



SCIENCE CREATION

A Book of Science and Environment

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Living and Non-living Things

(A) Tick (✓) the correct answer :

1. There are living things :
(c) both of these
2. This is a man made things :
(b) ball
3. A boat moves. It is a :
(b) non-living things

(B) Fill in the blanks:

1. Living things have **life**.
2. River is **non-living**.
3. A fish can feel.
4. Living things **use** energy.
5. Fruits are **non-living**.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✓) 4. (✗) 5. (✗)

(C) Answer the following:

1. Write the name of two living things.
Ans. Plants and Animals.
2. Write the name of two non-living things.
Ans. Rivers and stone.
3. Write the name of two man-made non-living things.
Ans. Book and Pencil
4. Give 3 differences between living and non-living things.
Ans. Differences between living and non-living things.
Living things
 - (i) They can grow.
 - (ii) They have life.
 - (iii) They reproduce.

Examples : Plants and Animals etc.

Non-Living things

- (i) They can not grow.
- (ii) They don't have life.
- (iii) They can not reproduce.

Examples – Ball, Pen and toy etc.

2

Our Neighbourhood

(A) Tick (✓) the correct answer :

- 1. People who live near our house are called :
(c) neighbours
- 2. We go here to get good education :
(c) school
- 3. They help the sick feel better :
(a) doctor
- 4. We should throw garbage in the :
(a) dustbins

(B) Fill in the blanks:

- 1. The area near our home is called **neighbourhood**.
- 2. We should keep our neighborhood **clean**.
- 3. We should throw garbage in **dustbin**.
- 4. We buy sweets from **sweetshop**.
- 5. Families in a neighbourhood should **help** each other.

(C) Tick (✓) for the true and (✗) for the false:

- 1. (✓) 2. (✓) 3. (✗) 4. (✓) 5. (✗)

(D) Answer the following questions;

- 1. Where do we go to worship?
Ans. We go to temples to worship.
- 2. What is the meaning of neighbourhood?
Ans. Neighbourhood means the area or place that surrounds someone's home, or the people who live in this area.

3. Write the name of two festivals which you celebrate with your neighbours ?

Ans. Holi and Durga Puja.

4. Who teach the people how to stay healthy?

Ans. Doctors and Nurses teach the people how to stay healthy.

5. Why do we go to school?

Ans. We go to school to get good education.

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Unit-2 : Plants

Plants Around Us

(A) Tick (✓) the correct answer :

- Plants are :
(a) living things
- Plants need there to grow :
(c) both (a) and (b)
- Plants make their own :
(b) food
- Plants grow along the ground called :
(a) creepers

(B) Fill in the blanks:

- Climbers** grow upwards with the support.
- Herbs** are used in cooking, as medicines and for spiritual purposes.
- Plants are **living**.
- Trees** are important in fighting soil erosion.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✗) 3. (✗) 4. (✓) 5. (✗)

(D) Answer the following questions:

1. Name the various types of plants?

Ans. The various types of plants are trees, shrubs, bushes, herbs, vines, climbers, and creepers.

2. Write the name of two herbs?

Ans. Green onions and Mimosa.

3. What are shrubs?

Ans. Shrubs are woody plants but are small in size. Shrubs have multiple stems. Ex.-rose, water lily etc.

4. Write a difference between climbers and creepers?

Ans. Climbers : Climbers grow upward with the support. Ex.-Grapes, Pea plant etc.

Creepers : Creepers grow along the ground. Ex. - Water melon, pumpkin etc.

5. Write the name of two vine plants?

Ans. Blackberry and Clematis are two vines.

4

Plant Growth And Their Uses

(A) Tick (✓) the correct answer :

1. Sunflower is used as a -----.
(c) edible oil
2. Cotton is used for -----.
(a) clothing

(B) Fill in the blanks:

1. The seed has **grown** into a healthy young plant.
2. We eat leaves of **cabbage**.
3. Coriander is a **spice**.
4. Rayon is manufactured from **cellulose**.
5. Fuel that burns easily is **wood**.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✗) 4. (✓) 5. (✗)

(D) Answer the following questions:

1. How does a plant grows?

Ans. A plant grows in good soil, along with the right amount of water and sunlight.

2. Name the four spices.

Ans. (a) chilly, (b) coriander, (c) Turmeric (d) Tamarind.

3. Name the two edible oils.

Ans. The two edible oils are – (a) mustard oil (b) coconut oil.

4. Which type of plants are used to make paper?

Ans. Plants which have high amount of cellulose are used to make paper.

5. Write some examples of wooden furniture.

Ans. Table, chair, almirah, bed and sofa.

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Unit-3 : Animal

Animals Around Us

(A) Tick (✓) the correct answer :

- Which is not a domestic animal ?
(c) Wolf
- What help birds to fly.
(a) feathers on wings
- Frog is a :
(c) amphibian
- Which of there is an insect ?

(B) Match the following columns:

Column 'A'

Octopus
Turtle
Humming bird
Butterfly
Wolf

Column 'B'

aquatic animal
amphibian
bird
insect
wild animal

(C) Fill in the blanks:

- The biggest bird is the **ostrich**.
- Insect** dig tunnels underground.
- An insect** does not have bones.

4. **Amphibian** can live both on land and in water.

(D) Tick (✓) for the true and (✕) for the false:

1. (✕) 2. (✓) 3. (✕) 4. (✓) 5. (✓)

(E) Answer the following:

1. How do birds fly?

Ans. Birds fly with the help of their wings.

2. Name the four spices.

Ans. Four species of animals are–

- (a) Domestic animals (b) Wild animals
(c) Flying animals (d) Aquatic animals

3. Name the two aquatic animals.

Ans. Dolphin and Shark

4. Write the name of five domestic animals.

Ans. Five domestic animals are –

- (a) Dog, (b) cow, (c) Goat, (d) Camel, (e) Horse

5. Write some examples of amphibian.

Ans. Frog, Crocodile and Turtle.

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Food And Shelter For Animals

(A) Tick (✓) the correct answer :

1. Frog lives in _____.
(c) Both
2. Crow lives in _____.
(a) Nest

(B) Fill in the blanks:

1. Lions lives **den**.
2. **Horse** lives in stable.
3. Herbivores eats **plant**.

4. **Spider** makes a web.
5. Snake and Rat lives in **holes**.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✗) 3. (✗) 4. (✓) 5. (✓)

(D) Answer the following questions:

1. Why are food important for animals?

Ans. Food is important for animals because animal need food for growth.

2. Who lives in burrows?

Ans. Gopher, ground squirrel, mole and rabbit live in burrows.

3. Name the grain eating animals.

Ans. Hen, rat, pigeon, sparrow, parrot etc. are the grain eating animals.

4. What are carnivores?

Ans. Animals which eat the flesh are called carnivores.
Example – Lion, tiger, etc.

5. What are omnivores?

Ans. Animals which eat plants as well as flesh of other animals are called omnivores. eg. crow, kites and eagles.

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Unit-4 : Air, Water and Weather

Importance Air

(A) Tick (✓) the correct answer :

1. Air is needed for ----- .
(a) burning
2. Air is an ----- substance.
(a) invisible
3. Air is a mixture of several ----- .
(a) gases 3

(B) Fill in the blanks:

1. Air occupies **space**.
2. Air exerts **pressure**.
3. Heated air **expands**.

4. Air has **weight**.
5. Air helps **birds** in flying.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✗) 3. (✗) 4. (✓) 5. (✓)

(D) Answer the following questions:

1. Write the properties of air.

Ans. The properties of air are –

- (a) It takes up space.
- (b) It has weight.
- (c) It exerts pressure.
- (d) It can expand and contract.

2. Why do we need air?

Ans. We need air to live and breathe.

3. Why fire needs oxygen?

Ans. Oxygen helps in combustion so fire needs oxygen.

4. Write uses of air.

Ans. (a) We need air to live and breathe.

(b) Air helps in combustion.

(c) Air is used to inflate vehicle tyres, football, balloon etc.

(d) Air helps airplane, birds etc. in flying.

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Water

(A) Tick (✓) the correct answer :

1. We need water for ----- .
(b) both (a) and (c)
2. Sources of water are ----- .
(b) both (a) and (c)

(B) Circle water sources:

Ans. Stream, Sea, Well, Lake, Ponds, Ocean, River

(C) Fill in the blanks:

1. **Rainwater** takes up the dust and gases from the air.
2. Water is **necessary** for life.
3. Rain is a **source** of water.
4. **Soft water** is water in which no mineral matter is dissolved.
5. **Artesian well** water comes out of the ground by itself.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓)
2. (✓)
3. (✗)
4. (✓)
5. (✓)

(D) Answer the following questions:

1. Why plants need water?
Ans. Plants need water for making food.
2. Why water is essential for life?
Ans. We need water for various purpose like drinking, bathing, washing, cleaning etc.
3. Write three sources of water?
Ans. Three sources of water are: (a) Ocean, (b) Lake, (c) river
4. Write four uses of water?
Ans. (a) We need water to[clean our dirty hands.
(b) We need water to bath.
(c) We need water to wash clothes.
(d) We need water to drink.

(A) Tick (✓) the correct answer :

1. Summer fruits ----- .
(b) both (a) and (c)
2. Moving winds and warm and cold air make -----
(c) storms

(B) Match the following columns:

Column 'A'

Summer

Column 'B'

heat

Winter	snow
Autumn	leaves
Spring	flower
Rain	rainy day

(C) Fill in the blanks:

1. **Wind** is moving air.
2. **Rain** brings water to plants so they can grow.
3. **Spring** months are the blossoming months.
4. **Winter** is the coldest season of the year.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓)
2. (✗)
3. (✗)
4. (✓)
5. (✓)

(E) Answer the following questions:

1. What is thunderstorm?
Ans. When a storm contains thunder and lightning, it is considered to be a thunderstorm.
2. What is weather?
Ans. Weather is the combined effect of temperature, wind and rain.
3. Define seasons.
Ans. A season is a division of the year, marked by changes in weather.
4. Write the name of seasons.
Ans. The name of seasons are
(a) Summer (b) Winter
(c) Spring (d) Autumn

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Unit-5 : Human Body

Our Body

(A) Tick (✓) the correct answer :

1. Internal organs are ----- .
(b) Both (a) and (c)
2. External organs are ----- .
(b) both (a) and (c)

(B) Match the following columns:

Column 'A'

Column 'B'

Writing

Used Hands

Heart

Internal organ

Neck

Hold head

Jumping

With legs

Eyes

External organ

(C) Fill in the blanks:

1. **Eyes** helps us to see.
2. Neck holds **head**.
3. Our **arms** helps us to lift the things.
4. The smallest bone is in the **ear**.
5. The most important muscle is the **heart**.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓)
2. (✗)
3. (✓)
4. (✓)
5. (✓)

(E) Answer the following questions:

1. What is the function of hands?
Ans. Hands are used for various purposes such as eating, bathing, writing, etc.
2. What is the function of mouth?
Ans. Speak and eat are the main functions of mouth.
3. Define internal organs of body?
Ans. Those organs of body are invisible for us are called internal organs.
4. Write the name of sense organs?
Ans. Eyes, ears, tongue, nose and skin are sense organs.

