

Science Booster 5

1

Plant Reproduction

CHECK POINT 1

1. Oxygen
2. Cotyledons
3. Water

CHECK POINT 2

1. Coconut, lotus
2. Cotton, madar
3. Urea
4. Rabi crops

PRACTICE TIME

A. 1. (T) 2. (F) 3. (T) 4. (F) 5. (F)

B. 1. (d) 2. (b) 3. (d) 4. (d)

C. 1. summer

2. stem

3. seed germination

4. plumule

5. crop

D. 1. A plant produces too many seeds because all seeds do not get a chance to grow into new plants.

2. The process of a seed growing into a new plant is called germination of seed.

3. Animals eat fruits and throw their seeds here and there. Some animals like squirrels collect and bury nuts in winter and they forget them. Some seeds are sticky and some bear hooks and spines. They stick to the beaks of birds and reach far-off places with them. Such seeds also get stuck to the fur of animals and clothes of people and get scattered.

4. Seeds dispersed by wind are very light and have special structures like hair, wings, etc. These structures help them float in air and reach far-off places.

5. Rabi crops are grown in winter season while kharif crops are grown in summer season.

E. 1. It is because all the seeds do not get suitable or required conditions to germinate and grow.

2. No. It is because these animals feed on plants.

- F.** It is because plants give us oxygen to breathe in and food to eat. All life depends on plants for food, directly or indirectly.
- G.** Excessive use of fertilisers makes the soil infertile. Excessive fertilisers also get washed with rainwater, reach the waterbodies and pollute the water.

2

Animals and Their Varying Lifestyles

CHECK POINT 1

1. body surface
2. spiracles
3. cilia
4. flippers
5. flightless

CHECK POINT 2

1. Small digestive system
2. Lays eggs in river bank
3. Eats grass
4. Hops on land

PRACTICE TIME

A. 1. Habitat 2. Adaptations 3. Amphibians 4. Gills 5. Tail fin

B. 1. (a) 2. (a) 3. (a)

C. 1. spiracles 2. pangolin 3. proboscis 4. strong

D. 1. *Paramecium* moves with the help of cilia.

2. The two pairs of paired fins help move the fish forward while unpaired fins help in maintaining the balance in water. The tail fin helps in changing the direction.

3. Herbivores have large incisor teeth for cutting, broad molars for chewing and grinding and a long alimentary canal to digest the plant food.

4. Flies, beetles and small worms are the main food of frogs. Frogs catch their prey by flipping their sticky tongue on prey quickly and then pulling it into the mouth with prey sticking to it.

5. Ability of animals to blend with their surroundings due to their natural colours is known as camouflage.

6. Octopus and cuttlefish release a cloud of black ink-like substance to protect themselves from their enemies.

7. Birds migrate in search of food, water and favourable condition of temperature and for breeding.

E. 1. It is because a cockroach cannot breathe in water as water gets filled in the spiracles and stops gaseous exchange.

2. A fish cannot breathe when taken out of water as its gills dry up and no gaseous exchange occurs. Hence, it dies.

F. LUNGS, GILLS, SPIRACLES, CLAW, PADDLE, CILIA, FANG, STING, FLIPPER, PROBOSCIS

G. Caterpillars live and feed on green leaves. Their green colour helps them hide among green leaves. This protects them from their enemies.

3

The Skeletal System

CHECK POINT 1

1. At the lower end of vertebral column
2. Ribcage (chest)
3. Upper arm
4. Thigh

CHECK POINT 2

1. Voluntary
2. Involuntary
3. Involuntary
4. Involuntary

PRACTICE TIME

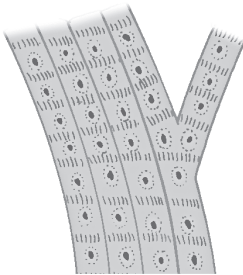
A. 1. (T) 2. (F) 3. (T) 4. (F)

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

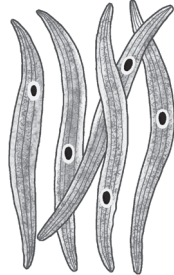
C. 1. skeletal system 2. skull 3. ribs 4. limbs 5. vertebral column 6. girdles 7. movable 8. immovable

- D. 1. ● Skeletal system gives shape and support to the body.
- It protects the soft organs of the body such as brain, heart, lungs, etc.
 - It provides movement to our body parts.
2. A place where two bones join together is called a joint. Joints are of two main types—immovable joints and movable joints. Movable joints are of four types—hinge joint, ball and socket joint, pivot joint and gliding joint.
3. The lower jaw enables us to chew and to speak.
4. Voluntary muscles work under our control, whereas involuntary muscles do not work under our control.
5. The muscle fibres present in the heart are called cardiac muscle fibres.

6.



Striated muscles



Smooth muscles



Cardiac muscles

- E. 1. We cannot bend our knees and elbows backward because they have hinge joints which move in one direction only.
2. The heart is made up of cardiac muscles which are involuntary in nature and

never get tired. They keep working throughout life.

3. If there were no bones in our body, we would not be able to stand straight and would not have the body shape like that we have.
- F. All living beings do not have skeleton. Some insects have hard body covers and legs made of hard protein. Some animals have strong muscles to crawl on the ground.

4

The Nervous System

CHECK POINT 1

1. Cerebrum 2. Reflex action 3. Sensory nerve 4. Motor nerve

CHECK POINT 2

1. Bone 2. Pupil 3. Hot

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (F) 5. (T)

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

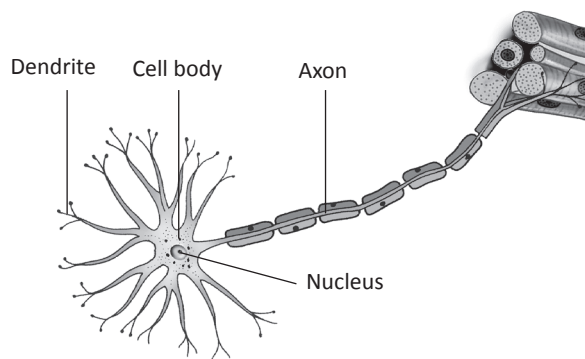
C. 1. cerebrum 2. smell 3. motor 4. iris

D. 1. Brain, spinal cord and nerves are three main parts of our nervous system.

2. The brain controls all our body functions.

- The cerebrum part of brain controls thinking, learning, feeling, etc.
- The cerebellum part controls walking, running, dancing, painting, etc. and maintains body balance.
- The medulla part controls breathing, heartbeat and muscle movement in digestive system.

3. Each nerve cell has a cell body. Small fibres called dendrites extend out from the cell body. A long fibre called axon extends from one end of the cell body.



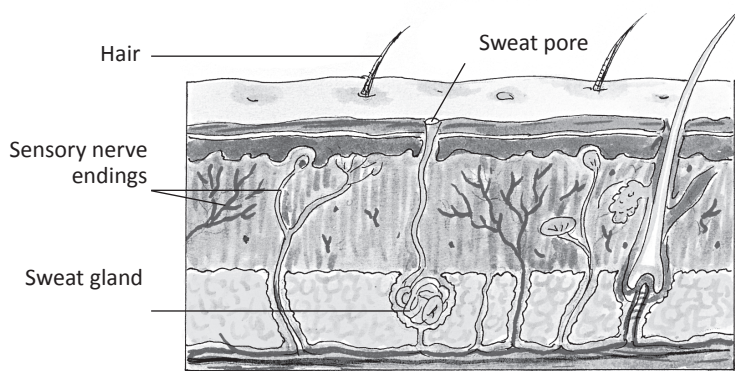
A nerve cell

4. Tongue is the organ of taste. It has four types of taste buds. They are sweet, bitter, salty and sour. These taste buds have nerve endings which carry the message to brain and help us to taste different types of food.

5. We can take care of our eyes by

- Washing the eyes regularly every morning and evening.
- Not reading in moving vehicles and in dim or very bright light.
- Not watching television for long, and never lying down while watching the television.
- Not rubbing eyes with dirty hands.
- Never wiping the eyes with a dirty handkerchief.

6.



Structure of the skin

E. 1. This is due to reflex action.

2. We should not use a pin to clean the ears because it can damage the ear drum, as it has sharp end.

F. When we are in light, our eye muscles narrow the pupil. When we move into a dark room, the pupil takes some time to widen to allow more light to enter the eye.

CHECK POINT 1

1. Glucose 2. Proteins 3. twice 4. Vitamin B and C

CHECK POINT 2

1. Yes 2. No 3. Yes 4. Yes

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (F)

B. 1. (b) 2. (b) 3. (b) 4. (b)

C. 1. iron 2. balanced 3. vegetables; fruits 4. instant

D. 1. Carbohydrates provide energy to our body to do various works.

2. Fats provide more energy as compared to carbohydrates.

3. Proteins are called body building foods because they help build new cells and tissues, and repair the damaged tissues.

4. Vitamins are classified as fat-soluble and water-soluble vitamins. Vitamins A, D, E and K are fat-soluble vitamins, whereas vitamins B and C are water-soluble vitamins.

5. Roughage is important for us because it helps the food move smoothly through the digestive system. Cabbage, spinach, pumpkin, lady's finger, fruits, oats and whole grains are roughage rich foods.

E. 1. This is because in his age, he needs more vitamins and minerals than fats and proteins.

2. Rest and sleep help the body repair its wear and tear, and become active again.

F. **Across:** 1. SUNLIGHT 3. ROUGHAGE 5. MILK

Down: 1. SLEEP 2. IRON 4. AMLA

G. If we do not get the proper amounts of nutrients in our diet, we may suffer from various deficiency diseases.

H. Kavita may suffer from nutrient deficiency diseases. To avoid these problems, she must have fruits and green leafy vegetables in her diet.

6

Health and Diseases

CHECK POINT 1

1. Direct contact
2. Air
3. Contaminated water and food
4. Insect bite (mosquito)
5. Animal bite (dog)

CHECK POINT 2

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

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (T) 5. (T)

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

C. 1. communicable; non-communicable 2. germs 3. malaria 4. Sunlight

D. 1. Communicable diseases spread through direct contact, air, contaminated food and water, animal and insect bite and through vectors.

2. Diseases caused due to lack or deficiency of some nutrients in the body are called deficiency diseases. For example, scurvy, beriberi, rickets, etc.

3. Vaccination is the process of injecting vaccine into the body of a person. It helps to develop immunity against diseases.

4. Obesity is the storage of extra fat under the skin in our body. It is caused due to overeating of carbohydrates and fats.

5. Some wrong food habits are:

- Eating too much salt in diet.
- Eating more fat-soluble vitamins in the form of pills.
- Eating more fried and fatty food.

E. 1. The grandfather needs less fats and proteins, but more fibres, vitamins and minerals in his diet because in old age digestive system becomes weak and it cannot digest fats and proteins easily.

2. It can spread flu to us as these things contain germs of flu from the patient.

F. 1. Calcium; D 2. Vitamin C

G. Disinfectants help to kill the germs and keep the house safe for living. This helps us stay healthy.

7

Staying Safe

CHECK POINT 1

1. falling
2. sand
3. roll on the floor

CHECK POINT 2

1. First aid
2. Blisters
3. Splint

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

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

C. 1. accident 2. antiseptic 3. first aid 4. traffic

D. 1. Road signs are important because they give information about what lies ahead.



School ahead



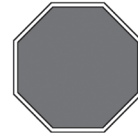
No horn



No stopping or standing



U-turn



Stop

2. A fire caused by petrol can be put out by throwing sand on it or by using a fire extinguisher.

3. **First aid for sprain:**

- Apply an ice pack to the sprained area and pain relieving ointment.
- Tie a crepe bandage or any other clean cloth on the affected area.
- Give complete rest to the affected part.

First aid for animals bite:

- Wash the wound with soap and lots of water.
 - Apply an antiseptic and tie a bandage to prevent infection.
4. Poisonous substances should be stored with labels on their containers and out of reach of children.
5. As a pedestrian, I will
- walk on the footpath or right side of the road.
 - look carefully right and then left before crossing the road.
 - avoid using mobile phone.

- E. 1.** Petrol will float over water and keep on burning if we use water. But, sand will not affect this way. So, we should use sand.
- 2.** Use of mobile phones while driving distracts from driving and causes lack of attention which may cause accident.
- F.** If I were there, I would try to stop bleeding by pressing the cut area and covering it with a handkerchief, and will take her to first-aid room to get her first aid.
- G.** Petrol catches fire easily and smoking at petrol pumps may cause fire accidents.

CHECK POINT 1

1. 800 2. oxygen 3. soil 4. pressure

CHECK POINT 2

1. CNG 2. Malaria 3. Tree 4. Ozone

PRACTICE TIME

A. 1. (F) 2. (F) 3. (F) 4. (T)

B. 1. (b) 2. (d) 3. (c) 4. (c)

C. 1. oxygen 2. bacteria 3. evaporation 4. pressure

D. 1. Air consists of 78% nitrogen, 21% oxygen, 0.03% carbon dioxide, some water vapour and other gases.

2. Uses of air pressure are:

- Air pressure is used to fill a pitchkari, a fountain pen and a doctor's syringe.
- Moving liquids from one container to other using a siphon is also due to air pressure.

3. Mixing of unwanted and harmful substances in the air is called air pollution. Causes of air pollution are:

- Burning of fossil fuels releases carbon dioxide and other harmful gases into the air.
- Industries and automobiles release smoke containing many harmful gases.
- Aeroplanes and spacecrafts release lots of smoke in the air.

4. Effects of air pollution are:

- Air pollution causes allergies and diseases like asthma, bronchitis and respiratory disorders.
- It may lead to irritation of eyes, nose and throat.
- It has reduced the thickness of the ozone layer of the atmosphere.
- Polluted air kills plants and trees by damaging their leaves.
- Excess carbon dioxide in air increases the temperature of the atmosphere and causes global warming.

Air pollution can be reduced by following ways:

- Planting more and more trees.

- Automobiles should be checked regularly.
 - We should use solar energy by using solar cookers, solar cells, solar heaters, etc. for cooking and heating water.
 - We should use non-polluting fuels like CNG for cars and buses.
 - We should use only eco-friendly sprays, cosmetics and perfumes.
- E.**
1. It is because CNG is a non-polluting fuel and reduces air pollution.
 2. A straw helps to drink cold drink easily because of the air pressure acting on cold drink inside the bottle.
- F.**
1. Use of non-polluting fuels such as CNG.
 2. Use of solar energy-run vehicles.
 3. Regular pollution check of vehicles.
 4. Keeping engine off when not moving in traffic.
 5. Planting more and more trees along roadsides and in and around neighbourhood.
 6. Use of solar energy-based appliances such as solar cooker for cooking and solar water heater for heating water.
 7. Use of eco-friendly sprays, cosmetics and perfumes.
 8. Making less use of air conditioners.
 9. Encouraging car pooling.
 10. Covering bare land in and around neighbourhood by growing grass and plants.

9

Matter

CHECK POINT 1

1. Matter 2. Mass 3. Gas 4. Gas

CHECK POINT 2

1. Carbon dioxide 2. Nitrogen 3. Mixing salt into water 4. Burning petrol

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (T)

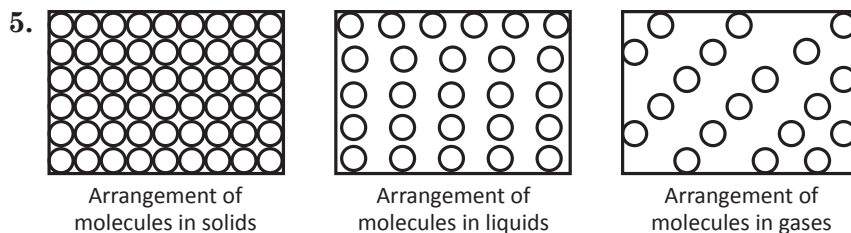
B. 1. (a) 2. (b) 3. (b) 4. (c)

C. 1. solid 2. changes 3. boiled 4. cool 5. physical

D. 1.

| Solid | Liquid | Gas |
|---|--|---|
| Solids have a definite shape and volume. | Liquids have no definite shape but definite volume. | Gases neither have definite shape nor a definite volume. |
| Molecules in solid are very close to each other. They move very slow. The molecules attract each other very strongly. | Molecules in liquid are not close to each other as in solids. They move faster as compared to solids. The molecules do not attract each other so strongly. | Molecules in gas are far apart from each other. They move much faster as compared to solids and liquids. The molecules attract each other with very weak force. |
| Solids cannot flow. | Liquids can flow from a higher level to a lower level. | Gases flow in all directions. |

2. A chemical change is a change in which the original substance cannot be obtained from the final product. There is a chemical change when rice is cooked.
3. Carbon dioxide, water vapour and carbon are produced after burning a candle wick.
4. Physical changes are temporary, reversible and no new substance is produced in them, whereas chemical changes are permanent and irreversible with the formation of new substances.



- E.**
1. Because chemical changes cannot be reversed. Hence, they are called permanent changes.
 2. The molecules in solids are closely packed and they cannot move at all. This gives a definite volume and shape to solids.

F.

| | Solid | Liquid | Gas |
|----------------------------------|----------------|----------------------------------|------------------------|
| Arrangement of particles | Closely packed | Loosely packed | Far apart |
| Attraction between the particles | Strong | Weak | Very weak |
| Shape | Definite | Indefinite | Indefinite |
| Volume | Definite | Definite | Indefinite |
| Flow | Cannot flow | Flow from higher to lower levels | Flow in all directions |

- G.** Molecules of gases have very weak force of attraction among them. So they move around freely and even leave the gas.

