

## Exploring Science – Class – 3

### Chapter 1 : Living and Non-living Things

- A. 1. Living things breathe, move, grow, feel, reproduce and need food.  
 2. Living things move from one place to another in search of food, water, shelter and also to protect themselves from enemies.  
 3. Non-living things cannot breathe, move, grow, feel or reproduce. They do not need food.  
 4.

Living Things	Non-Living Things
i. They can breathe.	i. They cannot breathe.
ii. They require food to grow.	ii. They do not require food.
iii. They have life cycle.	iii. They do not have life cycle.
iv. They show movement.	iv. They cannot move.
v. They can feel.	v. They cannot feel.
vi. They can reproduce	vi. They cannot reproduce.

5. Plants make their own food by using air, water and sunlight. This process is known as photosynthesis.  
 6. Human beings breathe in oxygen and breathe out carbon dioxide using nose, mouth and lungs.  
 B. 1. Photosynthesis is the process by which plants make their own food by using air, water and sunlight.  
 2. No, because it is a non-living thing.  
 3. Book, computer, clothes etc., are man made non-living things.  
 C. 1. Air 2. Sunlight 3. Stomata 4. food 5. eggs  
 6. sense organs  
 D. 1. 3 2. 5 3. 5 4. 5 5. 3  
 E. 1. b 2. c  
 F. 1. b 2. a 3. d 4. e 5. c

### Chapter 2 : Plants and Animals

A. 1.

Animals	Plants
i. Animals move from one place to another.	i. Plants cannot move from one place to another.
ii. Animals breathe in oxygen and breathe out carbon dioxide.	ii. Plants breathe in carbon dioxide and breathe out oxygen.
iii. Animals cannot prepare their own food.	iii. Plants prepare their own food.

Animals	Plants
iv. Animals can give birth to young ones.	iv. Plants cannot give birth to young ones.
v. Animals have many organ systems.	v. Plants do not have any organ system.
vi. Animals have sense organs.	vi. Plants do not have sense organs.

2. Animals move from one place to another in search of food, water and shelter. They also move to protect themselves from their enemies.  
 3. Photosynthesis is the process by which green plants use sunlight, water and carbon dioxide to produce their food.  
 4. Plants breathe in carbon dioxide from air and breathe out oxygen into the air through the stomata present under their leaves.  
 5. Animals produce their own kind by either giving birth to young ones or by laying eggs.  
 B. 1. Due to the presence of Chlorophyll.  
 2. Plants breathe in carbon dioxide.  
 3. Animals breathe out carbon dioxide from their lungs.  
 4. Fishes breathe through gills.  
 C. 1. Stomata 2. movement 3. food  
 4. breathing 5. plants  
 D. 1. 5 2. 3 3. 5 4. 3 5. 3  
 E. 1. a 2. b 3. c 4. d 5. a  
 F. 1. a 2. c 3. b

### Chapter 3 : Parts of Plants

- A. 1. Shoot is the part of a plant that grows above the ground.

2. There are two types of roots-tap root and fibrous root.

3. Plants like rice, wheat, grass have fibrous roots.

4. A green leaf needs water, carbon dioxide and sunlight to prepare food.

5. Plants like beet root, carrot and radish have taproots.

B. 1. Root holds the soil and prevent it from being washed away.

2. Hard, strong and woody stem is called trunk.

3. Potato, ginger and sugarcane stores extra food in their stems.

4. Cabbage stores food in its leaves.

5. Shoot grows upwards, towards the sunlight.

C. 1. root 2. upright 3. Lamina 4. fruits

D. 1. 3 2. 3 3. 5 4. 3

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

F. 1. e 2. a 3. b 4. c 5. d

#### Chapter 4 : Food Habits of Animals

A. 1. Snakes and frogs swallow their food as a whole.

2. Animals which eat plants as well as flesh of other animals are called omnivores.

3. The cow and buffalo first swallow the food without chewing. After sometime, they bring the food back into the mouth from their stomach and begins to chew. This is called chewing the cud.

4. Carnivores have long pointed teeth called canines and strong grinding teeth called molars.

5. Herbivorous animals eat grass, small plants, twigs, branches of trees, fruits and vegetables.

6. a. Snakes and frogs swallow their food in one piece.

b. Mosquitoes, butterflies, honey bees and leeches suck their food.

B. 1. The sense of smell in dogs is very strong.

2. Donkey and camel are called beasts of burden.

3. a) Cow, goat, horse etc., are plant eating animals.

b) Tiger and lion are flesh eating animals.