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Food And Cleanliness

(A) Tick (✓) the correct answer :

1. Nutrients are substances that keeps you ----- .
(a) healthy
2. ----- is used to build and repair body parts.
(a) protein

(B) Match the following columns :

Column A

Breakfast

Fruits

Lunch

Milk

Dinner

Column B

Morning

Plants

Afternoon

Animal

Night

(C) Fill in the blanks:

1. Always wear clean **clothes**.
2. We should **wash** our hands before eting.
3. Throw garbage in **dustbin**.
4. Brain uses energy to **think**.
5. Cleanliness is a **good** habit.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓)
2. (✓)
3. (✓)
4. (✗)
5. (✓)

(E) Answer the following questions:

1. Why we need food?

Ans. We need food in order to live.

2. What are nutrients?

Ans. Nutrients are substances that keep us healthy.

3. Write the name of nutrients.

Ans. Proetins, Carbohydrates, Fats, Viatmins are the nutrients.

4. How important is cleanliness?

Ans. Cleanliness is the important part of our life to remain healthy.

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Our House And Clothes

(A) Tick (✓) the correct answer :

1. ----- provide a barrier between the skin and the environment.
(a) clothes

2. ----- is a good conductor of heat.

(a) linen

3. Fine and soft woollen yarn ----- .

(a) worsted

(B) Fill in the blanks:

1. We all need a **house** to live in.

2. In villages people live in **huts**.

3. We wear **cotton** clothes in summer.

4. We wear woollen clothes in **winter**.

5. Fine and soft woollen yarn is **worsted**.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✗) 4. (✓) 5. (✗)

(D) Answer the following questions:

1. Why we need house?

Ans. We need house to live in.

2. How many types of fabric are used for making clothes?

Ans. Five types of fabric are used for making clothes.

3. Why we need clothes?

Ans. We need clothes to protect us from environment.

4. Write the examples of worsted clothes?

Ans. Worsted clothes are carpets, cloth, hosiery, gloves etc.



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Living And Non-Living Things

(A) Tick (✓) the correct answer :

1. Plants trap the light energy for _____ .

(a) photosynthesis

2. Animals are _____ .

(a) living things

3. _____ plant is sensitive to touch.

(b) Mimosa

(B) Match the following:

Column A

Move

Grow

Sense

Reproduce

Breathe

Column B

Birds have wings

A calf grows into a cow

Chameleons change colors

A dog gives birth to puppies

Plants trap the light energy

(C) Fill in the blanks:

1. **Living** respond to stimuli.

2. **Non-living** things are non-motile.

3. A fish **can** feel.

4. Living things **respire**.

5. Plants are **living**.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✗) 3. (✓) 4. (✓) 5. (✓)

(E) Answer the following questions:

1. What is the meaning of living things?

Ans. Things which have six characteristics like move, grow, eat, sense, breathe, reproduce are called living-things.

2. Write the name of two living things.
Ans. Plants and animals.
3. What is the meaning of non-living things?
Ans. Things which cannot move, grow, eat, sense, breathe, reproduce are called non-living things.
4. Write the name of four non-living things.
Ans. Stones, paper, electronics goods and automobiles are the non-living things.

2

Plants Around Us

(A) Tick (✓) the correct answer :

1. Neem tree is popularly known as the _____.
(a) miracle Tree
2. _____ are small in size.
(c) shrubs and bushes

(B) Fill in the blanks:

1. Aquatic plants leaves and roots are long and **thin**.
2. **Eucalyptus tree** is the tall evergreen tree.
3. Real bulbs are **onion**.
4. **Kikar** is the small thorny tree.
5. Water Melon is the example of **creeper**.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✓) 4. (✗) 5. (✗)

(D) Answer the following questions:

1. Name the various types of trees?
Ans. Banyan tree, Neem tree, Peepal tree, Eucalyptus tree, Kikar tree and Teak tree are various types of tree.
2. Write the name of two aquatic plants?
Ans. Water lily and hydrilla.

3. What are uses of trees?

Ans. Uses of trees are –

- (a) Trees provide us shadow.
- (b) Trees give us fruits.
- (c) Trees give us paper.
- (d) Trees are used for medicinal value.

4. What are herbs?

Ans. Herbs are plants that are valued for flavour, scent, medicinal and other qualities.

5. What are bulb?

Ans. A bulb is a specific stem structure which is planted beneath the soil and stays underground.

3

Uses and Products of Plants

(A) Multiple Choice questions:

1. Radish is a _____.
(a) root
2. Mango is a common _____.
(a) fruit

(B) Match the following:

Column A

Dried fruit

Barks

Stigmas

Resins

Roots

Column B

Mustard

Cinnamon

Saffron

Asafoetida

Turmeric

(C) Fill in the blanks:

1. Wheat and rice are **cereal**.

2. Fruit used as vegetable is **tomato**.
3. Seed used as spice is **mustard**.
4. Linen is obtained from **flax** plant.
5. Bark contains salicylic **acid**.

(D) Tick (✓) for the true and (✗) for the false:

1. (✗) 2. (✓) 3. (✗) 4. (✗) 5. (✗)

(E) Answer the following questions:

1. Write the name of vegetables which are used as fruits?
Ans. Tomatoes, Cucumbers, Brinjal, Pumpkins and Peppers are the fruits which used as vegetables.
2. Write the uses of spices?
Ans. Spices are used for flavor, colour or as a preservative that kills harmful bacteria.
3. What does cereal grains contain?
Ans. Cereal grains contain much starch, carbohydrate that provides energy.
4. What are the uses of wood?
Ans. The uses of wood are—
(a) Wood is used to make houses.
(b) Wood is used to make furniture.
(c) Wood is used as fuel.
5. From which plant atropine is obtained?
Ans. Atropine is obtained from Aloe vera.

4

Unit-1 : Animal Kingdom

The World of Animals

(A) Tick (✓) the correct answer :

1. Whale is a _____.
(c) aquatic animal
2. Pigeon is a _____.
(b) bird

3. Ant is _____.
(b) insect
4. Toad is _____.
(c) amphibian

(B) Fill in the blanks:

1. Insects are **small** animals.
2. **Aquatic** animal is an animal which lives in water.
3. Bird that can not fly is **ostrich**.
4. Amphibians live a **double** life.

(C) Tick (✓) for the true and (✗) for the false:

1. (✗) 2. (✗) 3. (✓) 4. (✓) 5. (✓)

(D) Answer the following questions :

1. What are aquatic animals?
Ans. Animals that live in water are called aquatic animals.
Ex. - Fish, Dolphin etc.
2. What are wild animals?
Ans. Animals that live in jungle are called wild animals.
Ex. - Lion, Tiger, Elephant etc.
3. Name the five domestic animals.
Ans. Cow, Dog, Cat, Buffalo, Horse
4. Write the name of five birds.
Ans. Crow, Sparrow, Parrot, Pigeon, Eagle
5. Write the name of two amphibians.
Ans. Frog and Crocodile

(A) Tick (✓) the correct answer :

1. Hens give us _____.
(a) egg
2. Donkey is a _____ animal.
(a) load carrying
3. Crow give us _____.
(d) none of these

(B) Match the following :**Column A**

Bee

Cow

Sheep

Hen

Silk worm

Column B

Honey

Milk

Wool

Egg

Silk saree

(C) Fill in the blanks:

1. Goat gives us **milk**.
2. We get curd and cream from **milk**.
3. We get **silk from** silkworm.
4. **Ivory** is the teeth of animals.
5. Pashmina is collected from **cashmere goats**.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✗) 4. (✓) 5. (✓)

(E) Answer the following questions:

1. Which animal give us milk?
Ans. Cow gives us milk.
2. Which animals have ivory?
Ans. Elephants and mammoth have ivory.

3. Which animals give us wool?

Ans. Sheep, Cashmere Goats, Lamb, and Camel give us wool.

4. Which animals are used for leather?

Ans. Lamb, deer, elk and pig are used for leather.

5. Which animals do you use for carrying loads?

Ans. We use camel, horse, donkey and elephant for carrying loads.

6

Unit-3 : Air and Water

Air

(A) Tick (✓) the correct answer :

1. Major sources of air smoke are _____.

(c) both

2. Air pollutants mainly occur due to _____.

(a) gaseous discharges

(B) Fill in the blanks:

1. Air is **present** everywhere.

2. Air is mixture of several **gases**.

3. Dust contains many **microbes**.

4. Air is a **homogeneous** mixture.

5. Air does contain water in the **vapour** state.

(C) Match the following:

Column A

Smoke

Water vapour

Dust particles

Germes

Breathe

Column B

Smoke comes from factory

Dry cloth in presence of sunlight

Wind

A child coughing

Take fresh air

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✗) 3. (✓) 4. (✓) 5. (✗)

(E) Answer the following questions:

1. Define air pollution?

Ans. Air pollution occurs when the air contains gases, dust, fumes or odour in harmful amounts.

2. How will you prove that air contains water vapors in it?

Ans. Put a bottle of water inside the refrigerator and let it cool down. After that, take it out and notice how the surface of the bottle becomes moist. This proves that air contains water vapour in it.

3. What does air contain besides gases?

Ans. Air contain water vapour, dust particles and germs besides gases.