CHECK POINT 1

1. Granite 2. Pumice rock 3. Sandstone 4. Gneiss 5. Limestone

CHECK POINT 2

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

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

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

C. 1. wind 2. water 3. bottom 4. lakes 5. oceans 6. eroded 7. compressed
8. sedimentary

D. 1. Igneous rocks are the fire rocks formed either on the ground by cooling of lava or underground by cooling of magma.

2. Metamorphic rocks are formed by the transformation of igneous or sedimentary rocks due to extreme pressure and heat.

3. Five varieties of sedimentary rocks are:

(a) **Sandstone:** It is a soft rock made of quartz and feldspar minerals.

(b) **Limestone:** It is a soft rock formed of calcite mineral.

(c) **Conglomerate:** It is made of sand and pebbles which are held together with silica and calcium carbonate minerals.

(d) **Gypsum:** It is a soft rock made of sulphate mineral.

(e) **Shale:** It is a layered rock made of clay.

4. Minerals are natural elements or compounds found in the earth's crust. Quartz and feldspar are minerals.

5. Coal was formed from the decomposition of dead remains of trees, ferns and other plants that lived 300 to 400 million years ago in swampy forests.

6. Petrol, diesel, kerosene, lubricating oil, wax and medicinal oils are obtained from petroleum.

E. 1. Because granite is a very hard and shiny rock. It does not wear out easily.

2. A pumice stone has many air-holes which make it light and help float on water.

F. **Igneous rocks:** Granite, pumice and obsidian

Sedimentary rocks: Sandstone, limestone, conglomerate, gypsum and shale

Metamorphic rocks: Marble, slate and gneiss

CHECK POINT 1

1. Weathering
2. Humus
3. Soil erosion
4. Silting
5. Deforestation

CHECK POINT 2

1. Afforestation
2. Terrace farming
3. Soil conservation
4. Soil pollution

PRACTICE TIME

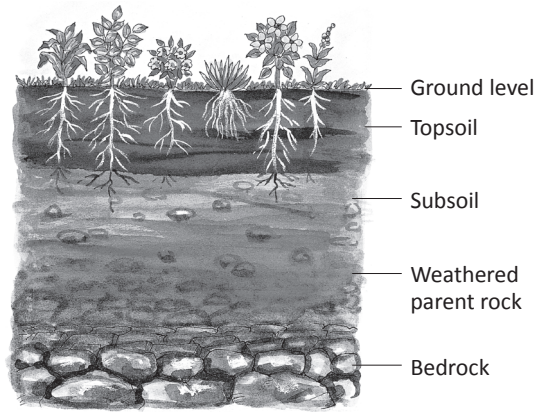
A. 1. (F) 2. (T) 3. (T) 4. (F) 5. (T)

B. 1. (a) 2. (b) 3. (b) 4. (d)

C. 1. topsoil 2. hilly 3. faster 4. soil 5. slows 6. bottom

- D. 1. Weathering of rocks is a slow natural process by which rocks are broken into small particles by wind, water and temperature changes.
2. Soil is formed by the weathering of rocks.
3. The loss of top fertile layer of soil due to wind or running water is called soil erosion. The main factors that cause soil erosion are wind, water and human activities like deforestation and overgrazing.
4. The protection of soil against soil erosion is called soil conservation. It is important to maintain soil fertility.
5. Deforestation is cutting down of trees on a large scale, whereas afforestation is the planting of trees in large number of bare land.
6. The major sources of soil pollution are plastics, polythenes and excessive use of pesticides and chemical fertilisers.

7.



Layers of soil

- E.** 1. Solid, nonbiodegradable wastes remain on land intact for many years and make the soil infertile.
2. Excessive grazing at the same place causes soil erosion.
- F.** 1. WEATHERING 2. TOPSOIL 3. BEDROCK 4. SILTING

CHECK POINT 1

1. Muscular force
2. Gravity
3. Frictional force
4. Elastic force

CHECK POINT 2

1. complex
2. three
3. changing
4. wedge

PRACTICE TIME

- A. 1. (F) 2. (T) 3. (F) 4. (T)
- B. 1. (b) 2. (d) 3. (b)
- C. 1. second 2. lever 3. third 4. screw 5. wedge
- D. 1. The push or pull is called force.

Effects of force: A force can

- make an object move
 - stop a moving object
 - change the direction of a moving object
 - slow down or speed up a moving object
 - change the shape and size of an object
2. When in water, the upward force acting on a body due to water is called buoyant force. The force acting between two surfaces in contact is called frictional force.
 3. An inclined plane is a sloping surface that reduces the effort required to lift a load. It is used in hospitals, hotels, footover bridges and airports to go up easily and for loading and unloading heavy goods from trucks.
 4. The four major groups of simple machines are lever, pulley, inclined plane and their modifications. For examples, wheel and axle, wedge and screw are modifications of these simple machines.
 5. The wheel and axle arrangement helps us turn or move something across a

surface more easily. For examples, the direction of a car is changed by using the steering wheel which is attached to axle.

- E. 1.** Pulley is a simple machine which helps lift a load with less force by changing the direction of force applied on the rope. Hence, lifting a bucket of water with the help of pulley is easier.
- 2.** When a ball rolls, a force called friction acts between it and the surface on which it rolls. This friction stops the rolling ball.
- 3.** Swimming tubes do not sink in water as these are filled with air. Hence, they prevent the swimmer from drowning.

CHECK POINT 1

1. Venus 2. Moon 3. Great dark spot 4. Jupiter

CHECK POINT 2

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

PRACTICE TIME

A. 1. (T) 2. (F) 3. (F) 4. (T)

B. 1. (c) 2. (d) 3. (a) 4. (d) 5. (b)

- C. 1. The different shapes of the moon that we see are called the phases of the moon.
2. During the course of revolution of the earth and the moon around the sun, when all the three come in straight line, the light of the sun is blocked either by the moon or the earth and one casts the shadow on the other. This makes an eclipse to occur.

Solar eclipse: Sometimes during the revolution of the moon, it comes between the sun and the earth and casts its shadow on the earth by blocking the light of the sun falling on the earth. This makes a solar eclipse to occur.

3. The upward movement of water from the surface of the earth due to gravitational pull of the moon is called tide.
- The low tides occur when the water of the seas on the side of the earth facing away from the moon rushes towards the moon-facing side of the earth.
 - The high tides occur when the water from the moon-facing side of the earth rushes upwards.

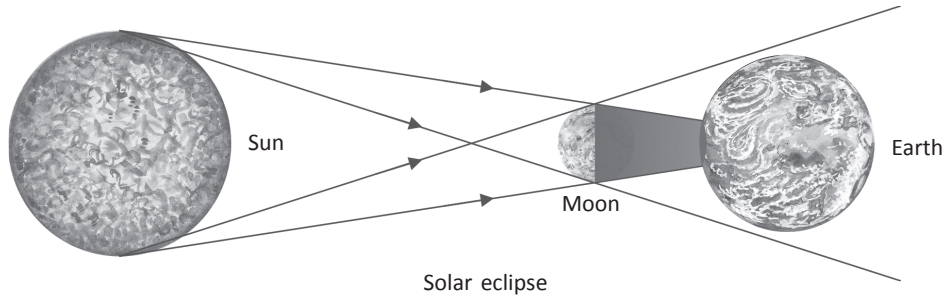
4. The main function of artificial satellites is to collect informations for various purposes.

The first artificial satellite launched by India was Aryabhata.

5. **Lunar eclipse:** The lunar eclipse occurs when the earth comes between the sun and the moon and it casts its shadow on the moon by blocking the light of the sun falling on the moon.

Solar eclipse: The solar eclipse occurs when the moon comes between the earth and the sun and it casts its shadow on the earth by blocking the light of the sun falling the earth.

6.



7. Mercury:

- It is the smallest planet.
- It is the nearest planet to the sun.
- It is made up of rocks and metals.
- It has no natural moon.

Venus:

- It is the hottest and the brightest planet, also called 'Evening Star'.
- It is visible during late evening.
- It is almost same size as the earth.
- It rotates in the direction opposite to all other planets.
- It has no natural moon.

- D. 1. The highest tides occur at the time of new moon and full moon because at these times, the moon is nearest to the earth and causes its maximum gravitational pull on the sea water.
2. During total solar eclipse, the moon completely covers the sun and its light does not reach the earth. So, it becomes completely dark on the earth.
3. Life is not possible on the moon because there is no water and air on the moon. Air and water are necessary for the life to exist.
4. Neelu could not hear Ravi because sound needs a medium, i.e., air and water to travel and as we know there is no air on the moon for sound to travel.

CHECK POINT

1. No 2. Yes 3. Yes 4. Yes

PRACTICE TIME

- A.** 1. Natural disaster 2. Epicentre 3. Active volcanoes 4. Drought 5. The Barren Island Volcano
- B.** 1. (b) 2. (a) 3. (c)
- C.** 1. plates 2. waves 3. Fire 4. undersea 5. rainwater
- D.** 1. An earthquake is a sudden shaking of the ground. It occurs by the movements or vibrations deep inside the earth.
2. A volcano is an opening on the earth's surface which allows hot, molten rocks, ash and gases to escape from below the surface. Famous active volcanoes are Mount Vesuvius, Mount Etna, Mount Erebus, Mount Fuji and the Barren Island.
3. Tsunami is caused by an undersea earthquake or by a severe hurricane or cyclone. It causes loss of life and property in the area near the seashore.
4. Flood is a condition caused by the continuous rains for several days resulting in overflowing of the rivers and submerging of nearby areas.
Floods are caused when the rain water does not seep through the soil and accumulates over the land.
5. ● The upper fertile layer of soil gets washed away with flood water causing soil erosion.
- Heavy floods wash away animals, vehicles or even kutcha houses with them.
 - They may cause massive loss of life and property.
6. When a particular area receives no rain or less rain than normal for a long period, it is said to be affected by drought.
- E.** 1. (d) 2. (e) 3. (b) 4. (c) 5. (a)
- F.** 1. Flood water flows with heavy force and great speed that wear away topsoil causing soil erosion.
2. It is because trees help form clouds by releasing lots of water vapour into atmosphere through transpiration.
- G.** TSUNAMI, VENT, CRUST, MAGMA, EARTHQUAKE, LAVA, FLOOD, SEISMOGRAPH

Science Booster 2

1

Plants Around Us

ANSWERS

CHECK POINT 1

1. Do yourself 2. Trees

CHECK POINT 2

1. Flower 2. Leaf 3. Root

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (T) 5. (T) 6. (F)

B. 1. (a) 2. (b) 3. (b)

C. 1. trunk 2. Herbs 3. climber

D. 1. Neem, Peepal

2. Very small plants are called herbs.

3. Pea and Grapevine are climbers. They grow with the help of a support.

4. Seeds are found inside the fruits.

E. 1. Creepers grow along the ground because they have very weak stem.

2. Leaf is called kitchen of plant because it makes food for plant.

F. SPINACH, PEEPAL, LOTUS, MINT, PUMPKIN, CACTUS, ROSE, JASMINE

G. Many herbs are used in our food because they add flavour to the food.

ANSWERS**CHECK POINT 1**

1. Seed 2. Flower 3. Vegetable

CHECK POINT 2

1. Leaves 2. Jute and cotton

PRACTICE TIME

A. 1. Cereals

2. Pulses

3. Oil

4. Latex

5. Spices

B. 1. (a) 2. (b) 3. (b)

C. 1. Rubber

2. Coconut

3. Sunflower

4. Eucalyptus

D. 1. Root, stem, leaves, fruits and seed

2. Tulsi, Mint, Neem, Amla

3. We get gum from acacia tree.

4. Jute fibre

E. 1. If we do not add spices to food, it becomes less tasty.

2. Trees clean the air and also keep it cool. Hence, they are called natural air conditioners.

F. Down: 1. RICE 2. ROSE 4. POTATO

Across: 3. EUCALYPTUS 5. SUGARCANE 6. BAMBOO

G. Most of our food comes from plants. Also plants make the air fresh, keep it cool and bring rain. This is why we should grow more plants.

ANSWERS**CHECK POINT 1**

1. Frog 2. Snake

CHECK POINT 2

1. dead 2. endangered

PRACTICE TIME

- A.** 1. Wild 2. Herbivores 3. Carnivores 4. Extinct animals
B. 1. (a) 2. (b) 3. (b)
C. 1. Forest; plants 2. On land, in water; Flesh of animals 3. holes; grains
D. 1. Frog, Tortoise
2. Rabbits, Hare
3. Animals that eat flesh of other animals are called carnivores.
4. Fox, Jackal, Vulture, Eagle
E. 1. Rhinoceros is hunted for its horn. So it has become endangered.
2. Vulture eats the flesh of dead animals. So, it is called scavenger.
F. 1. Elephant 2. Giraffe 3. Snake 4. Zebra

4

Animals That Help Us

ANSWERS

CHECK POINT 1

1. No 2. No 3. Yes 4. Yes

CHECK POINT 2

1. (F) 2. (T) 3. (F)

PRACTICE TIME

A. 1. healthy 2. eggs 3. beehive 4. sheep 5. camel

B. 1. (b) 2. (a) 3. (a) 4. (b)

C. 1. Animals kept at home or on the farm are called domestic animals.

2. We get silk from silkworms.

3. Skin of buffalo, cow and camel is used for making leather.

4. Cow, Buffalo, Goat, Sheep

D. 1. (c) 2. (a) 3. (d) 4. (e) 5. (b)

E. 1. dog 2. vulture 3. Honeybee 4. goat

F. **Down:** 1. SILKWORM 2. SHEEP 4. COW

Across: 3. FISH 5. PARROT 6. MEAT

G. We can take care of our domestic animals by giving them good food, clean water and proper place to live. We should also give them proper treatment when they fall ill. We should treat them with love.

ANSWERS

CHECK POINT 1

1. A newborn baby 2. Skeleton 3. Thigh

CHECK POINT 2

1. (X) 2. (✓) 3. (✓) 4. (X)

PRACTICE TIME

A. 1. Skeleton 2. Joint 3. Muscle

B. 1. (b) 2. (b) 3. (a)

C. 1. posture 2. outdoor 3. football

D. 1. About 640 muscles are found in our body.

2. Elbow joint and wrist joint.

3. Kabaddi, Football.

E. 1. We would not be able to move our body parts.

2. Regular exercise makes all our body parts work. Hence, it helps to keep the body fit.

F. CYCLING, YOGA, GYMNAST, SWIMMING

G. If there were no bones and muscles in our body, it would be like a heap of flesh having no fixed shape and could not be moved at all.

ANSWERS**CHECK POINT 1**

1. B, P, P, B, E 2. Rice, dal, sabji, chapatti, curd and salad

CHECK POINT 2

1. Water 2. Breakfast 3. Junk food 4. Sugar

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

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

C. 1. (c) 2. (d) 3. (b) 4. (e) 5. (a)

D. 1. Food is important for us because it gives us energy and helps us grow.

2. Body-building foods help our bones and muscles to grow.

3. Food that protects us from diseases is called protective food.

E. 1. fish

2. eggs

3. chocolate

4. nuts

F. Across: 1. FOOD 4. APPLE 6. GERMS 7. SUGAR

Down: 2. OIL 3. DAL 5. EGGS

ANSWERS

CHECK POINT

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

PRACTICE TIME

- A.** 1. Kutcha houses
2. Houseboat
3. Igloo
4. Sloping roof
- B.** 1. (b) 2. (a) 3. (b) 4. (b)
- C.** 1. permanent 2. season 3. caravan 4. tent 5. igloo
- D.** 1. Pucca houses are made of bricks, cement, stones, iron and steel.
2. Kutcha houses are made of mud, straw, dry leaves, bamboo and cow dung.
3. Igloo is a house made of ice blocks.
4. Clothes protect us from wind, heat, cold and rain.
- E.** 1. On mountains, it rains and snows heavily. Here, sloping roofs help rainwater and snow slide off easily.
2. Cotton clothes keep us cool in summer.
- F.** 1. HUT 2. HOUSEBOAT 3. CARAVAN 4. IGLOO 5. TENT

ANSWERS**CHECK POINT 1**

1. tease 2. play 3. clear

CHECK POINT 2

1. Arm band 2. First aid 3. Make a queue

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (F)

B. 1. (b) 2. (a) 3. (a) 4. (a)

C. 1. Never 2. footpath 3. Never 4. sharp things 5. with an elder person

D. 1. We should cross the road at zebra crossing.

2. We should wait for the school bus at the bus stop.

3. We should follow safety rules to keep ourselves and others safe.

E. 1. If we run inside the classroom, we may hit desks or other students and get hurt.

2. We should keep away from swings as we may get a hit and injuries.

F. 1. TRAFFIC LIGHT 2. FOOTPATH 3. TUBE 4. FLOATER 5. ZEBRA CROSSING

ANSWERS**CHECK POINT 1**

1. GERMS 2. DUST 3. SMOKE

CHECK POINT 2

1. Yes 2. Yes

CHECK POINT 3

1. Wind 2. Breeze 3. Wind vane

PRACTICE TIME

A. 1. (T) 2. (F) 3. (F) 4. (T)

B. 1. (b) 2. (b) 3. (a) 4. (b)

C. 1. wind

2. Air

3. breathe

D. 1. Air contains water vapour, smoke and dust particles, germs and many gases.

2. Smoke gets into air from factories, vehicles and by burning coal, dung cakes and dry leaves.

3. Fresh and clean air is needed to keep us healthy.

4. Wind helps the things to move.

E. 1. Stone

2. Aeroplane

3. Chair

F. POWDER, SEED, STRAW, SAND, LEAF, CLOUD

ANSWERS**CHECK POINT 1**

1. CANAL 2. WELL 3. TUBEWELL 4. HANDPUMP

CHECK POINT 2

1. Water vapour 2. Ice 3. Water

PRACTICE TIME

A. 1. Dam 2. Boiling 3. Water vapour 4. Clouds

B. 1. (b) 2. (a) 3. (a) 4. (b)

C. 1. Typhoid

2. Clouds

3. Gaseous

4. Sunlight

D. 1. Rainwater goes into ponds, lakes, rivers, etc., and some of it goes into the soil.

2. This water collects as underground water.

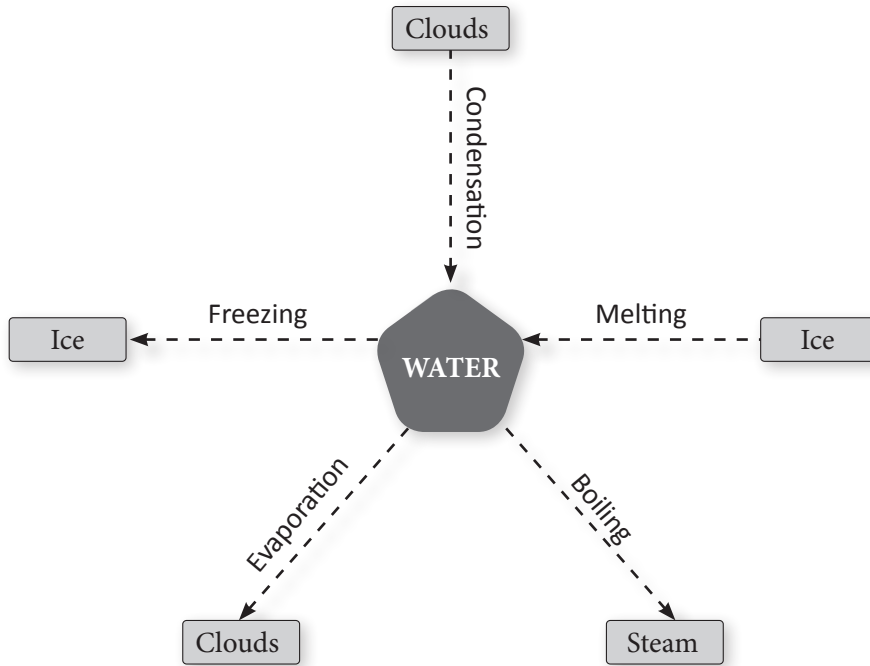
3. People bring out water from under the ground by digging wells, tubewells and through handpumps.

