Science-1

Unit-1

Chapter-1

(A) **1.** (b) **2.** (b) **3.** (a) **4.** (c)

(B) **1.** grow **2.** food **3.** River, mountain **4.** Car

(C) **1.** False **2.** True **3.** False **4.** False

(D) **1.** There are two types of things around us :
(i) Living things (ii) Non living things.
2. There features of living things are :
(i) Living things can move.
(ii) Living things need food and water to live and grow.
(iii) Living things reproduce.
3. Three features of Non-living things are :
(i) Non-living things can not move.
(ii) They cannot breather.
(iii) Non living things can not feel.
4. **(a)** Plants, Humans **(b)** Rivers, Mountains **(c)** Bat, Chair ➤

Unit-2

Chapter-2

(A) **1.** (c) **2.** (a) **3.** (a) **4.** (b)

(B) **1.** tree **2.** creeper **3.** shrubs **4.** herb

(C) **1.** HERBS **2.** TREES **3.** SHRUBS **4.** CREEPERS **5.** CLIMBERS

(D) **1.** Big and strong plants are called trees.

2. Small and weak plants are called herbs. They have green and soft stems.

3. Shrubs are small and strong plants. They have brown and woody stems.

4. Some plants need some support to grow, these are called climbers.

5. Some plants grow along the ground. They are called creepers.

6.

Trees	Neem
Herbs	Spinach
Shrubs	Cotton plant, Rose plant
Climbers	Money plant
Creepers	pumpkin

➤

Chapter-3

(A) **1.** (b) **2.** (a) **3.** (c) **4.** (c)
(B) **1.** leaves **2.** under **3.** seeds **4.** fruits
(C) Leaf, Stem, Root
(D) **1.** A plant has different parts. These are : root, stem, leaf, flower and fruit.

2. Leaf prepares food for the plant.

3. The root fixes the plant to the soil. Roots tares in water and other useful things from the soil.

4. Air, water and sunlight are three helpers which help a seed to grow into a new plant.

5. (a) The part of plant that bears branches, leaves, flowers and fruits is called stem.

(b) The part of plant that develops from flowers is called fruit.

(c) Bright coloured part of plant with a nice small is called flower.

(d) Fruit contain seeds. A seed has a baby plant inside it which grows into a plant. ➤

Unit-3

Chapter-4

(A) **1.** (a) **2.** (b) **3.** (b) **4.** (a)
(B) **1.** insects **2.** Duck **3.** pet **4.** big
(C) **1.** True **2.** False **3.** False **4.** True
(D) **1.** The animals which lives in forests are called wild animals. Ex. : Lion, tiger.

2. Animals which lives in farm are called farm animals. Ex. : Sheep, goat

3. Animals that can live both on land and water are called amphibians. Ex. : Frog.

4. Animals with feathers on their bodies. They have two legs, one beak and two wings. They are called birds.

5. Small animals having six legs and wings for flying are called insects. Ex. : Ants, Butterfly.

6. Animals which lives with us in our home are called pet animals. Ex. : Dog, Cat.

7. Cow, Dog and Kangaroo. ➤

Chapter-5

(A) **1.** (c) **2.** (b) **3.** (c) **4.** (b)
(B) **1.** live **2.** flesh **3.** frog **4.** squirrel
(C) **1.** GIRAFFE **2.** LION **3.** SQUIRREL **4.** BEAR
(D) **1.** Lion eats flesh of other animals.
2. Cow and goat are plant eating animals.
3. Bear and Crow eat both plants and flesh of other animals.
4. Sparrow and Pigeon are gain eating animals. ➤

Chapter-6

(A) **1.** (b) **2.** (c) **3.** (b) **4.** (a)
(B) **1.** burrow **2.** stable **3.** nest **4.** monkey
(C) **1.** The place where living things lives is called home.
2. Animals needs home to stay safe and take care of their babies. Home protect them from heat, cold, rain and enemies.
3. Few animals mare home on their own like : Bees mare a hive, Ants build an anthill and spides spins a web.
4. Horses, Dogs, Cow and Hen are animals that live in man-made shelters. ➤

Unit-4

Chapter-7

(A) **1.** (a) **2.** (b) **3.** (b) **4.** (a)
(B) **1.** hands **2.** skin **3.** smell **4.** ears
(C) **1.** (c) **2.** (a) **3.** (b) **4.** (e) **5.** (d)
(D) **1.** We can walk and run with our legs.
2. We use our hands to pick and throw things, to write to hold and to do work.
3. Sense organs are different part of our body that help us to know our surrounding.
4. We have five sense organs. These are Eyes, Ears, Nose, Tongue and Skin. ➤

Unit-5

Chapter-8

(A) **1.** (a) **2.** (c) **3.** (a)
(B) **1.** plants **2.** eggs **3.** night
(C) **1.** True **2.** False **3.** True
(D) **1.** We all need food to live and grow. Food keeps us fit and healthy.

2. Three meals of the day are : breakfast, lunch and dinner.

3. Healthy food mares our body strong and fit like milk, fruits and vegetable.

Pizza, Burger etc. are all junk food. Junk food is not good for our nody.

4. Some good food habits are :

(i) We should wash our hands before and after our meal.

(ii) We should not waste food.

(iii) We should eat healthy food. ➤

Chapter-9

(A) **1.** (a) **2.** (a) **3.** (c) **4.** (a)
(B) **1.** rain **2.** bathroom **3.** gumboots **4.** insect bites
(C) **1.** True **2.** True **3.** False **4.** False
(D) **1.** We need house to protect our self from rain, heat cold, wind, thieves and animals.

2. A house has many rooms like bedroom, drawing room, bathroom, dining room, kitchen and store room.

3. We need clothes to protect ourselves from heat, cold, wind and insect bites.

4. (a) We wear woollen clothes during winter season.

(b) We wear cotton clothes during summer season.

(c) We use raincoats and gumboots during rainy season. ➤

Chapter-10

(A) **1.** (c) **2.** (b) **3.** (c) **4.** (a)
(B) **1.** footpaths **2.** zebra crossing **3.** stop
(C) **1.** True **2.** False **3.** True
(D) **1.** Safety means staying away from harm or danger.

2. Safety rules we should follow at home are :
(i) Do not play with knife or blade.
(ii) Do not play with fire.
(iii) Do not touch electric switches and wires with wet hands.
3. We should fellow the following safety rules at school :
(i) Do not jump on desks or chairs.
(ii) Do not play in classrooms or stairs.
(iii) Walk in queue without pushing each other.
4. Safety rules that we should follow on road are :
(i) Always walk on the footpath.
(ii) Do not play on road.
(iii) Cross the road using zebra crossing only. ➤

Chapter-11

(A) **1.** (a) **2.** (a) **3.** (c) **4.** (a)
(B) **1.** clean **2.** twice **3.** spit **4.** fit
(C) **1.** Good **2.** Bad **3.** Good **4.** Bad **5.** Bad
(D) **1.** We can stay healthy by :
(i) Eating fresh fruits and vegetable
(ii) Doing regular exercise
(iii) Wake up early in the morning.
2. We should keep our body clean to stay healthy.
3. Ways to stay clean are :
(i) Wash our hands before and after each meal.
(ii) Bath daily
(iii) Brushing teeth twice daily
(iv) Trim our nails regularly.
4. We should follow good habits like :
(i) We should throw garbage in dustbin.
(ii) We should not bite our nails
(iii) We should not spit on road
(iv) We should not write on walls. ➤

Unit-6

Chapter-12

(A) **1.** (b) **2.** (c) **3.** (a) **4.** (a)
(B) **1.** moves **2.** breathe **3.** heavy **4.** wind mill
(C) **1.** True **2.** False **3.** True **4.** True

(D) 1. Three properties of air are :
(i) Air has weight
(ii) Air takes up space
(iii) Air cannot be seen.
2. Moving air is called wind :
3. (i) We need air to breathe
(ii) Air is needed to dry clothes
(iii) Air is needed for burning.
4. Take two candles-light them with the help of adult. Cover one candle with the glass jar. You will see that the candle will go off after some time. This activity shows that air is needed for burning. ➤

Chapter-13

(A) 1. (a) **2.** (b) **3.** (a) **4.** (b)
(B) 1. (a) Rain (b) Rivers
2. (a) Drinking (b) Washing
3. (a) Tanks (b) Bottles
(C) 1. True **2.** False **3.** True **4.** True
(D) 1. We need water to live. Water is also used to water plants, cook food, put out fires, take a bath etc.
2. We can store water in our homes in bottles, pitchers, buckets and tanks.
3. We should not drink dirty water because it can make us sick.
4. We get water from rain. Rain water fills in well ponds and rivers. This water is purified and sent to our houses. ➤

Chapter-14

(A) 1. (a) **2.** (a) **3.** (b)
(B) 1. rainy **2.** cotton **3.** spring
(C) 1. True **2.** False **3.** True
(D) 1. A colourful band seen in the sky after rain is called rainbow.
2. On Rainy days, it rains a lot. Children play with paper boats and we use umbrellas and raincoats.
3. Five seasons are winter, summer, monsoon, Autumn and spring
4. Winter season — December, January and February
Summer season — May and June
Spring season — March and April
Monsoon — July, August and September
Autumn season — October and November ➤

Chapter-15

(A) **1.** (c) **2.** (a) **3.** (a) **4.** (b)

(B) **1.** east **2.** moon **3.** crescent **4.** twinkle

(C) **1.** False **2.** False **3.** False **4.** True

(D) **1.** We see the sun, the moon and the stars in the sky.

2. Sun is like a big ball of fire. It gives us light and heat. The sun rises in the east and sets in the west. It makes days bright and warm.

3. The moon changes it shape every night.

(i) When moon is bright and round it is called full moon.

(ii) When moon is half of its size and shape it is half moon.

(iii) When moon looks like a thin curved line, it is called crescent moon.

4. There are many stars in the sky. Stars are bright and have their own light. Stars twinkle at night. They look small because they are very far from us. ➤

Model Test Paper-1

(A) **1.** (b) **2.** (c) **3.** (b) **4.** (b) **5.** (c)

(B) **1.** hands **2.** insects **3.** under **4.** squirrel **5.** food

(C) **1.** False **2.** False **3.** True **4.** False **5.** False

(D) **1.** (i) Living things can move.

(ii) Living things reproduce.

(iii) They need food and water to live and grow.

2. Hen and Pigeon.

3. Air, water and sunlight are three helpers which help a seed to grow in a plant.

4. Animals that can live both on land and water are called amphibians. ➤

Model Test Paper-2

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

(B) **1.** twinkle **2.** rainy day **3.** healthy **4.** insect bites **5.** fit

(C) **1.** True **2.** True **3.** True **4.** True **5.** False

(D) **1.** We see the sun, the moon and the stars in the sky.

2. (i) We should wash our hands before and after every meal.

(ii) We should not waste food. (ii) We should eat healthy food.

3. We need clothes to protect ourselves from heat, cold and wind.

4. A colorful band seen in the sky after rain is called rainbow.

5. (i) We should always walk on footpath.

(ii) We should not play and run on the road.

(iii) We should use zebra crossing for crossing the road. ➤

Science-2

Unit-1 : The Plant Kingdom

Chapter-1 Plant Around Us

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Trees **2.** Seed **3.** Shrub **4.** Creeper

(C) True or False :

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

(D) Unscramble the words :

1. CREEPERS **2.** HERBS **3.** SHRUBS **4.** CUMBERS **5.** TREES

(E) Match the following :

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

(F) Answer the following questions :

1. Big and strong plants with hard and woody stems are called trees. Example : Neem, Banyan, Gulmohar etc.

2. Plants that cannot stand on their own and grow along the ground are called Creepers. For example : Pumpkin, watermelon etc. The plants which cannot stand on their own and need support to grow are called climbers. Example : Pea, Bean etc.

3. Herbs are very small plants with soft and weak stem. Example : Tulsi, Mint, Spinach etc. Small plants with a hard and thin stem are called shrubs. Example : Cotton, Rose etc.

4. Roots, stems, leaves, fruits and flowers are various parts of a plant. ➤

Chapter-2 Uses of Plants

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. gum **2.** dye **3.** sugar **4.** cotton, jute

(C) True or False :

1. True **2.** True **3.** True **4.** False

(D) Match the following :

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

(E) Answer the following questions :

1. Food grains are the cereals and pulses we get from plants. Rice, wheat, bajra and jowar are cereals. Moong dal, masoor dal, gram and kidney beans are pulses.

2. Spices are dried parts of plants. Spices are used to add taste, colour and smell to the food. For example : Chilli, cloves, turmeric etc.

3. Pulp of the bamboo plant is used to make paper. Sap of rubber plant is used to make rubber and sticky juice from acacia plant is used to make gum.

4. (a) Medicinal plants : Tulsi, Neem

(b) Plants giving fibres : Cotton, Jute

(c) Plants producing oil : Mustard, coconut

5. Tea and coffee plants are used to make drinks. ➤

Unit-2: The Animal Kingdom

Chapter-3 Domestic animals and their uses

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Leather **2.** Honey **3.** Dog **4.** Milk

(C) True or False :

1. False **2.** True **3.** True **4.** True

(D) Answer the following questions :

1. Animals that are kept at our home or in our farms are called domestic animals. Dog, Cat etc. are pet animals and Cow, Buffalo etc. are farm animals.