4. Hyenas and Jackals are scavengers.

5. Animals need food for energy.

C. 1. tear 2. scavengers 3. food 4. leech

5. swallow

D. 1. 5 2. 3 3. 3 4. 5 5. 3 6. 3

E. 1. a, c 2. a 3. c

F. 1. e 2. d 3. c 4. b 5. a

#### Chapter 5 : Birds: Feathers and Nesting Habits

A. 1. Streamlined body, hallow bones, feathers attached with the wings and tail feathers help the birds to fly.

2. Birds have two kinds of feathers. They are down feather, flight feather.

3. Birds build nest when they have to lay eggs.

4. The penguin collects a few pebbles and stones to make its nest on the ground.

B. 1. Birds lay eggs to produce their young ones.

2. Feathers help birds to catch them in air to flight and to change its direction.

3. Penguins build their nests on the ground.

4. Hallow bones help the birds to float in air.

C. 1. Birds 2. hallow and light 3. wings 4. koel

D. 1. 5 2. 3 3. 5 4. 5

E. 1. (a),(b), (c) 2. (d) 3. (d)

F. 1. b 2. a 3. d 4. c 5. e

#### Chapter 6 : Birds : Beaks and claws

A. 1. Swallows have broad and short beaks which are sticky from inside. When Swallows keep their beaks open small insects and flies stick to the beak and the bird swallows them up.

2. Birds use their beaks to hold and eat their food.

3. Birds which hunt and eat other animals are called birds of prey. Ex. Eagle, Vulture.

4. Ducks catch insects, worms and water plants from the muddy water. The muddy water with mud flows out through the holes present in the beak of a duck and the food like insects, worms etc., are left inside the beak.

5. Birds use their feet to move, catch food and protect themselves from enemies and claws are used to judge the living habits of the birds.

6. Sparrow and crow are the two well known perching birds.

B. 1. Different birds have different beaks. Shaped and designed in such a way that they can eat food of their liking.

2. Curved beak of parrots helps them crack seeds, nuts and fruits. Also helps while climbing up the trees.

3. Sun birds have long and pointed beaks.

C. 1. water 2. chisel 3. scratching 4. beak

5. webbed

D. 1. 3 2. 3 3. 3 4. 5

E. 1. a 2. d

F. 1. d 2. e 3. c 4. b 5. a

#### Chapter 7 : Rocks, soil and Minerals

A. 1. Pebbles are smooth and round stones that are found in or near water.

2. Soil exist in three layers.

1. Top soil : The top soil is upper most layer. It is dark in colour.
2. Sub soil : It lies below the top soil. It is light in colour.
3. Bed rock : The bottom layer is made of solid rock called the bed rock.
3. There are three types of rocks. They are Igneous rocks, Sedimentary rocks, Metamorphic rocks.
4. Weather plays an important role in the process breaking up of rocks. Rocks get heated during day and cool down at night. This heating and cooling breaks down rocks into smaller pieces.
5. Rocks formed due to the deposition of sand, clay and pebbles at the bottom of sea, river and other water bodies over thousands of years are called sedimentary rocks.  
Eg: Sand stone and lime stone.
- B. 1. The term igneous means fire.
2. A mixture of molten rock and gases present in the central part or core of the earth is called magma.
3. Lava means a hot molten rock.
4. Pumice is an igneous rock.
5. Sand stone is a sedimentary rock.
- C. 1. gravel 2. cracks 3. soil 4. sand stone
5. metamorphic, rocks
- D. 1. 5 2. 5 3. 5 4. 3 5. 5
- E. 1. d 2. c 3. d

### Chapter 8 : Human body, Health and Hygiene

- A. 1. Different organs work together to perform a particular function of the body. They are called organ system.
2. Skeletal system gives shape and size to our body. It also protects the internal organs of the body.
3. Circulatory system comprises heart, blood and blood vessels.
4. The function of the excretory system is to clean our body by throwing out body wastes like urine and stool through kidney and sweat through skin.
5. The heart pumps blood to different parts of the body through small and big blood vessels.
6. Rice, maize, sugar, ghee etc., are the food items which gives us carbohydrates.
- B. 1. Eyes, ears, nose, tongue and skin are the five main sense organs.
2. The different parts of body move with the help of muscular system.
3. We get minerals and vitamins from protective foods.
- C. 1. cells 2. organ 3. digestive 4. heart

5. diseases 6. milk 7. proteins
- D. 1. 3 2. 5 3. 5 4. 5 5. 3 6. 3
- E. 1. c 2. g 3. f 4. e 5. a 6. d 7. b
- F. 1. c 2. b 3. a 4. b 5. c

### Chapter 9 : Housing and Clothing

- A. 1. We need house to live in. It protects us from heat, cold, rain, wild animals and thieves.
2. Open space make a house airy. It also gives space to children to play.
3. i) House should be properly cleaned and mopped everyday.
- ii) Drains of kitchen and bathroom should always be covered.
- iii) Waste should be thrown into dustbin. Dust- bins should be kept covered.
- iv) Curtains must be washed regularly.
- v) Bathrooms, washbasin and toilet must be cleaned daily.
4. Clothes protect us from heat, cold and rain. They also protect us from insect bites. They makes us look smart and beautiful.
5. i) We get woollen fibres from animals like sheep and yak.
- ii) We get silk fibres from insects like silk worm.
- B. 1. Igloos are the houses made of cut blocks of ice.
2. Wire nets prevent the entry of mosquitoes and other insects.
3. Fibres that are made by human beings are man-made fibres.
4. Fibres that we get from plants and animals are natural fibres.
- C. 1. stilt 2. walls 3. drains
- D. 1. 5 2. 5 3. 5 4. 3 5. 3
- E. 1. c 2. d 3. b, d
- F. 1. e 2. d 3. b 4. c 5. a