4. Clouds are formed by the condensation of water vapour in the form of water droplets.

E. 1. In very cold places, water vapour cools to form ice crystals that fall as snow.

2. Water vapour is a gas which is lighter than air. So, it rises up in the sky.

E.



ANSWERS

CHECK POINT 1

1. sandstone 2. Coal 3. Chalk

CHECK POINT 2

1. Yes 2. No 3. Yes

PRACTICE TIME

A. 1. Rocks 2. Marble 3. Slate 4. Coal

B. 1. (a) 2. (a) 3. (b)

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

D. 1. Coal, slate and chalk.

2. Marble, granite and sandstone

3. Granite is used for making floor tiles and statues.

4. Slate is used for making blackboards and roofs of houses.

5. Gemstones are used to make jewellery.

6. Diamond is used for cutting glass.

E. 1. Slate is found in smooth layers, so it is used to make blackboards.

2. Diamond is the hardest mineral, so it is used to cut glass.

F. **Down:** 1. SLATE 2. COAL 3. SILICA

Across: 2. CHALK 4. TALC 5. EMERALD

ANSWERS**CHECK POINT**

1. Moon
2. Apollo-11
3. Rakesh Sharma

PRACTICE TIME

- A.** 1. (T) 2. (F) 3. (F)
- B.** 1. (a) 2. (a) 3. (b)
- C.** 1. dust 2. water 3. moon 4. Earth
- D.** 1. On 20 July 1969.
2. Edwin Aldrin and Michael Collins
3. Rocks and fine dust.
- E.** 1. It is because moon is very close to the earth.
2. It is because the moon moves around the earth. So, we see a different part of moon every night.
3. No one can live on the moon because there is neither air nor water on the moon.
4. The moon is not seen during the day because there is bright sunlight.

ANSWERS**CHECK POINT**

1. During daytime
2. Yes
3. Shadow does not have any colour. It is always black.

CHAPTER-END QUESTIONS

- A.** 1. Sun
2. West
3. Noon
- B.** 1. (a) 2. (a) 3. (a) 4. (b)
- C.** 1. Fire
2. heat
3. east
4. opposite
- D.** 1. We get heat and light from the sun.
2. A shadow is formed when light cannot pass through an object.
3. Shadows are long in the morning and evening because the sun is at lower level in the sky during these times.
4. Shadows are short at noon because the sun is just above our head in the sky.
- E.** 1. Our shadow is formed when our body comes in the path of light. So, it moves with our body.
2. Shadow is formed only when light falls on an opaque object. So, we never see our shadow in a dark room.
- F.** 1. SUN
2. SUNLIGHT
3. EARTH
4. OPAQUE
- G.** The shadows of flying aeroplanes and kites are not seen on the earth because they are far away from the earth, so their shadows do not reach the earth's surface.

Science Booster 3

1

Living and Nonliving Things

CHECK POINT 1

1. Pencil
2. Sunflower

CHECK POINT 2

1. Lungs
2. Stomata
3. Excretion

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (F)

B. 1. (a) 2. (b) 3. (b)

C. 1. eggs 2. food 3. nonliving 4. grow 5. gills

D. 1. Living things breathe, need food, grow, move from place to place, feel and respond to changes in their surroundings, remove wastes from their body and produce young ones of their own kind.

2. Animals move with the help of legs, birds fly with the help of wings and fishes swim with the help of their fins.

Some plants show movement in their parts.

3. We need food because food gives us energy to grow and work.

4. Plants make their food in the presence of sunlight, using water and carbon dioxide gas.

5. Excretion is removal of waste materials by living things from their body.

E. 1. Car does not move on its own but it uses fuel to move. Hence, it is nonliving.

2. A toy monkey cannot climb a tree on its own because it has no life.

3. Leaves make food for the plant. If these are removed, the plant will die.

F. **Top to bot tom:** EXCRETION, GROWTH

Left to right: REPRODUCTION, BREATHING, FEELING

G. Sponges have tiny pores on their bodies through which water enters their body. Their body cells catch the tiny food particles coming in with water and expel the water out.

2

Structure and Functions of a Plant

CHECK POINT 1

1. (T) 2. (F) 3. (T)

CHECK POINT 2

1. Banyan 2. bud 3. papaya

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (F)

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

C. 1. tap; fibrous 2. Leaf 3. fruit 4. seed

D. 1. Fibrous roots grow as a tuft of thin roots, whereas a tap root grows as a single main root from the base of the stem.

2. Roots hold the plants firmly in the soil, absorb water and nutrients from the soil and pass them to all parts of the plant. Roots of some plants store food for the plants.

3. Stem keeps the plant straight, carries water and nutrients from roots and food from leaves to all parts of the plant. The stem of some plants stores food for them.

4. Do yourself.

5. Stomata on the leaves help the plant in breathing by taking in and giving out air.

E. 1. Plants should not be kept in closed room because they will not get sunlight to make food and will die ultimately.

2. Gardeners use moss sticks in order to keep money plants straight.

3. Animals and their feeding habits.

F. 1. leaf blade 2. root 3. fruit 4. seed

G. Potato and ginger are not grown from seeds as it takes a longer time to grow them from seeds.

3

Animals and their Feeding Habits

CHECK POINT 1

1. Vulture 2. Sheep 3. Goat

CHECK POINT 2

1. Chameleon 2. Mosquito 3. Snake

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F)

B. 1. (a) 2. (c) 3. (a)

C. 1. swallowing 2. trunk 3. live, grow 4. plants

D. 1. Cows and buffaloes bite their food with the help of their sharp front teeth. They swallow half-chewed food. After some time, they bring the food back into the mouth to chew it properly. This is called chewing the cud.

2. A mosquito gets its food by piercing and sucking the blood using its long, hollow and tube-like mouthparts.

3. The teeth of carnivores are long, pointed and slightly curved. They help them tear the flesh.

4. A food chain is a series of living beings in which one eats the other.

Diagram: Do yourself.

E. 1. The front teeth of carnivores are not much developed because they do not cut the flesh but tear it with the help of long and sharp canines.

2. Mosquitoes and butterflies cannot eat solid food because they have hollow tube-like mouth through which they suck liquid food.

F. 1. frog 2. butterfly 3. cow 4. mosquito

G. Do yourself.

4

Birds–Beaks, Claws and Nests

CHECK POINT 1

1. Down feathers
2. Oil glands
3. Streamlined

CHECK POINT 2

1. Climbing
2. Scratching
3. Grasping or Preying
4. Swimming

PRACTICE TIME

A. 1. (F) 2. (F) 3. (F) 4. (F) 5. T

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

C. 1. sharp 2. webbed 3. flight 4. cavity 5. cup

D. 1. Aquatic birds have oil glands in their skin which protect their feathers from rotting. They have strainer or spear type of beaks. Swimming birds like duck and swan have webbed feet to paddle water while swimming. Wading birds such as heron, crane, etc., have long and spread-out toes that help them walk in muddy water without getting their legs wet.

2. The bones of flying birds are hollow and filled with air. Such bones make their body light.

3. Ostrich cannot fly because its body is heavy due to heavy and solid bones. It has smaller wing bones and more feathers on its body.

4. Birds make nests to lay eggs and bring up their young ones.

5. A tailor bird makes its nest by sewing leaves together with its beak using cotton, hair, wool or spider web.

E. 1. A duck has flat and broad beak to strain muddy water to get its food.

2. Aeroplanes are given streamlined shape because this shape helps them fly easily in the air.

3. Parent birds sit on their eggs in order to keep them warm till the babies inside get fully developed.

F. Do yourself.

G. If there would be no trees, most birds will die away and a few of them will find some places on the ground to lay their eggs.

CHECK POINT 1

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

CHECK POINT 2

1. BLOOD 2. BRAIN 3. NERVES 4. KIDNEYS 5. HEART

PRACTICE TIME

A. 1. (T) 2. (F) 3. (T) 4. (T) 5. T

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

C. 1. skeletal 2. organ 3. circulatory 4. dust 5. digestive

D. 1. Skeletal system protects the organs of our body.

2. Kidneys are the main organs of the excretory system.

3. The main function of the circulatory system is to carry oxygen and digested food to all body parts, and wastes from all body parts to excretory organs through blood.

4. The food in the mouth is cut into small pieces by chewing it with the help of teeth. The chewed food gets mixed with saliva which makes it soft and slippery. It is then passed to the stomach through the food pipe.

5. We have five sense organs. They are eyes, ears, skin, nose and tongue.

E. 1. (c) 2. (e) 3. (d) 4. (a) 5. (b)

F. 1. Exercises and outdoor games keep us healthy and fit by making our muscles work. They also make our muscles strong. So, we should do exercises and play outdoor games.

2. Brain receives messages from sense organs and sends messages to different organs of the body to work properly. So, brain is called control centre of the body.

G. 1. heart 2. skeleton 3. nose 4. blood

H. SKULL, KIDNEY, BRAIN, NERVES, HEART, FOODPIPE, MOUTH, TEETH

I. If the wastes are not removed from our body, they will gather inside the body and cause poisoning. Some wastes may be very harmful to the body and lead to many fatal diseases.

CHECK POINT 1

1. Vegetable group 2. Others 3. Meat group 4. Milk group 5. Fruit group

CHECK POINT 2

1. (X) 4. (X)

PRACTICE TIME

A. 1. (F) 2. (F) 3. (T) 4. (F)

B. 1. (a) 2. (b) 3. (d) 4. (b)

C. 1. grain 2. food 3. washed 4. growth 5. junk

D. 1. Cashewnuts are protective food items, therefore, they are placed in fruit and vegetable group of the food pyramid.

2. The food that protects us from diseases is called protective food, e.g., fruits, vegetables and nuts.

3. The diet which contains the right amount of food from each group of food pyramid is called a balanced diet.

4. Liquids in our food such as milk, lassi, milk shakes and fruit juices give us energy quickly and help in cleaning our body systems.

E. 1. Junk food is prepared with lots of salt, sugar, spices and oil. As a result, it is unhygienic and harmful for the body. So, Junk food should be avoided.

2. We should wash fruits and vegetables before eating in order to remove dust and germs from them.

3. Sportspersons need lots of eggs, meats, nuts and butter because these food items provide energy, help them develop muscles and also protect them from diseases.

F. 1. ice cream 2. egg 3. nut 4. chowmein

G. We can replace the unhealthy ingredients of junk food with healthy ingredients wherever possible. For example, the refined flour can be replaced with whole wheat flour, vanaspati ghee with pure ghee, sugar with sugar-free, etc.

CHECK POINT 1

1. (T) 2. (T) 3. (F)

CHECK POINT 2

Do yourself.

PRACTICE TIME

- A. 1. (T) 2. (T) 3. (F) 4. (T)
- B. 1. (b) 2. (b) 3. (b)
- C. 1. wet 2. right; left 3. first aid
- D. 1. An accident is a sudden and unplanned event that harms and injures us.
2. Three precautions to be followed while using the road are:
(a) Not playing on the road
(b) Walking on the footpath
(c) Crossing the road only at the zebra crossing.
3. In such case, I would clean the cut with some antiseptic lotion and apply an antiseptic cream or cover it with band-aid.
4. The three precautions that would be taken in playground are:
(a) Never pushing or hitting others
(b) Never fighting with others
(c) Not breaking the rules of the game.
- E. 1. A car driver should not jump red light on a crossing because it can cause an accident by hitting vehicles coming from other sides.
2. A bleeding cut should be kept at higher level than the heart because at this level bleeding would be relatively low.
- F. 1. accident 2. safety 3. fire
- G. First of all look for a fracture. If there is a fracture, support the arm with splints and a sling and do not allow any movement to it. Take the victim to the hospital. If there is no fracture, apply cold pack to relieve the pain.

CHECK POINT 1

1. No 2. Yes 3. Yes

CHECK POINT 2

1. RAYON 2. SILK 3. WOOL 4. COTTON

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

B. 1. (a) 2. (a) 3. (c) 4. (d)

C. 1. building 2. cleaned 3. plants; animals 4. Nylon

D. 1. Clothes are important to us because they cover our body. They protect us from heat, cold, rain and insect bite, and also make us look beautiful.

2. Door and windows should have wire meshes to check the entry of flies, mosquitoes and other insects into the house. It also allows fresh air to enter the house.

3. A good house is one which is clean, has a good drainage system and gets good amount of sunlight and fresh air.

4. Polyester and nylon clothes are used during rainy season because they do not absorb water and hence dry fast.

E. 1. (a) **Towel:** It is made up of natural fibre, whereas other three are made up of synthetic fibre.

(b) **Straw:** It is used to make a kutchra house, whereas other three are used to make a pucca house.

(c) **Kitchen:** It is a part of house, whereas other three are types of houses.

2. (a) Sunlight keeps the house dry and germ-free. So, a house must receive plenty of sunlight.

(b) A house must have a good drainage system because it helps to remove the waste water from the kitchen, bathroom and toilets to the main drain of the city.

F. **Down:** 1. JUTE 3. POLYESTER

Across: 2. SHEEP 4. NYLON 5. SYNTHETIC

G. 1. synthetic fibre 2. silk 3. sunlight

CHECK POINT 1

1. BREEZE 2. OXYGEN 3. STORM 4. POLLUTION

CHECK POINT 2

1. Breeze 2. Dust 3. Atmosphere 4. Breathing

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

B. 1. (a) 2. (d) 3. (b)

C. 1. wind 2. germs 3. polluted 4. evaporation

D. 1. A thick layer of air around the earth is called atmosphere.

2. Four uses of air are as follows:

(a) All living beings breathe in air.

(b) Plants get carbon dioxide gas from air to make their food.

(c) Moving air helps in drying clothes and wet surfaces.

(d) Water vapour in air forms clouds that give us rain.

3. When we heat water, it evaporates and turns into its gaseous form called water vapour or steam.

4. We can prevent water pollution by avoiding washing of clothes, throwing of garbage and dumping of harmful substances in rivers and other waterbodies.

E. 1. Factories give out lots of smoke and harmful gases which mix up with the air and make it polluted. Polluted air is harmful to us. So, factories should be made far away from living areas.

2. Air-filled tubes do not sink in water. Therefore, they prevent swimmers from drowning.

F. 1. Air has dust and smoke from vehicles, factories, etc. These make our clothes dirty.

2. If there is no air in the tyres of bicycle, they would deflate and the bicycle will not move smoothly.

G. 1. rain 2. air 3. water

H. The increased amount of carbon dioxide leads to global warming, that is, increase in the temperature of the earth. Carbon dioxide is important to us because plants use it to make their food by the process of photosynthesis. This food is used by us and other animals.

CHECK POINT 1

1. Storm 2. Breeze 3. Loo

CHECK POINT 2

1. SNOWFALL 2. SPRING 3. HUMID 4. SUMMER

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

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

C. 1. sun 2. overhead 3. straight 4. hot 5. morning 6. cool 7. slanting

D. 1. The weather depends on the sun, clouds, wind and rain.

2. The weather is the condition of the air at a particular place and time, whereas changes in weather in a fixed cycle throughout the year are called seasons.

3. A cloudy day is cooler because the clouds do not allow the sunrays to reach us.

4. Spring comes after winter. It is a pleasant season. Plants get new leaves and blossom with beautiful flowers.

E. 1. The sunrays fall straight at noon and slanting in the evening. Straight sunrays spread over lesser area as compared to slanting rays and produce more heat. Therefore, noon is hotter than evening.