2. We get silk from silkworms. Silk is used for making clothes mainly sarees and dresses.

3. Animals that give us milk are called Milch animals. Cows, Buffaloes and goats are milch animals.

4. The animals which give us egg and meat are called poultry animals, such as hen and cock. ➤

Chapter-4 Wild Animals

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Panda **2.** save **3.** frog **4.** Omnivores

(C) True or False :

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

(D) Answer the following questions :

1. Animals like tiger, lion, leopard, bear, fox and crocodile live in forests. They are called wild animals.

2. (i) Herbivores : Plant eating animals are called herbivores. Animals like elephant, deer, giraffe, etc. eat grass, leaves and fruits are plant eating animals.

(ii) Carnivores : Animals like tiger, lion and wolf kill other animals and eat their flesh. These are called Carnivores.

(iii) Omnivores : Animals like bear and crow eat plants as well as flesh of other animals. These animals are called Omnivores.

3. People hunt animals for getting different produces. For example : tigers are killed for their skin and elephants are killed for their tusks.

4. Wild animals live in different kind of places. Some live on land, in water and some on trees. Lion and tigers lives in den. Snakes and rats lives in holes in ground. Bears lives in caves. ➤

Unit-3 : Human Body and Its Needs

Chapter-5 Bones and Muscles

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Straight **2.** Skeleton **3.** Muscles **4.** bones

(C) True or False :

1. True **2.** True **3.** False **4.** True

(D) Answer the following questions :

1. Femur i.e. Thigh bone is the longest and strongest bone of our body.

2. We should exercise daily to keep our bones and muscles strong and fit.

3. Skeleton gives shape to our body. It helps the body to stand straight and walk. It also helps to protect the inner parts of our body.

4. A correct posture helps to keep our body fit and in proper shape.

5. The place where two or more bones meet is called a joint. ➤

Chapter-6 Healthy Food

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. three **2.** Water **3.** Stale **4.** Sick

(C) True or False :

1. False **2.** True **3.** True **4.** False

(D) Match the following :

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

(E) Answer the following questions :

1. We need food to live and grow. Food gives us energy to work and play. It helps us to stay healthy and fight diseases.

2. Few good eating habits are :

(i) Eat all kinds of food in proper quantities.

(ii) Wash your hands before and after having your meals.

(iii) Chew your food well and eat slowly.

(iv) Eat only fresh and clean food.

3. Different food groups are : Energy giving foods, Body building foods and Protective foods.

4. We eat three meals in a day-breakfast, lunch and dinner.

5. The food that contains some part of each group i.e. energy giving foods, body building foods and protective foods is a balanced diet.

6. Energy giving foods : Food that gives us energy to work and play are energy giving foods. These include : wheat, rice, sugar, potato etc.

Body building foods : Food which helps to make our bones and muscles strong are body building foods. Example : Milk, cheese, eggs etc.

Protective foods : Food that protect us from falling ill are called protective foods. Fruits and vegetables helps us to tight from diseases are protective foods. ➤

Chapter-7 Housing and Clothing

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. pucca, kutcha **2.** flat, sloping **3.** temporary **4.** woollen

(C) True or False :

1. True **2.** False **3.** True **4.** False

(D) Unscramble the words :

1. IGLOO **2.** CARAVAN **3.** MONSOON **4.** STILT **5.** TENTS

(E) Answer the following questions :

	Pucca house	Kutcha house
(i)	**These houses are made of bricks, cement, iron and steel.**	These houses are made of wood, mud and straw.
(ii)	**Pucca house are strong.**	Kutcha house are not so strong.
(iii)	**These houses cannot move from one place to another.**	These houses can move from one place to another.
(iv)	**Pucca houses are permanent houses example : Flats and Bungalows.**	Kutcha houses are temporary. houses. example : tent, houseboat, etc.

2. Different types of Kutcha houses are :

(i) Tents : It is made up of clothe or canvas.

(ii) Caravan : It is a mobile house. It is a house on wheels.

(iii) Houseboat : A houseboat is a wooden house made on a boat.

3. We need clothes to cover our body. Clothes protect us from cold, heat, rain, dust and insect bites.

4. These are two types of roofs :

(i) Sloping roof : People living in mountains make houses with sloping roofs to help the rainwater and snow to slide off.

(ii) Flat roofs : People living in the plains make houses with flat roofs.

5. Special houses are houses that are built in places where there is heavy snow or rainfall. An igloo is a special house that is built on snow. Stilt house is built high above the ground to prevent the rain water entering the house.

➤

Chapter-8 Safety First

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. wet **2.** First-aid **3.** play **4.** carefull

(C) True or False :

1. True **2.** False **3.** True **4.** True

(E) Answer the following questions :

1. Safety rules to be followed at home are :

We should not plant with knife,
razor and other sharp objects.
Do not touch electric switches with wet hands.

2. Safety rules to be followed on road are :
We should obey the traffic rules.
We should always use footpath to walk on road.

3. Safety rules to be followed in playground :
(i) We should always follow the rules of game.
(ii) We should not stand near a swing.

4. First aid is the immediate help given to an injured on ill person.
First aid has three key aims :
to save the life of an injured or ill person.
to stop the condition from getting worse, and
to promote the recovery of patient.

(E) Tick (3) the correct images and cross (7) the wrong images :

✗, ✗, ✓
✓, ✗, ✗ ➤

Unit-4 : Our Environment

Chapter-9 Air Around Us

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. dirty **2.** breeze **3.** clean **4.** smoke

(C) True or False :

1. False **2.** True **3.** True **4.** False

(D) Answer the following questions :

1. Air is a mixture of various gases such as nitrogen (78%), oxygen (21%) and other gases (1%) such as carbon dioxide, oxgen etc. Air also contains dust, smoke and water vapours.

2. Three main properties of air are :
(i) Air fills empty space.
(ii) Air has weight.
(iii) Air contains water vapour.

3. The air we breathe should be clean. Green plants give us fresh and clean air. We should spend some time in an open ground to get fresh air, we should never burn waste and dry leaves because it makes the air dirty.

4. (a) Wind : Moving air is called wind,

(b) Gale : When the wind blow fast and strongly, it is called gale.

(c) Storm : When the wind is noisy and strong and blows with rain or show, it is called storm.

5. Wind is useful to us in many ways :
Wind can make things move.

Wind helps air balloons, aeroplanes and birds to fly.

6. When a burning candle is covered with glass, it stops buring after sometime because no more air is available after covering it. ➤

Chapter-10 Water

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Boiling **2.** life **3.** wells **4.** saved

(C) True or False :

1. True **2.** False **3.** True **4.** False

(D) Answer the following questions :

1. We should always drink clean water because impure water can make us ill.

2. Rain is the main source of water on earth. Rain water fills in ponds, rivers, takes and streams. These are natural sources of water. Dams, canals, water tank are man-made sources of water.

3. We can clean water at home by boiling it we can also clean water by using water purifiers at home.

4. Water can be saved in following ways :

Turn off taps after using them.

Leaking taps and pipers should be repaired.

Rainwater can be stored and can be used for watering plants, washing and bathing. ➤

Chapter-11 Rocks and Minerals

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Chalk **2.** minerals **3.** China clay **4.** Talc

(C) True or False :

1. True **2.** False **3.** True **4.** False

(D) Answer the following questions :

1. Rocks are strong and big stones. These are made up of minerals. Rocks are of different shapes, size and colours. Pebbles, stones, sand and soil are formed from rocks.

2. Granite : It is a very hard and rough rock. It is red, white, pink or grey in colour. It is used to make floor tiles, kitchen slabs and statues.

Sandstone : It is red, brown or yellow in colour, It is used to make buildings.

3. Coal : It is a soft black rock. It is used as fuel at homes and factories.

Graphite : It is soft black rock. It is used to make pencil lead.

4. Talc : It is the softest mineral. It is used for making talcum powder.

China clay : It is used for making pots and sculptures.

5. Hard rocks are used for making buildings, floor tiles and kitchen slabs. Marble, granite and sandstone are examples of hard rocks.

Soft rocks are used for making blackboards. Chalk, pencil lead. State, coal, graphite and limestone are soft rocks. ➤

Unit-5

Chapter-12 Light and Shadow

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. shadow **2.** plants **3.** light **4.** dark

(C) True or False :

1. True **2.** False **3.** True **4.** True

(D) Answer the following questions :

1. The sunlight helps us in many ways :

(i) Sunlight keep us warm during cold days.

(ii) It helps plants to grow.

(iii) It helps to kill germs.

(iv) It evaporates water.

2. A shadow is formed when an object comes in front of light.

3. During the day-sun is the main source of light. At night bulbs, tubelight and candles provides is light.

4. A shadow is longest in the morning and evening and the shortest at noon. ➤

Chapter-13 The Planet Earth

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. 70% **2.** Mountain **3.** land, water **4.** Desert

(C) True or False :

1. False **2.** True **3.** True **4.** True

(D) Answer the following questions :

1. The sun, eight planets, their satellites and other heavenly bodies forms the solar system.

2. Earth is the only planet where life exits. It is spherical is shape. It is home to humans, plants and animals. Earth has land and water.

3. Land is used for growing crops and making shelters for living beings.

4. These land forms present on earth are :

(i) Hills : It is that area on land which is higher than the surrounding land.

(ii) Mountain : Mountain is a very high hill.

(iii) Valley : Valley is a low land between two mountain or hills .

➤

Model Test Paper-1

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. seed **2.** save **3.** sick **4.** milk **5.** dye

(C) True or False :

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

(D) Answer the following questions :

1. Ch-1, Q-3
2. Ch-4, Q-2
3. Ch-6, Q-2
4. Ch-3, Q-4
5. Ch-5, Q-5

➤

Model Test Paper-2

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Shadow **2.** Boiling **3.** flat, stoping **4.** First aid **5.** Desert

(C) True or False :

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

(D) Answer the following questions :

1. Ch-12, Q-2
2. Ch-10, Q-4
3. Ch-7, Q-1
4. Ch-8, Q-4
5. Ch-9 Q-4, (b), (c)

➤

Science-3

Unit-1 : The Living World

Chapter-1 Living and Non-living things

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. grow **2.** gills **3.** reproduce **4.** eggs **5.** food

(C) True or False :

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

(D) Unscramble the words :

1. OXYGEN **2.** GILLS **3.** BREATHE **4.** STOMATA **5.** SPONGES

(E) Answer the following questions :

1. Things which are made by man are called man made non-living things. For example : chair, table, bed, etc. Living things have life in them. Things that grow and breathe are natural things. Men animal, plants are natural things.

2. A process through which a living being gives birth to a young one of its own kind is called reproduction.

3. Living things : Things that need food and water to grow that can eat, breathe move and reproduce are all living things. Ex. men, animals and plants.

Non-living things : These things are not alive. They do not need air, food and water. They can not move and grow. Example : Stones, mountains, chair, etc.

4. Main characterstics of living things are :

(i) Living things grow and change their shape and size with time.

(ii) All living things move on their own.

(iii) All living things need food to grow.

(iv) Living things breathe.

(v) They can reproduce young ores of their own kind.

5. Main characterstics of Non-living things are :

(i) Non-living things do not grow.

(ii) They can not move on their own.

(iii) They can neither feel nor they can reproduce.

(iv) Non-living things do not need food to eat.

(v) They do not need air to breathe in.

6. Fish breathe through their gills.

7. Plants breathe in Carbon dioxide and out oxygen thorugh tiny holes on their leaves called stomata. ➤

Chapter-2 Parts of Plant

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Chlorophyll **2.** taproot, fibrous root **3.** stem **4.** fruits

(C) True or False :

1. True **2.** False **3.** True **4.** True

(D) Answer the following questions :

1. There are two types of root in a plant :

(i) Taproot : Some plants have one main root growing from the end of the stem. This main root is called taproot. Plants like bean, mango, pea, etc. have taproot.

(ii) Fibrous root : Some plants have their roots growing out in directions from the end of the stem. This is called fibrous root. For example : Rice, wheat, onion have fibrous roots.

2. The leaf prepares food for the plant in the presence of sunlight. Green leaves uses carbon dioxide from air and water from the soil to prepare food for plant. This process in called Photosynthesis.

3. The man functions of stem are :

(i) The stem keeps are plant upright.

(ii) It helps in carrying food from leaves to other parts of plant.

(iii) It also carries water and minerals from the root to other parts of a plant.

(iv) Stems of some plant store extra food prepared by the plant.

4. A seed has a baby plant called embryo growing inside it. A need grows into a new plant when it gets proper air, water and sunlight.

5. Functions of flower includes :

(i) Flowers are used for making perfumes.

(ii) Flowers are used for decorative purposes.

(iii) Some flowers have a sweet smelling substance called nectar, from which honey is made.