### Chapter 10 : Safety First

- A. 1. Safety rules helps to avoid accidents.
2. The first assistance or help given to an injured person is called first aid.
3. For a bleeding person we have to tie a clean hanky or bandage at the spot and ask him to lie down, keeping the wounded part of the body high.
4. The following precautions are necessary while crossing the road.
- i) Cross the road at Zebra crossing.
- ii) Cross the road only when vehicals on both sides are stopped.
5. The following safety rules must be followed in the

kitchen.

- i) Never enter the kitchen with loose nylon clothes.
- ii) Never play with gas stove, match sticks and pointed and sharp knives.
- iii) Keep distance from the steaming utensils and hot objects.

6. The three safety rules while playing are

- i) Avoid playing near thorny hedges or barbed wires.
- ii) Do not hit others with bat or ball.
- iii) Do not quarrel with anyone.

B. 1. Antiseptic should be applied after washing the wounded body part with dettol.

2. We cross a busy road at zebra crossing.

3. In the case of a body burn, quickly pour cold water or ice over the affected area. Then apply Burnol.

C. 1. safety rules 2. electric shock

3. zebra crossing 4. left

D. 1. 5 2. 3 3. 5 4. 3

E. 1. b 2. c 3. c 4. a 5. b

F. 1. c 2. e 3. d 4. a 5. b

### Chapter 11 : Measurements

A. 1. Liquids are measured in litres.

2. Length is measured in kilo meters.

3. Time is measured in hours and seconds.

4. There are thousand grams in 1 kg.

5. One metre is longer than one yard.

B. 1. Temperature is measured either on centigrade scale or on Fahrenheit scale.

2. The normal temperature of a human body is 98.40F or 370 C

3. Yard is still used in India, Pakistan and Bangladesh.

4. The laboratory thermometres is used for measuring the temperature of liquids.

5. There are 1000 metres in 1 km.

C. 1. grams and kilograms 2. length 3. 0.9144

4. kilometres 5. centimetres

D. 1. 5 2. 5 3. 5 4. 3 5. 5

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

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

### Chapter 12 : The Earth and The Moon

A. 1. The movement of the Earth about its axis is called rotation.

2. If we stand at a sea shore and watch a ship sailing away from us, we will see that the lower part of the ship disappears first and the top part disappears last. It shows that the earth is round.

3. The movement of Earth around the Sun in a fixed path is called revolution.

4. The rotation of the Earth causes day and night. The Earth takes nearly 24 hours to rotate once on its axis.

Thus, 24 hours make 1 day.

5. The Earth takes about  $365\frac{1}{4}$  days to go around the Sun. Thus 365 days make a year.

6. As the Moon goes round the Earth we can only see that part which gets illuminated by the sun. It seems to us Moon changes its shape daily. This change of shape is called the phases of the Moon. The day on which we cannot see the Moon at all is called new moon day. Day by day, small portions of the moon appearing in the sky are crescent moons. One half part of the moon seen after 7 days is half moon. The full face of the moon seen after two weeks is full moon.

B. 1. The revolution of the Earth causes changes in season.

2. The group of stars are called constellation.

3. The people, who travel into space are called astronauts.

C. 1. Spherical 2. third 3. 24 hours 4. axis 5. light

D. 1. 5 2. 3 3. 5 4. 3 5. 3

E. 1. b 2. a 3. d 4. b

F. 1. c 2. b 3. a 4. e 5. d

### Chapter 13 : Air, Water and Weather

A. 1. i) Moving air helps in moving sail boats, flying kites etc.

ii) Wind mills also run due to moving air.

iii) If the air blows fast wet clothes dry up quickly.

2. Water changes into vapour when it is heated at 1000 C.

3. The sun causes water to evaporate from rivers, lakes and seas, the evaporated water vapour forms clouds. In the clouds, water droplets condense and fall back to Earth as rain or snow. This process is called water cycle.

4. The different kinds of weather are

i) Sunny days ii) Cloudy days iii) Windy days

iv ) Rainy days

5. We wear woollen clothes in winter to protect ourselves from cold winds.

B. 1. The average condition of weather over many years is called climate of a region.

2. Fast moving air is called wind.

3. The three states of water are solid(ice), liquid and gas (vapour).

C. 1. oxygen 2. winter season 3. liquid

4. water vapour 5. ice

D. 1. 5 2. 5 3. 5 4. 5 5. 3

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

F. 1.a 2. a 3. a 4. d