2. Cotton clothes absorb sweat and keep us cool. So, people prefer to wear cotton clothes in summer.

F. **Down:** 1. WIND 3. SUMMER 5. AUTUMN

Across: 2. SEASONS 4. RAINY 6. STORM

G. During rainy season, the air is moist. It contains many germs and spores of fungi which on getting in food can spoil it. So, it is advised to have freshly cooked food during rainy season to avoid diseases.

CHECK POINT 1

1. No 2. Yes 3. Yes 3. Yes

CHECK POINT 2

1. BEDROCK 2. SUBSOIL 3. DIAMOND 4. GRAVEL

PRACTICE TIME

- A. 1. (T) 2. (F) 3. (T) 4. (F)
- B. 1. (b) 2. (d) 3. (a)
- C. 1. rocks 2. nutrients 3. gravel 4. Loam
- D. 1. We get soil by the breaking of rocks.
2. Loamy soil is made up of equal amounts of sand and clay.
3. Humus makes the soil rich in nutrients which are required by the plants to grow.
4. Soil is important to us because we get food from plants that grow in soil by absorbing water and minerals from it.
- E. 1. We should water the plants regularly because it helps the plants in growing as it is needed to make food.
2. Diamond is the hardest rock on the earth. So, sharp diamond tips are used to cut hard materials.
3. Farmers add fertilisers and manures to the soil in their farms and fields in order to make the soil more fertile.
- F. 1. The farmer should dump the plant waste into a pit. The waste in the pit will change into manure which is useful to plants.
2. Marble and granite are hard. They can bear the load. So they are good for making kitchen slabs and floors in the buildings. Kitchen slabs cannot be made from wood as it can catch fire easily.
- G. 1. diamond 2. granite, marble 3. topsoil 4. clayey soil
- H. Earthworms make holes in soil and they feed on the dead and decaying leaves of plants. Thus, they make the soil porous and let the air in and help in bringing the inner soil to the top. This helps to enrich soil in nutrients.

CHECK POINT 1

1. Space 2. Orbit 3. Revolution

CHECK POINT 2

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

PRACTICE TIME

A. 1. (T) 2. (T) 3. (F) 4. (T) 5. (F)

B. 1. (a) 2. (b) 3. (a) 4. (a)

C. 1. rotation 2. constellation 3. sun 4. revolution

D. 1. The two movements of the earth are rotation and revolution.

2. The solar system is a family of the sun, the eight planets, their satellites and some other heavenly bodies.

3. When the moon is not visible at all, it is called new moon. When the moon gets back its full round shape, it is called full moon.

4. Constellations are groups of stars that make some patterns. For example, Ursa Major makes the shape of a big bear.

5. The eight planets of the solar system, starting from the sun, are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

E. 1. **Sun:** The sun is a star, whereas Earth, Mars and Venus are planets.

2. **Moon:** The moon is a natural satellite while other three are constellations.

3. **Mountain:** Here, mountain is not a part of solar system while other three are the parts of our solar system.

4. **Globe:** It is a model of the earth, whereas other three are the seasons in a year.

F. 1. MOON 2. SUN 3. ORION 4. SATELLITE

G. The moon shines by the light of the sun that falls on its surface.

CHECK POINT 1

1. No 2. Yes 3. No 4. Yes

CHECK POINT 2

1. sound 2. good 3. Force

PRACTICE TIME

A. 1. (T) 2. (F) 3. (F) 4. (F) 5. (T)

B. 1. (a) 2. (a) 3. (a)

C. 1. light 2. luminous 3. larynx 4. good

D. 1. An object that gives us light is called a luminous object.

2. The irritating and unpleasant sounds are called noise.

3. Force can change the shape of an object. For example, by applying force, we can stretch a rubber band or we can roll a chapati.

4. Shadow is the dark shape of an opaque object, formed on a surface, when it comes in the path of light.

The length of the shadow changes when the object moves away or comes closer to the source of light. It becomes shorter, when object moves away from the source of light

E. 1. Moon shines at night by sunlight that falls on it. It is nonluminous object because it does not have its own light.

2. Speaking softly is pleasant to hear. So, we should not make a noise but speak softly.

F. FORCE, PULL, SOUND, PUSH, NOISE, MUSIC, SOURCE, LARYNX

G. Rubber band is flexible and when we apply force on it, its shape gets changed. As soon as we release the rubber band, it comes back to its shape. All this happens due to application of force.

CHECK POINT 1

1. No 2. Yes 3. No 4. Yes

CHECK POINT 2

1. Kilolitre 2. Weight 3. Thermometer 4. Capacity

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

B. 1. (b) 2. (b) 3. (a)

C. 1. weight 2. hours 3. one 4. litre

D. 1. The objects that are used for measuring length are ruler, measuring tape and metre scale.

2. We measure the time with the help of watches and clocks.

3. The amount of a liquid that a container can hold is called its capacity.

4. The measure of the hotness or coldness of a body is called its temperature.

E. 1. (c) 2. (e) 3. (a) 4. (b) 5. (d)

F. 1. 1000 2. 1000 3. 365 4. 24

G. 1. **Thermometer:** It is used to measure the temperature, whereas other three are used to measure the length.

2. **Litre:** It is the unit of capacity, while other three are units of time.

3. **Kilometre:** It is the unit of distance (length) while other three are units of weight.

H. 1. We can buy grocery items by using some nonstandard weights, such as bricks, stones, etc.

2. 1 kg = 1000 grams

I. No, these methods are not used today. This is because these units vary from person to person. Hence, they cannot measure same quantity all the time.

Science Booster 2

1

Plants Around Us

ANSWERS

CHECK POINT 1

1. Do yourself 2. Trees

CHECK POINT 2

1. Flower 2. Leaf 3. Root

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (T) 5. (T) 6. (F)

B. 1. (a) 2. (b) 3. (b)

C. 1. trunk 2. Herbs 3. climber

D. 1. Neem, Peepal

2. Very small plants are called herbs.

3. Pea and Grapevine are climbers. They grow with the help of a support.

4. Seeds are found inside the fruits.

E. 1. Creepers grow along the ground because they have very weak stem.

2. Leaf is called kitchen of plant because it makes food for plant.

F. SPINACH, PEEPAL, LOTUS, MINT, PUMPKIN, CACTUS, ROSE, JASMINE

G. Many herbs are used in our food because they add flavour to the food.

ANSWERS**CHECK POINT 1**

1. Seed 2. Flower 3. Vegetable

CHECK POINT 2

1. Leaves 2. Jute and cotton

PRACTICE TIME

A. 1. Cereals

2. Pulses

3. Oil

4. Latex

5. Spices

B. 1. (a) 2. (b) 3. (b)

C. 1. Rubber

2. Coconut

3. Sunflower

4. Eucalyptus

D. 1. Root, stem, leaves, fruits and seed

2. Tulsi, Mint, Neem, Amla

3. We get gum from acacia tree.

4. Jute fibre

E. 1. If we do not add spices to food, it becomes less tasty.

2. Trees clean the air and also keep it cool. Hence, they are called natural air conditioners.

F. Down: 1. RICE 2. ROSE 4. POTATO

Across: 3. EUCALYPTUS 5. SUGARCANE 6. BAMBOO

G. Most of our food comes from plants. Also plants make the air fresh, keep it cool and bring rain. This is why we should grow more plants.

ANSWERS**CHECK POINT 1**

1. Frog 2. Snake

CHECK POINT 2

1. dead 2. endangered

PRACTICE TIME

- A.** 1. Wild 2. Herbivores 3. Carnivores 4. Extinct animals
B. 1. (a) 2. (b) 3. (b)
C. 1. Forest; plants 2. On land, in water; Flesh of animals 3. holes; grains
D. 1. Frog, Tortoise
2. Rabbits, Hare
3. Animals that eat flesh of other animals are called carnivores.
4. Fox, Jackal, Vulture, Eagle
E. 1. Rhinoceros is hunted for its horn. So it has become endangered.
2. Vulture eats the flesh of dead animals. So, it is called scavenger.
F. 1. Elephant 2. Giraffe 3. Snake 4. Zebra

4

Animals That Help Us

ANSWERS

CHECK POINT 1

1. No 2. No 3. Yes 4. Yes

CHECK POINT 2

1. (F) 2. (T) 3. (F)

PRACTICE TIME

A. 1. healthy 2. eggs 3. beehive 4. sheep 5. camel

B. 1. (b) 2. (a) 3. (a) 4. (b)

C. 1. Animals kept at home or on the farm are called domestic animals.

2. We get silk from silkworms.

3. Skin of buffalo, cow and camel is used for making leather.

4. Cow, Buffalo, Goat, Sheep

D. 1. (c) 2. (a) 3. (d) 4. (e) 5. (b)

E. 1. dog 2. vulture 3. Honeybee 4. goat

F. **Down:** 1. SILKWORM 2. SHEEP 4. COW

Across: 3. FISH 5. PARROT 6. MEAT

G. We can take care of our domestic animals by giving them good food, clean water and proper place to live. We should also give them proper treatment when they fall ill. We should treat them with love.

ANSWERS

CHECK POINT 1

1. A newborn baby 2. Skeleton 3. Thigh

CHECK POINT 2

1. (X) 2. (✓) 3. (✓) 4. (X)

PRACTICE TIME

A. 1. Skeleton 2. Joint 3. Muscle

B. 1. (b) 2. (b) 3. (a)

C. 1. posture 2. outdoor 3. football

D. 1. About 640 muscles are found in our body.

2. Elbow joint and wrist joint.

3. Kabaddi, Football.

E. 1. We would not be able to move our body parts.

2. Regular exercise makes all our body parts work. Hence, it helps to keep the body fit.

F. CYCLING, YOGA, GYMNAST, SWIMMING

G. If there were no bones and muscles in our body, it would be like a heap of flesh having no fixed shape and could not be moved at all.

ANSWERS**CHECK POINT 1**

1. B, P, P, B, E 2. Rice, dal, sabji, chapatti, curd and salad

CHECK POINT 2

1. Water 2. Breakfast 3. Junk food 4. Sugar

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

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

C. 1. (c) 2. (d) 3. (b) 4. (e) 5. (a)

D. 1. Food is important for us because it gives us energy and helps us grow.

2. Body-building foods help our bones and muscles to grow.

3. Food that protects us from diseases is called protective food.

E. 1. fish

2. eggs

3. chocolate

4. nuts

F. Across: 1. FOOD 4. APPLE 6. GERMS 7. SUGAR

Down: 2. OIL 3. DAL 5. EGGS

ANSWERS

CHECK POINT

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

PRACTICE TIME

- A.** 1. Kutcha houses
2. Houseboat
3. Igloo
4. Sloping roof
- B.** 1. (b) 2. (a) 3. (b) 4. (b)
- C.** 1. permanent 2. season 3. caravan 4. tent 5. igloo
- D.** 1. Pucca houses are made of bricks, cement, stones, iron and steel.
2. Kutcha houses are made of mud, straw, dry leaves, bamboo and cow dung.
3. Igloo is a house made of ice blocks.
4. Clothes protect us from wind, heat, cold and rain.
- E.** 1. On mountains, it rains and snows heavily. Here, sloping roofs help rainwater and snow slide off easily.
2. Cotton clothes keep us cool in summer.
- F.** 1. HUT 2. HOUSEBOAT 3. CARAVAN 4. IGLOO 5. TENT

ANSWERS**CHECK POINT 1**

1. tease 2. play 3. clear

CHECK POINT 2

1. Arm band 2. First aid 3. Make a queue

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (F)

B. 1. (b) 2. (a) 3. (a) 4. (a)

C. 1. Never 2. footpath 3. Never 4. sharp things 5. with an elder person

D. 1. We should cross the road at zebra crossing.

2. We should wait for the school bus at the bus stop.

3. We should follow safety rules to keep ourselves and others safe.

E. 1. If we run inside the classroom, we may hit desks or other students and get hurt.

2. We should keep away from swings as we may get a hit and injuries.

F. 1. TRAFFIC LIGHT 2. FOOTPATH 3. TUBE 4. FLOATER 5. ZEBRA CROSSING

ANSWERS**CHECK POINT 1**

1. GERMS 2. DUST 3. SMOKE

CHECK POINT 2

1. Yes 2. Yes

CHECK POINT 3

1. Wind 2. Breeze 3. Wind vane

PRACTICE TIME

A. 1. (T) 2. (F) 3. (F) 4. (T)

B. 1. (b) 2. (b) 3. (a) 4. (b)

C. 1. wind

2. Air

3. breathe

D. 1. Air contains water vapour, smoke and dust particles, germs and many gases.

2. Smoke gets into air from factories, vehicles and by burning coal, dung cakes and dry leaves.

3. Fresh and clean air is needed to keep us healthy.

4. Wind helps the things to move.

E. 1. Stone

2. Aeroplane

3. Chair

F. POWDER, SEED, STRAW, SAND, LEAF, CLOUD

ANSWERS**CHECK POINT 1**

1. CANAL 2. WELL 3. TUBEWELL 4. HANDPUMP

CHECK POINT 2

1. Water vapour 2. Ice 3. Water

PRACTICE TIME

A. 1. Dam 2. Boiling 3. Water vapour 4. Clouds

B. 1. (b) 2. (a) 3. (a) 4. (b)

C. 1. Typhoid

2. Clouds

3. Gaseous

4. Sunlight

D. 1. Rainwater goes into ponds, lakes, rivers, etc., and some of it goes into the soil.

2. This water collects as underground water.

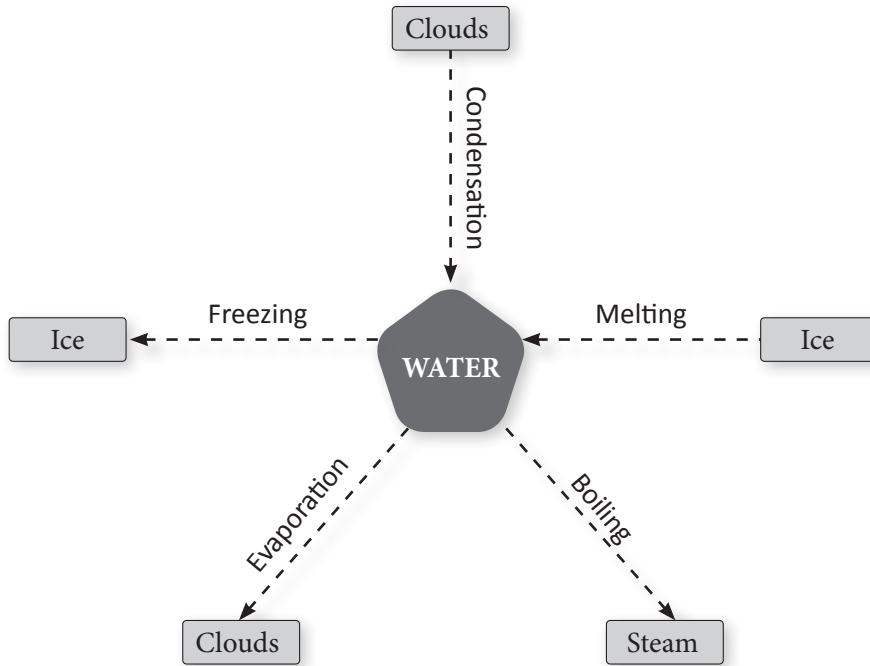
3. People bring out water from under the ground by digging wells, tubewells and through handpumps.

4. Clouds are formed by the condensation of water vapour in the form of water droplets.

E. 1. In very cold places, water vapour cools to form ice crystals that fall as snow.

2. Water vapour is a gas which is lighter than air. So, it rises up in the sky.

E.



ANSWERS

CHECK POINT 1

1. sandstone 2. Coal 3. Chalk

CHECK POINT 2

1. Yes 2. No 3. Yes

PRACTICE TIME

A. 1. Rocks 2. Marble 3. Slate 4. Coal

B. 1. (a) 2. (a) 3. (b)

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

D. 1. Coal, slate and chalk.

2. Marble, granite and sandstone

3. Granite is used for making floor tiles and statues.

4. Slate is used for making blackboards and roofs of houses.

5. Gemstones are used to make jewellery.

6. Diamond is used for cutting glass.

E. 1. Slate is found in smooth layers, so it is used to make blackboards.

2. Diamond is the hardest mineral, so it is used to cut glass.

F. **Down:** 1. SLATE 2. COAL 3. SILICA

Across: 2. CHALK 4. TALC 5. EMERALD

ANSWERS**CHECK POINT**

1. Moon
2. Apollo-11
3. Rakesh Sharma

PRACTICE TIME

- A.** 1. (T) 2. (F) 3. (F)
- B.** 1. (a) 2. (a) 3. (b)
- C.** 1. dust 2. water 3. moon 4. Earth
- D.** 1. On 20 July 1969.
2. Edwin Aldrin and Michael Collins
3. Rocks and fine dust.
- E.** 1. It is because moon is very close to the earth.
2. It is because the moon moves around the earth. So, we see a different part of moon every night.
3. No one can live on the moon because there is neither air nor water on the moon.
4. The moon is not seen during the day because there is bright sunlight.

ANSWERS**CHECK POINT**

1. During daytime
2. Yes
3. Shadow does not have any colour. It is always black.

CHAPTER-END QUESTIONS

- A.** 1. Sun
2. West
3. Noon
- B.** 1. (a) 2. (a) 3. (a) 4. (b)
- C.** 1. Fire
2. heat
3. east
4. opposite
- D.** 1. We get heat and light from the sun.
2. A shadow is formed when light cannot pass through an object.
3. Shadows are long in the morning and evening because the sun is at lower level in the sky during these times.
4. Shadows are short at noon because the sun is just above our head in the sky.
- E.** 1. Our shadow is formed when our body comes in the path of light. So, it moves with our body.
2. Shadow is formed only when light falls on an opaque object. So, we never see our shadow in a dark room.
- F.** 1. SUN
2. SUNLIGHT
3. EARTH
4. OPAQUE
- G.** The shadows of flying aeroplanes and kites are not seen on the earth because they are far away from the earth, so their shadows do not reach the earth's surface.