4. Why should one always wash the hands before eating?

Ans. One should always wash the hands before eating because it is good for health.

7

Water

(A) Tick (✓) the correct answer :

1. Forms of water are _____.
(a) three
2. Sources of water are _____.
(c) both (a) and (c)
3. A _____ is a artificial lake.
(b) reservoir
4. Pure water is _____.
(d) all of the above

(B) Fill in the blanks:

1. Water is one of the most essential elements to **good** health.

2. Water is **necessary** for life.
3. A reservoir is an artificial **lake**.
4. Liquid water **flows**.
5. Water in the form of a **gas** is called water vapor.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✓) 4. (✓) 5. (✓)

(D) Answer the following questions:

1. Write importance of water.

Ans. Importance of water are –

- (a) Water is necessary for life.
- (b) It is a essential element to good health.
- (c) It is necessary for the digestion and absorption of food.
- (d) It is necessary for the supplies of oxygen and nutrients to cells.

2. What are source of water?

Ans. Rivers, Lakes, Reservoirs, Ground-water and Wells are the sources of water.

3. What three forms can water take?

Ans. Water can take three forms a liquid, a solid or a gas.

4. What is the water cycle?

Ans. In water cycle the sun evaporates water from lakes and oceans. The water vapour condenses into tiny droplets of water. The droplets crowd together and form a cloud. The tiny droplets join together and fall as precipitation to the ground and collects in rivers and lakes. The cycle that never ends has started again.

(A) Tick (✓) the correct answer :

1. The human brain weighs about 3 _____.
(a) 3 pounds
2. The types of muscles are _____.
(d) all of the above

(B) Fill in the blanks:

1. We have two **hands** with five fingers on each.
2. Our arms are attached to my **shoulders**.
3. An organ in the body that digests food **stomach**.
4. Digits of the foot **toes**.
5. Outer covering of living thing or an object is called **skin**.

(C) Match the following :

Column A

Column B

3 pounds

Brain

206

Bones

600

Muscles

Digit of foot

Toes

100,000

Hair

(D) Tick (✓) for the true and (✗) for the false:

1. (✗)
2. (✓)
3. (✗)
4. (✓)
5. (✗)

(E) Answer the following questions:

1. What is the function of bones?
Ans. Bones give a hard and strong to our body.
2. What is the function of muscles?
Ans. Muscles help us to create movement.
3. Define skeleton?

Ans. The bones of our body make skeleton.

4. Write the name of four types of bones?

Ans. The four types of bones are —

(a) long bone, (b) short bone, (c) flat bone, (d) irregular bone.

5. Write the name of three types of muscles?

Ans. Skeletal muscles, smooth muscles and cardiac muscles are the three types of muscles.

9

Healthy Food

(A) Tick (✓) the correct answer :

- Proteins are made up of Amino acid.
(a) Amino acid
- Nutrients are substances that keep you healthy.
(a) Healthy

(B) Fill in the blanks:

- Nutrients are substances that keep you **healthy**.
- Proteins** are the building blocks.
- Water **proteins** produce energy.
- Water **does** not produce energy.
- Eat meals **regularly**.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✗) 3. (✓) 4. (✗) 5. (✓)

(D) Answer the following questions:

1. Why food is necessary for us?

Ans. Food gives us the energy and nutrients so food is necessary for us.

2. Why proteins are essential for us?

Ans. Proteins are essential for us because they provide the structure for the tissue of our body.

3. Define minerals?

Ans. Minerals are compounds obtained from our diet, that combine in several ways to form the structure of our body.

4. What are the basic requirement of healthy food?

Ans. The basic requirement of healthy food are proteins, carbohydrates, fats, vitamins, minerals and water.

10

Heavenly Bodies

(A) Tick (✓) the correct answer :

1. Sun sets in _____.
(b) west
2. In lunch time sun is in _____.
(c) south

(B) Find these words in the grid:

SKY, SUN, MOON, STARS, CLOUD, EARTH, DAY, NIGHT, HEAT AND LIGHT

Do Your Self

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✓) 4. (✗) 5. (✓)

(D) Answer the following questions:

1. What are heavenly bodies?

Ans. Natural objects visible in the sky are called heavenly bodies.

2. What are the basic conditions for existence of life on a planet?

Ans. The following basic conditions are required for the life to exist on a planet.

(i) There should be a suitable temperature range.

- (ii) There must be proper atmosphere free from poisonous gases.
- (iii) There should be plenty of water.
3. Write name of four directions.
Ans. North, South, east and west are the four directions.
4. In which direction sun rise?
Ans. The sun rises in the east.

1

The Moon And Stars

(A) Tick (✓) the correct answer :

- The phases of the moon work in a cycle starting with the _____.
(a) new moon
- Moon gets its light from _____.
(b) sun
- A none of these system is made up of a star surrounded by planets and other objects.
(d) none of these

(B) Match the following :

Column A

Earth

Moon

Sun

Star

Galaxies

Column B

Planet

Natural satellite

Star

Big ball of hot glowing gas

Group of stars

(C) Fill in the blanks:

- The **moon** is the only natural satellite of earth.
- The **moon** does not make its own light.

3. There are **eight** phases of the moon.
4. The closest star on earth is the **sun**.

(D) Tick (✓) for the true and (✗) for the false:

1. (✗) 2. (✓) 3. (✗) 4. (✓) 5. (✓)

(E) Answer the following questions:

1. What is the source of moon's light?

Ans. Sun is the source of moon's light.

2. What causes the different phases of the Moon?

Ans. The phases of the moon depend on its position in relation to the Sun and Earth.

3. Define new moon?

Ans. In one phase of the trip around the earth, the moon is in between the sun and the earth. This moon is called a new moon.



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Living And Non-living Things

(A) Tick (✓) the correct answer :

- Excretion, irritability and reproduction are characteristics of:
 - all animals and plants
- Which one of the following functions is carried out by animals through lungs?
 - respiration

(B) Match the following:**Column 'A'****Column 'B'**

Nutrition	process by which make organisms obtain energy and raw material
Respiration	release of energy for food substances
Excretion	removal of toxic material
Reproduction	produce off springs

(C) Fill in the blanks:

- All living things release energy from their food in a process called **respiration** which happens inside their cells.
- Some of the energy is used for **growth**.
- All living things get bigger as they get older. This process is called **movement**.
- The production of young ones is called **reproduction**.

(D) Tick (✓) for the true and (✗) for the false:

- (✓)
- (✓)
- (✗)
- (✗)
- (✓)

(E) Answer the following questions:

- What are some characteristics of living things?

Ans. Moving, eating, growing and reproducing are some characteristics of living things.

2. Plants don't eat but they need energy. Where do they get it?
Ans. They get it from sun, human beings and atmosphere.
3. What is the meaning of nutrition?
Ans. Nutrition is the process by which organisms obtain energy and raw materials from nutrients such as proteins, carbohydrates and fats.
4. Define reproduction.
Ans. All living organisms have the ability to produce offsprings. That is called reproduction.

2

Unit-2 : Plants Life

Uses of Plants

(A) Fill in the blanks:

1. **Cereals** and **pulses** are seeds of plants.
2. We add spices to our food to make it **tasty**.
3. Do your self
4. In cold places, people burn **wood** to keep warm.
5. We use rubber to make eraser and **car tyres**.

(B) Tick (✓) for the true and (✗) for the false:

1. (✗) 2. (✓) 3. (✓) 4. (✓) 5. (✓)

(C) Match the following :

Column 'A'

1. Nuts
2. Oil
3. Spices
4. Cereals
5. Pulses

Column 'A'

- Almond, walnut and cashew
- Mustard and coconut
- Chilly, turmeric and cloves
- Wheat, rice and barley
- Moong and Masoor

(D) Answer the following questions:

1. Write the names of three medicinal plants.
Ans. Tulsi, neem and eucalyptus
2. Write any three ways by which trees are helpful to us.
Ans. Trees give us oxygen, fruits and wood, etc.

(A) Tick (✓) the correct answer :

- The root cap is meant
(a) to attach the plant to the soil
- The Expanded part of the leaf is called _____.
Do your self
- The central vein of the blade is called _____.
Do your self

(B) Fill in the blanks:

- Primary** root is the thickest.
- Plants get rid of extra water through their **stomata**.
- the central vein of the blade is called **midrib**.
- The **blade** is the expanded part of the leaf.
- Flowers** are the reproductive part of most plants.

(C) Match the following:**Column 'A'**

Leaves

Stem

Flower

Fruit

Root

Column 'B'

midrib

internodes

pollination

protecting the seeds

root hair

(D) Tick (✓) for the true and (✗) for the false:

- (✗)
- (✗)
- (✓)
- (✓)
- (✓)

(E) Answer the following questions:

- What do the parts of a plant do?

Ans. The parts of a plant help in development and protect the plant.

- Which part of the plant holds it in the ground?

Ans. Root holds the plant in the ground.

3. Which part of the plant makes food for the plant?
Ans. Leaves make food for the plant.
4. What's the difference between a fruit and a vegetable?
Ans. Fruits have sweet or sour taste but vegetables do not have sweet or sour taste.
5. What is the first thing that comes out of a seed?
Ans. Main root is the first thing that comes out of a seed.

4

Unit-3 : Animals's Life

Food That Animals Eat

(A) Tick (✓) the correct answer :

1. Example of herbivores ----- .
(a) cow
2. ----- are animals that eat only meat.
(a) carnivores
3. An animal that feeds on dead or decaying matter are called ----- .
(c) scavengers

(B) Fill in the blanks :

1. **Carnivores** have only sharp teeth in their mouths.
2. Carnivores are animals that eat only **meat**.
3. Herbivore eats **plants**.
4. **Omnivores** are animals that can eat both plant materials and meat.
5. A dung fly is the example **detritivores**.

(C) Match the following:

Column 'A'

Herbivores
Carnivores
Omnivores

Column 'B'

cow
lion
human

Scavengers

vultures

Detritivores

woodlice

(D) Tick (✓) for the true and (✗) for the false:

1. (✗) 2. (✓) 3. (✗) 4. (✓) 5. (✗)

(E) Answer the following questions:

1. Animals are categorized in how many groups?

Ans. Animals are categorized in five group.