➤

Chapter-3 Animals : Eating Habits

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. grow, healthy **2.** flesh **3.** herbivores **4.** food chain

(C) True or False :

1. True **2.** False **3.** True **4.** False

(D) Answer the following questions :

1. Animals need food to live. Food helps them to grow, stay healthy and strong.

2.

	Herbivores	**Carnivores**	**Omnivores**
(i)	These animals eat plants and plant products. Example : Cow, Horse.	These animals kill and eat the fresh of other animals. Example : Lion, Fox	These animals eat both plants and flesh of other animals. Example : Bear, Crow.
(ii)	They have flat front teeth and strong grinding teeth at the back.	They have long pointed teeth to cut the flesh and strong grinding teeth.	

3. A chain formed by animals, depending on their food habits is called food chain. A chain describing 'who eats whom' is called a food chain.

Plants $\rightarrow$ Deer $\rightarrow$ Tiger

In any food chain plants are the produces. They are at the first level. Plants are eaten by herbivores and then herbivores are eaten by carnivores.

4. We can take care of domestic animals by :

(i) We should be kind to animals by giving them proper food, water and shelter to keep them healthy.

(ii) Sick animals should be taken to veterinary doctor.

5. (a) Gnawing : Animals like rabbits, squirrel and rats have very sharp front teeth. They cut and bite their food with these teeth. This is called gnawing the food.

(b) Chewing the cud : Animals like cows and buffaloes swallow their food and fill their stomach. When they rest, they bring back thus food into the mouth and chew it for hours. This is known is 'chewing the cud'. ➤

Chapter-4 Birds Behaviour

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Owl **2.** hooked **3.** tailor **4.** Perching **5.** talons

(C) True or False :

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

(D) Answer the following questions :

1. Different birds have different types of beaks :

(i) Short and Hard beak : Birds like sparrows, peacocks have short, hard and pointed beaks which help them to eat seeds and grains.

(ii) Strong, Sharp and hooked beak : Birds of prey like vultures eagles and owls have strong, sharp and hooked beaks to tear the flesh of animals.

(iii) Long and Pointed beak : This type of beak is used for poking or probing into a flower. Sun birds and humming bird have these type of beaks.

(iv) Strong and Chisel shaped beaks : These beaks help woodpeckers to make holes in tree trunks and pull out insects and worms.

(v) Soft and broad beaks : Swallows fly with their beaks wide open and catch insects.

(vi) Broad and flat beaks : Ducks and geese have these type of beaks with holes at the side.

2. Different birds have different types of claws :

(i) Slender claws helps perching birds to hold tree branches firmly. They have three toes in front and one toe at the back.

(ii) Hens, roosters have strong legs sharp and hard claws for scratching ground.

(iii) Preying birds have strong claws with curved nails called talons.

(iv) Duck and geese have webbed feet. The three front toes have a skin like web between them.

(v) Parrot and woodpecker have two toes pointing upwards and two pointing downwards.

(vi) Cranes and herons have long and thin legs that help them to walk in muddy pond.

3. There are three types of feathers on a birds's body. These are :

(i) Down feathers : These are fluffy and keep the bird's body warm.

(ii) Body feathers : These cover the complete body of the bird and give it a curved shape.

(iii) Flight feathers : These are large in size and found in wings and tail.

4. A bird makes two kinds of movements while flying :

(i) Up stroke : In this, the wings are moved upwards and backwards by the bird.

(ii) Down stroke : In this, the bird moves it wings downwards and forward.

5. A nest is a bird's home. Birds builds nests to lay eggs in them. A nest keeps the eggs warm and also protects them from enemies and bad weather.

➤

Unit-2 : Our Body

Chapter-5 Human Body : The Machine

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. 206 **2.** Nervous **3.** blood **4.** excretory **5.** reproductive

(C) True or False :

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

(D) Match the following :

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

(E) Answer the following questions :

1. Our body is made up of cells. Similar type of cells join together to form a tissue. A group of tissues join together to form an organ. A group of organs join together form a organ system.

2. The brain, the spinal cord and the nerves make the nervous system. The brain is called the 'control room' of our body. All the five sense organs are attached to brain through nerves. The nerves feel and send messages to the brain. The brain then sends messages to different organs to work.

3. Our body has 206 bones together they form the skeletal system. The bones give support and shape to our body. Our skeletal system also helps us in moving. It also protects the internal delicate parts of our body.

4. Circulatory system : This system consists of heart, blood and blood vessels which together maintain a continuous flow of blood around the body.

(b) Respiratory system : The main organs of respiratory system are nose, wind pipe and the lungs. The main function of this system is to take in oxygen and give out carbon dioxide.

(c) Excretory system : The excretory system helps to throw out wastes from our body. Kidneys, lungs and skin together form the excretory system.

5. The digestive system consists of mouth food pipe, stomach, small intestine, large intestine and anus. The main function of digestive system is to break down food into simple substances.

➤

Unit-3 : Our Needs

Chapter-6 Housing and Clothing

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. igloo **2.** cold, heat **3.** drainage **4.** Jute **5.** rayon

(C) True or False :

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

(D) Answer the following questions :

1. We need a house a protect ourselves from rain storm, heat of sun, animals, thieves, etc. A good house gives us comfort and peace.

2. A good house should include the following features :

(i) A good house should be airy and ventilated. So that fresh air and sunlight comes in.

(ii) It should have seperate room for cooking, guests, sleeping, studying etc.

(iii) A good house should have proper drainage.

(iv) Windows and doors should have wire-netting to keep away mosquitoes.

3. Pucca house : Pucca houses are permanent houses. They are fixed on the ground and can not be moved. Flats, bungalow that are made using bricks, cement, iron and steel are pucca houses.

Kutcha house : These houses are temporary houses. They can be moved from one place to another kutcha houses are made up of mud, straws, wood stones and bamboo. For example : Hut, tent, etc.

4. Natural fibres : Cotton, jute, wool, silk are some of the natural fibres. Cotton and jute are obtained from plants while wool and silk are obtained from animals.

Man-made fibres : These fibres are also called synthetic fibres. They are made in factories. Nylon, Rayon, Polyster are examples of man made fibres.

5. We need clothes to cover our body. Clothes protect us from heat, wind, rain, dust and insect bites. ➤

Chapter-7 Safety First

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. rules **2.** run **3.** Zebra, crossing **4.** desks, benches **5.** electrical appliances

(C) True or False :

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

(D) Answer the following questions :

1. Accidents occurs when we are not careful. If we do not follow the safety rules at school, home, on road, etc. accidents can happen.

2. We should follow the below mentioned safety rules at school.

(i) We should not push each other while climbing up and down stairs at school.

(ii) We should not jump on benches and desks.

3. (i) We should not touch any electrical appliance with net hands.

(ii) We should not play with sharp objects such as knives or razors.

4. (i) We must always follow the traffic rules.

(ii) We should not run or play on the road.

5. The first or the immediate helps given to an injured person before the doctor arrives is called first aid. Some important points to remember while giving the first aid are :

(i) In case or bleeding, wash the wound in running water.

(ii) Dry it with cotton on clean cloth.

(iii) Apply an antiseptic cream or lotion on the wound.

(iv) In case of burn apply barnaul on the affected area and leave it open.

➤

Unit-4 : Matter and Materials

Chapter-8 Soil

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Humus **2.** Soil **3.** Sandy **4.** clayed **5.** Loam

(C) True or False :

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

(D) Answer the following questions :

1. Soil is useful to us in many ways :

(i) Plants grow on soil and get their nutrients from it.

(ii) Animals eat these plants to live and grow.

(iii) We get many useful minerals from soil.

(iv) Many animals like earthworm, ants, rats etc.

2. Soil is made up of Sand, clay, stones, pebbles and humus. Top layer of the soil contains humus and remains of dead plants and animals. The middle layer contains particles of sand and clay. The bottom layer consists of stones and pebbles.

3. Long ago earth was covered with rocks. Rocks get heated due to heat of sun and then cooled down due to water and low temperature. This results in breaking down of rocks into pieces. These pieces due to action of wind, water and heat. The pieces rub against each other till they become small particles of soil.

4. To show that soil contains water, we can do this experiment. Take a small tin and add soil in it. Cover it with lid. Now, heat the tin on a low flame. After some time you can see drops of water on inner side of lid. This shows that soil contains water.

5. Sandy soil : This type of soil is made of sand. It is yellow and grey in colour and found in deserts. Sandy soil can not hold much water as there is lot of space between the particles.

Clayey soil : Clayey soil has the smallest particles with no air spaces between them. It is found near rivers and ponds. It can hold lot of water and is suitable for growing rice. Toys, pots, bricks are made from this soil.

Loamy soil : Loam is the mixture of sand. Clay and humus. It can hold both air and water. It is best soil for growing crops. ➤

Chapter-9 Light, Sound and Force

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Non-luminous **2.** morning **3.** luminous **4.** Noise **5.** Friction

(C) True or False :

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

(D) Answer the following questions :

1. When an object blocks the path of light a shadow of that object is formed. A shadow is formed in the direction opposite to the source of light.

2. The various effects of force are :

(i) Force can speed up a moving object.

(ii) Force can move a resting object.

(iii) It can change the direction of a moving object.

3. Luminous objects : The man made objects which gives us light are called luminous objects. For example : light, bulb, candle, etc.

Non-luminous objects : Other objects which does not give light and are visible only when light falls on them are non-luminous objects. For examples : Table, chair, pencil, etc.

4. Sounds like horn of vehicles and loud music which are harsh and unpleasant and also make us uncomfortable are called Noise.

5. During the day time, shadows are formed due to light of sun falling on various objects. Therefore, shadows are shortest in afternoon.

➤

Chapter-10 Measurement

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Kilometre **2.** Time **3.** Temperature **4.** Mass **5.** Liquid

(C) True or False :

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

(D) Convert :

1. 7000m **2.** 15000ml **3.** 25000mg **4.** **5.** 3000gm

(E) Answer the following questions :

1. Length is a measure of how long an object is from beginning to end. In olden days, people use their body parts to measure length such as handspan, cubit, footspan, etc. These all are non standard units for measures length.

The standard unit to measure length is metre. Smaller lengths is measured in cm and mm and larger length is measured in km.

2. Capacity is the quantity of liquid which a vessel can hold. A measuring cylinder is used to measure the amount of any liquid. Larger capacity is measured in litres and smaller capacity is measured in milliliters.

3. Mass is the amount of matter in an object. Mass is measured using a weighing machine or a balance. Larger mass is measured in kilogram and ton. Smaller mass is measured in gram and milligram.

4. Temperature tells us how cold or hot body is :

The temperature of human body is measured using a thermometer. It is measured in degree Celsius or Fahrenheit.

5. Time is the interval between two events. It is measured using a clock or watch. The units of measuring time are hour, minute and second. Long devation of time are measured in days, weeks and years.

6. Length is the measure of how long an object is from the begining to end. The standard units of measuring length is Metre. Larger or longer distances are measured in kilometre and shorter lengths are measured in cm and mm.

➤

Unit-5 : Environment And Space

Chapter-11 Air, Water and Weather

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Water, vapour **2.** snow **3.** long, short **4.** weather **5.** wind

(C) True or False :

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

(D) Answer the following questions :

1. Air is made up of many gases, water vapours and dust particles. The main gases present in air are nitrogen (78%), oxygen (21%) and (1%) other gases such as carbon dioxide, water vapour, hydrogen etc.

2. Water exists in three states. These are solid, liquid and gas. When ice (solid) changes into water (liquid) due to heating it is called melting. When water (liquid) changes into vapour (gas) on heating it is called evaporation. When vapour (gas) changes into water (liquid), it is called condensation and when water (liquid) changes into ice (soild) it is called freezing.

3. When the water present in oceans, rivers, lakes etc. gets heated due to heat of sun it changes into water vapour. These vapours rises up and cools down to form water droplets. These droplets together forms clouds and lead to rainfall. This movement of water from the earth to air and then back to earth is called water cycle.

4. Weather : The condition of air at a place and at a particular time is called weather.

The weather changes everyday because of sun, wind, rain and clouds.

Season : When the weather remains almost the same for many days. It is called a season, The main seasons in India are summer, winter, monsoon, spring and Autumn.

5. There are five main seasons in India :

(i) Summer seasons : The weather is very hot during summers. The days are long and nights are short. People wear cotton clothes and like to drink cold drinker and juices.

(ii) Rainy or Monsoon season : It rains the most during rainy season. It provides water for growing crops. Raincoats, gumboots and umbrellas are used to keep us dry.

(iii) Autumn season : The weather starts getting cold during this season. Leaves starts turning yellow and are shed by trees.

(iv) Winter season : In winter the sun does not shine brightly. The days are shorter and nights are longer. Days are cold and we wear woollen clothes to protect ourselves.