Science Booster 4

1

Preparation of Food in Plants

CHECK POINT 1

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

CHECK POINT 2

1. Beans 2. Lettuce 3. Cactus 4. Mushroom

PRACTICE TIME

A. 1. (T) 2. (T) 3. (T) 4. (F) 5. (F)

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

C. 1. leaves 2. glucose 3. food 4. water; minerals

D. 1. Carbon dioxide + Water $\xrightarrow[\text{Chlorophyll}]{\text{Sunlight}}$ Glucose + Oxygen + water vapour

2. The food manufactured by plants is used for the growth of plant, building new cells and for repairing the worn out cells. Extra food stored in fruits, leaves, stems and roots is eaten by animals.

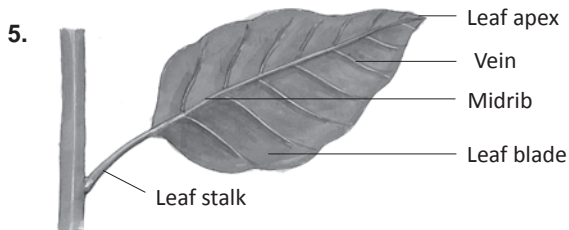
3. Pitcher plant and mushroom are unusual plants.

● Pitcher plant:

1. It is a green plant in which leaves are modified into pitcher-like structure.
2. It digests insects to fulfil its nitrogen requirement.

● Mushroom:

1. It is a nongreen plant and it cannot make its own food.
 2. It grows on decaying matter and obtains food from it.
4. Plants depend on animals for carbon dioxide and minerals while animals depend on plants for their food and oxygen.



- E. 1.** (a) Root hair; because other three are parts of a leaf and root hair is a part of root.
- (b) Veins; because veins are the visible parts of a leaf, whereas others are the inner parts of a leaf.
- (c) Carbon dioxide; carbon dioxide is used in the process of photosynthesis, whereas others are products of photosynthesis.
- 2.** (a) Plants produce food in the presence of sunlight which helps them to grow.
- (b) Potato contains starch which turns iodine blue-black in colour.
- (c) Most of the plant leaves are green in colour because they contain green pigment named chlorophyll in them.
- F.** The plants that shed their leaves every year, store some food in their stems or roots. Also, they get new leaves within a short period of time.
- G.**
- If xylem stops working, the plant will wilt in the want for water.
 - If phloem stops working, the plant will die in the absence of food.

2

Adaptations in Plants

CHECK POINT 1

1. Habitat 2. Terrestrial plants 3. Cones 4. Mangroves 5. Short and spiny leaves

CHECK POINT 2

1. Lotus 2. Waterlily 3. Water hyacinth 4. Yam

PRACTICE TIME

A. 1. (F) 2. (F) 3. (T) 4. (T) 5. (F)

B. 1. (a) 2. (a) 3. (a)

C. 1. mangrove 2. conifers 3. leaves 4. submerged 5. aquatic

D. 1. Hilly plants have shorter stems, needle-like leaves and bear cones instead of flowers.

2. Plants growing in plains have many branches with broad and big leaves. They shed their leaves in winter and grow new leaves in summer.

3. Desert plants store water in their stems, have short and spiny leaves, a long root system and waxy coating on leaves and stems.

4. Mangrove plants grow in waterlogged soil which does not have air to breathe in. So they need breathing roots to get air for respiration.

5. The submerged plants carry out the exchange of gases through the surface of their plant body.

6.



Cactus

E. 1. The spines on pineapple fruit protect it from animals.

2. Some plants like yam produce a poisonous sap to protect themselves from their enemies.

3. The leaves of aquatic plants have a waxy coating on them to prevent themselves from rotting in water.

F. Down: 1. SPONGY 2. CONE 4. ADAPTATION

Across: 3. MANGROVE 5. STOMATA 6. THORNS 7. CONIFERS

G. Mangoes grow in warm places while plums and cherries need cool climate to grow well. That is why mangoes are not grown in hilly areas.

3

Adaptations in Animals

CHECK POINT 1

1. Arboreal
2. Terrestrial
3. Aquatic
4. Aerial
5. Terrestrial
6. Aerial
7. Aquatic
8. Amphibious

CHECK POINT 2

1. Carnivorous animals
2. Parasites
3. Camouflaging animals
4. Wading animals

PRACTICE TIME

A. 1. (F) 2. (F) 3. (T) 4. (F)

B. 1. (a) 2. (c) 3. (d) 4. (c)

C. 1. snake 2. fur 3. tail 4. webbed

D. 1. Amphibians breathe through lungs when on land and through skin when in water.

2. Some animals hide themselves in warm places to avoid extreme cold and show very little activity. This is called hibernation. Frogs and lizards are hibernating animals.

3. In some animals, their skin colour or pattern is same to their surroundings so that they are not spotted easily. This phenomenon is called camouflage.

For example, the colour of grasshopper is green as that of grass, stick insect looks like a twig and polar bear is all white as snow.

4. Porcupines have spines on their body to defend themselves from their enemies.

5. Chameleon changes its body colour according to its surroundings. This protects it from its enemies.

E. 1. Tigers have strong legs to run fast to catch their prey.

2. Parasites obtain liquid food from the body of other animals. So, they do not have teeth.

3. Broad and padded feet of camels help them to walk on warm and loose sand without being heated and slipped.

F. 1. DUCK 2. SQUIRREL 3. CAMEL 4. SNAKE

G. The black and white stripes on the bodies of zebras help them hide among the high raised leaves of grass. This helps them protect from their enemies.

4

Reproduction in Animals

CHECK POINT

1. (T) 2. (T) 3. (F) 4. (F) 5. (F) 6. (T)

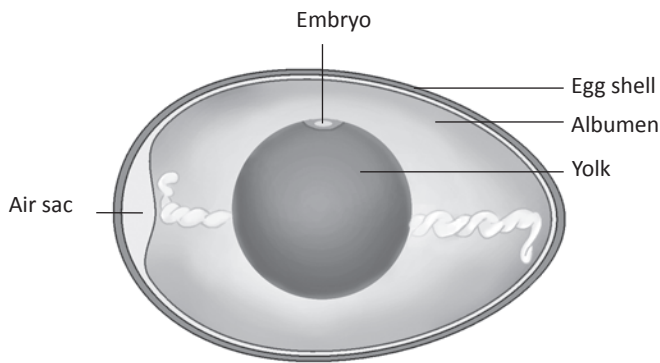
PRACTICE TIME

A. 1. Reproduction 2. Reptiles 3. Yolk 4. Spawn

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

C. 1. tadpole 2. moulting 3. pupa 4. cocoon

D. 1.



Structure of a bird's egg

2. The yolk contains embryo and food for it.

3. Special features of mammals are:

- They give birth to young ones.
- They produce milk to feed their babies.
- They take good care of their babies.
- They have hair on their bodies.

4. Birds, fishes, reptiles, amphibians and insects lay eggs.

5. A frog produces a spawn of eggs on safe places in water. The eggs hatch into tadpoles. The tadpoles grow into young frogs having tails. The young frogs grow into adult frogs and their tail disappears. Hence adult frogs are formed.

E. 1. (a) Frog; Frog is an amphibian, whereas others are insects.

(b) Crow; Here, crow is a bird, whereas others are reptiles.

(c) Tadpole; Here, tadpole is a larva of frog, whereas others are mammals.

(d) Dolphin; Here, dolphin gives birth to young ones, whereas others lay eggs.

2. (a) The young ones of the mammals have larger number of survivals because the parent mammals feed, clean and keep them safe until they have learnt to look after themselves.

(b) A tadpole looks like a fish because it is a larval stage which lives in water.

F. COCOON, EGG, EMBRYO, TADPOLE, LARVA, ADULT, PUPA, NYMPH, YOLK, MOULTING

G. The four stages in the life cycle of mosquito are egg, larva, pupa and adult.

When a mosquito sucks blood of a patient, the germs present in the blood of patient get into the body of mosquito. When this mosquito bites a healthy person, these germs are transferred into the healthy body and make it sick.

5

The World of Microbes

CHECK POINT 1

1. Yes 2. No 3. Yes

CHECK POINT 2

1. germs 2. meals 3. microbes

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

B. 1. (d) 2. (a) 3. (c) 4. (c)

C. 1. Viruses

2. Protozoa

3. Fungi

4. warm, damp

D. 1. Microbes are very tiny organisms. They can be seen only with the help of microscope.

Their four types are bacteria, viruses, protozoa and fungi.

2. Fungi are not able to make their own food because they lack chlorophyll.

3. Removal of water from any substance is called dehydration.

4. Milk is boiled before use to kill the harmful microbes present in them.

5. Pickles and jams stay fresh for a long time because too much of salt or sugar does not allow the microbes to grow in them.

E. 1. Cholera; It is caused by bacteria, whereas others are caused by viruses.

2. Chickenpox; It is caused by virus, whereas others are caused by bacteria.

3. Washing; All three except washing are the ways to protect food from microbes for a long time.

4. Mushroom; It is a member of fungi group, but other three are the group of microbes.

F. This is because such food is less nutritious.

G. 1. Fungi 2. Fungi 3. Protozoa 4. Bacteria 5. Viruses

H. If we are to have food outside the home, we should eat at some hygienic place only.

6

Healthy Eating

CHECK POINT 1

1. (F) 2. (F) 3. (F) 4. (T)

CHECK POINT 2

1. Balanced diet 2. Overcooking 3. Steaming 4. Jams and Jellies

PRACTICE TIME

A. 1. (F) 2. (F) 3. (T) 4. (T) 5. (F)

B. 1. (b) 2. (c) 3. (d) 4. (b)

C. 1. nutrients

2. fat

3. protein

4. preservation

5. Overcooking

D. 1. A balanced diet contains the right amount of all the nutrients. The main components of a balanced diet are grains, vegetables, fruits, milk, butter, meat, etc.

2. Vitamins and minerals are important to us because they protect us from various diseases.

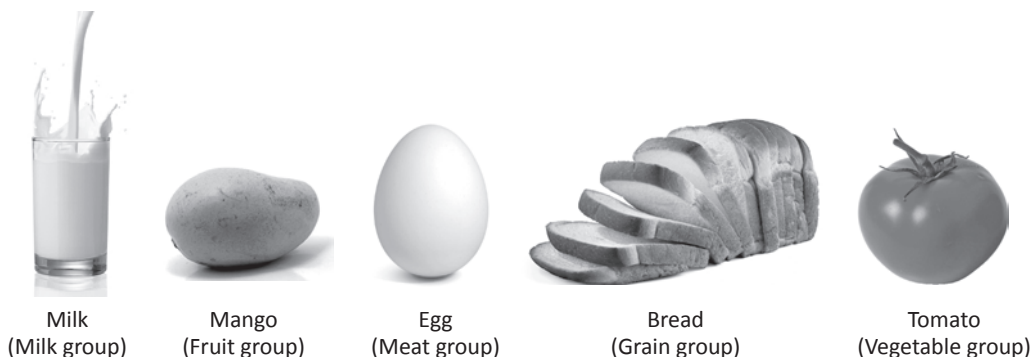
3. Different ways for making the food edible are boiling, frying, steaming, roasting and baking.

4. Overcooking of food should be avoided to save the vitamins and minerals from destroying.

5. The process of protecting food from getting spoiled and keeping it safe to eat, for longer periods of time is called food preservation.

Different ways of preserving food are baking, salting, adding large amount of sugar, drying in the sun, etc.

6.



E. 1. (d) 2. (a) 3. (e) 4. (b) 5. (c)

F. 1. (a) Cashewnut; It is a rich source of fats, whereas others are rich sources of roughage.

(b) Apple; It is a rich source of carbohydrates and vitamins, whereas others are fats.

(c) Potato; It is a rich source of carbohydrate, whereas others are rich sources of proteins.

(d) Spinach; It is a rich source of minerals, whereas others are rich sources of carbohydrates.

2. (a) Lemons and citrus fruits are rich source of vitamin C which is not stored in the body. So, we should include lemons and citrus fruits in our diet.

(b) Proteins help in the growth of body and repair of damaged cells and tissues. So, our diet must contain a regular portion of proteins.

(c) Raw food is hard, tasteless and indigestible. Cooking makes it soft, tasty and digestible. Therefore, raw food is not always preferred.

(d) Carbohydrates provide instant energy and proteins help in building body muscles. So, athletes need more carbohydrates and proteins than a common man.

G. Sameer is deficient of iron. He should eat green leafy vegetables like spinach, fenugreek as well as beans, lentils, chick peas, soyabeans and eggs.

H. Vitamins prevent many infections in the body. So, they play an important role in maintaining good health.

I. Do yourself.

CHECK POINT 1

1. milk teeth 2. Pulp 3. Canines 4. Enamel

CHECK POINT 2

1. bad breath 2. starch 3. small intestine 4. large intestine

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (T)

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

C. 1. dentine 2. enamel 3. gums 4. toothache

D. 1. The first set of teeth which grow between the age of six and nine months of a baby is called milk teeth. They are 20 in number.

The second new set of teeth that grow after falling of milk teeth are called permanent teeth. They grow between the six and twelve years of age. They are 32 in number.

2. The role of four types of teeth in digestion is as follows:

- Incisors bite the food and shovel it inwards.
- Canines tear the food.
- Premolars crush the food.
- Molars grind the food.

3. We should take care of our teeth in following ways:

- We should eat food containing lots of calcium and vitamin C.
- We should brush our teeth twice a day.
- We should rinse our mouth after every meal.
- We should avoid too much of sweets and aerated drinks.
- We should have regular check up by the dentist.

4. The path of the food in digestive system is:

Mouth → Foodpipe → Stomach → Small intestine → Large intestine → Anus

5.



(a) Incisor



(b) Canine



(c) Molar



(d) Premolar

- E.**
1. If teeth would be unhealthy, the food cannot be chewed well and broken down properly. As a result, the food cannot be digested completely and it leads to poor digestion.
 2. It is because during chewing the food, saliva is mixed in it. The saliva breaks down the starch, present in food, into sugar and digests it properly.
- F.**
1. The safety pin pricked Keshav's gum.
 2. He used a pointed object to remove the fibre from between the teeth.
 3. He should have removed it by rinsing the mouth or by brushing or by using a toothpick.
- G.** Buffaloes have very sharp front teeth in the lower jaw. They have tough surface of upper jaw in place of teeth and cut the grass with lower teeth. They chew their food with the help of strong molars.
- H.** If there were no small intestine in our body, we would not be able to digest our food properly.

CHECK POINT

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

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (F) 5. (T)

B. 1. (b) 2. (b) 3. (a)

C. 1. Zebra 2. labelled 3. blow 4. open

D. 1. We can be safe while playing by

- playing on pebble and stone-free ground.
- Not pushing other children and not throwing things on them.
- Not playing with sharp objects.

2. To avoid road accident while walking on the road, we should walk on the footpath. If there is no footpath, we should walk on the right side of the road.

3. ● Never go alone for swimming.

- Never go deep into water.
- Never push anybody into the pool just for fun.
- Swim only in the presence of lifeguard.

4. The first help given to an injured person before reaching the doctor is called first aid. In case of bruise, a simple cold-pack should be applied over it so as to slow down the bleeding under the skin.

5. Accidents due to electrical equipments can be prevented by not touching them with wet hands and barefoot.

E. 1. Cold pack slows down the bleeding under the skin. So, it is suggested to apply a cold pack immediately after a bruise.

2. In case of nose-bleed, the patient should lean his head forward so that he does not swallow blood.

3. A cut or wound should not be left open because dust or germs can enter it and cause infection.

F. **Down:** 1. TOYS 3. ACCIDENT

Across: 2. FOOTPATH 4. KNIFE 5. FIREWORK 6. SWIMMING

G. Do it yourself.

9

Clothes for Us

CHECK POINT 1

1. Early man 2. Cotton clothes 3. Gumboots 4. Man-made fibre 5. Animals (sheep)

CHECK POINT 2

1. FABRICS 2. SILK 3. DRYCLEAN 4. MOTHBALLS

PRACTICE TIME

- A. 1. (F) 2. (T) 3. (F) 4. (F)
- B. 1. (a) 2. (d) 3. (a)
- C. 1. synthetic 2. natural 3. dust 4. neem
- D. 1. We need clothes to cover our body. They protect us from heat, cold, rain, dust and insect bites.
2. Socks and shoes protect our feet from dust, heat, cold, insects, worms and germs.
3. The clothes of a patient should always be disinfected with some antiseptic solution.
4. Woollen and silk clothes should be stored with moth balls or dried neem leaves between their folds.
5. Cotton clothes are preferred during summers because they absorb the sweat easily, reflect the heat and keep the body cool.
- E. 1. Clothes made of synthetic fibres do not absorb water. So, they dry very quickly.
2. White or light-coloured clothes reflect the heat and keep the body cool.
- F. Mrs. Sharma should carry woollen clothes because the weather would be cold in the USA.
- G. John and his family should carry woollen clothes.
- H. They will need light cotton clothes, umbrella, raincoat, etc.
- I. School bags and travelling bags are made from synthetic fibres because they are light and strong.
- J. The clothes will become wet as jute bag is not waterproof.