2. What are herbivores?

Ans. Herbivores are animals that eat only plants.

3. What are scavengers?

Ans. Scavengers are animals that feeds on dead or decaying matter.

4. What are detritivores?

Ans. Detritivores are organisms that recycle detritus.

5. Define food chain.

Ans. The food chain shows how some animals eat other animals to survive.

5

Birds And Their Nesting Habits

(A) Tick (✓) the correct answer :

1. ----- have short, thick, curved, pointed beaks.

(a) hawks

2. ----- have long, very slender beaks.

(a) humming birds hese

3. ----- has short, stubby, but powerful beaks.

(a) peacock

4. ----- have short, slender beaks.

(c) bark fissures

(B) Match the following:

Column 'A'

Climbing birds

preying bird's

Water birds

Scratching birds

Wading birds

Column 'B'

woodpecker

eagle

duck

hen

flamings

(C) Fill in the blanks:

1. The shape of the **beak** depends on what the bird eats.
2. Ducks have **webbing** between their toes.
3. The **wood peckers** is the two-toed bird.
4. **Woodpeckers** construct their own cavity nests.
5. Penguins make **scrape** type of nests.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓)
2. (✓)
3. (✗)
4. (✓)
5. (✓):

(E) Answer the following questions:

1. Define down feathers.

Ans. Down feathers are soft and fluffy. Down feathers help insulate birds by trapping air.

2. What are wading birds?

Ans. Long-legged birds that wade in water in search of food are called wading bird.

3. Why don't perching birds fall out of trees when they sleep?

Ans. Perching birds don't fall out of trees when they sleep because the toes continue to grip the branches firmly.

4. Write the name of flightless birds.

Ans. Penguin, emu and ostrich are the flightless birds.

5. What is the meaning of perching?

Ans. Four toes of perching birds help them to hold the

branch of a tree very firmly. This act is called perching.

6

Our Body And Its Systems

(A) Tick (✓) the correct answer :

1. cell was discovered by Robert Hooke.
(b) tissue
2. excretory system collects water and filters body fluids.
(c) excretory system

(B) Match the following:

Column 'A'	Column 'B'
Circulatory system	heart
Skeletal system	bones
Nervous system	brain
Respiratory system	lungs
Digestive system	stomach

(C) Fill in the blanks:

1. The **cell** is the functional basic unit of life.
2. **Organ** is a collection of tissues joined in structural unit to serve a common function.
3. Skeletal muscle attached to the skeleton by **tendons**.
4. The **lungs** help us to breathe.
5. **Tissues** are the building blocks of body.

(C) Tick (✓) for the true and (✗) for the false:

1. (✗) 2. (✓) 3. (✗) 4. (✗) 5. (✓)

(D) Answer the following questions:

1. Define respiratory system.

Ans. The respiratory system is the system in which gases exchange between the body's tissues and the external environment. This process is called respiration.

2. What is the function of excretory system?

Ans. The function of excretory system is remove and concentrate waste products from body fluids and return other substances to body fluids as necessary for homeostasis.

3. Why is digestion important?

Ans. Digestion is important because by this process body get nourishment and energy.

4. What are the main organs of circulatory system?

Ans. Heart, blood vessels and blood are the main organs of circulatory system.

5. Define reproduction.

Ans. The process of creating new life is called reproduction.

7

Safety And First Aid

(A) Tick (✓) the correct answer :

- Traffic red light means -----.
(a) stop and wait
- Don't accept anything from a -----.
(a) stranger
- On the road, always walk on -----.
(c) footpath

(B) Match the following:

Column 'A'

Column 'B'

If you are standing on a

wet floor

never touch a switch

Always walk

on the left side of road

Do not put your head or

hand out of

the moving bus and car

First aid is the provision of

initial care for an illness or injury

(C) Fill in the blanks:

1. A yellow light means to **get ready**.
2. Always use **zebra crossing** to cross the road.
3. Always walk on **left** side of road.
4. An injured person should be given **first aid** quickly.
5. Don't fly kites near **power** lines.

(D) Tick (✓) for the true and (✗) for the false:

1. (✗)
2. (✓)
3. (✗)
4. (✗)
5. (✗)

(E) Answer the following questions:

1. Write few safety rules to be followed at home.
Ans. For safety, we must follow some rules—
 - (a) Never touch a switch or plug with wet hands.
 - (b) Don't fly kites near power lines.
 - (c) Clean chimneys, fireplaces and central ovens periodically.
 - (d) Never leave knives or any sharp objects in a sink.
 - (e) Keep stairs clean and dry.
2. What should we know about electrical safety?
Ans. We should know the following—
 - (a) Never touch a switch or plug with wet hands.
 - (b) Never overload outlets with too many plugs and extension cards.
 - (c) Never put anything into an electrical outlet.
 - (d) Don't fly kites near power lines.
3. How should you behave at parks and play areas safely?
Ans.
 - (a) Play in groups.
 - (b) Don't play in the streets.
 - (c) If playing in a park, follow park rules.
 - (d) Watch for broken glass, sharp objects and broken equipment.

- (e) If a stranger approaches you, tele a trusted adult.
4. What is first aid?
- Ans. First aid is the provision of initial care for an illness or injury.

8

Unit-5 : Our Needs

House And Clothes

(A) Tick (✓) the correct answer :

1. A good house must be _____.
(a) clean
2. We wear clothes according to the _____.
(d) All of these
3. Silkworm feeds on _____ leaves.
(c) Mulberry

(B) Match the following:

Column 'A'

Studio

Villa

Bungalow

Hut

Caravan

Column 'B'

small apartment

big luxurious detached house

built on one level

small crude shelter

house on wheels

(C) Fill in the blanks:

1. A **mansion** is a very large detached house.
2. We get _____ and _____ from plants.
3. A **caravan** is a house on wheels.
4. Cotton grows in _____.
5. Making a thread from cotton is called _____.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✗)

(E) Answer the following questions:

1. What are the different types of houses?

Ans. The different types of houses are —

- (a) Detached house, (b) Terraced house, (c) Flat,
- (d) Bungalow (e) Hut etc.

2. Write the characteristics of a good house.

Ans. Characteristics of a good house are—

- (a) A good house must be clean and airy.
- (b) It should have sufficient supply of air and water.
- (c) It should have clean and green surroundings.
- (d) There should be proper ventilation.
- (e) A good house always carries an open space like courtyard, lawn and terrace.

3. What are the different kinds of clothing?

Ans. The different kinds of clothing are—

- (a) Cotton, (b) Flax, (c) wool, (d) Hemp, (e) Silk (f) Denim etc.

4. Write the example of leather clothes.

Ans. Jackets, Gloves

(A) Tick (✓) the correct answer :

- Air consist ----- of nitrogen.
(a) 78%
- The process in which a gas changes directly into a solid is called -----.
(a) frost formation
- Air consists 21% of -----.
(c) oxygen

(B) Match the following:

Column 'A'

Column 'B'

Melting

Solid to Liquid

Evaporation

Liquid to Gas

Freezing

Liquid to Solid

Condensation

Gas to Liquid

Sublimation

Solid to Gas

(C) Fill in the blanks:

water vapor, melting, evaporation, air, oxygen

- Air** is a mixture of gases.
- We breathe in **oxygen**.
- The process in which a liquid changes into a gas is called **evaporation**.
- Water in the form of a gas is called water **vapor**.
- The process in which a solid changes into a liquid is called **melting**.

(D) Tick (✓) for the true and (✗) for the false:

- (✓)
- (✗)
- (✓)
- (✓)
- (✓)

(E) Answer the following questions:

1. What are the essential constituents of air?

Ans. The essential constituents of air are nitrogen, oxygen, argon and carbon-dioxide.

2. What is sublimation?

Ans. Sublimation is a process in which a solid changes directly to a gas.

3. Write the name of the three states of water.

Ans. The three states of water are solid, liquid and gas.

4. What is evaporation?

Ans. The process in which a liquid changes into a gas is called evaporation.

5. Define water cycle.

Ans. The water cycle is a continuous cycle where water evaporates, travels into the air and becomes part of a cloud, falls down to earth as precipitation and then evaporates again.

10

Weather

(A) Tick (✓) the correct answer :

1. Summer days are ----- .

(a) longest

2. Natural causes of climate changes are ----- .

(c) both (a) & (b) 3

(B) Match the following:

Column 'A'

Column 'B'

Sun

Source of energy

Earth

One full orbit around the sun

Volcano

Aerosols

Ocean

Move vast amounts of heat

Carbon-dioxide

Greenhouse gas

(C) Fill in the blanks:

1. The earth makes one full **orbit** around the sun each year.
2. The **oceans** are a major component of the climate system.
3. **Autumn** season of the year between summer and winter.
4. **Summer** is the warmest of the four temperate seasons.
5. **Winter** is the coldest season of the year.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓)
2. (✓)
3. (✗)
4. (✓)
5. (✓)

(E) Answer the following questions:

1. What are causes of climate change?

Ans. The causes of climate change are volcanic eruptions, ocean current, solar variations, the earth's orbital changes and human activities.

2. What is aerosol?

Ans. Tiny particles called aerosols are produced by volcanoes.

3. How many seasons are there in India?

Ans. There are 4 seasons in India—

(a) Spring, (b) Summers, (c) Autumns (d) Winters.

4. When comes spring season in India?

Ans. The spring seasons in India starts around March every year.

(A) Tick (✓) the correct answer :

- There are ----- main types of soil.
(c) five
- The top layer of the earth's crust is -----.
(a) soil

(B) Match the following:

Column 'A'	Column 'B'
Sandy soil	light and dry soil
Loamy soil	ideal blend of sand and clay
Clay soil	silky to the touch
Peaty soil	derived from marsh land
Chalky soil	they overlie chalk or limestone

(C) Fill in the blanks:

peaty soil, minerals, sandy soil, loamy soil, richer

- Clay soils are much **richer** in plant food than sand.
- Sandy soil** is poor in plant foods.
- Loamy soil** is considered the best soil for large numbers of plants.
- Peaty soil is usually found in low-lying areas.