(v) Spring season : Weather is very pleasant in this season. It is neither too cold nor too hot. The trees gets new leaves and flowers bloom during spring season. ➤

Chapter-12 The Sun, Moon and Stars

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. Earth **2.** Mercury **3.** Sun **4.** Orbit **5.** Pluto

(C) True or False :

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

(D) Answer the following questions :

1. The sun and eight planets together form the solar system. These eight planets revolve around the sun is a fixed path called orbit. The eight planets according to their distance from sun are : Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

2. Few stars are always found in particular patterns or groups. These groups are called constellations. Two famous constellations are Ursa Major (Great Bear) and Leo (Lion).

3. The moon appears to change its shape. This happens due to change in the position of the earth and the moon. the changing shapes of moon are called phases of the moon.

4. Stars are very big in size but they appear very small because they are very far from us.

5. Sun is a huge ball of five. It gives us heat and light. It also gives energy to all plants and animals. Life is impossible without the sun. The sun is a big star made up of hot gases. It is the nearest star to earth and million times bigger than earth. Moon and all eight planets get light from sun. ➤

Chapter-13 Earth and Its Movements

(A) Tick the correct option :

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

(B) Fill in the blanks :

1. days, nights **2.** seasons **3.** poles **4.** Japan **5.** axis

(C) True or False :

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

(D) Answer the following questions :

1. The spinning of the Earth on its axis is called the rotation of Earth. This rotation of Earth causes days and nights.

2. The spinning of the Earth on its axis is called rotation.

3. The Earth moves around the sun in a fixed path called orbit. This movement of Earth around the sun is called revolution.

4. The shape of the earth is round like a ball. It is spherical in shape. If we watch a sailing ship. We will observe that as it moves the lower portion disappears first and the top part disappears later. This happens because earth is round in shape.

Model Test Paper-1

(A) 1. (c) **2.** (c) **3.** (a) **4.** (c) **5.** (a) **6.** (a)
(B) 1. electrical appliance **2.** eggs **3.** fruits **4.** food chain **5.** talons **6.** Excretory
(C) 1. False **2.** True **3.** True **4.** False **5.** False **6.** True
(D) 1.
2.
3.
4.
5.
6.

➤

Model Test Paper-2

(A) 1. (a) **2.** (b) **3.** (b) **4.** (c) **5.** (a) **6.** (a)
(B) 1. luminous objects **2.** Time **3.** Wind **4.** Earth **5.** Mercury **6.** axis
(C) 1. True **2.** False **3.** True **4.** False **5.** False **6.** True
(D) 1.
2.
3.
4.
5.
6.

➤

Science-4

Unit-1

Chapter-1

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

(B) 1. midrib **2.** Starch **3.** Photosynthesis **4.** leaves **5.** Oxygen

(C) 1. True **2.** False **3.** False **4.** True **5.** True

(D) 1. The leaves of plant perform two main important functions :

(i) They prepare food for the plants.

(ii) They help plants to take in carbon dioxide and give out oxygen through stomata.

2. 'Photo' means 'light' and 'synthesis' means 'putting together'.

The process by which green plants make their own food with the help of sunlight, water and carbon dioxide in the presence of chlorophyll is called photosynthesis.

3. A leaf has many parts :

(i) Side veins : Small veins that run from midrib all over the leaf and carry food, water and minerals to different parts of leaf are called side veins.

(ii) Leaf stalk : It attaches the leaf blade to the stem.

(iii) Leaf apex : The tip of the leaf is called the leaf apex.

(vi) Midrip : It is the main vein that runs down the centre of the leaf.

(v) Leaf blade : The flat part of leaf is called the leaf blade.

4. Plants and animals depend on each other for their survival plants prepare food with the help of carbon dioxide which is released by animals. Animals need oxygen and food from plants for their survival. This is called interdependence.

5. Some unusual plants are :

(i) Crotons : Crotons have red leaves because of presence of red pigment. They have chlorophyll and they can make their own food.

(ii) Moulds and Mushroom : These are non green plants. They cannot make their own food because of absence of chlorophyll. They depend on decayed plants for food.

6. Leaves have small pores called stomata. Stomata helps the leaf to take in carbon dioxide and release oxygen during the process of photosynthesis.

7. Leaves are green due to a green coloured pigment called chlorophyll. Due to the presence of chlorophyll green leaves can make food for the plant in sunlight.

8. Plants and animals are interdependent on each other.

Animals eat plants for their survival. They get oxygen from plants and release carbon dioxide which is in turn taken by plants for preparation of their food.

9. Van Mahotsava Festival is the programme started for planting of more trees. This programme spread awareness among the people about the demerits of cutting down the trees.

➤

Chapter-2

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

(B) 1. transpiration **2.** marshy **3.** fixed **4.** Desert **5.** papyrus

(C) 1. True **2.** True **3.** False **4.** False **5.** True

(D) 1. The natural home of a plant or an animal is called its habitat. Plants adjust themselves to grow in their natural surroundings like soil and weather conditions.

Plants are grouped as terrestrial plants and aquatic plants. Terrestrial or land habits are : Plains, Deserts, mountains, coastal areas etc.

2. Xerophytes grows in desert areas. These plants adapt themselves to grow in very hot, dry and dusty weather. As there is little rain in desert areas the roats of these plants grows deep down in the soil in search of water.

3. Aquatic plants can be divided into three groups :

(i) Floating plants : These plants are small, light and spongy and therefore they can easily float on water.

Duckweed and water hyacinth are examples of these plants .

(ii) Fixed plant : The roots of these plants are fixed to the soil in the water. But the leaves and flowers grow above the water surface. Lotus and waterlily are examples of fixed plants.

(iii) Underwater plants : Plants like hydrilla and tape-grass grow underwater. These plants can bend easily in water as they have long, thin, narrow ribbon like leaves.

4. Plants belonging to the grass family are very useful to us :

(i) Dried grass is used as packing material.

(ii) Bamboo is used for making baskets, charis, drums, mats etc.

(iii) Plant name papyrus is used to make paper.

5. Plants which eat insects are called insectivorous plants. Venus flytrap and pitcher plant are common examples of these type of plants. The leaf of Venus flytrap is folded into two halves. When an insect sits on it these two halves get closed and the insect gets trapped.

➤

Chapter-3

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

(B) 1. hairs **2.** life span **3.** mounting **4.** yolk **5.** caterpillar

(C) 1. False **2.** True **3.** False **4.** True **5.** True

(D) 1. The process by which living things produce their own kind is called reproduction. All living things die when their life span is over. To continue the life on earth all living things whether animals or humans reproduce young ones of their own kind.

2. Different parts of egg are :

(i) Egg shell : The hard outer protective shell of an egg is called an egg shell.

(ii) Yolk : The centre of an egg contains the yolk.

(iii) Embryo : Growing baby is called the embryo. Yolk provides nourishment to the growing baby.

(iv) Albumin : The white watery substance surrounding the yolk is known as albumin.

3. (a) Moulting : Some insects and reptiles sheds their skin several times before becoming an adult. The process of shedding the old skin is called moulting.

(b) Metamorphosis : The process of maturing from a baby to an adult is known as metamorphosis.

(iii) Incubation : Birds sit on their eggs to give them warmth for hatching. Thus is called incubation.

4. To live in a particular habitat animals bring about changes in them according to surroundings. This process of changing to survive in a habitat is known as adaptation.

5. Reptiles like lizards, snakes crocodiles and turtles lay eggs. Snakes lay eggs on the ground while turtles and crocodiles dig shallow pits near river banks. The egg get warmth from the sunlight and hatch in the absence of parents. The young larva comes out of the egg with gill buds and develops into terrestrial adult with fully developed limbs and gills.

6. Frog live on land but lay their eggs in water. A female frog Lays eggs in clusters like spawns. The egg develops into a tadpole. A tadpole resembles a small fish. The tadpole develops into a young frog and in the time span of eleven weeks, they transform into an adult frog.

7. Insects like grasshoppers and cockroaches have three stages in their life cycle. The baby insect which comes out of an egg is called a nymph. It does not have wings and sheds its skin several times before becoming an adult.

➤

Chapter-4

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

(B) 1. blubber **2.** migratory **3.** habitat **4.** Bat **5.** Omnivores

(C) 1. True **2.** False **3.** True **4.** True **5.** False

(D) 1. (a) Habitat : The natural surrounding where an animal lives is called its habitat.

(b) Adaptation : The process of changing to survive in a habitat is known as adaptation.

(c) Hibernation : Polar bears go for long winter sleep for several montans to protect themselves from cold. This long winter sleep is known as hibernation.

(d) Aestivation : Animals like desert rats, crocodiles and lung-fish sleep during summer months to escape heat. This summer sleep is called aestibation.

(e) Migration : During winter many animals leave the place where they live and travel every year to warmer areas. This long journey is called migration.

2. A camel is adapted to live in hot and dry climate of a desert. It is climate of a desert. It is known as the ship of desert as :

(i) Camel can live without water for three months.

(ii) Their thick lips help them to eat thorny plants.

(iii) They have huge padded feet to walk easily on sand.

(iv) They have thick eyelashes to protect them from sand and heat of he sun.

(v) They store fat in their hump.

(vi) They can close their nostrils to prevent the sand from getting in.

3. Five main groups of animals are :

(i) Herbivores : Plant eating animals like cows. goats, deer, giraffe and elephant are known as herbivores.

(ii) Carnivores : Flesh eating animals like lion, tigers, foxes and eagles are known as carnivores.

(iii) Omnivores : Animals which eat plants as well as flesh of other animals are called omnivores.

(iv) Scavengers : Some flesh eating animals like hyenas, vultures, hawk etc. feed on flesh of dead animals. They are called scavengers.

(v) Parasites : Some animals suck blood of other animals using sucking tubes in their mouth. They live on or inside the bodies of other living organisms. Bedbugs, tapeworm and like are parasites.

4. Fish, turtle, octopus, crab etc. are aquatic animals. They have gills to breathe, fins paddles like limbs to swim and a streamlined body, which makes the skin waterproof.

5. Animals show many adaptations to protect themselves like :

(i) Animals like deer and gazelles run very fast to escape from enemies.

(ii) Chameleon can change their body colour to match the colour of surroundings, when they are in danger.

(iii) Animals like desert rats, crocodiles and lungfish sleep during summer months to eacape the heat.

(iv) During winter, many animals leave the place where they live and travel every year to warmer areas. ➤

Unit-2

Chapter-5

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

(B) 1. Calcium **2.** obese **3.** Junk food **4.** nutrition **5.** food preservation

(C) 1. False **2.** True **3.** True **4.** True **5.** False

(D) 1. Food contains different substances which are useful for our body. These substances are called nutrients. The nutrients are necessary for our life and growth. There are five types of nutrients presents in our food. These are carbohydrates, fats, proteins, vitamins and minerals.

2. Water is the most abundant substance in our body. It is essential for the proper functioning of our body. Water helps in digestion and removal of wastes from our body. It also regulates the body temperature. Roughage is obtained from leafy vegetables, fruits and cereals. It helps our body to get rid of undigested food.

3. (a) Protective foods : Vitamins and minerals are protective foods. These nutrients help us to fight diseases and stay healthy. Minerals help in the formation of body components like bones, blood and teeth. Food items like fruits, green leafy vegetables, milk, meat are rich sources of vitamins and minerals.

(b) Body-building foods : Proteins are nutrients which help us to grow. These are body building foods. Meat, eggs, soyabean, cheese, milk, nuts, pulses are rich in proteins.

(c) Energy giving foods : Carbohydrates are energy giving nutrients. Bread, Rice, wheat, maize, pota to and sweets are rich in carbohydrates.

4. the diet that provides all the nutrients i.e. Carbohydrates, fats, vitamins, minerals and proteins in the right amount is a balanced diet. A balanced diet should contain certain foods which can be eaten raw and cooked. Fruits and some vegetables like carrot, radish, onion and cucumber should be eaten raw, Cereals, pulses, meat and vegetables need to be cooked to make them easier to digest.

5. The process of protecting food for getting spoiled is called food preservation. Food can be preserved by following ways :

(i) Drying (ii) Pickling (iii) Refrigerating and Freezing (iv) Salting (v) Canning ➤

Chapter-6

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

(B) 1. primary, temporary **2.** crown, root **3.** gum **4.** plaque **5.** canines

(C) 1. False **2.** True **3.** True **4.** True **5.** True

(D) 1. Based on their functions, these are four types of permanent teeth present in our month :

(i) Incisors : They are chisel shaped, flat and sharp edged front teeth helps to cut food into small pieces.

(ii) Pre Molars : They are broad and flat teeth. They help to crush food to make chewing easy.

(iii) Canines : They are sharp and pointed teeth help to tear food into pieces.

(iv) Molars : They are bigger than pre-molars. They work like mortar and pestle to grind and chew food.

2. The process by which food is broken down into simpler forms to be easily absorbed by the body is known as digestion.

3. The digestive system comprises of the mouth, food pipe stomach liver, small intestine, large intestine and anus. The digestive process starts in mouth and ends in the anus. Our teeth chew the food and this chewed food is passed down by the food pipe to the stomach. Live produces juices that helps in digestion of food while the stomach chwns it well. Food passed from stomach is further digested in the small intestine. Food nutrients are absorbed into the blood in the form of liquid.

