plank. The heavy things are pushed from the lower side towards the higher side which lessen the load of that thing. 6. No, wheel cannot do its work without axle because axle gives motion or moves the wheel. One moves the other.

Hots

Inclined plane — slope, mountain road, stairs, screw
Lever — scissors, tweezers, seesaw, bottle opener
Wedge — knife, pin, blade, spear
Pulley — tap knob, nail
Wheel and axle — wheel of a plane, car wheel

Activity

Do yourself

Life-Skills

1. ✗ 2. ✓ 3. ✓ 4. ✓ 5. ✗ 6. ✓

Chapter - 4 Animals And Its Features

Exercise

(A) Select correct option :

1. (b); 2. (a); 3. (c); 4. (b); 5. (c)

(B) Cross out the wrong words in the bracket to make correct statement :

1. pads; 2. limbs; 3. herbivores; 4. tracheae; 5. four; 6. snake

(C) Match the appropriate answer with draw a line :

1. amphibians; 2. mammals; 3. birds; 4. reptiles; 5. fish; 6. insects

(D) Answer the following questions :

1. Insects have six feet. They suck liquid as food with feeding tube called proboscises. **2.** Snakes do not have legs. They move with the help of their scales. They feel difficulty to move on a smooth surface because their scales can not grip the ground easily. **3.** Carnivores are the animals who eat flesh of animals while omnivores eat flesh as well as leaves and plants. Lion, tiger and leopard are carnivores and human being, crow and dog are omnivores. **4.** Fish swim with the help of fins. The two paired fins are used to move forward. The unpaired fins maintain balance and the tail fins help to change direction. **5.** Animals migrate to warmer places to find food, breeding grounds and to avoid harsh winter conditions. Siberian cranes and mallard duck migrate to India every winter.

Hots

Vertebrates — human being, cow, dog, lion, birds

Invertebrates — earthworm, amoeba, butterfly, mosquito, bed bug.

Activity

Do yourself

Life-Skills

1. duck **2.** swan **3.** goose **4.** penguin, albatross

Chapter - 5 Why Do We Have Bones

Exercise

(A) Fill the correct word in the blanks :

1. bone - marrow; **2.** 206; **3.** main; **4.** ligament; **5.** cardiac

(B) Name the following :

1. rib cage; **2.** voluntary; **3.** hinge joint; **4.** ball and socket joint; **5.** femur; **6.** pinna; **7.** vertebrate column

(C) Write T for True and F for False statement :

1. T; **2.** F; **3.** F; **4.** F; **5.** T

(D) Answer the following questions :

1. Our skeletal system has five parts — **(a)** The skull; **(b)** The back bone (vertebrate column); **(c)** The rib cage; **(d)** The limbs; **(e)** The girdles **2.** A place where two bones meet is called a joint. There are four types of joints in our body— Hinge joint, ball and socket joint, pivot joint and gliding joint. **3.** Function of skeletal system— It support our body and helps it to keep its shape; It protect the soft organ inside our body; Muscles are attached to the bones. They work together to move the parts of the body. **4.** There are two types of muscles— Voluntary and Involuntary. Voluntary muscles work on our will while involuntary muscles are not under our control, they work on their own.

5. (i) Voluntary muscles and involuntary muscles

Voluntary muscles	Involuntary muscles
(a) They move at our will.	(a) They do not move at our will.
(b) They are under our control.	(b) They are not are under our control.
(c) They move our external body parts.	(c) They move our internal body parts.

(ii) Tendons and ligaments

Tendons	Ligaments
(a) Tendons are fibre.	(a) Ligaments are tissues.
(b) They are strong.	(b) They are flexible.

(c) They are attached to the bones.	(c) They are special type of connective tissues.
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(iii) Hinge joint and the ball and socket joint

Hinge Joint	The Ball and Socket Joint
(a) This joint allows back and forth movement.	(a) This joint allows movement in all direction.
(b) These are found in fingers, knees and toes.	(b) These are found in shoulder and hip.

Hots

The brain have no bones. It is kept under the skull. It has eight bones.