CHECK POINT 1

1. Breeze 2. Storm 3. Thunderstorm 4. Sea breeze

CHECK POINT 2

1. Water table 2. Water cycle 3. Clouds 4. Water pollution 5. Chlorine

PRACTICE TIME

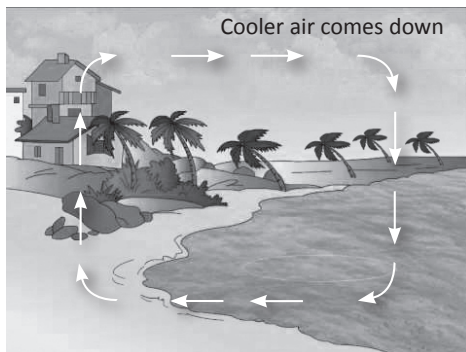
A. 1. (T) 2. (F) 3. (T) 4. (T)

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

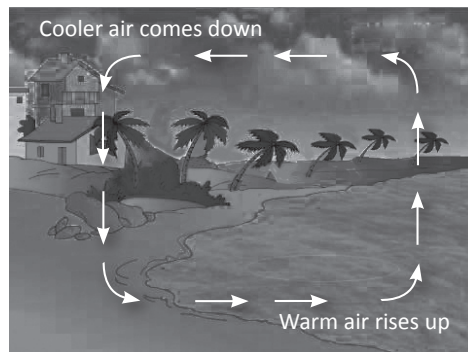
C. 1. evaporation 2. condenses 3. water table 4. cholera; jaundice

D. 1. **Sea breeze:** A sea breeze is a wind which blows towards land from sea. It blows during daytime.

Land breeze: A land breeze is a wind which blows towards sea from land. It blows during night.



Sea breeze



Land breeze

2. The change of the liquid state of water into the gaseous state using heat is called evaporation.

Factors that affect the rate of evaporation: Temperature, surface area, speed of wind and humidity.

3. **Rain:** When the drops of water in clouds become large and heavy, they fall down as rain.

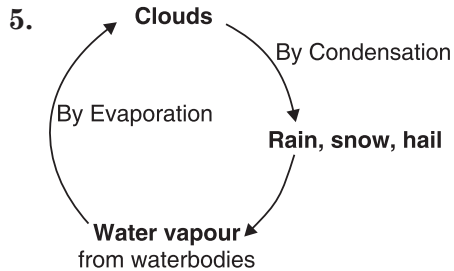
Snow: In colder regions, water vapour in clouds freezes into ice crystals and

fall down as snow.

Hail: When raindrops pass through very cold regions in the earth's atmosphere, they freeze in to small round ball and fall down as hail.

4. **Water pollution:** Contamination of water with harmful substances is called water pollution.

The polluted water can be purified for drinking by filtration, boiling and chlorination.



- E. 1. Early morning flights are delayed during winter because the visibility is reduced due to the presence of fog.
2. In rainy season, the rainwater goes into the earth and gets collected. So, the water table rises during the rainy season.
- F. **Down:** 1. HUMIDITY 2. DEW 4. RAINBOW
Across: 3. TEMPERATURE 5. CLOUDS 6. FOG
- G. We use so many things which create harmful substances and waste. We throw this waste in rivers and pollute them.

CHECK POINT

1. Weather 2. Climate 3. Temperature 4. Cloud

PRACTICE TIME

- A. 1. (T) 2. (T) 3. (T) 4. (F)
- B. 1. (c) 2. (a) 3. (d)
- C. 1. weather 2. slanting 3. degree 4. faster; water 5. lighter
- D. 1. Noons are hotter than mornings and evenings because at this time sunrays fall straight on the surface of the earth, whereas in morning and evening, sunrays fall slanting on the earth and they spread the heat over a large area.
2. Weather is the state of atmosphere at a particular place and time, whereas climate is the average weather condition of a place over a long period of time.
3. Villages are often cooler than towns and cities because they have less number of buildings than towns and cities.
4. Due to the sun, the weather of morning and evening is cooler than the noon. Weather is also cool on a cloudy day. It is hot on sunny days.
- E. 1. Hot air is lighter than cold air. So, hot air balloons rise up in the air.
2. Weather forecasting helps us to get prepared beforehand to face the change in weather.
- F. The hot air is lighter than air. So, it rises up making the entire room warm.
- G. In olden days, weather forecasting was done by looking at the colour and shapes of clouds in the sky and observing the speed, temperature and the direction of wind.
- Today, weather forecasting is done with the help of electronic instruments.

CHECK POINT 1

1. Yes 2. No 3. Yes 4. Yes

CHECK POINT 2

- Sugar in water and salt in water
- Milk in water and Juice in water
- Carbon dioxide in soda and oxygen in water

PRACTICE TIME

A. 1. (F) 2. (F) 3. (T) 4. (F)

B. 1. (d) 2. (a) 3. (b) 4. (b)

C. 1. space; weight 2. atoms 3. molecule 4. solid, liquid; gas

D. 1. Anything that takes up space and has weight is called matter.

2. **Miscible liquids:** The liquids which mix well with each other are called miscible liquids. For example, milk and water are miscible liquids.

Immiscible liquids: The liquids which do not mix well with each other are called immiscible liquids. For example, oil and water are immiscible liquids.

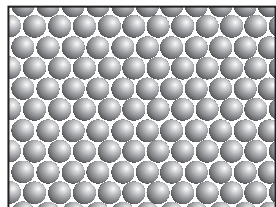
3. An agarbatti can be smelt even if it is lighted in the other corner of a room because its molecules easily spread through the space available to them.

4. Evaporation is the changing of water into water vapour on heating. Condensation is a phenomenon opposite to evaporation.

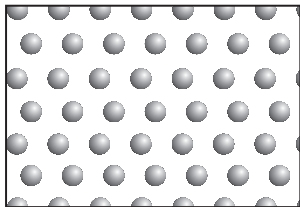
5. When a solid dissolves in a liquid, it forms a solution. The solid which dissolves is called solute and the liquid into which the solid dissolves is called solvent. Thus, solution is a mixture of solute and solvent.

Solute + Solvent → Solution

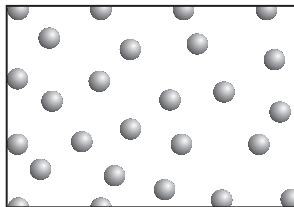
6.



Molecules in solid state are tightly packed



Molecules in liquid state are loosely packed



Molecules in gaseous state are very loosely packed

- E.** The club soda contains carbon dioxide gas which on shaking gets released from soda and inflates the balloon.
- F.** 1. Water; Here, water is liquid, whereas others are solids.
2. Ice; Here, ice is solid, whereas other three are gases.
3. Butter; Here, butter is solid, whereas other three are liquids.
4. Milk; Here, milk is liquid, whereas other three are solids.
- G.** 1. matter 2. atom 3. soda
- H.** Water molecules have very tiny spaces among them. The particles of sugar fill these spaces when sugar is dissolved in water. So, the volume of water does not increase.

CHECK POINT 1

1. Muscular force 2. Gravitational force 3. Frictional force

CHECK POINT 2

1. Yes 2. No 3. Yes 4. No

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (F) 5. (T)

B. 1. (d) 2. (b) 3. (c) 4. (c)

C. 1. moving

2. Energy

3. electrical

4. electricity

5. machine

D. 1. A force is a push or pull required to do work.

A force can:

- make an object move.
- stop a moving object.
- change the direction of a moving object.
- change the shape of an object.

2. We need energy to do different types of work. Different forms of energy are solar energy, wind energy, hydroenergy, etc.

3. The energy obtained from the sun is called solar energy, whereas energy of flowing water is called hydroenergy.

4. Machines make our work easier and faster by changing the direction of the force applied.

5. Solar cookers are used for cooking food and solar heaters for getting hot water by using energy of the sun.

E. 1. Change of climate; because it is not the result of force, whereas other three are the result of a force.

2. Friction; It is a kind of force, whereas other three are the forms of energy.

3. Metre rod; It is used to measure the length of cloth, whereas other three are simple machines.

F. 1. windmill 2. hydroenergy 3. gravity 4. inclined plane

G. Do yourself.

H. Some examples of energy conversion from everyday life are burning of fuel (chemical energy into heat and light energy); lighting of bulb (electrical energy into light and heat energy), running of electric fan and motor (electrical energy into mechanical energy), etc.

I. Netherlands.

CHECK POINT 1

1. Star 2. Orbit 3. Planet 4. Pluto

CHECK POINT 2

1. axis 2. hemisphere 3. outer 4. revolution

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (F) 5. (T)

B. 1. (a) 2. (a) 3. (c) 4. (d) 5. (a)

C. 1. galaxy 2. star 3. Saturn 4. equator 5. crust

D. 1. The eight planets of our solar system are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

2. The earth is a special planet because it is the only planet in the solar system that has life on it.

3. Stars are huge balls of hot gases which give out heat and light.

Planets are heavenly bodies that revolve around the sun or any other star. They do not have heat and light of their own but reflect the light of their closest star.

4. The earth is made of three different layers. These are

- The outer most **crust** on which animals and plants live.
- The middle one **mantle** which is made up of molten rocks.
- The inner most **core** which is made up of iron, nickel and some other metals.

5. The tilted axis of the earth and its revolution around the sun cause seasons on the earth.

The four seasons are spring, summer, autumn and winter.

E. 1. Due to the tilted axis of earth, only one hemisphere gets straight sunrays and the other gets tilted sunrays. So, northern and southern hemispheres always have opposite seasons.

2. The stars are not seen during the daytime due to the glare of the sun.

F. The moon shines by throwing back light of the sun falling on it.

G. The seasons on the earth change due to its revolution around the sun. Thus, a season comes again when the earth reaches in the same position again during its revolution.

Science Booster 2

1

Plants Around Us

ANSWERS

CHECK POINT 1

1. Do yourself 2. Trees

CHECK POINT 2

1. Flower 2. Leaf 3. Root

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (T) 5. (T) 6. (F)

B. 1. (a) 2. (b) 3. (b)

C. 1. trunk 2. Herbs 3. climber

D. 1. Neem, Peepal

2. Very small plants are called herbs.

3. Pea and Grapevine are climbers. They grow with the help of a support.

4. Seeds are found inside the fruits.

E. 1. Creepers grow along the ground because they have very weak stem.

2. Leaf is called kitchen of plant because it makes food for plant.

F. SPINACH, PEEPAL, LOTUS, MINT, PUMPKIN, CACTUS, ROSE, JASMINE

G. Many herbs are used in our food because they add flavour to the food.

ANSWERS**CHECK POINT 1**

1. Seed 2. Flower 3. Vegetable

CHECK POINT 2

1. Leaves 2. Jute and cotton

PRACTICE TIME

A. 1. Cereals

2. Pulses

3. Oil

4. Latex

5. Spices

B. 1. (a) 2. (b) 3. (b)

C. 1. Rubber

2. Coconut

3. Sunflower

4. Eucalyptus

D. 1. Root, stem, leaves, fruits and seed

2. Tulsi, Mint, Neem, Amla

3. We get gum from acacia tree.

4. Jute fibre

E. 1. If we do not add spices to food, it becomes less tasty.

2. Trees clean the air and also keep it cool. Hence, they are called natural air conditioners.

F. Down: 1. RICE 2. ROSE 4. POTATO

Across: 3. EUCALYPTUS 5. SUGARCANE 6. BAMBOO

G. Most of our food comes from plants. Also plants make the air fresh, keep it cool and bring rain. This is why we should grow more plants.

ANSWERS**CHECK POINT 1**

1. Frog 2. Snake

CHECK POINT 2

1. dead 2. endangered

PRACTICE TIME

- A.** 1. Wild 2. Herbivores 3. Carnivores 4. Extinct animals
B. 1. (a) 2. (b) 3. (b)
C. 1. Forest; plants 2. On land, in water; Flesh of animals 3. holes; grains
D. 1. Frog, Tortoise
2. Rabbits, Hare
3. Animals that eat flesh of other animals are called carnivores.
4. Fox, Jackal, Vulture, Eagle
E. 1. Rhinoceros is hunted for its horn. So it has become endangered.
2. Vulture eats the flesh of dead animals. So, it is called scavenger.
F. 1. Elephant 2. Giraffe 3. Snake 4. Zebra

4

Animals That Help Us

ANSWERS

CHECK POINT 1

1. No 2. No 3. Yes 4. Yes

CHECK POINT 2

1. (F) 2. (T) 3. (F)

PRACTICE TIME

A. 1. healthy 2. eggs 3. beehive 4. sheep 5. camel

B. 1. (b) 2. (a) 3. (a) 4. (b)

C. 1. Animals kept at home or on the farm are called domestic animals.

2. We get silk from silkworms.

3. Skin of buffalo, cow and camel is used for making leather.

4. Cow, Buffalo, Goat, Sheep

D. 1. (c) 2. (a) 3. (d) 4. (e) 5. (b)

E. 1. dog 2. vulture 3. Honeybee 4. goat

F. **Down:** 1. SILKWORM 2. SHEEP 4. COW

Across: 3. FISH 5. PARROT 6. MEAT

G. We can take care of our domestic animals by giving them good food, clean water and proper place to live. We should also give them proper treatment when they fall ill. We should treat them with love.

ANSWERS

CHECK POINT 1

1. A newborn baby 2. Skeleton 3. Thigh

CHECK POINT 2

1. (X) 2. (✓) 3. (✓) 4. (X)

PRACTICE TIME

A. 1. Skeleton 2. Joint 3. Muscle

B. 1. (b) 2. (b) 3. (a)

C. 1. posture 2. outdoor 3. football

D. 1. About 640 muscles are found in our body.

2. Elbow joint and wrist joint.

3. Kabaddi, Football.

E. 1. We would not be able to move our body parts.

2. Regular exercise makes all our body parts work. Hence, it helps to keep the body fit.

F. CYCLING, YOGA, GYMNAST, SWIMMING

G. If there were no bones and muscles in our body, it would be like a heap of flesh having no fixed shape and could not be moved at all.

ANSWERS**CHECK POINT 1**

1. B, P, P, B, E 2. Rice, dal, sabji, chapatti, curd and salad

CHECK POINT 2

1. Water 2. Breakfast 3. Junk food 4. Sugar

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

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

C. 1. (c) 2. (d) 3. (b) 4. (e) 5. (a)

D. 1. Food is important for us because it gives us energy and helps us grow.

2. Body-building foods help our bones and muscles to grow.

3. Food that protects us from diseases is called protective food.

E. 1. fish

2. eggs

3. chocolate

4. nuts

F. Across: 1. FOOD 4. APPLE 6. GERMS 7. SUGAR

Down: 2. OIL 3. DAL 5. EGGS

ANSWERS

CHECK POINT

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

PRACTICE TIME

- A.** 1. Kutcha houses
2. Houseboat
3. Igloo
4. Sloping roof
- B.** 1. (b) 2. (a) 3. (b) 4. (b)
- C.** 1. permanent 2. season 3. caravan 4. tent 5. igloo
- D.** 1. Pucca houses are made of bricks, cement, stones, iron and steel.
2. Kutcha houses are made of mud, straw, dry leaves, bamboo and cow dung.
3. Igloo is a house made of ice blocks.
4. Clothes protect us from wind, heat, cold and rain.
- E.** 1. On mountains, it rains and snows heavily. Here, sloping roofs help rainwater and snow slide off easily.
2. Cotton clothes keep us cool in summer.
- F.** 1. HUT 2. HOUSEBOAT 3. CARAVAN 4. IGLOO 5. TENT

ANSWERS**CHECK POINT 1**

1. tease 2. play 3. clear

CHECK POINT 2

1. Arm band 2. First aid 3. Make a queue

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (F)

B. 1. (b) 2. (a) 3. (a) 4. (a)

C. 1. Never 2. footpath 3. Never 4. sharp things 5. with an elder person

D. 1. We should cross the road at zebra crossing.

2. We should wait for the school bus at the bus stop.

3. We should follow safety rules to keep ourselves and others safe.

E. 1. If we run inside the classroom, we may hit desks or other students and get hurt.

2. We should keep away from swings as we may get a hit and injuries.

F. 1. TRAFFIC LIGHT 2. FOOTPATH 3. TUBE 4. FLOATER 5. ZEBRA CROSSING

ANSWERS**CHECK POINT 1**

1. GERMS 2. DUST 3. SMOKE

CHECK POINT 2

1. Yes 2. Yes

CHECK POINT 3

1. Wind 2. Breeze 3. Wind vane

PRACTICE TIME

A. 1. (T) 2. (F) 3. (F) 4. (T)

B. 1. (b) 2. (b) 3. (a) 4. (b)

C. 1. wind

2. Air

3. breathe

D. 1. Air contains water vapour, smoke and dust particles, germs and many gases.

2. Smoke gets into air from factories, vehicles and by burning coal, dung cakes and dry leaves.

3. Fresh and clean air is needed to keep us healthy.

4. Wind helps the things to move.

E. 1. Stone

2. Aeroplane

3. Chair

F. POWDER, SEED, STRAW, SAND, LEAF, CLOUD

ANSWERS**CHECK POINT 1**

1. CANAL 2. WELL 3. TUBEWELL 4. HANDPUMP

CHECK POINT 2

1. Water vapour 2. Ice 3. Water

PRACTICE TIME

A. 1. Dam 2. Boiling 3. Water vapour 4. Clouds

B. 1. (b) 2. (a) 3. (a) 4. (b)

C. 1. Typhoid

2. Clouds

3. Gaseous

4. Sunlight

D. 1. Rainwater goes into ponds, lakes, rivers, etc., and some of it goes into the soil.

2. This water collects as underground water.

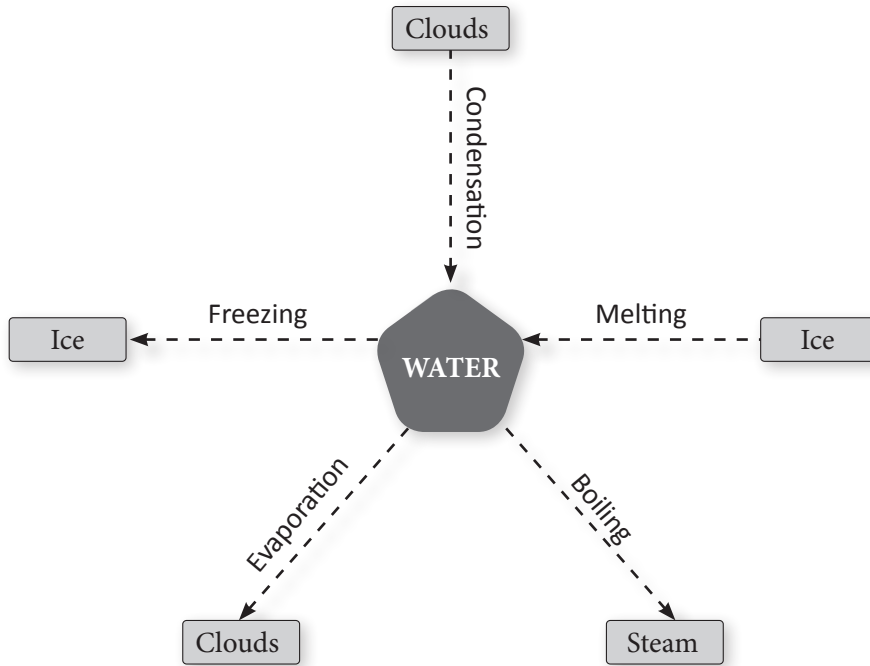
3. People bring out water from under the ground by digging wells, tubewells and through handpumps.