As fibers can not be absorbed by the body, they are passed as undigested food into the large intestine and finally the semi-solid waste are eliminated out of body through anus.

4. A tooth structure is divided into two part : Crown and root. Crown is the visible part of tooth while the root is the anchor of tooth and is inside the gums.

(i) Enamel : It is outer part of tooth which is very hard white and shiny.

(ii) Dentine : It is below the enamel. It is the largest part and yellow in colour.

(iii) Pulp : It lies inside the dentine and contains nerves and blood vessels.

(iv) Gum : The soft tissue that surrounds the base of tooth is called the gum.

(v) Cementum : It is like cement which holds the tooth firmly to the jaw bones and between to gums.

5. We can keep our teeth healthy by following these habits :

(i) Brushing teeth regularly twice a day.

(ii) Use dental floss to clean between two teeth.

(iii) Rinse your mouth after every meal to keep it clean.

(iv) Get your dental check up regularly. ➤

Chapter-7

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

(B) 1. cotton **2.** cotton, wool, silk **3.** munder, neriyather **4.** woolen, silk, clothes **5.** germs

(C) 1. False **2.** False **3.** True **4.** True **5.** True

(D) 1. Clothes are one of the three basic needs of human beings. They are useful to us in many ways :

(i) Clothes protect us from dust, heat, cold, rain and insects.

(ii) Clothes are used in making bags, covers, sheets, etc.

(iii) People wear different others depending upon the weather conditions and their culture.

2. We can take care of our clothes by :

(i) Washing them with good quality detergent or soap and water.

(ii) Clothes should be dried in sun after washing. Sunlight kills the germs.

(iii) After drying clothes should be ironed to remove the wrinkles from clothes.

(iv) Clothes should be carefully stored to protect them from moths : Moth balls or dried neem leaves should be placed between the clothes.

3. Fibers that are obtained from plants or animals are called natural fibers. Example : Cotton, jute, silk, wool.

Fibers that are man-made and are made in factories are called synthetic fibers. Example : Rayon, Nylon, Polyster, etc.

4. People in different states of our country wear different clothes. These clothes are known as traditional dresses. For example : Traditional dress of Jammu and Kashmir is Phiran and dress of Kerala consists of Mundu and Neriyather.

5. People in different professions wear different types of clothes. These clothes are known as Uniforms. For example : These is special dress or uniform for doctor policemen, fireman, pilot, soldiers etc.

6. (a) Kimono **(b)** Hanbok **(c)** Saree for women.

7. We obtain natural fibers from plants and animals. We obtained woll from sheep, silk, from silkworm and cotton from cotton plants.

8. Two types of fibers are :

(i) Natural fibre : It is obtained from plants and animals. Example : Cotton, jute, silk etc.

(ii) Synthetic fibre : These fibres and man-made and are made in factories. Example : Rayon, Nylon.

9. (a) Cotton clothes

(b) Woollen clothes

(c) Raincoats and gumboots.

➤

Chapter-8

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

(B) 1. cotton **2.** zebra, crossing **3.** Antiseptic, Calamine **4.** Butter, oil **5.** Prevention

(C) 1. True **2.** False **3.** False **4.** True **5.** True

(D) 1. Safety rules we should follow in school are :

(i) We should not climb or run on staris.
(ii) We should not push each other while in queue.
(iii) We should not play in classrooms.
(iv) We should not jump on desks or chairs.

2. Safety rules to be followed at home are :

(i) We should not play with sharp objects like knife or blade.
(ii) We should not touch electric equipments with wet hands.
(iii) We should not light the gas stove ourselves.
(iv) We should not take any medicine without asking an adult.

3. Safety rules to be followed on road are :

(i) We should always wait on footpath.
(ii) Always use zebra crossing for crossing the road.
(iii) We should follow traffic rules.
(iv) We should not play on road.

4. First aid is the immediate help provided to an injured person before the doctor arrives. A first aid box should contain the following things :

(i) Small cotton roll
(ii) Band aid
(iii) a pair of scissors
(iv) an antiseptic lotion and cream
(v) a thermometer
(vi) Sterilized guaze and cotton pads.

5. (a) A person with a minor cut can be given first aid by :

(i) Wash the wound with cool water and dry it with sterilized cotton.
(ii) Tie a bandage on the cut tightly so that the bleeding stops.

(b) (i) In case of minor burn, the burnt area should be washed with cold running water.

(ii) When the burning sensation stops apply antiseptic cream or calamine lotion on the burnt area. Burnt are should not be bandaged.

➤

Unit-4

Chapter-9

(A) 1. (a) **2.** (b) **3.** (c) **4.** (b) **5.** (a)
(B) 1. definite **2.** solution **3.** atoms **4.** condensation **5.** closely
(C) 1. True **2.** False **3.** True **4.** False **5.** False
(D) 1.

	Difference	**Solid**	**Liquid**	**Gas**
(i)	Volume	Fixed	Fixed	Not fixed
(ii)	Shape	Fixed	Not fixed	Not fixed
(iii)	Flow	Do not flow	can flow	Can flow
(iv)	Space between molecules	No space	little space	Large space

2. Matter exists in three forms i.e. solid, liquid and gas.

These states of matter can be converted from one form to another by either heating or cooling. Solid changes into liquid on heating. Example : ice changes into water on heating. Liquid changes into solid on cooling. Example : water into ice. Water changes into gas on heating in the form of vapour and vapour changes into water on cooling.

3. (a) Solute : The substances that dissolve in liquid are said to be soluble in that liquid are called solute Example : salt and sugar.

(b) Solvent : The liquid in which a substance (solute) dissolves is called a solvent. Example : milk.

(c) Solution : The liquid obtained by dissalving a solute in a solvent in called a solution.

4. Solids have a fixed shape because molecules in solid are closely packed. They do not have space between them, so they cannot move and have a fixed shape while in liquid and gas molecules are loosely packed. Liquids can flow easily and takes the shape of container. They do not have definite shape. Molecules in gas are far apart. They can move freely. The force of attraction between molecules is lesser in liquid and gas as compared to solids.

5. (a) Evaporation : When liquid changes into gas on heating this process is called evaporation Example : water into vapour.

(b) Condensation : When gas changes into liquid on cooling, the process is called condensation Example : vapour into water.

(c) Freezing : When liquid changes into ice on cooling, the process is called freezing. Example water into ice.

(d) Melting : When solid changes into liquid on heating, the process is called melting. Example : ice into water. ➤

Chapter-10

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

(B) 1. Force **2.** Chemical **3.** Friction **4.** Gravitational force **5.** Pulley

(C) 1. True **2.** False **3.** True **4.** False **5.** True

(D) 1. A push or pull that can change the state of motion of an object is called force. Various effects of force are :

(i) Force can speed up a moving object.

(ii) Force can move a resting object.

(iii) Force can change the direction of a moving object.

2. The capacity to do work is called Energy. We need energy to live and do daily life activities and work.

We get energy in various forms :

(i) Solar energy : The energy that we get from sun is called solar energy. We get solar energy in the form of light and heat from sun.

(ii) Wind energy : Energy that we get from wind is called wind energy.

(iii) Hydro energy : Energy obtained from flowing water is known as hydro energy.

(iv) Chemical energy : Chemical energy is released when the fossil fuels like coal and petroleum are burnt.

3. Tools which makes our work simpler, faster and easier are known as simple machines. For example : Knife, screw, driver, scissors etc.

Some simple machines are :

(i) Lever : A lever is a simple machine used to move heavy objects, cut or open things, lift weights, etc. Example : tongs, pliers etc.

(ii) Pulley : A grooved wheel and a rope are used as pulley. It is used to raise, lower or move a load. Example : draw water from wells.

(iii) Inclined Plane : It is like a slope used to lift heavy objects. Example : loading barrels on trucks.

4. A push or pull which moves an object through a distance is called work. A work is done when an object is moved through a distance by using force.

Example : When we push a chair, it moves from its place. In this case, the work is done.

5. (a) Frictional force : Whenever two surfaces are in contact they rub against each other to stop the movement. This is called frictional force. Frictions slows down a stops the movement of any objects.

(b) Gravitational force : The force that pulls the objects downwards towards the centre of earth is called gravitational force or force of gravity.

(c) Muscular force : The force exerted by our muscles is called muscular force. This force is used to push pull or lift things.

➤

Chapter-11

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

(B) 1. land, sea **2.** wind **3.** Meteorologist **4.** land **5.** Chlorination

(C) 1. False **2.** False **3.** False **4.** True **5.** True

(D) 1. Weather condition changes due to the presence of sun. The heat of sun effects the movement of air and changes the form of water, which brings changes in weather. Secondly, the heat of sun warms the earth during the day, therefore the days are warmer and nights are cooler. The earth revolves round the sun. The part of earth closer to sun has summer season and part of earth away from sun has winter season.

2. Sea Breeze : During the day, land gets heated up, which in turn heat the air. The hot air rises up form the land and cool air from the sea flows in to take its place. This is called sea breeze.

Land Breeze : At night, the reverse process takes place. The warm air rises above the sea and the cool air from the land flows towards the sea. This is known as Land Breeze.

3. There are three kinds of impurities present in water :

(i) Insoluble impurities : These can be seen clearly as they do not dissolves in water. For example : mud, sand.

(ii) Soluble impurities : These dissolve in water, so they cannot be seen. For example : Chemicals.

(iii) Disease causing germs or microbes : These can not be seen but they are present in untreated water.

4. The heat of the sun causes changes in three states of water solid, liquid and gas.

The water cycle consists of three stages :

(i) Evaporation : The sun slowly heats the water in takes, seas to change it into water vapour. This is called as Evaporation.

(ii) Condensation : As the water vapour rises, it cools down to form tiny water droplets. This process is called condensation.

(iii) Precipitation : Water droplets come together to form clouds. When the clouds become heavy it begins to rain.

This cycle continues in nature and is known as water cycle.

5. Water can be purified in following ways :

(i) Sedimentation and Decantation : The impure water is left for sometimes in a container. The heavy impurities settle down at the bottom of container. This is known as Sedimentation. Now, the cleared water is poured in another container. This process is known as decantation.

(ii) Filtration : In this process insoluble impurities in water are removed by pouring it through a filter paper.

(iii) Boiling : Boiling helps in killing germs present in water.

(iv) Chemical treatment : Chemicals such as chlorine, bleaching powder and potassium permanganate are used to kill germs present in water.

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Unit-5

Chapter-12

(A) 1. (c) **2.** (b) **3.** (a) **4.** (b) **5.** (c)
(B) 1. Moon **2.** Venus **3.** Jupiter **4.** Sun **5.** Halley's comet
(C) 1. False **2.** True **3.** False **4.** True **5.** False
(D) 1. Rotation : The spinning of earth around its axis is called rotation. It takes 24 hours to complete one rotation. Rotation causes days and nights.

Revolution : White rotating on its axis, the earth also revolves in its orbit around the sun. It takes 365.25 days or one year to complete one revolution. Revolution of earth causes changes in seasons.

2. The sun has a family of eight large heavenly bodies. They are called planets. These planets revolves round the sun in an elliptical orbit. The eight planets are Mercury, Venus, Earth, Mass, Jupiter, Saturn, Uranus and Neptune. These are some other heavenly bodies which travel around these planets. They are called satellites. The moon is the natural satellite of earth. The sun the eight planets and their satellites together form the solar system.

3. Artificial satellites are made by humans and sent into space to study the scientific facts. They take photographs and send information to earth about storms, weather etc. They also help in transferring telephone calls, radio and television signals. They also assist in navigation of ships and aeroplanes. Some Indian satellites are : Aryabhatta, INSA-IA, etc.

4. (a) Comets : In the solar system the big balls of dust and show travel around the sun in an elliptical path. When these bodies come close to the sun, their melting snow and dust forms a long tail behind them. These tailed bodies are called comets.

(b) Asteroids : The belt of rock and debris that lies between the Mars and Jupiter is called the Asteroid belt. These bodies also orbit around the sun.

5. (a) Earth : Earth is the third planet from the sun. It is also called as blue planet as 70% of its surface is covered with water. Earth is the only planet to have life.

(b) Jupiter : Jupiter is the largest planet. It is the fifth planet from the sun. Jupiter takes 12 years to complete one revolution round the sun.

(c) Mars : It is the fourth planet from the sun. It is covered with red dust therefore it is also called as red planet. It takes 687 days to complete a revolution around the sun.

(d) Saturn : It is the sixth planet from the sun. It is the second largest planet in the solar system. It has rings around it. It takes 30 years to complete one revolution. ➤

Chapter-13

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

(B) 1. air **2.** paper, cloth **3.** Mount Everest **4.** Pollution **5.** Ozone

(C) 1. False **2.** True **3.** False **4.** False **5.** False

(D) 1. Pollution is the contamination of the environment with harmful substances. Pollution makes the air, land and water dirty. There are three main types of pollution :

(i) Air pollution
(ii) Water pollution
(iii) Soil pollution
(iv) Noise pollution.

2. Air is a mixture of gases and dust particles. When there is change in its composition it causes Air pollution. Gases like carbon dioxide, nitrogen, oxides of sulphur. smoke and dust are various air pollutants.