Activity

Do yourself

Life-Skills

Universal doner blood group — O, R, HD

Universal recipient blood group — AB, R, HD

Chapter - 6 The Nervous System

Exercise

(A) Select a correct option :

1. (c); 2. (c); 3. (a); 4. (c); 5. (c)

(B) Fill the correct word in the blanks :

1. medulla; 2. vertebral column; 3. cerebrum; 4. the spinal cord; 5. cerebellum

(C) Match the appropriate answer with draw a line :

1. many grooves and folds 2. light enter the eye 3. feel cold and hot 4. balance and movement 5. spinal cord 6. vibrates when sound falls on it 7. regulates involuntary action 8. tongue

(D) Answer the following questions :

1. The system that contains the brain, spinal cord and the nerves is called the nervous system. This system has three parts— (a) The brain; (b) The spinal cord; (c) The nervous 2. It is the small part of the brain. It is in the back of the head. It controls muscular activities. It helps to maintain our body during walking, running, jogging, cycling and so on. 3. If we touch any hot thing, we withdraw our hand immediately. Such time the message taken to the spinal cord which immediately sends a message back. An automatic movement in response to a stimulus is called reflex action. This protects us from hurting unknowingly. 4. When we have cold, the nerves ending in the nose get blocked and smell does not reach there. That is why we can not smell things when we have cold. 5. The outer ear consist of pinna and the auditory canal. When sound are made, they set up movement in the air called sound wave. The pinna collected the sound wave and strike the ear drum in the middle ear. Sound wave reaches to the internal ear. From here sound wave is carried to the brain by the auditory nerve and we hear the sound wave. 6. The brain has three main parts— cerebrum, cerebellum and medulla; (i) Cerebrum — It is the largest part of the brain. It has many grooves and folds. It help us to think, remember and learn. It also control the function of sense organs; (ii) Cerebellum — It is the small part of the brain. It controls the muscular activities and maintain our body during actioning; (iii) Medulla — It is the lowest part of the brain. The spinal cord begins at the medulla. It even regulates the involuntary actions of the body. It remain active even when we sleep.

Hots

It is so because the brain is the important organ and it may be injured if a two wheeler driver meets an accident.

Activity

Wrist is the most sensitive to heat.

Life-Skills

Do yourself

Chapter - 7 Safety And First Aid

Exercise

(A) Fill the correct word in blanks :

1. Careless; 2. first aid; 3. windows; 4. anti-tetanus; 5. anti-venom

(B) Write T for True and F for False statement :

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

(C) Give reasons :

1. because they can not catch fire easily; 2. because air let the fire burn more rapidly; 3. because it does not let air pass through; 4. because it checks the fire to burn; 5. because it does not let the poison reach to rest of the body.

(D) Answer the following questions :

1. We can control fire with a fire extinguisher or by putting sand on it. 2. Tourniquet is a tight bandage on the wound which apply the pressure to stop the bleeding. 3. **(a)** Immediate help or treatment given to an injured person before the medical aid is called first aid; **(b)** The fire extinguisher is a special device which help us to put off the fire; **(c)** When a person falls down and gets his/her bones may get broken or cracked. This is called a fracture; **(d)** Sling is a bandage or a piece of cloth looped around the neck to give support to an injured arm. Splint is a flat piece of card-board or wood which is tied around the fractured part. It prevents movement of the broken bone. 4. Safety rules on road— **(a)** Always walk on the footpath; **(b)** Cross the road at the zebra crossing; **(c)** Always follow the traffic signals and traffic lights; **(d)** Never use mobile phones while driving. 5. Doctor gives anti-rabies injections to the patient on animal bite because the saliva of an animal contains virus of a very dangerous disease called rabies. This virus enters the victim's body through the animal's saliva when it bite someone.

Hots

1. Wash the pricked area with soap and plenty of water. 2. Clean the skin with antiseptic solution. 3. Apply any antiseptic cream. 4. Get an injection of tetanus.

Activity

Do yourself

Life-Skills

100 — Police

101 — Fire

102 — Hospital

Chapter - 8 States of The Matter

Exercise

(A) Fill the correct word in the blanks :

1. very closely; 2. oxygen; 3. solution; 4. oxygen; 5. more

(B) Correct the wrong statements :

1. A molecule is made up of two or more atoms. 2. The molecules are most lightly packed in solids. 3. Water is a solvent. 4. Molecules of a substance containing only one type of atom is called element. 5. A molecule of carbon dioxide contains two atoms of oxygen and atom or an element of carbon.