4. Clouds are formed by the condensation of water vapour in the form of water droplets.

E. 1. In very cold places, water vapour cools to form ice crystals that fall as snow.

2. Water vapour is a gas which is lighter than air. So, it rises up in the sky.

E.



ANSWERS

CHECK POINT 1

1. sandstone 2. Coal 3. Chalk

CHECK POINT 2

1. Yes 2. No 3. Yes

PRACTICE TIME

A. 1. Rocks 2. Marble 3. Slate 4. Coal

B. 1. (a) 2. (a) 3. (b)

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

D. 1. Coal, slate and chalk.

2. Marble, granite and sandstone

3. Granite is used for making floor tiles and statues.

4. Slate is used for making blackboards and roofs of houses.

5. Gemstones are used to make jewellery.

6. Diamond is used for cutting glass.

E. 1. Slate is found in smooth layers, so it is used to make blackboards.

2. Diamond is the hardest mineral, so it is used to cut glass.

F. **Down:** 1. SLATE 2. COAL 3. SILICA

Across: 2. CHALK 4. TALC 5. EMERALD

ANSWERS**CHECK POINT**

1. Moon
2. Apollo-11
3. Rakesh Sharma

PRACTICE TIME

- A.** 1. (T) 2. (F) 3. (F)
- B.** 1. (a) 2. (a) 3. (b)
- C.** 1. dust 2. water 3. moon 4. Earth
- D.** 1. On 20 July 1969.
2. Edwin Aldrin and Michael Collins
3. Rocks and fine dust.
- E.** 1. It is because moon is very close to the earth.
2. It is because the moon moves around the earth. So, we see a different part of moon every night.
3. No one can live on the moon because there is neither air nor water on the moon.
4. The moon is not seen during the day because there is bright sunlight.

ANSWERS**CHECK POINT**

1. During daytime
2. Yes
3. Shadow does not have any colour. It is always black.

CHAPTER-END QUESTIONS

- A.** 1. Sun
2. West
3. Noon
- B.** 1. (a) 2. (a) 3. (a) 4. (b)
- C.** 1. Fire
2. heat
3. east
4. opposite
- D.** 1. We get heat and light from the sun.
2. A shadow is formed when light cannot pass through an object.
3. Shadows are long in the morning and evening because the sun is at lower level in the sky during these times.
4. Shadows are short at noon because the sun is just above our head in the sky.
- E.** 1. Our shadow is formed when our body comes in the path of light. So, it moves with our body.
2. Shadow is formed only when light falls on an opaque object. So, we never see our shadow in a dark room.
- F.** 1. SUN
2. SUNLIGHT
3. EARTH
4. OPAQUE
- G.** The shadows of flying aeroplanes and kites are not seen on the earth because they are far away from the earth, so their shadows do not reach the earth's surface.

Science Booster 3

1

Living and Nonliving Things

CHECK POINT 1

1. Pencil
2. Sunflower

CHECK POINT 2

1. Lungs
2. Stomata
3. Excretion

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (F)

B. 1. (a) 2. (b) 3. (b)

C. 1. eggs 2. food 3. nonliving 4. grow 5. gills

D. 1. Living things breathe, need food, grow, move from place to place, feel and respond to changes in their surroundings, remove wastes from their body and produce young ones of their own kind.

2. Animals move with the help of legs, birds fly with the help of wings and fishes swim with the help of their fins.

Some plants show movement in their parts.

3. We need food because food gives us energy to grow and work.

4. Plants make their food in the presence of sunlight, using water and carbon dioxide gas.

5. Excretion is removal of waste materials by living things from their body.

E. 1. Car does not move on its own but it uses fuel to move. Hence, it is nonliving.

2. A toy monkey cannot climb a tree on its own because it has no life.

3. Leaves make food for the plant. If these are removed, the plant will die.

F. **Top to bot tom:** EXCRETION, GROWTH

Left to right: REPRODUCTION, BREATHING, FEELING

G. Sponges have tiny pores on their bodies through which water enters their body. Their body cells catch the tiny food particles coming in with water and expel the water out.

2

Structure and Functions of a Plant

CHECK POINT 1

1. (T) 2. (F) 3. (T)

CHECK POINT 2

1. Banyan 2. bud 3. papaya

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (F)

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

C. 1. tap; fibrous 2. Leaf 3. fruit 4. seed

D. 1. Fibrous roots grow as a tuft of thin roots, whereas a tap root grows as a single main root from the base of the stem.

2. Roots hold the plants firmly in the soil, absorb water and nutrients from the soil and pass them to all parts of the plant. Roots of some plants store food for the plants.

3. Stem keeps the plant straight, carries water and nutrients from roots and food from leaves to all parts of the plant. The stem of some plants stores food for them.

4. Do yourself.

5. Stomata on the leaves help the plant in breathing by taking in and giving out air.

E. 1. Plants should not be kept in closed room because they will not get sunlight to make food and will die ultimately.

2. Gardeners use moss sticks in order to keep money plants straight.

3. Animals and their feeding habits.

F. 1. leaf blade 2. root 3. fruit 4. seed

G. Potato and ginger are not grown from seeds as it takes a longer time to grow them from seeds.

3

Animals and their Feeding Habits

CHECK POINT 1

1. Vulture 2. Sheep 3. Goat

CHECK POINT 2

1. Chameleon 2. Mosquito 3. Snake

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F)

B. 1. (a) 2. (c) 3. (a)

C. 1. swallowing 2. trunk 3. live, grow 4. plants

D. 1. Cows and buffaloes bite their food with the help of their sharp front teeth. They swallow half-chewed food. After some time, they bring the food back into the mouth to chew it properly. This is called chewing the cud.

2. A mosquito gets its food by piercing and sucking the blood using its long, hollow and tube-like mouthparts.

3. The teeth of carnivores are long, pointed and slightly curved. They help them tear the flesh.

4. A food chain is a series of living beings in which one eats the other.

Diagram: Do yourself.

E. 1. The front teeth of carnivores are not much developed because they do not cut the flesh but tear it with the help of long and sharp canines.

2. Mosquitoes and butterflies cannot eat solid food because they have hollow tube-like mouth through which they suck liquid food.

F. 1. frog 2. butterfly 3. cow 4. mosquito

G. Do yourself.

4

Birds–Beaks, Claws and Nests

CHECK POINT 1

1. Down feathers
2. Oil glands
3. Streamlined

CHECK POINT 2

1. Climbing
2. Scratching
3. Grasping or Preying
4. Swimming

PRACTICE TIME

A. 1. (F) 2. (F) 3. (F) 4. (F) 5. T

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

C. 1. sharp 2. webbed 3. flight 4. cavity 5. cup

D. 1. Aquatic birds have oil glands in their skin which protect their feathers from rotting. They have strainer or spear type of beaks. Swimming birds like duck and swan have webbed feet to paddle water while swimming. Wading birds such as heron, crane, etc., have long and spread-out toes that help them walk in muddy water without getting their legs wet.

2. The bones of flying birds are hollow and filled with air. Such bones make their body light.

3. Ostrich cannot fly because its body is heavy due to heavy and solid bones. It has smaller wing bones and more feathers on its body.

4. Birds make nests to lay eggs and bring up their young ones.

5. A tailor bird makes its nest by sewing leaves together with its beak using cotton, hair, wool or spider web.

E. 1. A duck has flat and broad beak to strain muddy water to get its food.

2. Aeroplanes are given streamlined shape because this shape helps them fly easily in the air.

3. Parent birds sit on their eggs in order to keep them warm till the babies inside get fully developed.

F. Do yourself.

G. If there would be no trees, most birds will die away and a few of them will find some places on the ground to lay their eggs.

CHECK POINT 1

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

CHECK POINT 2

1. BLOOD 2. BRAIN 3. NERVES 4. KIDNEYS 5. HEART

PRACTICE TIME

A. 1. (T) 2. (F) 3. (T) 4. (T) 5. T

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

C. 1. skeletal 2. organ 3. circulatory 4. dust 5. digestive

D. 1. Skeletal system protects the organs of our body.

2. Kidneys are the main organs of the excretory system.

3. The main function of the circulatory system is to carry oxygen and digested food to all body parts, and wastes from all body parts to excretory organs through blood.

4. The food in the mouth is cut into small pieces by chewing it with the help of teeth. The chewed food gets mixed with saliva which makes it soft and slippery. It is then passed to the stomach through the food pipe.

5. We have five sense organs. They are eyes, ears, skin, nose and tongue.

E. 1. (c) 2. (e) 3. (d) 4. (a) 5. (b)

F. 1. Exercises and outdoor games keep us healthy and fit by making our muscles work. They also make our muscles strong. So, we should do exercises and play outdoor games.

2. Brain receives messages from sense organs and sends messages to different organs of the body to work properly. So, brain is called control centre of the body.

G. 1. heart 2. skeleton 3. nose 4. blood

H. SKULL, KIDNEY, BRAIN, NERVES, HEART, FOODPIPE, MOUTH, TEETH

I. If the wastes are not removed from our body, they will gather inside the body and cause poisoning. Some wastes may be very harmful to the body and lead to many fatal diseases.

CHECK POINT 1

1. Vegetable group 2. Others 3. Meat group 4. Milk group 5. Fruit group

CHECK POINT 2

1. (X) 4. (X)

PRACTICE TIME

A. 1. (F) 2. (F) 3. (T) 4. (F)

B. 1. (a) 2. (b) 3. (d) 4. (b)

C. 1. grain 2. food 3. washed 4. growth 5. junk

D. 1. Cashewnuts are protective food items, therefore, they are placed in fruit and vegetable group of the food pyramid.

2. The food that protects us from diseases is called protective food, e.g., fruits, vegetables and nuts.

3. The diet which contains the right amount of food from each group of food pyramid is called a balanced diet.

4. Liquids in our food such as milk, lassi, milk shakes and fruit juices give us energy quickly and help in cleaning our body systems.

E. 1. Junk food is prepared with lots of salt, sugar, spices and oil. As a result, it is unhygienic and harmful for the body. So, Junk food should be avoided.

2. We should wash fruits and vegetables before eating in order to remove dust and germs from them.

3. Sportspersons need lots of eggs, meats, nuts and butter because these food items provide energy, help them develop muscles and also protect them from diseases.

F. 1. ice cream 2. egg 3. nut 4. chowmein

G. We can replace the unhealthy ingredients of junk food with healthy ingredients wherever possible. For example, the refined flour can be replaced with whole wheat flour, vanaspati ghee with pure ghee, sugar with sugar-free, etc.

CHECK POINT 1

1. (T) 2. (T) 3. (F)

CHECK POINT 2

Do yourself.

PRACTICE TIME

- A. 1. (T) 2. (T) 3. (F) 4. (T)
- B. 1. (b) 2. (b) 3. (b)
- C. 1. wet 2. right; left 3. first aid
- D. 1. An accident is a sudden and unplanned event that harms and injures us.
2. Three precautions to be followed while using the road are:
(a) Not playing on the road
(b) Walking on the footpath
(c) Crossing the road only at the zebra crossing.
3. In such case, I would clean the cut with some antiseptic lotion and apply an antiseptic cream or cover it with band-aid.
4. The three precautions that would be taken in playground are:
(a) Never pushing or hitting others
(b) Never fighting with others
(c) Not breaking the rules of the game.
- E. 1. A car driver should not jump red light on a crossing because it can cause an accident by hitting vehicles coming from other sides.
2. A bleeding cut should be kept at higher level than the heart because at this level bleeding would be relatively low.
- F. 1. accident 2. safety 3. fire
- G. First of all look for a fracture. If there is a fracture, support the arm with splints and a sling and do not allow any movement to it. Take the victim to the hospital. If there is no fracture, apply cold pack to relieve the pain.

CHECK POINT 1

1. No 2. Yes 3. Yes

CHECK POINT 2

1. RAYON 2. SILK 3. WOOL 4. COTTON

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

B. 1. (a) 2. (a) 3. (c) 4. (d)

C. 1. building 2. cleaned 3. plants; animals 4. Nylon

D. 1. Clothes are important to us because they cover our body. They protect us from heat, cold, rain and insect bite, and also make us look beautiful.

2. Door and windows should have wire meshes to check the entry of flies, mosquitoes and other insects into the house. It also allows fresh air to enter the house.

3. A good house is one which is clean, has a good drainage system and gets good amount of sunlight and fresh air.

4. Polyester and nylon clothes are used during rainy season because they do not absorb water and hence dry fast.

E. 1. (a) **Towel:** It is made up of natural fibre, whereas other three are made up of synthetic fibre.

(b) **Straw:** It is used to make a kutcha house, whereas other three are used to make a pucca house.

(c) **Kitchen:** It is a part of house, whereas other three are types of houses.

2. (a) Sunlight keeps the house dry and germ-free. So, a house must receive plenty of sunlight.

(b) A house must have a good drainage system because it helps to remove the waste water from the kitchen, bathroom and toilets to the main drain of the city.

F. **Down:** 1. JUTE 3. POLYESTER

Across: 2. SHEEP 4. NYLON 5. SYNTHETIC

G. 1. synthetic fibre 2. silk 3. sunlight

CHECK POINT 1

1. BREEZE 2. OXYGEN 3. STORM 4. POLLUTION

CHECK POINT 2

1. Breeze 2. Dust 3. Atmosphere 4. Breathing

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

B. 1. (a) 2. (d) 3. (b)

C. 1. wind 2. germs 3. polluted 4. evaporation

D. 1. A thick layer of air around the earth is called atmosphere.

2. Four uses of air are as follows:

(a) All living beings breathe in air.

(b) Plants get carbon dioxide gas from air to make their food.

(c) Moving air helps in drying clothes and wet surfaces.

(d) Water vapour in air forms clouds that give us rain.

3. When we heat water, it evaporates and turns into its gaseous form called water vapour or steam.

4. We can prevent water pollution by avoiding washing of clothes, throwing of garbage and dumping of harmful substances in rivers and other waterbodies.

E. 1. Factories give out lots of smoke and harmful gases which mix up with the air and make it polluted. Polluted air is harmful to us. So, factories should be made far away from living areas.

2. Air-filled tubes do not sink in water. Therefore, they prevent swimmers from drowning.

F. 1. Air has dust and smoke from vehicles, factories, etc. These make our clothes dirty.

2. If there is no air in the tyres of bicycle, they would deflate and the bicycle will not move smoothly.

G. 1. rain 2. air 3. water

H. The increased amount of carbon dioxide leads to global warming, that is, increase in the temperature of the earth. Carbon dioxide is important to us because plants use it to make their food by the process of photosynthesis. This food is used by us and other animals.

CHECK POINT 1

1. Storm 2. Breeze 3. Loo

CHECK POINT 2

1. SNOWFALL 2. SPRING 3. HUMID 4. SUMMER

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

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

C. 1. sun 2. overhead 3. straight 4. hot 5. morning 6. cool 7. slanting

D. 1. The weather depends on the sun, clouds, wind and rain.

2. The weather is the condition of the air at a particular place and time, whereas changes in weather in a fixed cycle throughout the year are called seasons.

3. A cloudy day is cooler because the clouds do not allow the sunrays to reach us.

4. Spring comes after winter. It is a pleasant season. Plants get new leaves and blossom with beautiful flowers.

E. 1. The sunrays fall straight at noon and slanting in the evening. Straight sunrays spread over lesser area as compared to slanting rays and produce more heat. Therefore, noon is hotter than evening.

2. Cotton clothes absorb sweat and keep us cool. So, people prefer to wear cotton clothes in summer.

F. **Down:** 1. WIND 3. SUMMER 5. AUTUMN

Across: 2. SEASONS 4. RAINY 6. STORM

G. During rainy season, the air is moist. It contains many germs and spores of fungi which on getting in food can spoil it. So, it is advised to have freshly cooked food during rainy season to avoid diseases.