(D) Tick (✓) for the true and (✗) for the false:

- (✓)
- (✓)
- (✗)
- (✗)
- (✓)

(E) Answer the following questions:

- What is soil?
Ans. The top layer of the earth's crust is called soil.
- What are types of soil?
Ans. There are five main types of soil —
Clay soil, sandy soil, chalky soil, loamy soil and peaty soil.

3. What do you understand by subsoil?
Ans. Subsoil are about a foot in depth though many of them are no deeper with eight or nine inches.
4. What is rock?
Ans. A rock is a naturally occurring aggregate of minerals.
5. What is a mineral?
Ans. A mineral is an element or chemical compound that is normally crystalline and that has been formed as a result of geological processes.

(A) Tick (✓) the correct answer :

1. It is a big ball of fire.
(a) Sun
2. Shadows are formed :
(d) none of these
3. Shadows is shortest :
(b) at noon

(B) Fill in the blanks:

1. The **Sun** is the nearest star to the Earth.
2. Plants need **sunlight** to make food.
3. Light cannot go through most **folid** things.
4. The Sun is very large compared to the **Earth** or the **Moon**.
5. Shadows in the **morning** and **evening** are long.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✗) 3. (✗) 4. (✓) 5. (✓)

(D) Answer the following questions :

1. Write two ways in which the sun helps us.
Ans. Do yourself.
2. When is a shadow formed?
Ans. A shadow formed in the light.
3. What is the sun made up of?
Ans. The sun is made up of many gases.



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(A) Tick (✓) the correct answer :

1. The process by which green plants prepare their own food is called _____.
 (b) photosynthesis 3
2. The organic molecule produced directly by photosynthesis _____.
 (b) sugar 3
3. The photosynthesis process removes _____ from the environment.
 (b) oxygen

(B) Match the following:

Column 'A'

Chlorophyll

Blade

Petiole

Stomata

Vascular bundles

Column 'B'

a green substance

expanded part of the leaf

connection of the stem to the blade

allow CO₂ in

transport system of plants

(C) Fill in the blanks:

1. A green substance in plants called **chlorophyll**.
2. $6\text{H}_2\text{O} + 6\text{CO}_2 \Rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$
3. Chlorophyll is found in the **chloroplasts**.
4. Lack of water retards the rate of photosynthesis in plants.
5. Plants get rid of extra water through their stomata.

(D) Tick (✓) for the true and (✗) for the false:

1. (✗) 2. (✗) 3. (✗) 4. (✓) 5. (✓)

(E) Answer the following questions:

1. Define the structure of leaf.

Ans. Leaf is formed by the following part—

Blade and Petiole

The blade is the expanded part of the leaf and the petiole is the connection of the stem to the blade.

2. Why are leaves usually broad and flat?

Ans. Leaves are usually broad and flat due to absorb as much light possible.

3. Give two functions of stomata in photosynthesis.

Ans. Two functions of stomata in photosynthesis are—

(a) Plants take in sunlight, CO₂ through stomata.

(b) Plants get rid of extra water through their stomata.

4. What is photosynthesis?

Ans. The process by which green plants prepare their own food is called photosynthesis.

2

Adaptation In Plants

(A) Tick (✓) the correct answer :

1. _____ are the features of tropical rainforest plant.
(a) drip tips
2. Cactus is an example _____.
(a) desert plant
3. _____ plants are small and low-growing.
(a) tundra

(B) Fill in the blanks:

1. The **desert** very dry and hot.
2. In the autumn season, **deciduous** trees drop their leaves to minimize water loss.

3. The **taiga** also known as boreal forests.
4. The **tundra** has a permanently frozen sub layer of soil called permafrost.
5. Underwater leaves and stems are **flexible**.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✓) 4. (✓) 5. (✓)

(D) Answer the following questions:

1. Define Adaptations.

Ans. Adaptations are special features that allow a plant or animal to live in a particular place or habitat.

2. What are aquatic plant adaptations?

Ans. Aquatic plant adaptations are—

- (a) Aquatic plants must be flexible to with stand the pressure of moving water.
- (b) In floating plants, chlorophyll is restricted to the upper surface.
- (c) The upper surface of leaves is waxy to repel water.
- (d) Roots and root hairs reduced or absent.

3. Write the main features of tundra plants.

Ans. The main features of tundra plants are

- (a) These are small and low-growing
- (b) These are dark in color.
- (c) These plants grow in clump.

4. What are tropical rainforest Plant Adaptations?

Ans. Adaptations of Tropical Rainforest are—

- (a) Some plants climb and grow on others to reach the sunlight.
- (b) Drip tips and waxy surfaces allow water to run off.
- (c) Plants have shallow roots.

5. What is the function of waxy coating on stems and leaves in desert plant?

Ans. Waxy coating on stems and leaves help reduce water loss.

3

Unit-2 : The World of Animals

Reproduction in Animals

(A) Tick (✓) the correct answer :

1. The study of birds is _____.
(c) ornithology
2. A housefly's life cycle is divided into _____.
(b) four stages 3
3. There are three stages in _____ life cycle.
(a) cockroach

(B) Match the following:

Column 'A'	Column 'B'
Fish	Egg \Rightarrow Alevin \Rightarrow Fry \Rightarrow Smolts \Rightarrow Adult
Housefly	Egg \Rightarrow Larve \Rightarrow Pupa \Rightarrow Adult
Cockroach	Egg \Rightarrow Nymph \Rightarrow Adult
Frog	Egg \Rightarrow Cell Splits \Rightarrow Embryo \Rightarrow Tadpole \Rightarrow Frog
Butterfly	Egg \Rightarrow Caterpillar \Rightarrow Pupa \Rightarrow Butterfly

(C) Fill in the blanks:

1. Those animals which give birth to live offspring are called oviparous.
2. The egg cell of a bird consists of the yolk.
3. A group of eggs laid by a hen a is called a clutch.
4. Those animals which lay eggs are called oviparous.
5. Viviparous lay their eggs in water or wet places.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✓) 4. (✓) 5. (✗)
3. Butterflies lay eggs. 3

(E) Answer the following questions:

1. What is reproduction?

Ans. Reproduction is the process by which new offspring individual organisms are produced from their parents.

2. How do animals reproduce?

Ans. Animals reproduce by two ways (a) give birth to living offspring and (b) lay eggs

3. How many life cycles do cockroach have?

Ans. Cockroach have three stages of life cycle.

Egg ® Nymph ® Adult

4. What does live bearing mean?

Ans. Live bearing animals means those animals which give birth to live offspring.

5. Explain the life cycle of butterfly.

Ans. Butterflies lay eggs. They pass through four stages in their life cycle.

6. Why look after young ones?

Ans. Animals look after their young ones to improve their chances of survival.

4

Adaptation In Animals

(A) Tick (✓) the correct answer :

1. The primary function of wings is:

(a) flight

2. Protective covering of birds:

(b) feathers

3. Reptiles have tough, dry skin covered by:

(c) scales

(B) Match the following:

Column 'A'	Column 'B'
Webbed Feet	animal swim faster to catch prey
Sharp Claws	increase traction to run faster
Sharp Teeth	tearing and chewing of an animal's prey
Large Beaks	crack open large nuts
Whiskers	sense prey

(C) Write the names of the animals that have special adaptations in the blank below:

Webbed Feet	:	Duck, Frog, Penguin
Striped Fur	:	Tiger, Zebra
Sharp Claws	:	Cheetah, Bear, Tiger, Lion
Whiskers	:	Leopard, Tiger, Otter
Bright-Colored		
Feathers	:	Peacock, macaw, Parrot
Sharp Teeth	:	Lion, Polar, Bear, Jaguar
Large Beak	:	Macaw
Spotted Fur	:	Leopard, Jaguar, Cheetah
Wings	:	Birds, Bat
Scales	:	Snakes, Anaconda
Hooves	:	Zebras, Dall sheep

(D) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✓) 4. (✗) 5. (✓)

(E) Answer the following questions:

1. What is adaptation?

Ans. The adaptation is the features an animal has to live in their environment.

2. What is habitat?

Ans. A habitat is an ecological or environmental area that is inhabited by a particular species of animal, plant or other type of organism.

3. What is a bog?

Ans. A bog is a type of wet land, which is covered in mosses, plants and pools of water.

4. What is the one adaptation all birds having that no other animal have?

Ans. Wings is the one adaptation all birds having that no other animal have.

5. Find one bird that has feed adapted for swimming.

Ans. Penguin has feet adapted for swimming.

6. The tiger is a hunter. Name two adaptations it has to help it hunt.

Ans. Sharp Claws and sharp teeth.

5

Unit-3 : Human And Its Care

Food And Digestion

(A) Tick (✓) the correct answer :

1. Protein:

(a) builds strong muscles and healthy organs

2. If you do not get enough iron:

(c) you will feel tired and weak

3. Fat does not :

(c) help you keep a healthy weight

4. Milk and carrots are 2 foods rich in vitamin A.

(b) milk and carrots

(B) Match the following:

Column 'A'

Column 'B'

Large intestine microbes help in the digestion process

Rectum solid waste is then stored

Stomach sack-like organ

Mouth digestive process begins

Small intestine help in the breakdwon of food

(C) Fill in the blanks:

1. **Vitamin C** helps form a cement-like material between our cells.
2. **Calcium** is important for building strong bones and teeth.
3. **Balanced diet** helps in controlling bodyweight, heart rate and BP.
4. Food passes from the mouth into the **oesophagus**.
5. The first part of the large intestine is called **the rectum**.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓)
2. (✓)
3. (✓)
4. (✓)
5. (✗)

(E) Answer the following questions:

1. What are nutrients?
Ans. Nutrients are substances that keep you healthy and enrich the body.
2. Why protein is necessary for us?
Ans. Protein is necessary for us because it helps to growth and repair body cells and tissues.
3. What are the six tyeps of nutrients in food?
Ans. The six nutrients are proteins, carohydrates, fats, vitamins, minerals and water.
4. What is balanced diet?
Ans. A balance diet contains sufficient amounts of fiber and the various nutrients to ensure good health.
5. What is digestion?
Ans. Digestion is the mechanical and chemical break down of food into smaller components that are more easily absorbed into a blood stream.