(C) Opposite each of these sentences, write S, L or G. Identify the properties related to solid, liquid and gas :

1. S; 2. G; 3. L; 4. S; 5. G

(D) Answer the following questions :

1. There are three states of matter. These are solid, liquid and gas. **2.** The molecules containing two or more different kinds of atoms combined together are known as compound. Salt is compound which is salty.

3. (i) Atom and Molecule

Atom	Molecule
(a) Atoms are particles which can not be further divided.	(a) Molecules can be further divided.
(b) Atoms are the molecule making substance.	(b) Molecules are made up of two or more molecules.

(ii) Homogeneous Mixture and Heterogeneous mixture

Homogeneous Mixture	Heterogeneous Mixture
(a) In this mixture the particles of the substance can not be seen.	(a) In this mixture the particles of the substance can be seen easily.
(b) Solution of sugar or salt in water in the example of such mixture.	(b) Mixture of oil, dust or chalk in water in the example of such mixture.

(iii) Element and Compound

Element	Compound
(a) An element has one type of atom.	(a) A compound has two or more different kind of atom.
(b) Iron, gold and carbon are elements.	(b) Hydrogen and carbon dioxide are compounds.

4. When solid sugar added to water, it get broken up into separated molecules and spread out in water and the taste of water become sweet because the molecules of sugar are very small. **5. (i)** Heterogeneous mixture; **(ii)** homogeneous mixture; **(iii)** homogeneous mixture; **(iv)** heterogeneous mixture; **(v)** homogeneous mixture; **(vi)** homogeneous mixture.

Hots

Do yourself

Life-Skills

Solid fuel — wood, charcoal, coal, cattle dung cake

Liquid fuel — petrol, diesel, kerosene oil

Gaseous fuel — LPG, CNG, biogas

Chapter - 9 Taking Care of Soil

Exercise

(A) Select the correct option :

1. (b); **2.** (c); **3.** (b); **4.** (c); **5.** (a)

(B) Fill the correct word in the blanks :

1. erosion; **2.** soil conservation; **3.** afforestation; **4.** running water, wind; **5.** step farming

(C) Match the appropriate answer with draw a line :

1. the upper most layer of the earth; **2.** planting of trees in large numbers; **3.** removal of topsoil; **4.** large scale cutting of trees; **5.** prevention of soil

(D) Answer the following questions :

1. Soil is formed when rocks break into tiny pieces due to the heat of the sun, moving wind and running water. **2.** The topsoil is dark in colour because it contains humus which make it fertile. Humus is formed by the decaying of dead animals and plants. This helps in the growth of plants. **3.** The removal of fertile topsoil from a region by wind, rain or river water is called soil erosion. Running water, wind and human beings are the main agents of soil erosion. **4.** Prevention of soil erosion is called soil conservation. **5.** On the hilly slopes, the flow of rain water to very rapid and forceful. It carries away lot of fertile topsoil. Hence farming is done by cutting steps in the slopes. This reduce the speed water as it flows down. **6.** We can conserve the soil erosion by planting trees in a large number called afforestation, avoiding over grazing in the same field and constructing of dam and embarkment.

Hots

Earthworm and sparrow

Activity

Do yourself

Life-Skills

Do yourself

Chapter - 10 Solar System

Exercise

(A) Select the correct option :

1. (a); **2.** (c); **3.** (b); **4.** (a); **5.** (c)

(B) Name the following :

1. orbit; **2.** craters; **3.** Apollo-11; **4.** solar eclipse; **5.** Neil Armstrong

(C) Correct the wrong statement :

1. We can jump higher on the moon than on the earth. **2.** We can not live on the moon because it does not has atmosphere. **3.** When the earth is between the moon and Sun, it is called lunar eclipse. **4.** Tides are occur due to gravitational pull of the moon. **5.** The eclipse of the moon is called the lunar eclipse. **6.** The distance of the moon from the earth is 3,85,000 km.