CHECK POINT 1

1. No 2. Yes 3. Yes 3. Yes

CHECK POINT 2

1. BEDROCK 2. SUBSOIL 3. DIAMOND 4. GRAVEL

PRACTICE TIME

- A. 1. (T) 2. (F) 3. (T) 4. (F)
- B. 1. (b) 2. (d) 3. (a)
- C. 1. rocks 2. nutrients 3. gravel 4. Loam
- D. 1. We get soil by the breaking of rocks.
2. Loamy soil is made up of equal amounts of sand and clay.
3. Humus makes the soil rich in nutrients which are required by the plants to grow.
4. Soil is important to us because we get food from plants that grow in soil by absorbing water and minerals from it.
- E. 1. We should water the plants regularly because it helps the plants in growing as it is needed to make food.
2. Diamond is the hardest rock on the earth. So, sharp diamond tips are used to cut hard materials.
3. Farmers add fertilisers and manures to the soil in their farms and fields in order to make the soil more fertile.
- F. 1. The farmer should dump the plant waste into a pit. The waste in the pit will change into manure which is useful to plants.
2. Marble and granite are hard. They can bear the load. So they are good for making kitchen slabs and floors in the buildings. Kitchen slabs cannot be made from wood as it can catch fire easily.
- G. 1. diamond 2. granite, marble 3. topsoil 4. clayey soil
- H. Earthworms make holes in soil and they feed on the dead and decaying leaves of plants. Thus, they make the soil porous and let the air in and help in bringing the inner soil to the top. This helps to enrich soil in nutrients.

CHECK POINT 1

1. Space 2. Orbit 3. Revolution

CHECK POINT 2

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

PRACTICE TIME

A. 1. (T) 2. (T) 3. (F) 4. (T) 5. (F)

B. 1. (a) 2. (b) 3. (a) 4. (a)

C. 1. rotation 2. constellation 3. sun 4. revolution

D. 1. The two movements of the earth are rotation and revolution.

2. The solar system is a family of the sun, the eight planets, their satellites and some other heavenly bodies.

3. When the moon is not visible at all, it is called new moon. When the moon gets back its full round shape, it is called full moon.

4. Constellations are groups of stars that make some patterns. For example, Ursa Major makes the shape of a big bear.

5. The eight planets of the solar system, starting from the sun, are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

E. 1. **Sun:** The sun is a star, whereas Earth, Mars and Venus are planets.

2. **Moon:** The moon is a natural satellite while other three are constellations.

3. **Mountain:** Here, mountain is not a part of solar system while other three are the parts of our solar system.

4. **Globe:** It is a model of the earth, whereas other three are the seasons in a year.

F. 1. MOON 2. SUN 3. ORION 4. SATELLITE

G. The moon shines by the light of the sun that falls on its surface.

CHECK POINT 1

1. No 2. Yes 3. No 4. Yes

CHECK POINT 2

1. sound 2. good 3. Force

PRACTICE TIME

A. 1. (T) 2. (F) 3. (F) 4. (F) 5. (T)

B. 1. (a) 2. (a) 3. (a)

C. 1. light 2. luminous 3. larynx 4. good

D. 1. An object that gives us light is called a luminous object.

2. The irritating and unpleasant sounds are called noise.

3. Force can change the shape of an object. For example, by applying force, we can stretch a rubber band or we can roll a chapati.

4. Shadow is the dark shape of an opaque object, formed on a surface, when it comes in the path of light.

The length of the shadow changes when the object moves away or comes closer to the source of light. It becomes shorter, when object moves away from the source of light

E. 1. Moon shines at night by sunlight that falls on it. It is nonluminous object because it does not have its own light.

2. Speaking softly is pleasant to hear. So, we should not make a noise but speak softly.

F. FORCE, PULL, SOUND, PUSH, NOISE, MUSIC, SOURCE, LARYNX

G. Rubber band is flexible and when we apply force on it, its shape gets changed. As soon as we release the rubber band, it comes back to its shape. All this happens due to application of force.

CHECK POINT 1

1. No 2. Yes 3. No 4. Yes

CHECK POINT 2

1. Kilolitre 2. Weight 3. Thermometer 4. Capacity

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

B. 1. (b) 2. (b) 3. (a)

C. 1. weight 2. hours 3. one 4. litre

D. 1. The objects that are used for measuring length are ruler, measuring tape and metre scale.

2. We measure the time with the help of watches and clocks.

3. The amount of a liquid that a container can hold is called its capacity.

4. The measure of the hotness or coldness of a body is called its temperature.

E. 1. (c) 2. (e) 3. (a) 4. (b) 5. (d)

F. 1. 1000 2. 1000 3. 365 4. 24

G. 1. **Thermometer:** It is used to measure the temperature, whereas other three are used to measure the length.

2. **Litre:** It is the unit of capacity, while other three are units of time.

3. **Kilometre:** It is the unit of distance (length) while other three are units of weight.

H. 1. We can buy grocery items by using some nonstandard weights, such as bricks, stones, etc.

2. 1 kg = 1000 grams

I. No, these methods are not used today. This is because these units vary from person to person. Hence, they cannot measure same quantity all the time.

Science Booster 2

1

Plants Around Us

ANSWERS

CHECK POINT 1

1. Do yourself 2. Trees

CHECK POINT 2

1. Flower 2. Leaf 3. Root

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (T) 5. (T) 6. (F)

B. 1. (a) 2. (b) 3. (b)

C. 1. trunk 2. Herbs 3. climber

D. 1. Neem, Peepal

2. Very small plants are called herbs.

3. Pea and Grapevine are climbers. They grow with the help of a support.

4. Seeds are found inside the fruits.

E. 1. Creepers grow along the ground because they have very weak stem.

2. Leaf is called kitchen of plant because it makes food for plant.

F. SPINACH, PEEPAL, LOTUS, MINT, PUMPKIN, CACTUS, ROSE, JASMINE

G. Many herbs are used in our food because they add flavour to the food.

ANSWERS**CHECK POINT 1**

1. Seed 2. Flower 3. Vegetable

CHECK POINT 2

1. Leaves 2. Jute and cotton

PRACTICE TIME

A. 1. Cereals

2. Pulses

3. Oil

4. Latex

5. Spices

B. 1. (a) 2. (b) 3. (b)

C. 1. Rubber

2. Coconut

3. Sunflower

4. Eucalyptus

D. 1. Root, stem, leaves, fruits and seed

2. Tulsi, Mint, Neem, Amla

3. We get gum from acacia tree.

4. Jute fibre

E. 1. If we do not add spices to food, it becomes less tasty.

2. Trees clean the air and also keep it cool. Hence, they are called natural air conditioners.

F. Down: 1. RICE 2. ROSE 4. POTATO

Across: 3. EUCALYPTUS 5. SUGARCANE 6. BAMBOO

G. Most of our food comes from plants. Also plants make the air fresh, keep it cool and bring rain. This is why we should grow more plants.

ANSWERS**CHECK POINT 1**

1. Frog 2. Snake

CHECK POINT 2

1. dead 2. endangered

PRACTICE TIME

- A.** 1. Wild 2. Herbivores 3. Carnivores 4. Extinct animals
B. 1. (a) 2. (b) 3. (b)
C. 1. Forest; plants 2. On land, in water; Flesh of animals 3. holes; grains
D. 1. Frog, Tortoise
2. Rabbits, Hare
3. Animals that eat flesh of other animals are called carnivores.
4. Fox, Jackal, Vulture, Eagle
E. 1. Rhinoceros is hunted for its horn. So it has become endangered.
2. Vulture eats the flesh of dead animals. So, it is called scavenger.
F. 1. Elephant 2. Giraffe 3. Snake 4. Zebra

4

Animals That Help Us

ANSWERS

CHECK POINT 1

1. No 2. No 3. Yes 4. Yes

CHECK POINT 2

1. (F) 2. (T) 3. (F)

PRACTICE TIME

A. 1. healthy 2. eggs 3. beehive 4. sheep 5. camel

B. 1. (b) 2. (a) 3. (a) 4. (b)

C. 1. Animals kept at home or on the farm are called domestic animals.

2. We get silk from silkworms.

3. Skin of buffalo, cow and camel is used for making leather.

4. Cow, Buffalo, Goat, Sheep

D. 1. (c) 2. (a) 3. (d) 4. (e) 5. (b)

E. 1. dog 2. vulture 3. Honeybee 4. goat

F. **Down:** 1. SILKWORM 2. SHEEP 4. COW

Across: 3. FISH 5. PARROT 6. MEAT

G. We can take care of our domestic animals by giving them good food, clean water and proper place to live. We should also give them proper treatment when they fall ill. We should treat them with love.

ANSWERS

CHECK POINT 1

1. A newborn baby 2. Skeleton 3. Thigh

CHECK POINT 2

1. (X) 2. (✓) 3. (✓) 4. (X)

PRACTICE TIME

A. 1. Skeleton 2. Joint 3. Muscle

B. 1. (b) 2. (b) 3. (a)

C. 1. posture 2. outdoor 3. football

D. 1. About 640 muscles are found in our body.

2. Elbow joint and wrist joint.

3. Kabaddi, Football.

E. 1. We would not be able to move our body parts.

2. Regular exercise makes all our body parts work. Hence, it helps to keep the body fit.

F. CYCLING, YOGA, GYMNAST, SWIMMING

G. If there were no bones and muscles in our body, it would be like a heap of flesh having no fixed shape and could not be moved at all.

ANSWERS**CHECK POINT 1**

1. B, P, P, B, E 2. Rice, dal, sabji, chapatti, curd and salad

CHECK POINT 2

1. Water 2. Breakfast 3. Junk food 4. Sugar

PRACTICE TIME

A. 1. (F) 2. (T) 3. (F) 4. (T)

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

C. 1. (c) 2. (d) 3. (b) 4. (e) 5. (a)

D. 1. Food is important for us because it gives us energy and helps us grow.

2. Body-building foods help our bones and muscles to grow.

3. Food that protects us from diseases is called protective food.

E. 1. fish

2. eggs

3. chocolate

4. nuts

F. **Across:** 1. FOOD 4. APPLE 6. GERMS 7. SUGAR

Down: 2. OIL 3. DAL 5. EGGS

ANSWERS**CHECK POINT**

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

PRACTICE TIME

- A.** 1. Kutcha houses
2. Houseboat
3. Igloo
4. Sloping roof
- B.** 1. (b) 2. (a) 3. (b) 4. (b)
- C.** 1. permanent 2. season 3. caravan 4. tent 5. igloo
- D.** 1. Pucca houses are made of bricks, cement, stones, iron and steel.
2. Kutcha houses are made of mud, straw, dry leaves, bamboo and cow dung.
3. Igloo is a house made of ice blocks.
4. Clothes protect us from wind, heat, cold and rain.
- E.** 1. On mountains, it rains and snows heavily. Here, sloping roofs help rainwater and snow slide off easily.
2. Cotton clothes keep us cool in summer.
- F.** 1. HUT 2. HOUSEBOAT 3. CARAVAN 4. IGLOO 5. TENT

ANSWERS**CHECK POINT 1**

1. tease 2. play 3. clear

CHECK POINT 2

1. Arm band 2. First aid 3. Make a queue

PRACTICE TIME

A. 1. (F) 2. (T) 3. (T) 4. (F)

B. 1. (b) 2. (a) 3. (a) 4. (a)

C. 1. Never 2. footpath 3. Never 4. sharp things 5. with an elder person

D. 1. We should cross the road at zebra crossing.

2. We should wait for the school bus at the bus stop.

3. We should follow safety rules to keep ourselves and others safe.

E. 1. If we run inside the classroom, we may hit desks or other students and get hurt.

2. We should keep away from swings as we may get a hit and injuries.

F. 1. TRAFFIC LIGHT 2. FOOTPATH 3. TUBE 4. FLOATER 5. ZEBRA CROSSING

ANSWERS**CHECK POINT 1**

1. GERMS 2. DUST 3. SMOKE

CHECK POINT 2

1. Yes 2. Yes

CHECK POINT 3

1. Wind 2. Breeze 3. Wind vane

PRACTICE TIME

A. 1. (T) 2. (F) 3. (F) 4. (T)

B. 1. (b) 2. (b) 3. (a) 4. (b)

C. 1. wind

2. Air

3. breathe

D. 1. Air contains water vapour, smoke and dust particles, germs and many gases.

2. Smoke gets into air from factories, vehicles and by burning coal, dung cakes and dry leaves.

3. Fresh and clean air is needed to keep us healthy.

4. Wind helps the things to move.

E. 1. Stone

2. Aeroplane

3. Chair

F. POWDER, SEED, STRAW, SAND, LEAF, CLOUD

ANSWERS**CHECK POINT 1**

1. CANAL 2. WELL 3. TUBEWELL 4. HANDPUMP

CHECK POINT 2

1. Water vapour 2. Ice 3. Water

PRACTICE TIME

A. 1. Dam 2. Boiling 3. Water vapour 4. Clouds

B. 1. (b) 2. (a) 3. (a) 4. (b)

C. 1. Typhoid

2. Clouds

3. Gaseous

4. Sunlight

D. 1. Rainwater goes into ponds, lakes, rivers, etc., and some of it goes into the soil.

2. This water collects as underground water.

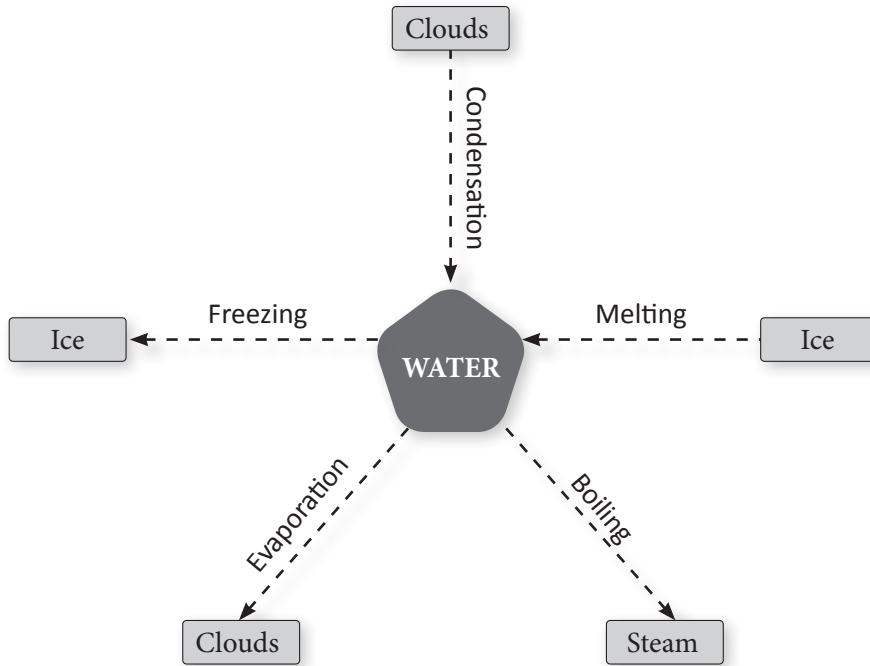
3. People bring out water from under the ground by digging wells, tubewells and through handpumps.

4. Clouds are formed by the condensation of water vapour in the form of water droplets.

E. 1. In very cold places, water vapour cools to form ice crystals that fall as snow.

2. Water vapour is a gas which is lighter than air. So, it rises up in the sky.

E.



ANSWERS**CHECK POINT 1**

1. sandstone 2. Coal 3. Chalk

CHECK POINT 2

1. Yes 2. No 3. Yes

PRACTICE TIME

A. 1. Rocks 2. Marble 3. Slate 4. Coal

B. 1. (a) 2. (a) 3. (b)

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

D. 1. Coal, slate and chalk.

2. Marble, granite and sandstone

3. Granite is used for making floor tiles and statues.

4. Slate is used for making blackboards and roofs of houses.

5. Gemstones are used to make jewellery.

6. Diamond is used for cutting glass.

E. 1. Slate is found in smooth layers, so it is used to make blackboards.

2. Diamond is the hardest mineral, so it is used to cut glass.

F. Down: 1. SLATE 2. COAL 3. SILICA

Across: 2. CHALK 4. TALC 5. EMERALD

ANSWERS**CHECK POINT**

1. Moon
2. Apollo-11
3. Rakesh Sharma

PRACTICE TIME

- A.** 1. (T) 2. (F) 3. (F)
- B.** 1. (a) 2. (a) 3. (b)
- C.** 1. dust 2. water 3. moon 4. Earth
- D.** 1. On 20 July 1969.
2. Edwin Aldrin and Michael Collins
3. Rocks and fine dust.
- E.** 1. It is because moon is very close to the earth.
2. It is because the moon moves around the earth. So, we see a different part of moon every night.
3. No one can live on the moon because there is neither air nor water on the moon.
4. The moon is not seen during the day because there is bright sunlight.

ANSWERS**CHECK POINT**

1. During daytime
2. Yes
3. Shadow does not have any colour. It is always black.

CHAPTER-END QUESTIONS

- A.** 1. Sun
2. West
3. Noon
- B.** 1. (a) 2. (a) 3. (a) 4. (b)
- C.** 1. Fire
2. heat
3. east
4. opposite
- D.** 1. We get heat and light from the sun.
2. A shadow is formed when light cannot pass through an object.
3. Shadows are long in the morning and evening because the sun is at lower level in the sky during these times.
4. Shadows are short at noon because the sun is just above our head in the sky.
- E.** 1. Our shadow is formed when our body comes in the path of light. So, it moves with our body.
2. Shadow is formed only when light falls on an opaque object. So, we never see our shadow in a dark room.
- F.** 1. SUN
2. SUNLIGHT
3. EARTH
4. OPAQUE
- G.** The shadows of flying aeroplanes and kites are not seen on the earth because they are far away from the earth, so their shadows do not reach the earth's surface.