(A) Tick (✓) the correct answer :

- The complete dentition of an adult person has _____.
(a) 32 teeth
- Our tongue can detect different _____.
(b) tastes
- The number of baby teeth _____.
(a) 20

(B) Match the following:**Column 'A'****Column 'B'**

Root	layer of dentin
Neck	boundary between the root and the crown
Dentin	supports the enamel on our teeth.
Cementum	Covers the root of our tooth
Crown	White part

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✓) 4. (✗) 5. (✓)

(D) Fill in the blanks:

- Twenty **deciduous teeth** are the first to form.
- Permanent teeth** are the second set of human teeth.
- Incisors** are blade-shaped found at the front of the mouth.
- The **upper canine teeth** are sometimes called eyeteeth.
- Bicuspid are **premolars**.
- The third molars are also known as **wisdom teeth**.

(E) Answer the following questions:

- What are the functions of teeth?

Ans. Functions of teeth are —

- (a) To break down food into small pieces.
- (b) Teeth are to prepare food for digestion by chewing.
2. Explain types of teeth.
Ans. Types of teeth are —incisors, canines, molars, premolars.
3. What are permanent teeth?
Ans. Permanent teeth are the second set of human teeth.
4. How many teeth does an adult have?
Ans. An adult have 32 teeth.
5. Define parts of tooth.
Ans. Parts of tooth—
Crown is the white part that is seen.
Neck marks the boundary between the root and the crown.
Root consists of a layer of dentin that extends up into the crown.
Dentin supports the enamel on our teeth.
Cementum covers the root of our tooth.
6. How should we care our teeth and gums?
Ans. We should take good care our teeth and gums.
7. What do you mean by taste buds?
Ans. Taste buds are sensory organs that are found on your tongue and allow you to experience tastes.

7

Hygiene of Food And Water

(A) Tick (✓) the correct answer :

1. It is best to boil food in a :
(d) pressure cooker

2. If you throw away the water in which food has been boiled, the food loses :
(c) nutrients
3. Cooking food in a pressure cooker is fast:
(c) makes food safe to eat

(B) Match the following:

Column 'A'

Column 'B'

Natural preservative	salt
Chemical preservative	potassium metabisulphite
Dehydration	removing micro organisms
Increasing temperature	sunlight

(C) Fill in the blanks:

1. The method of cooking food with the help of dry heat in an oven is called **baking**.
2. If an oven is opened very often the food will become **dry** and hard.
3. The process of cooking food directly on hot fire is called **roasting**.
4. Papad is an example of preservation by **dehydration**.
5. Refrigeration reduces the activity of enzymes and **micro-organisms**.
6. Dehydration is based on the principle of removal of **moisture**.

(D) Tick (✓) for the true and (✗) for the false:

1. (✗) 2. (✓) 3. (✗) 4. (✗) 5. (✓)

(E) Answer the following questions:

1. What is hygiene?
Ans. Hygiene is the practice of keeping our self and our surroundings clean to avoid illness.
2. Why do we cook food?
Ans. We cook food because

- (a) cooking makes food easy to digest.
 - (b) cooking improves the colour, flavour and taste of the food.
 - (c) cooking helps to keep the food longer.
 - (d) cooking makes the food safe.
3. Write two differences between boiling and stewing.

Ans. (a) In boiling water is heated to a boiling point while in stewing water is heated below the boiling point.

(b) Boiling is the fast method of cooking and stewing is the time taken method of cooking.

4. Differentiate between baking and roasting.

Ans. Baking

(a) For it we use oven.

(b) The food gets cooked by hot air.

(c) Biscuits, breads and pastries are cooked by this method.

Roasting

(a) We use hot tava, hot stand or hot fire.

(b) The food gets cooked by dry heat.

(c) Potatoes, maize, ground nuts, papad, meat etc are cooked by this method.

5. Differentiate between deep frying and shallow frying.

Ans. Shallow frying : In this method, we use very little oil for frying. We can fry them on a tava or a frying pan.

Deep frying : In this method, we use good quantity of oil and oil is heated to the smoke point. The food should fully dip in oil.

6. What is food preservation?

Ans. Food preservation is a process by which certain foods like fruits and vegetables are prevented from

getting spoil for a long period of time.

7. What are preservatives?

Ans. Any substance that is added foods to make it last for a longer time is called a preservative.

8. What are the methods of water purification?

Ans. The methods of water purification are filtration, sedimentation and boiling.

8

Unit-4 : Force, Work And Energy

Force, Work And Energy

(A) Tick (✓) the correct answer :

- Length measured by _____.
(c) both
- _____ to measure their height.
(a) feet

(B) Match the following:

(C) Fill in the blanks:

- Distances between cities are measured in **miles**.
- Measure your **weight** using weighing machine.
- The standard unit of volume is the **cubic metre**.

(D) Tick (✓) for the true and (✗) for the false:

- (✗) 2. (✓) 3. (✗)

(E) Answer the following questions:

- Define length.
Ans. Length is a measurement of distance.
- What is the instrument used in measuring mass?
Ans. Spring balance, weighing machine and beam balance are used in measuring mass.
- What is your weight?
Ans. Our weight is a force of gravity with which the earth attracts us towards itself.

(A) Tick (✓) the correct answer :

- Density is an example of _____.
(a) physical properties
- _____ is rigid in shape.
(b) solid
- _____ flow in all direction.
(b) liquid

(B) Match the following:**Column 'A'**

Melting

Boiling

Freezing

Condensing

Column 'B'

solid to a liquid

liquid to a gas

liquid changes to a solid

gas changes to a liquid

(C) Fill in the blanks:

- A **solid** has a certain size and shape.
- Liquids** can flow.
- Gases** are all around us.
- Air** is a mixture of gases.
- Physical changes** does not form new substances.

(D) Tick (✓) for the true and (✗) for the false:

- (✓)
- (✓)
- (✓)
- (✗)
- (✓)

(E) Answer the following questions:

- Define matter.

Ans. Matter is anything that has mass and occupies volume.

- What are the states of matter?

Ans. There are the three state of matter solid, liquid and

gas.

3. Write the properties of solids.

Ans. Properties of solid

- (a) Solids do not flow.
- (b) Solid cannot be compressed.
- (c) Solid can be quite strong.

4. Give some example of liquid state.

Ans. Milk and water are the example of liquid.

Properties of liquid are—

- (a) Liquid does not have definite shape.
- (b) Liquid can flow.

5. What are the properties of matter?

Ans. The properties of matter are —

- (a) Matter is existing in three states—
solid, liquid and gas.
- (b) These states of matter can change from one to another.
- (c) Matter has physical and chemical properties.

10

Soil Erosion And Conservation

(A) Tick (✓) the correct answer :

- 1. Erosion takes away _____ soil.
 - (a) top
- 2. Western and the central Himalayas have well developed _____.
 - (a) terrace farming
- 3. _____ occurs with the uniform removal of a thin layer of soil.
 - (b) sheet erosion

(B) Match the following:

Column 'A'

Column 'B'

Cover crop	planted to protect the soil
Crop rotation	planting of different crops in a given field
Strip Farming	large fields can be divided into strips
Shelter Belts	planting lines of tree to create shelter
Terrace Farming	cultivation restricts erosion

(C) Fill in the blanks:

1. Soil erosion by **water** is a widespread.
2. **Splash erosion** is caused by falling torrential rain.
3. **Wind erosion** is caused by strong wind mainly in arid and desert areas.
4. **Rill erosion** is an intermediary stage between sheet erosion and gully erosion.
5. **Landslides** are more common in hill areas.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓)
2. (✓)
3. (✗)
4. (✓)
5. (✓)

(E) Answer the following questions:

1. What is soil erosion?

Ans. The wearing away, detachment and transportation of soil from one place to another place and its deposition by moving water, blowing wind or other causes is called soil erosion.

2. What are the various types of soil erosion?

Ans. Various types of soil erosion are—

Normal erosion, accelerated soil erosion, wind erosion, water erosion, landslide and stream bank erosion.

3. What do you know about water erosion?

Ans. When rain water does not soak through solid and run off causes water erosion.

4. Define soil conservation.

Ans. Soil conservation is the protection of fertile top soil

from erosion by wind and water and the replacement of nutrients in the soil.

5. What are the methods of soil conservation?

Ans. Methods of soil conservation are cover crops, terracing, contour farming, crop rotation etc.



SCIENCE CREATION

A Book of Science and Environment

5



J.C. Chandra
Gaurav Nanda



Reproduction In Plants

(A) Tick (✓) the correct answer :

1. What are the three main parts of the pistil?
(b) style, stigma, ovary
2. In flowering plants, reproduction involves the creation of _____.
(d) seeds
3. Pollen is produced by the _____ of flowering plants.
(d) anther
4. Seeds are spread by the _____.
(d) all of the above
5. _____ are normally more colorful than sepals.
(d) petals

(B) Match the following:

Column 'A'	Column 'B'
Runner	internodes are long
Sucker	shorter internodes
Tuber	adapted for food storage
Bulb	form of a disc
Corn	condensed form of rhizome

(C) Fill in the blanks:

1. The male part of the flower is **stamen**.
2. **Petals** attract insects.
3. **Sepal** protect the flower before it opens.
4. Pollen is made in **anther**.
5. **Ovule (egg)** become seeds after fertilization.
6. Seeds will grow in **soil**.

7. Insects carry **this** from flower to flower pollen.
8. **Pistil** female part of the flower, which receives the pollen.

(D) Tick (✓) for the true and (✗) for the false:

1. (✗) 2. (✓) 3. (✗) 4. (✓) 5. (✓)

(E) Give one example for each of the following modes of propagation by:

1. Roots Sweet potato
2. Runner Lawn grass
3. Sucker Mint
4. Tuber Potato
5. Corn Arvi
6. Bulb Onion

(F) Answer the following questions:

1. What is plant reproduction?
Ans. Plant reproduction is the production of new individuals or offspring in plants.
2. How are new plants formed?
Ans. New plants can grow in several ways: From seeds or by producing things such as bulbs or tubers.
3. Write the name of various parts of a flower.
Ans. Most flowers have four part—
Sepals, Petals, Stamen sand Pistil.
4. What is asexual reproduction?
Ans. A sexual reproduction is the formation of new individuals from the cell of a single parent. It is common in plants.
5. How does asexual reproduction occur in stem?
Ans. Above ground stems arch over and take root at the tips, forming new plants.
Ex.—Forsythia, Raspberry and strawberry.