Causes of Air pollution

(i) Smoke from automobiles, factories, power plants.
(ii) Forest fires.
(iii) Pollutants produced by nuclear explosions.
(iv) Smoke released from burning of fuels.

Effects of Air pollution

(i) It can cause breathing and cough problems.
(ii) Air pollution decreases the quantity of oxygen present in air.
(iii) Smog creates haze that reduces visibility.

3. The contamination of water bodies like takes. rivers, canals by dumping garbage and liquid waste into them is known as water pollution.

Causes of Water pollution

(i) Sewage water, water mixed with chemicals from factories is the biggest cause of water pollution.
(ii) Throwing of garbage, plastic waste in water bodies.
(iii) Chemical fertilizers and insecticides used in crop fields get mixed with rain water and flows into rivers and takes.

Effects of Water pollution

(i) Polluted water carries harmful germs. Drinking such water can cause diseases.
(ii) Water polluted by chemicals affects aquatic life.

4. Pollution can be control by following ways :

(i) Factories should use filters that will clean the air before lefling the pollutants into atmosphere.

(ii) Liquid and toxic waste should be chemically treated in ETP (Efficient treatment plant).

(iii) We should avoid using plastic bags.

(iv) Use of Coal Petrol and Diesel should be minimized. LPG and CNG should be used in automobiles.

(v) Three and principle should be followed i.e. Reduce, Reuse and Recycle.

5. (a) Global Warming : The presence of more carbon dioxide in air traps sun's heat and does not allow it to escape. This trapped heat warms the Earth's surface resulting in green house effect due to which the temperature of earth rises. This is known as Global warming.

(b) Ozone Hole : These is a thin layer of invisible gas presented in atmosphere which protects us from be harmful ultraviolet rays of sun. This layer is called ozone layer is called ozone layer. Due to the presence of crlaro Fluro Carbons in air this layer have thinned out and in some places like North pole there is a hole in it due to which harmful rays are entering the atmosphere and effecting the life of plants and animals.

(iii) Acid rain : When rain water mixes with harmful gases such as oxides of sulphur and nitrogen, it forms acids such as sulphurous and nitrous acid. When these acid comes down with the rain, it is known as Acid rain Acid rain harms buildings, monuments, water bodies and soil.

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Model Test Paper-I

(A) 1. (a) **2.** (a) **3.** (c) **4.** (b) **5.** (a) **6.** (a) **7.** (c) **8.** (c) **9.** (c)

(B) 1. Midrib **2.** Starch **3.** Desert **4.** Papyrus **5.** life span **6.** moulting **7.** Habitat **8.** obese

(C) 1. True **2.** True **3.** False **4.** False **5.** False **6.** True **7.** False **8.** False **9.** True

(D) 1. Mouth **2.** Food pipe **3.** Stomach **4.** Liver **5.** Small intestine **6.** Large intestine

(E)

Model Test Paper-2

(A) 1. (b) **2.** (c) **3.** (a) **4.** (a) **5.** (a) **6.** (b) **7.** (a) **8.** (b) **9.** (a)

(B) 1. germs **2.** Prevention **3.** atoms **4.** condensation **5.** Force **6.** wind **7.** Meteorologist **8.** Moon **9.** Mount Everest

(C) 1. False **2.** True **3.** False **4.** False **5.** False **6.** False **7.** True **8.** False **9.** False

(D) Pg. 80 book

(E)

➤

Science-5

Unit-1

Chapter-1

(A) 1. (a) **2.** (b) **3.** (c) **4.** (c)

(B) 1. Rose **2.** Rabi **3.** Spores **4.** Peas

(C) 1. False **2.** True **3.** True **4.** True

(D) 1. Seed is the beginning of a new plant. Most seeds have three main parts:

(i) Seed Coat : A seed have an outer covering called seed coat. Seed coat has a tiny hole through which water enters the seed.

(ii) Endosperm : It is placed right underneath the seed coat. It provides nutrients to the boby plant of the seed.

(iii) Embryo : The embryo or baby plant will turn into a seeding or young plant when it gets the right conditions for growth.

2. The process by which a seed grows into a seeding or a baby plant is called germination. Seed sown in soil absorbs water from it. As a result seed coat becomes soft and break easily. This results in growth of baby plant inside the seed. A small root called radicle comes out of the seed and grows downward. Later, it grows into the root of new plant.

Next the baby shoot or plumule comes out and start growing upwards. The radicle forms the root and the plumule forms the shoot with stems and leaves.

3. The process by which the seeds are scattered away from the parent plant is called dispersal of seeds. Seeds are dispersed in different ways which are called agents of dispersal.

(i) Dispersal by wind : Seeds of plants like cotton dandelion are carried by the wind from one place to another.

(ii) Dispersal by water : Seeds of plants like coconut, lotus are spongy and float an water. Water carries these seeds from one place to another.

(iii) Dispersal by animals : Humans and animals eat fruits and throw the seeds. These grow into new plants. Seeds of guava and cherry are passed in the droppings of binds, animals.

(iv) Dispersal by explosion : Fruits of plants like poppy, bean and pea burst open when they ripe, scattering the seeds in all directions.

4. There are two crop seasons in India :

(i) Kharif crops : The summer crops are called kharif crops, Rice, jowar, bajra, jute, peanuts are grow in summer. Vegetables and fruits like onion, pumpkins tomato, guard, mango, melon are grown during summers.

(ii) Rabi crops : Crops grown in winter are called Rabi crops. For ex. Wheat, barley, gram, mustard. Vegetables and fruits like spinach, banana, orange, cauliflower or grown during winters.

5. To get better yield of crops various methods can be followed :

(i) Crops should be selected and sown according to the type of soil and season.

(ii) Sufficient quantity of fertilizers and manure should be added to soil to keep it fertile.

(iii) Unwanted plants and weeds must be removed regularly.

(iv) Crops must be harvested at proper time and should be properly stored.

➤

Chapter-2

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

(B) 1. habitat **2.** spiracles **3.** incisors **4.** ostrich **5.** Siberian crane

(C) 1. False **2.** False **3.** False **4.** True **5.** True

(D) 1. The main habitats present on earth are :

(i) Forest : Forests provide shelter to a large variety of animals like lion, bear, tiger, elephant etc. Other animals like Rabbit, snake and rat live inside burrows.

(ii) Desert : Camel, rattle snake scorpion and grounds squirrel are found in deserts. They have thick skin to avoid water loss through sweating as desert is a dry and hot region.

(iii) Polar region : The snow covered areas of north and south pole are called polar regions. Animals like polar bear, penguin walrus etc. live here have thick fur which cover their bodies and keep them warm.

(iv) Oceans : It is the world's larger habitat. Whale, octopus, shanks etc. are found in oceans.

(v) Fresh water : River, lares and ponds are examples of fresh water habitat. Frog, salamander outlives here.

(d) **2.** Animals living in different habitat have different breathing organs :

(i) Lungs : All mammals, birds, reptiles and amphibians in their adult stage breathe through a pair of spongy elastic bags called lungs.

(ii) Spiracles : Insects like grass-hoppers breathe through air hole on their body called spiracles.

(iii) Gills : Aquatic animals breathe through thin flat organs called gills.

(iv) Skin : Animals like frogs and earth-worms breathe through their moist skin.

(D) 3. On the basis of feeding habits animals are classified into groups :

(i) Herbivores : Plant eating animals like Giraffe, Cow, Camel, Horse etc. are called herbivores.

(ii) Carnivores : Animals that feed on flesh of other animals are carnivores. For ex. Lion, Tiger, Sharks etc.

(iii) Omnivores : These animals feed on both plants and flesh of other animals. Ex. Bear, Crow etc.

(iv) Decompesers : These are small organisms which feed on dead and decayed plants and animals.

(D) 4. Migration : Animals migrate in search of favourable conditions of food, temperature and breeding. They travel long distances every year to escape the extreme cold weather to give birth to their young ones or in search of food. This movement of animals during a particular season is called migration.

(D) 5. Different animals have different body coverings which helps them to survive in a particular habitat.

(i) Scales : The bodies of reptiles like snake, crocodile, lizard, fish are covered with scales.

(ii) Shell : Animals like snail, tortoise and turtle are protected by hard surface called shell.

(iii) Feathers : The bodies of the birds are covered with feathers that help them to fly and keep them warm.

(iv) Hair and Fur : The bodies of mammals like, dog cat, goat, sheep are covered with hair and fur that keep them warm.

(v) Spines : Spines are hard thorny or needle like structure that helps animals such as porcupines and sea urchins for self defense.

6. Aquatic animals such as fish, tadpoles etc. breathe through their gills. Gills are thin flat organs supplied with blood vessels. The gills absorb oxygen from the water and release carbon dioxide from blood.

(E) Carnivores

1. flesh of other animals

2. Canines

3. (a) Lion (b) Tiger (c) Shark

Omnivores

1. plants and flesh of other animals

2.

3. (a) Bear (b) Crow (c) Human

Herbivores

1. plants

2. incisors

3. (a) Cow (b) Horse **(c)** Goat

➤

Chapter-3

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

(B) 1. skull **2.** Involuntary muscles **3.** Voluntary muscles **4.** joint **5.** spine

(C) 1. False **2.** True **3.** True **4.** False **5.** False

(D) 1. Skeletal system forms a rigid framework which gives both shape and size to our body. The skeletal system is made up of 206 bones. This system protects the internal organs and help in the movement of body parts. The skeletal system consists of following parts :

(i) Skall (ii) Rib cage (iii) Backbone (iv) Limbs (v) Girdle (vi) Cartilage, and (vii) joints

(D) 2. Joints are of two types :

(i) Immovable joints : Joints on skull, breastbone and between the ribs does not move. They are called immovable joints.

(ii) Movable joints : These joints have cartilage present between then which allow movements between the bones. They are of four types :

(a) Ball and Socket joints : They allow body movement in many directions. Ex. shoulder and hip joints.

(b) Pivot joint : It allows head to turn from side to side.

(c) Hinge joint : These joints allow back and forth movements. These joints are present in knees, fingers elbows and toes.

(d) Gliding joint : This joint is found in ankles and wrist.

(D) 3. (a) Skull : The skull protects the brain. It contains 22 bones. All bones in the skull are fixed except lower. The movable lowery jaw helps us to eat and talk. Skull has sockets for eyes, ears, nose and mouth.

(b) Ribcage : Ribs are flat, curved bones that are arranged to form a cage like structure called the Ribcage. It is formed by 12 pairs of curved bones. A long bone at the centre of the chest called sternum holds the ribs together. The ribcage protects our heart, lungs and some parts of stomach and kidneys.

(c) Backbone : The backbone is also known as spine. Backbone is made up of 33 bones called vertebrae. It is flexible and help us to bend our body. It maintains balance on two legs and it also protects the spinal cord.

(D) 4. Muscles of our body can only pull, they cannot push. Our muscles are present in pairs. They expand and contract to make a joint move. When one muscle contract the other relaxes. This allow us to perform various actions and movements.

(D) 5. Our muscular system consists of three different types of muscles :

(i) Voluntary muscles : The muscles which can be controlled by us are voluntary muscles. These muscles are found in the arms, legs and eyes.

(ii) Involuntary muscles : Muscles whose movements are not under our control are called voluntary muscles. They are controlled by spinal cord and brain. These are found in stomach, intestine and blood vessels.

(iii) Cardiac muscles : These muscles are found in the heart. They are involuntary and work throughout our life.

6.

	Pivot Joint	**Hinge Joint**
(i)	It allows the head to turn from side to side.	It allows back and forth movements.
(ii)	It is directly under are skull.	These are present in knees, elbows, fingers and toes.

7.

	Immovable Joints	**Movable Joints**
(i)	Does not allow movement between the bones.	allows carbain movements between the bones.
(ii)	Present in skull, between the ribs and breastbone.	present in knees, elbows, fingers shoulders, ankles.
(iii)	Cartilage is not present in them.	Cartilage is present between then.

➤

Chapter-4

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

(B) 1. brain stem **2.** reflex action **3.** backbone **4.** optic **5.** taste buds

(C) 1. True **2.** False **3.** True **4.** True **5.** True

(D) 1. Our brain is made up of three parts :

(i) Cerebrum : It is the largest part of the brain. It controls our sense organs. It is responsible for our memory, intelligence, logic and learning.

(ii) Cerebellum : It is located at the back of brain below the cerebrum. It is responsible for movements and maintaining the balance of our body while walking, running etc.

(iii) Medulla : It connects the brain to the spinal cord. It controls involuntary movements such as breathing, blood circulation, heartbeat etc.

(D) 2. Reflex actions are the immediate response of the body to a stimulus. Reflex actions does not involve brain. They are result of messages sent to spinal cord. Blinking of eyes, sneezing, pulling hand away from hot object are all reflex actions.

(D) 3. (i) Sensory nerves : These nerves carry messages from the sense organs to the brain and spinal cord. We are able to see hear feel etc. when brain interprets these messages.