(D) Answer the following questions :

1. When the earth passes directly between the Sun and the moon the earth's shadow falls on the surface of the moon. This is called lunar eclipse. **2.** Life is not possible on the moon because of the extreme changes in temperature during night and day. The moon always present its same face towards the earth. On the day side of the moon, it has 100°C temperature and on the night side of the moon, it has - 233°C. **3. (i)** Full moon — When the earth is between the Sun and the moon. Such that the night side of the earth in facing the side of the moon and this is called the full moon; New moon — When the moon is between the Sun and the earth the reflected light from the moon does not reach the earth and hence, it is not visible and called new moon; **(ii)** Solar Eclipse — When the moon is between the Sun and the earth and blocks the sunlight and cover the earth with its shadow during day, it is called solar eclipse; Lunar Eclipse — When the earth passes directly between the Sun and the moon, the earths shadow falls on the surface of the moon, it is called lunar eclipse. **4.** The rhythmic meet rising and falling movement of the ocean water due to the pull of the moon's gravitation is called Tides. The water of seas and oceans on the side of the earth facing the moon is attracted upward and causes high tides. **5.** Moon has no light of its own. It seems luminous body as it reflects the lights of the Sun.

Hots

The distance of planets is measured in light year unit.

Activity

Do yourself

Life-Skills

Do yourself

Chapter - 11 Natural Disasters

Exercise

(A) Select the correct option :

1. (c); 2. (c); 3. (a); 4. (c); 5. (c)

(B) Write T for True and F for False statement :

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

(C) Match the appropriate answer with draw a line :

1. sudden shaking of the earth; 2. coastal area; 3. low lying areas; 4. giant waves in ocean/sea; 5. hot molten rock (lava); 6. scarcity of water

(D) Answer the following questions :

1. Any disaster caused by nature is called natural calamity earthquake, tsunami and drought are natural calamities. 2. Earthquakes are caused by the collision of the plates of rocks under the surface of the earth. Earthquakes cause a lot of damage to life and property. 3. (i) The points of the earth's surface directly above the focus of the earthquake is called the epicenter; (ii) Volcanoes that have erupted in recent years and may erupt again any time are called active volcanoes; (iii) Volcanoes that have not erupted in recent years but may erupt in the future are called dormant volcanoes; (iv) Shaking waves produced in earthquake are measured by an instrument called a seismograph. 4. Floods affect millions of people worldwide and cause damage to life and property on a large scale. Unhygienic conditions result in spread of diseases. Crops are completely damaged resulting in shortage of food. 5. Eruption of volcano releases poisonous gas, all living things in that area die as they inhale the gas.

Hots

It is so as the victims are unable to help themselves. A lot of damage has occurred. They lost all the sources.

Activity

Do yourself

Life-Skills

Do yourself

Chapter - 12 Our Environment

Exercise

(A) Select the correct option :

1. (c); 2. (a); 3. (b); 4. (a); 5. (c)

(B) Fill the correct word in the blanks :

1. green house gases; 2. factories; 3. paper, recyclable; 4. ecology; 5. wood for various purposes, farming, industries and urban settlement.

(C) Match the appropriate answer with draw a line :

1. effect of global warming; 2. refrigerator; 3. carbon dioxide; 4. global warming; 5. held in Japan

(D) Answer the following questions :

1. Some gases have the property of trapping energy from the Sun. These do not allow the heat to escape back into the space. They warm up the earth. These gases are called green house gases and their effect is known as green house effect. 2. The 4 R's stand for — Refuse (things that increase garbage); Reduce (garbage by throwing less); Reuse (wherever possible); Recycle (what ever possible). 3. Green house gases trap the heat of the Sun and increase the temperature of the earth. This increasing temperature of the earth is called global warming. Carbon dioxide, nitrous oxide and methane gases are responsible for it. 4. Ozone layer protects the earth from the Sun's ultra violet (UV) rays. 5. Effects of global warming — Polar caps would melt and increase the sea level; It would affect agriculture, causing problems regarding the availability of food and other agriculture-based activities; Climate and rainfall pattern would change. Prevention of global warming ____, plant more and more trees; Use CNG in vehicles. Check their pollution level regularly; Check air pollution; decrease the consumption of fossil fuels. 6. Protocol is an agreement to reduce the emission of green house gases. It was held in Kyoto, Japan during December 1997.

Hots

CNG is Compressed Natural Gas. It does not produce carbon dioxide and thus reduced the air pollution.

Activity

Do yourself

Life-Skills

1. ✓ 2. ✗ 3. ✓ 4. ✗ 5. ✓ 6. ✓



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