6. Explain pollination.

Ans. Pollination is the transfer of pollen from anthers to stigmas.

7. What are the artificial methods of plant reproduction?

Ans. Artificial methods of plant reproduction are cutting, grafting and layering.

2

Unit-2 : Animals Life

Animals in The Environment

(A) Tick (✓) the correct answer :

1. Vertebrates include which types of animals?
(d) all of the above
2. What do all vertebrates have in common?
(b) they all have a hard internal skeleton or backbone.
3. The primary function of wings is:
(a) flight
4. Protective covering of birds:
(b) feathers
5. Reptiles have tough, dry skin covered by:
(c) Scales

(B) Match the following:

Column 'A'	Column 'B'
Mammals	hair or fur on their body
Birds	feathers
Fish	all their lives in water
Reptiles	scales on their bodies
Amphibians	change a lot during their lives

(C) Fill in the blanks:

1. Animals that have a **backbone** are called vertebrates.
2. An **invertebrate** is an animal that does not have a backbone.

3. A long, pointed beak helps the woodcock find little creatures.
4. Amphibians are vertebrate meaning they have backbone.
5. Frogs are oviparous meaning that they lay eggs.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✗) 4. (✗) 5. (✗)

(E) Answer the following questions:

1. What is an invertebrate?

Ans. An invertebrate is an animal that does not have a backbone.

2. Write the common trait of invertebrates?

Ans. The common trait of invertebrates are—

- (a) They do not have a backbone.
- (b) They are multi-cellular.
- (c) They have no cell walls, like other animals.
- (d) They reproduce by two reproductive cells or gametes coming together to produce a new organism of their species.

3. Write the name five types of vertebrates?

Ans. Five types of vertebrates are mammals, birds, fish, reptiles and amphibians.

4. What is the difference between bony fishes and cartilaginous fishes?

Ans. The skeletons of bony fishes are made of bones while the cartilaginous fishes have cartilagenous skeletons.

5. Find one bird that has feet adapted for swimming?

Ans. Herring Gull

6. Why is the skin of amphibian thin?

Ans. The skin of amphibian is thin because amphibian breath through its skin and hibernate in wet places. Thin

skin also help an amphibian escape from enemies.

3

Unit-3 : Body and Health

Skeletal System

(A) Tick (✓) the correct answer :

1. What makes bones so strong?
(d) calcium and phosphorous
2. What is the difference between cartilage and bone?
(b) cartilage is rubbery and bone is firm.
3. How many bones are there in the average person's body?
(b) 206
4. Which one of these is not a function of the human skeleton?
(d) to help stabilize the bodies natural body temperature.
5. Which of these is not a type of bone?
(d) thin

(B) Match the following :

Column 'A'

Ball and socket joints
Gliding joints
Pivot joints
Hinge joints
Synarthroses

Column 'B'

Hip and shoulder joints
The vertebrate or the spine
Wrist and ankle joints
Outer joints of the fingers
Immovable joints

(C) Fill in the blanks:

1. The **ribs** protect our heart and lungs.
2. **Calcium** is an important mineral for bone cells.
3. Red bone marrow is found within the **spongy** bone.
4. **Joints** are the point of contact between two bones.
5. **Tendons** are tough inelastic bands that hold attaches muscles to bone.

(D) Tick (✓) for the true and (✗) for the false:

1. (✗) 2. (✓) 3. (✓) 4. (✓) 5. (✓)

(E) Answer the following questions:

1. What is the skeletal system?

Ans. Skeletal system is the biological system providing support in living organisms.

2. Who has more bones a baby or an adult?

Ans. A baby has more bone than an adult.

3. How does the skeletal system help us?

Ans. The skeletal system help us in following ways—

- (a) The skeletal provide support for our body.
- (b) Our skeletal helps to protect our internal organs and fragile body tissues.

4. Write the functions of bones?

Ans. Functions of bones are —

- (a) Bones provide a hard framework to support.
- (b) Protection of many vital organs.
- (c) Act as levers with skeletal muscles moving them.
- (d) Blood cell formation.
- (e) Mineral storage for cellular function.

5. What is a bone made of?

Ans. Bone is made of a mix of hard stuff that gives them strength and tones of living cells which help them grow and repair themselves.

6. Define types of joints.

Ans. There are three main types of joints

Diarthroses ® movable joints

Amphiarthroses ® partially movable joints

Synarthroses ® immovable joints

7. Explain different types of muscles.

Ans. The muscles are of three types —

skeletal, smooth and cardiac.

4

Nervous System

(A) Tick (✓) the correct answer :

1. The part of the brain in charge of thinking and memory.
(c) medulla oblongata
2. The major organ of the nervous system encased in the skull.
(c) brain
3. This is the job of the nervous system.
(a) To send messages to and from the brain and spinal cord to and from the body.
4. This is made up of the brain and spinal cord.
(b) central nervous system
5. Nerve cell
(c) neuron
6. This part of the brain controls coordination and balance.
(b) cerebellum

(B) Match the following:

Column 'A'

Somatic nervous system

Autonomic nervous system

Cerebellum

Myelin sheath

Medulla

Column 'B'

connects to sensory receptors.

automatic functions-
breathing and heart rate.

controls and coordinates
movements of the muscles.

fibers are covered by fatty
substance.

regulates the internal organs
and glands.

(C) Fill in the blanks:

1. The central nervous system is comprised of the brain and **spinal cord**.
2. In the PNS, collections of neurons are called **ganglia**.
3. **Cranial** nerves carry messages to and from the ears, eyes, nose, throat, tongue and skin.
4. The branch of the nervous system that takes messages to and from internal organs is the **autonomic** nervous system.
5. The **brain stem** is in charge of keeping the automatic systems of our body working.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓)
2. (✓)
3. (✓)
4. (✓)
5. (✓)

(E) Answer the following questions:

1. What is the nervous system?

Ans. The nervous system is the highway along which your brain sends and receives information about what happening in the body and around it.

2. How nerve cells or neurons work?

Ans. Nerve cells work by a mixture of chemical and electrical action.

3. What is the brain?

Ans. The brain is the control center for our body.

4. Name the different part of brain.

Ans. The brain has three main three main parts –

(a) The cerebellum

(b) The cerebrum

(c) The brain stem (medulla oblongata)

5. Write the function of cerebellum.

Ans. The cerebellum controls and co-ordinates movements of the muscles, like walking or swinging the arms.

6. What is reflex action?

Ans. Reflex action is an automatic response that occurs very rapidly and without conscious control.

7. What is reflex arc?

Ans. A reflex arc is the neural pathway that mediates a reflex action.

5

Unit-4 : Our Resources

Air And Water

(A) Tick (✓) the correct answer :

1. Air consist _____ of nitrogen.
(a) 78%
2. The second layer of our atmosphere is _____.
(b) stratosphere
3. Air consists 21% of _____.
(c) oxygen
4. Which layer of the atmosphere has no definite outer limit?
(c) thermosphere
5. The layer of the atmosphere closest to the earth is the _____.
(d) troposphere

(B) Match the following:

Column 'A'

First layer

Second layer

Third layer

Fourth layer

Fifth layer

Column 'B'

troposphere

stratosphere

mesosphere

thermosphere

exosphere

(C) Fill in the blanks:

1. **Atmosphere** makes conditions on earth suitable for living-being.
2. As air pressure decreases, the density of air **decreases**.
3. Water in the form of a gas is called **water vapor**.
4. **Wind** moves from an area of high pressure toward an area of low pressure.
5. Acid rain forms when nitrogen **oxides** and **sulfur oxides** combine with water in the air.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓)
2. (✗)
3. (✓)
4. (✗)
5. (✓)

(E) Answer the following questions:

1. What two gases make up most of the air?
Ans. Nitrogen and oxygen gasses make up most of the air.
2. What is an instrument used to measure changes in air pressure?
Ans. Barometer is an instrument used to measure changes in air pressure.
3. What layer of the atmosphere do we live in ?
Ans. The troposphere is the layer that we live in.
4. What layer do communication satellites orbit earth?
Ans. The exosphere communication satellites orbit earth.
5. What is hydrosphere?
Ans. The hydrosphere is the liquid water component of the earth.

(A) Tick (✓) the correct answer :

1. There are three types of rocks.
(a) three
2. The earth's crust is covered by all of above.
(d) all of above
3. Example of metamorphic rock is marble.
(b) marble
4. Igneous is rocks that from when molten rock cools and hardens.
(b) igneous

(B) Match the following:**Column 'A'**

Igneous rock

Sedimentary rock

Metamorphic rock

Column 'B'

found near fault lines

cover most of the earth's surface

below the surface of the earth

(C) Fill in the blanks:

1. Rocks that have been changed by heat and pressure are called metamorphic rocks.
2. Minerals is eroded material that settles at the bottom of lakes, rivers and oceans.
3. It can take more that a million years for fossils to cool.
4. Magma help scientists learn about the Earth's past.
5. All rocks are made of sediment.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✓) 4. (✓) 5. (✓)

(F) Answer the following questions:

1. How rocks and minerals are formed?

Ans. All rocks are made of minerals and minerals are

formed through bio geochemical process.

2. Write the examples of igneous rocks.

Ans. Granite, basalt and obsidian are examples of igneous rocks.

3. Summarize how metamorphic rocks form.

Ans. Metamorphic rocks form deep with in the earth, when heat and pressure are applied to either igneous rocks or sedimentary rocks.

7

Unit-5 : Our Environment

Natural Calamitiis

(A) Tick (✓) the correct answer :

1. Where do most earthquakes occur?
 - (a) along the boundaries of the earth's crystal plates
2. If you are inside when the shaking from an earthquake begins, you should:
 - (a) run outside immediately.
3. Volcanoes are :
 - (a) randomly distributed over the earth's surface.
4. Landslides are often associated with:
 - (a) periods of heavy rainfall or rapid snow melt
5. When do Tsunami occur?
 - (a) any time of the year, day or night

(B) Fill in the blanks:

1. **Drought** is perhaps the manifestation of desertification.
2. Plates diving under one another are known as **subduction**.
3. **Landslides** can be highly destructive.
4. **Earthquakes** are the dead list of all natural disasters.
5. **Tsunami** may also be caused by underwater landslides or volcanic eruptions.