(ii) Motor nerves : These carry messages from the brain and the spinal cord to the glands and muscles.

(D) 4. The eye is the organ of the sense of sight. They are set in hollow sockets in the skull. The transparent and circular area in the front is the called the cornea. The coloured part of the eye is called the iris. Each eye has an adjustable opening called the pupil. At the back of the eye lies the retina. The eyes are joined to the brain with the help of sensory nerves called the optic nerves.

(D) 5. (a) Tongue : Our tongue helps us to taste and speak. The surface of the tongue is covered with thousands of taste buds. These taste buds have nerves which carries messages to the brain. The brain tells us whether the food is sweet, sour salty or bitter.

(b) Skin : The skin is the largest sense organ of our body. It covers the entire body and protects the internal organs. It has tiny nerve endings which help us to feel pain, heat, cold etc.

(D) 6. The nose is the sense organ which helps us to smell and breathe. The inner part of the nose is called the nasal cavity. There are two nostrils which contains hair. These hairs prevent dust and germs going into our lungs. In the upper part of nose. there are nerve endings which are called as olfactory nerves. These nerves carry messages to the brain which interprets the smell.

(D) 7. An ear has three parts. The outer most part of the ear is made of cartilage that is connected to the outer tube called the auditory canal. This leads to the eardrum. The outer ear gather sound and funnel it into internal ear. From there they are carried to brain through a special nerve as messages for interpretation.

➤

Chapter-5

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

(B) 1. Calcium **2.** nutrients **3.** balanced **4.** obese **5.** Typhoid

(C) 1. False **2.** True **3.** True **4.** False **5.** True

(D) 1. Deficiency diseases are caused when a particular nutrient is deficient in our diet. These are non communicable diseases and can be prevented by taking sufficient quantity of nutrients.

	Disease	**Cause**	**Measures to prevent**
(i)	Night Blindness	deficiency of vitamin A	increasing intake of green leafy vegetables, Carrot, papaya.
(ii)	Beri-Beri	deficiency of vitamin B	Taking food-cereals, milk, meat, fish, eggs.
(iii)	Scurvy	lack of vitamin C is body	Citrus fruits, Cabbage, amla, green leafy vegetables.
(iv)	Rickets	lack of vitamin D	Increasing in tare of milk, fish meat, cod liver oil.
(v)	Goitre	lack of iodine	Taking iodized salt and sea food.

(D) 2. (a) Carbohydrates : Carbohydrates are ideal source of energy for the body. These contains sugar and starch. Our body use Carbohydrates immediately or stores them for future use. Rice, banana, potatoes, wheat, corn are rich in Carbohydrates .

(b) Vitamins : Vitamins are needed for the normal functioning of our body. Vitamins keep us healthy and helps our body to fight against diseases. Fresh fruits and vegetables, eggs and fish are rich in vitamins.

(c) Proteins : Proteins are known as body building foods. Proteins helps in repairing old and damaged cells in healing wounds and making and blood. Pulses, milk products, eggs and chicken are rich in proteins.

(D) 3. A diet that contains adequate amount of different components of food required for healthy functioning of our body, is called a balanced diet. A balanced diet contains all the nutrients : carbohydrates, fats, proteins, minerals and vitamins.

(D) 4. Benefits of exercising regularly are :

(i) Development of stronger bones and muscles.

(ii) It keeps the joints healthy.

(iii) It keeps our weight balanced.

(iv) It improves blood circulation in our body.

Sleeping is the best way to give adequate rest to the body. Rest gives body time for repairing wear and tear and helps body to grow.

(D) 5. Communicable diseases are caused by very tiny organisms called germs. These germs can enter our body in the following ways :

(i) by consuming unclean water or food.

(ii) through open wounds.

(iii) mosquito bites.

(iv) direct contact with the infected person.

(v) inhalation of airborne germs.

(E)

	Deficiency	**Symptoms**
1.	Vitamin A	cannot see in dim light.
2.	Vitamin B	Disorder of nerves weights loss.
3.	Vitamin C	Swollen and bleeding gums, fatigue.
4.	Iron	Less hemoglobin in body.
5.	Iodine	Swelling in the neck.
6.	Calcium and phosphorus	Bones and teeth becomes weak.

➤

Chapter-6

(A) 1. (a) **2.** (b) **3.** (c) **4.** (b)

(B) 1. traffic rules **2.** Rabies **3.** Swelling **4.** fire extinguisher

(C) 1. True **2.** True **3.** False **4.** True

(D) 1. A fire can be caused due to electrical faults, gas leaks, accident while cooking and by carelessness while handing burning objects like matchsticks etc. Fire can be prevented by following ways :

(i) Do not wear nylon or synthetic clothes in kitchen as they catch fire easily.

(ii) Do not wear loose clothes while cooling or burning cracker.

(iii) In case of gas leak, open all doors and windows and do not operate switches.

(D) 2. First aid is an immediate help given to injured or a sick person before he is taken to a doctor.

(D) 3. (a) First aid for cut and wounds :

(i) Wash the cut thoroughly with mild soap and water.

(ii) Use direct pressure of water to stop the bleeding.

(iii) Apply anti bacterial ointment and a clean bandage that will not stick to the wound.

(iv) To stop heavy bleeding tight bandage called tourniquet should be tied to the wound.

(b) First aid for Burns :

(i) Run cold water over the area of burn for few minutes.

(ii) Apply ice pack on affected area.

(iii) Apply cotton wool dipped in baking soda and water on the affected area to give comfort from burning sensation.

(iv) Cover the burn with sterile bandage.

(D) 4. Sprain is an injury in the muscle near a joint such as ankle or wrist. Sprain causes swelling. We can provide the following first aid for sprain :

(i) Use an ice pack to bring down the swelling.

(ii) Apply an ointment like 'iodex' and tie a crape bandage at the joint for support.

(iii) Do not move the injured area.

(D) 5. In case of nose bleeding we should :

(i) Make the person sit with the head held back.

(ii) Put the wet handkerchief over the nose until the bleeding stops.

(iii) Put an ice pack on the nose and on the back of person's neck.

➤

Chapter-7

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

(B) 1. space, mass **2.** chemical **3.** solids **4.** atoms **5.** solvent, solute

(C) 1. True **2.** True **3.** False **4.** True **5.** Ture

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

(E) 1. Matter is anything that has mass and occupies space. All matter whether solids, liquid or has are made up of small particles called molecules.

(E) 2.

	SOLIDS	**LIQUIDS**	**GAS**
Shape, Sized and Volume	Fixed	Fixed Volume	Not fixed
Molecules	Closely packed	Loosely packed	Very loosely packed

Force of attraction	Strong	Weak	Weaker
Example	Stone, table	Water, oil	Oxygen, Carbon dioxide

(E) 3. Physical Change : Physical change is a temporary change and can be reversed. In thus only the physical properties of the substance changes and no new substances are formed. For example : melting of ice, freezing of water etc.

Chemical Change : It is a permanent change and cannot be reversed. In chemical change new substance is formed and its properties are different from those of original material. For example : burning of paper, ripening of fruits, etc.

(E) 4. Soluble substances : Some substances such as salt, sugar, potassium permanganate etc. dissolve completely in water. They are known as soluble substances.

Insoluble substances : These substances do not dissolve completely in water such as sand, chalk powder etc.

(E) 5. Liquids that easily dissolves in water such as ink, fruit, juice, alcohol, milk, etc. are miscible liquids.

Liquids that do not dissolve in water as oil, petrol, etc.

(E) 6. In solids the molecules are very closely packed. They are held together by strong forces of attraction. As there is no intermolecular space movement is not possible in solids.

In liquid molecules are not packed very closely like solids.

The molecules have intermolecular space and weak force of attraction due to which they can move freely to some extent.

Molecules in gas are very loosely packed as compared to solids and liquids. Due to weak molecular force of attraction, molecules can move freely in all directions.

(E) 7. (a) Evaporation : When liquid (water) turns into gas (vapour) due to heating it is called evaporation.

(b) Condensation : When vapors changes into water or gas changes into liquid due to cooling, thus process is called condensation.

(c) Solubility : Solubility is a property of a substance to dissolve in some other substance to form a uniform mixture.

➤

Chapter-8

(A) 1. (c) **2.** (b) **3.** (a) **4.** (b)

(B) 1. Force **2.** rough **3.** kinetic **4.** sun

(C) 1. True **2.** False **3.** True **4.** False

(D) 1. A push or pull acting on an object is called force. Force can affect the objects in different ways.

(i) It can change the speed of moving object.

(ii) It can make a stationary object move or moving object move faster.

(iii) It can change the direction of motion of a body.

(iii) Force can change the shape and size of an object.

(iv) Force can change the shape and sizey an object.

(D) 2. Gravitational Force : The force that pulls the objects downwards towards the centre of earth is called gravitational force. All the things which are thrown in air comes back to the earth due to the force of gravity.

Frictional Force : Whenever two surfaces are in contact, they rub against each other and try to stop the movement of other. This is called frictional force. Frictions slows down or stops the movement of any object. If there is no friction anything that start moving would never stop.

(D) 3. The force exerted by magnets is called magnetic force. This force is exerted by a magnet on metals like iron, nickel etc.

Electrostatic force is due to the attraction between charged bodies. For example : If you rub a comb through your hair it becomes charged and can attract small bits of paper.

(D) 4. The energy of an object because of its position or motion is called its mechanical energy. Mechanical energy is of two types :

(i) Potential energy : Energy possessed by an object due to its position is called potential energy. An object kept at height possess this energy.

(ii) Kinetic energy : Energy possessed by an object due to its motion is called kinetic energy. A moving object possesses this type of energy.

(D) 5. Solar Energy : The energy we get from the sun in the form of heat and light is called the solar energy. Plants use solar energy to prepare their food through photosynthesis. Large solar cells are used to produce electricity from sunlight. It can also be used to produce heat that can cook food.

Hydro Energy : This energy is produced by moving water. The flow of water in a dam is used to produce electricity. Hydro energy is clean and non polluting.

➤

Chapter-9

(A) 1. (a) **2.** (a) **3.** (b) **4.** (c)

(B) 1. muscular **2.** load **3.** machines **4.** third

(C) 1. True **2.** False **3.** True **4.** True

(D) 1. Machines which have fewer parts and uses muscular force to function are called simple machines. Simple machines uses single effort (applied force) to overcome a single load.

(D) 2. On the basis of fulcrum, load and effort, levers have been classified into three types :

(i) First class lever : In this the fulcrum is in between the load and the effort. For example : see-saw, scissors, pliers etc.

(ii) Second class lever : In this type of lever, the load is in between the fulcrum and the effort. Fro example : bottle opener, nut eracrl etc.

(iii) Third class lever : In this lever the effort is between the load and fulcrum. For example : stapler, forceps, fishing rod etc.

(D) 3. An inclined plane is a sloping or slanting surface which connects a lower level to a higher level. This is a type of simple machine that does not reduce the amount of work but make it easier to do. Inclined planes are useful to push up or roll up heavy objects on a lower or higher on a lower or higher place. Example : Ramp, path up a hill etc.

(D) 4. (a) Wheel and Axle : An axle is the rod that goes through the wheel and let it turn. It is a simple machine which make easier to move things from one place to another. Sewing machine, roller skates etc, are examples of wheel and axle.

(b) Wedge : A wedge is a modified inclined plane. It can be composed of one or two inclined planes placed together in the shape of 'V'. Axe, blade, knife etc. are examples of wedges.

(c) Screw : A screw is a curved slope or an inclined plane which is wrapped around a cylinder or cone. A screw moves easily due to its spiral grooves. These are help to hold objects together. For example : light bulbs, nuts and bolts.

(D) 5. A pulley consists of a wheel with a grooved run a rope, chain or belt running around it. One end of the rope is attached to the load and force is applied on other end.

Pulley are of two types :

(i) Fixed pulley : In this, the wheel moves at one fixed place and is attached to hook or wall. It changes direction of force.

(ii) Movable pulley : In this, the wheel also moves along with the load. This pulley is used to lift heavy objects. ➤

Unit-5

Chapter-10

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

(B) 1. oxygen **2.** stratosphere **3.** Exosphere **4.** Smoke, fog **5.** Mesosphere

(C) 1. True **2.** True **3.** False **4.** True **5.** True

(D) 1. The atmosphere has the following layers :

(i) Troposphere : The layer closest to the earth's surface is called the troposphere. It extends upto 15km from the ground. All weather changes takes place in this layer.

(ii) Stratosphere : It forms the next layer. It extends from 15km to 50km from the ground. It has ozone layer.

(iii) Mesophere : It lies above the stratosphere. It extends from 50km to 80km above the ground. Many meterorids burn up in this layer.

(iv) Thermosphere : This is the fourth layer and extends 80km above the earth's surface. Here temperature can rise upto 3000°F.

(v) Exosphere : This is the fifth layer. Here the air is very thin. Artificial satellites orbit the earth in this layer.

(D) 2. Air is a mixture of several gases. The main gases that are found in air are nitrogen (78%), Oxygen (21%) and the remaining 1% comprises other gases such as neon, carbon dioxide etc. Air also contains water vapour, dust and smoke.