(C) Match the following:

Column 'A'

Column 'B'

Earthquake	tension is released from the rocks
Floods	rising water flows
Volcanoes	deep below the earth's crust
Drought	hot dry areas of land
Cyclones	huge revolving storms

(D) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✗) 3. (✗) 4. (✓) 5. (✓)

(E) Answer the following questions:

1. What are natural calamities?

Ans. Natural calamities are the consequence of the combination of a natural hazard and human activity.

2. What are cyclones?

Ans. Cyclones are huge revolving storms caused by winds blowing around a central area of low atmospheric pressure.

3. Where do droughts occur?

Ans. Droughts usually occur in hot dry areas of land.

4. What are landslides?

Ans. Landslides are the large amount of earth, rock and other material that moves down a steep slope.

5. What causes earthquakes?

Ans. Earthquakes are caused when tension is released from the rocks in the earth's crust and upper mantle.

6. Why do volcanoes occur?

Ans. Deep below the earth's crust, the temperature and pressure are great to melt rock and molten rock blasts to the surface, the result is a volcano.

7. How tsunamis work?

Ans. Tsunamis work in the destructive manner. On

March 11, 2011 a magnitude 9.0 earthquake struck off the coast of Honshu, Japan, Sparking a tsunami that not only deastated the island nation, but also caused destruntion on and.

8

Pollution

(A) Tick (✓) the correct answer :

1. Most of the trashyour family throws away each day ends up getting :
(b) burned
2. What are the sources of noise pollution?
(d) all of the above
3. Which items are recyclable?
(c) aluminum soda cans
4. Air pollution caused by human activity :
(c) chemicals
5. What is ground water?
(d) Rain water that lands on the ground
6. What material do we throw away the most?
(d) Plastic

(B) Fill in the blanks:

1. **Pollution** has a detrimental effect on any living organism in an environment.
2. **Air** pollution is the accumulation of hazardous substances into the atmosphere.
3. Pesticides, herbicides and fertilizers are the source of **thermal** pollution.
4. **Water** pollution affecting many lakes and vast numbers of streams and rivers.
5. **Noise pollution** is unwanted human-created sound that disrupts the environment.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✗) 3. (✓) 4. (✓) 5. (✓)

(D) Answer the following questions:

1. What is pollution?

Ans. Pollution is the introduction of a contaminant into the environment.

2. What are the sources of land pollution?

Ans. The main sources of land pollutions are chemical and nuclear plants, industrial factories, deforestation, human sewage, mining etc.

3. How to prevent land pollution?

Ans. The best way to prevent land pollution is to recycle.

4. What are the sources of air pollution?

Ans. The sources of air pollution are factories, nuclear weapons, acid rain, combustion of coal, smoke from vehicles etc.

5. Define water pollution.

Ans. Unwanted matters are dumped into the water bodies causes water pollution.

6. What are the major sources of noise pollution?

Ans. Major source of noise pollution are traffic, factories, aircraft, community functions, noise in building etc.

7. How to prevent noise pollution?

Ans. To prevent noise pollution—

- (i) Using loudspeakers without permission is prohibited.
- (ii) Appeal to the public.
- (iii) To prevent noise pollution we can take help of the police.

8. How to control thermal pollution?

Ans. To prevent thermal pollution

(i) Burn less coal, oil or gas.

(ii) Reduce mechanical friction in any rotation part.

9. Write the name of pollution.

Ans. The five main types of pollution are air pollution, water pollution, land pollution, noise pollution and thermal pollution.

9

Unit-6 : Work, Force and Energy

Simple Machine

(A) Tick (✓) the correct answer :

1. The handles of a pair of scissors are an example of this type of simple machine :

(d) lever

2. How many classes of levers are there?

(c) three

3. All of these are examples of inclined planes except :

(a) hatchet

4. These two simple machines make a screw :

(b) inclined plane and wedge

5. All of these are examples of a wheel and axle except :

(a) nail

(B) Fill in the blanks:

1. A fork is an example of a **wedge**.

2. A roller skate is an example of a **wheel and axle**.

3. A see-saw on the playground is a **lever**.

4. The bottom of a light bulb would be considered a **screw**.

5. A ramp is an example of an **inclined plane**.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✓) 4. (✗) 5. (✓)

(D) Word Scramble

- | | |
|-----------------|----------------|
| 1. EGEDW | Wedge |
| 2. ECILNPADENLI | Inclined Plane |
| 3. RECWS | Screw |
| 4. CFROE | Force |
| 5. ULLP | Pull |
| 6. EOWPR | Power |
| 7. ROKW | Work |
| 8. REELV | Lever |
| 9. LPYEUL | Pull |
| 10. USHP | Push |

(E) Answer the following questions:

1. Define simple machines.

Ans. A simple machine has few or no moving parts. Ex.
- can opener

2. Name the six simple machines and write the example of each.

Ans. The six simple machines are :

- (i) Lever ex. - can opener
- (ii) Inclined plane ex. - see saw
- (iii) Wheel and axle ex. - a car
- (iv) Scre ex. - corpscaw
- (v) Wedge ex. - knife
- (vi) Pulley ex. - construction crane

3. Define the types of lever with example.

Ans. There are three types of lever.

In a first class, lever the fulcrum, is in the middle and the load and the effort is on either side. Ex.-sea-saw.

4. Define inclined plane.

Lever with the fulcrum is at the end, and load is in the middle called second class lever. Ex. - Wheel barrow.

Lever with the fulcrum is at the end but the effort is in the middle called third class lever.

Ex.-A pair of tweezers.

Ans. An inclined plane is a flat surface that is higher on one side.

10

Sources Of Energy

(A) Tick (✓) the correct answer :

1. What is a non-renewable source?
(b) one which will not run out
2. Which of these are renewable energy sources?
(a) wind, sun, tidal
3. Which of these are non-renewable energy sources?
(b) nuclear, coal, oil
4. What makes wind?
(c) differences in temperature
5. Wood and animal dropping are example of:
(d) none of these

(B) Fill in the blanks:

1. **Energy** is defined as the capacity to do work.
2. Solar panels called **photovoltaic** cells.
3. **Biogas** is a source of renewable energy.
4. **Coal** is a source of non-renewable energy.
5. Biomass uses the energy from plant and waste materials to make **electricity**.

(C) Tick (✓) for the true and (✗) for the false:

1. (✓) 2. (✓) 3. (✓) 4. (✓) 5. (✓)

(E) Answer the following questions:

1. Define energy.

Ans. Energy is the ability or the capacity to do work.

2. What are the sources of energy?
Ans. The main source of energy can be divided into two types - renewable energy and non-renewable energy.
3. What is geothermal energy?
Ans. Geothermal energy uses the heat that comes from deep rocks under the surface of the earth.
4. What is difference between renewable and non-renewable source of energy?
Ans. Renewable Sources
 - (i) These sources can be used again and again.
 - (ii) The sources of these energy will not end.
 Ex. - solar energy, wind, etc.
 Non-Renewable sources
 - (i) These sources can't be used rapidly.
 - (ii) The sources can be end in future.
 Ex. - Petrol, coal etc.
5. Write the example of nuclear energy.
Ans. Uranium is the example of nuclear energy.
6. Define conservation of energy.
Ans. Conservation of energy means use less energy and protect the sources of energy.

11

Unit-7 : Our Space

The Planets

(A) Multiple choice questions:

1. The biggest planet _____.
(b) jupiter
2. _____ has no moons.
(a) mercury

3. Jupiter has _____.
(a) 16 moons

(B) Fill in the blanks:

1. The **sun** is a star.
2. The **earth** is orbited by one moon.
3. **Mars** is sometimes referred to as the "Red Planet".
4. **Mercury** is a small, rocky planet.
5. **Pluto** has one moon.

(C) Tick (✓) for the true and (✗) for the false:

1. (✗) 2. (✗) 3. (✓) 4. (✓) 5. (✓)

(D) Answer the following questions:

1. What are the planets?
Ans. Planets are the heavenly bodies which revolve around the sun in fixed orbit.
2. Write name of eight planets.
Ans. The eight planets are—
Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.
3. What are the inner planets?
Ans. The inner planets are mercury, venus, earth and mars.
4. How many planets are existing in the outer solar system?
Ans. Five planets are existing in the outer solar system.
5. Define smaller planets.
Ans. The planet has diameter less than 1300 km across is called smaller planet. Ex.-Mercury, venus, earth, mars.
6. What do you know about the Saturn?
Ans. Saturn is a giant planet. It is most famous for its thousands of beautiful rings. These rings are made up mostly of water ice.

(A) Tick (✓) the correct answer :

1. Cygnus is easiest to see during the month of september.
(a) september
2. Elliptical galaxies are oval or round in shape.
(a) oval or round
3. Irregular galaxies are none of these in shape.
(d) none of these

(B) Match the following:

Column 'A'	Column 'B'
Orion	winter
Cygnus	september
Pegasus	fall
Ursa Major	winter
Spiral galaxy	circle

(C) Fill in the blanks:

1. The Milky way is just one of billions of **galaxies**.
2. **Comets** only have tails when they get near the Sun.
3. **Asteroids** come close to Earth.
4. The glowing rock is called a **meteor**.
5. **Meteorites** can make big holes in the ground called craters.

(D) Tick (✓) for the true and (✗) for the false:

1. (✓)
2. (✓)
3. (✓)
4. (✗)
5. (✗)

(E) Answer the following questions :

1. What is a star?
Ans. A star is a big ball of hot, glowing gas.
2. What color are stars?

Ans. Stars come in different colors. They can be deep red, orange, yellow, white or even blue.

3. What are galaxies?

Ans. A galaxy is made up of millions or billions of stars.

4. What do galaxies look like?

Ans. Galaxies look like giant whirl pools or pinwheels.

5. What are comets?

Ans. Comets are heavenly bodies in space, not part of the atmosphere.

6. What do you know about asteroids?

Ans. A piece of rock and metal floating through space is called an asteroid.

7. Write the three names for space rocks.

Ans. Asteroid, meteor and meteorite are the three names for space rocks.