(D) 3. Soluble impurities can be seperated using following processes :

(i) Evaporation : Water containing insoluble impurities like salt is heated. Water changes into water vapour and escapes and impurities are left behind.

(ii) Distillation : When impure water is heated, it starts boiling and steam is formed. This water is free of impurities as they are left behind in the flask. Pure water is collected in the collector.

(D) 4. Insoluble impurities in water can be removed by following process :

(i) Sedimentation and Decantation :

Impure water (muddy water) is allowed to stand undisturbed in a beaker.

After sometime, the mud settles down at the bottom of the container as sediments. This process is called sedimentation.

Clean water is poured out into a separate container. This is called decantation.

(ii) Filtration : In this method, insoluble impurities can be removed by passing the impure water through a filter paper.

A flask is kept below the funnel and muddy water is poured into the flask through the funnel. Sand is retained in the filter paper or funnel and clean water is obtained in flask.

(D) 5. Activity to show that air exerts pressure : Take a glass filled with water upto brim. Put a cardboard on top of the glass. Press the cardboard firmly and turn the glass up and down remove your hands, the cardboard does not fall off and water will not flow out. This shows that air exerts pressure.

- ❖ Air pressure is necessary for
- ❖ drinking through a straw.
- ❖ Using droppers.
- ❖ Filling up a syringe and
- ❖ fountain pens.

(D) 6. (a) Do yourself **(b)** Do yourself **(c)** Do yourself.

(d) Chlorination : The process of adding chlorine in water to kill germs is called chlorination.

(e) Do yourself.

(f) Soluble, Soluble, Insoluble, Insoluble, Soluble, Soluble.

➤

Chapter-11

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

(B) 1. Afforestation **2.** erosion **3.** clayey **4.** subsoil **5.** Deforestation

(C) 1. False **2.** True **3.** True **4.** True **5.** False

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

(E) 1. Soil formation takes place over millions of years. Rocks on the surface of earth break down into fine particles by action of winds, water and temperature. This is called weathering. After million years of constant weathering soil is formed.

(E) 2. The layers of soil referred to as soil profile.

(i) Topsoil : The topmost dark coloured layer of soil is called the topsoil. This layer is very soft and loose. It is made up of loam and humus.

(ii) Subsoil : It is generally grey or red in colour. It is mixture of sand, silt clay and pebbles.

(iii) Bedrock : It contains large rocks. Water is present in less quantity in this layer.

(D) 3. Soil are of three types :

(i) Sandy soil : It contains big sand particles. It does not hold much water therefore it is dry and rough. Very few plants grow in this type of soil.

(ii) Loamy soil : It is a mixture of sandy and clayey soil. It holds enough air and water and is good for growth of plants.

(iii) Clayey soil : It contains very fine particles. It is sticky and holds a lot of water. It does not have air in it. Potters use this type of soil.

(D) 4. The removal of topsoil by rain, wind and water is known as soil erosion. The factors that are responsible for soil erosion are known as agents of erosion.

(i) Strong wind removes the good part of top soil.

(ii) Running water loosens and washes away the soil.

(iii) Deforestation.

(iv) Overgrazing by cattle.

(v) Ploughing of land loosens soil.

(vi) Construction activities.

(D) 5. Soil conservation means to prevent the soil from erosion. We can prevent soil erosion by taken some measures such as :

(i) Afforestation : Planting of new trees is the first step towards soil conservation.

(ii) Embankments : These are mound of earth or stones. The help to control the speed of water and help in soil erosion.

(iii) Terrace farming : In this water flows from one step to the next, soil carried away from upper step is deposited on the lower steps.

(iv) Wind breakers : Trees along the edges of fields act as shied against strong winds which prevent soil from being brown away.

(D) 6. Planting of new trees is called as Afforestation. Cutting of trees is called as Deforestation.

➤

Chapter-12

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

(B) 1. Igneous **2.** Sandstone **3.** Anthracite **4.** Quartzite

(C) 1. False **2.** True **3.** True **4.** True

(D) 1. The word igneous comes from the Latin word 'ignis' which means fire. When magma moves towards earth's surface it cools down and solidifies, it hardens to form igneous rocks. Types of igneous rocks.

(i) Granite : It is very hard. It looks very beautiful and shines in sunlight. Granite contains quartz, feldspar and mica. It is used to make building statues and staircases.

(ii) Basalt : This rock has a glassy appearance. It is formed by cooling of lava on earth's surface. It is dense and dark and is used in construction of roads.

(D) 2. The word 'metamorphic' comes from the Greek words 'meta' and 'morph' which means 'to change from'. These rocks are formed due to physical and chemical changes in igneous, sedimentary or other metamorphic rocks.

(i) State : It is formed by shale by the action of heat and pressure on it. It is very useful in roofing, making pavements and blackboards as it splits into thin flat layers easily.

(ii) Marble : It is formed from time stone. It is used for making statues and in flooring of houses.

(D) 3. Due to action of wind, water and weather, rocks break into smaller pieces like pebbles, sand, clay etc. These are called sediments. These sediments are carried away by rivers or streams to sea, where they pile up to form solid rocks. These rocks are called Sedimentary rocks.

(i) Sandstone : It is made from grains of sand cemented together. Sandstone may be yellow, pink, brown or red. It is used in making building and monuments.

(ii) Limestone : It is farmed from the shells and the skeletons of tiny sea creatures. Chalk is a common type of limestone. Cement, brices and glasses are made from it.

(D) 4. Metallic minerals : These minerals are used for extracting useful metals like aluminuim, copper, iron, gold, silver, etc. Metallic minerals from which these metals are obtained are called ores. These metals are used in making jewellery, utensils etc.

Non-metallic minerals : These minerals does not contain metals. Potassium, phosphate, oil, coal, petrol are non-metallic minerals. Phosphate and nitrate are used as fertilizers where as coal, oil, and petroleum are used as fuel.

(D) 5. Years ago, when plants dies they gradually formed a thick layer of matter on the swamp floor of earth. Because of high temperature and pressure these dead plants are converted into coal.

Coal occurs in four different forms :

(i) Peat : It is earliest type of coal. It gives up less amount of heat on burning.

(ii) Lignite : It is a soft, brownish black coal.

(iii) Bituminous : It is black and hard. It appears dull and glossy. It appears dull and glossy. It gives a lot of smoke on burning.

(iv) Anthracite : It is a shiny and hard coal. It has the highest carbon. It burns with great heat and little smoke.

➤

Chapter-13

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

(B) 1. moon **2.** natural **3.** hidden **4.** waxing **5.** Tide

(C) 1. False **2.** False **3.** True **4.** False **5.** True

(D) 1. MOON **2.** INSAT-2A **3.** Weather **4.** Tide **5.** Shapes of moon **6.** Craters

(E) 1. (a) The moon's gravity is only one-sixth of that of the earth. This means that person's weight is much lighter on moon than on earth due to which we can jump much higher on moon. Although moon's gravity is weak, if effects water on earth. As moon revolves around the earth, it pull up water of seas and oceans toward it, causing tides.

(I) (b) Surface of the moon : The surface of moon is rough and uneven. It is made of places, craters and mountains. Craters are deep holes when pieces of rocks crash on surface of moon.

(I) (c) Moon's atmosphere : There is no atmosphere on the moon. Whenever sunlight falls on it, it becomes very hot upto 100° F during the day and gets extremely cold upto −150° C at night. There is no air on the moon therefore we cannot talk on the moon.

(E) 2. The moon takes 29.53 days to go from one new moon to the next. Due to the different amount of sunlight reflection moon appears to change its shape everyday. Different shapes of the moon are called phases of moon.

(i) New moon : When no light is reflected from the side of moon, facing the earth, moon appears dark. This is called New moon.

(ii) Crescent moon : When only small portion of the facing side of moon gets sunlight, it is called crescent moon.

(iii) Half moon : When half of moon's surface is illuminated and looks like a half circle, it is called Half moon.

(iv) Gibbous moon : When almost three fourth of the moon appears to us, it is called Gibbous moon.

(v) Full moon : When entire moon is illuminated, it is called Full moon.

(E) 3. Periodic rise and fall of sea water is called Tide. Tides are caused due to gravitational force of the moon. As the moon revolves around the earth, it pulls the water of the seas towards it. Causing high and low tides.

(E) 4. Artificial satellites are man made objects which revolves around the earth. These satellites revolves 300Km away from the earth so that the earth's gravity and atmosphere does not affect them.

Uses of Artificial Satellites

(i) Satellites helps in gathering information about storms and ocean currents which helps to predict weather and warm people about natural disasters.

(ii) They send information about space which helps Astronomers to know more about space and celestial bodies.

(iii) They are used to transmit radio, telephone and television signals across the world.

(E) 5. (a) Lunar Eclipse : Lunar eclipse occurs during night. In this, the earth moves between the sun and the moon. The earth blocks the sun's light from reaching the surface of moon. The shadow of earth falls on moon partly or wholly. The lunar eclipse last for few hours.

(b) Solar Eclipse : A solar eclipse occurs when the moon comes between the sun and earth. The moon is an opaque body, so it blocks the light of the sun forming a shadow on earth. This is called solar eclipse.

(E) 6. The first space craft to land on the moon was Apollo II. It was an American spacecraft which successfully landed on moon on 21st July, 1969. Neil Armstrong become the first person to step on moon's surface. Chandrayan-I was launched by India in year 2008 to orbit the moon.

(E) 7. When the size of illuminated moon increased from new moon to full moon, this phase is called the waxing phase of moon. When the size of moon appears reducing from full moon to new moon, it is called waxing phase of the moon.

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Chapter-14

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

(B) 1. Tsunami **2.** Barren **3.** property **4.** Magma **5.** earthquake

(C) 1. True **2.** False **3.** False **4.** True **5.** False

(D) 1. A natural disaster refers to an event occurring suddenly caused by forces of nature that affects human life and property and environment adversely. Earthquakes, volcanoes, tsunamis, floods are all examples of natural disaster. Recent flood in Kerela due to heavy rainfall cause great loss of life and damage to property affecting large number of people.

(D) 2. A volcano is a crack or opening in the earth's crust which spits out molten rocks, hot gases, dust and ash.

There are three types of voleanoes :

(i) Active Volcano : A volcano that is erupting or has erupted in past years is called active volcano.

(ii) Dormant Volcano : A volcano that has not erupted for many years but is expected to erupted in future is called dormant.

(iii) Extinct Volcano : A volcano that is not expected to erupt in future is called extinct.

(D) 3. Flood is an overflow of water that submerges dry land. Flood are caused by abnormally heavy rainfall, melting of glaciers, dams failure etc. Floods can wash away people, villages, residential colonies, etc. It may spread communicable diseases like Cholera etc.

(D) 4. Earthquake is a sudden movement of a part of earth's surface. The outermost layer of the earth is made of rocks in the form of large plates. When these plates move apart or slide against each other, they released lot of energy in the form of vibrations.

These vibrations causes earthquakes.

Effects of Earthquake

(i) Earthquake causes destruction of property, loss of life, Damage to roads and bridges, etc.

(ii) Trees gets uprooted.

(iii) Under sea earthquakes can causes tsunamis.

(iv) It can cause landslides and fire.

Preventive measures

(i) It is safe to move in an open area when an earthquake occurs.

(iI) Do not use the stair case.

(iii) Stay away from windows and electric appliances.

(iv) Also stay away from high use buildings, trees, towers, etc.

(D) 5. Underwater earthquakes cause a huge wave called Tsunami. Tsunami is caused by huge harbour waves that travels very quickly up 800km an hour and as high as 30m. They grow bigger and become killer waves when they hit land. Tsunami can wipe out entire coastal settlements.

(D) 6. The strength of an earthquake is measured using an instrument called seismograph. It measures and records information about earthquakes on ritcher scale.

7. If a natural disaster strikes an area, the government makes arrangement for evacuation i.e. moving people to other safe place from the affected area. Relief and Rescue operations are carried by government and international organizations like UN and also by NGO's.

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Model Test Paper-1

(A) 1. (a) **2.** (c) **3.** (a) **4.** (c) **5.** (a) **6.** (a) **7.** (a) **8.** (b) **9.** (c)

(B) 1. habitat **2.** Peas **3.** ostrich **4.** reflex **5.** Skull **6.** Taste buds **7.** Typhoid **8.** Swelling **9.** Chemical

(C) 1. False **2. 3. 4.** True **5.** False **6.** False **7.** False **8.** True **9.** True

(D) Do yourself.

(E)

Model Test Paper-2

(A) 1. (b) **2.** (c) **3.** (a) **4.** (b) **5.** () **6.** (c) **7.** (b) **8.** (a) **9.** (c)

(B) 1. Force **2.** Machines **3.** Sun **4.** Exosphere **5.** afforestation **6.** stratosphere **7.** Anthracite **8.** magma **9.** Tide

(C) 1. True **2.** True **3.** True **4.** False **5.** True **6.** False **7.** True **8.** False **9.** False

(D)

(E)

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