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Infinity Science

Teacher's Manual
Class 1–5

Ottimo Publications

Infinity Science

Class - 1

Chapter – 1 World of Plants

Tell Me Now (Page 7)

I am a big plant.

I am a small plant.

Tell Me Now (Page 10)

Mango; Watermelon; Rose

Tell Me Now (Page 12)

A seed give rise to baby plants.

A flower changes into fruit.

An apple contains seeds.

Learn and Revise

- A. 1. (b) trunk 2. (b) creepers 3. (a) green 4. (b) fruits 5. (a) food
B. 1. Trees 2. Climbers 3. Wheat 4. Mango
C. 1. Tree (T) 2. Herb (H) 3. Shrub (S) 4. Aquatic (L)
D. 1. Small plants with thin, green and soft stems are called Herbs. Wheat, carrot and ginger are herbs.
2. Examples of shrubs are rose, jasmine, lemon, hibiscus.
3. Plants grow from seeds.

Word Search

1. Neem 2. Ananas 3. Mango 4. Banyan

Hots (Think and Answer)

Leaves make food for the plant. So they are called the kitchen of the plant.

Life Skills

Flower Leaf
Fruit Stem
 Root

Chapter – 2 Uses of Plants

Tell Me Now (Page 16)

Apple

Mango

Guava

Tell Me Now (Page 19)

Carrot

Ginger

Spinach

Rice

Learn and Revise

- A. 1. (b) Food 2. (c) sugarcane 3. (b) root
B. 1. fruit 2. root 3. food grain 4. seed 5. Flower
C. 1. (i) Cabbage (ii) Broccoli 2. (i) Apple (ii) Banana 3. (i) Wheat (ii) Maize

- D. 1. We get most of our fruits from plants and animals.
 2. Cauliflower and cabbage
 3. Sunflower

E. APPLE, PAPAYA, TOMATO, CARROT

Hots (Think and Answer)

Plants are called our green friends because we get food, air, cloth, wood, etc. from plants.

Chapter – 3 The Animal World

Tell Me Now (Page 23)

Cat, Dog, Giraffe, Lion, Cheetah, Cow

Tell Me Now (Page 26)

Two (2), Two (2), Six (6), Eight (8)

Learn and Revise

- A. 1. (c) Sheep 2. (a) Whale 3. (b) Monkey
 B. 1. Octopus, Dolphin 2. Ostrich, emu 3. Flying fish, Tree frog 4. Ducks, swan
 C. 1. Domestic animals 2. monkey 3. insect 4. flying
 D. 1. Some animals live with human beings in their houses. They are called pet animals.
 2. Aquatic animals can live both in land and water.
 3. Birds have wings and feathers on their body. Wings help them to fly.
 E. 1. CROW 2. OCTOPUS 3. CAT

Hots (Think and Answer)

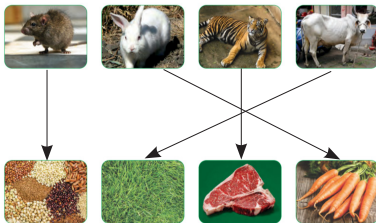
Animals give us food like milk, eggs, and meat. Animal like sheep give us wool. Horses, donkeys, and camels are useful for carrying loads. Dog help us to keep thief away from home. So, animals are useful to us in many ways.

Explore More

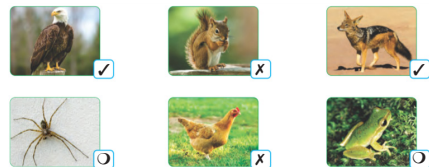
1. Do it Yourself
 2. Frog, Buffalo, Monkey, Elephant, Cow, Tortoise

Chapter – 4 Food and Shelter for Animals

Tell Me Now (Page 30)



Tell Me Now (Page 32)



Tell Me Now (Page 33)

Name: Dog, Honeybees, Horse, Cow
 Home: Kennel, Hive, Stable, Shed

Learn and Revise

- A. 1. (b) flesh eater 2. (b) Honeybee 3. (c) both 4. (c) kennel
- B. 1. Cow, Elephant 2. Lion, Shark 3. Bear, Crow
- C. 1. F 2. T 3. F
- D. 1. Tiger 2. Dog 3. Hen 4. Lizard 5. Bear
- E. 1. Jackal eat flesh of other animals. 2. Rabbit lives in a burrow.
3. Coop is the house of hen.

Word Search

- 1. COOP 2. HIVE 3. STABLE 4. DEN 5. TREE

Explore More

- 1. I am a Lion. 2. A Dog lives in a kennel.

Hots (Think and Answer)

Animals also need home to protect themselves from other wild animals. As wild animals are always on the hunt, the shelter protects them from getting killed. All the animals keep their babies as well as food safe from other wild animals.

Chapter – 5 My Body

Tell Me Now (Page 38)

Hand, Feet, Nose, Mouth

Tell Me Now (Page 39)

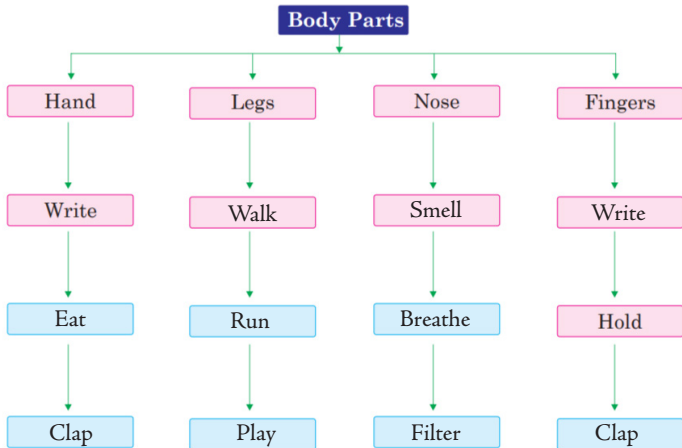
Toe, Ankle, Foot

Tell Me Now (Page 40)

Eyes (2), Tongue (1), Ears (2), Nose (1)

Learn and Revise

- A. 1. (b) five 2. (b) feet 3. (b) tongue
- B. 1. hands 2. legs 3. eyes 4. nose
- C.



- D. 1. Eyes, nose, ears, tongue and skin are the five sense organs.
 2. Our legs help us to walk, run, play, dance and jump. (any two)
 3. The tongue help us to taste.
 4. We sense hotness or coldness of things with our skin.
- E. 1. CROW 2. OCTOPUS 3. CAT

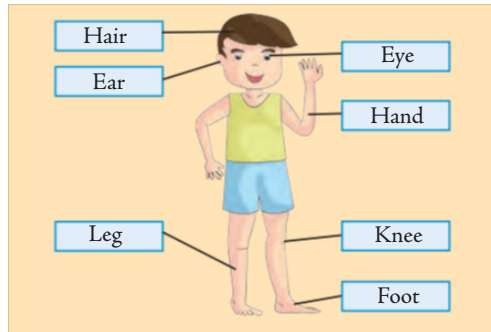
Hots (Think and Answer)

We taste food with the help of our **tongue**.

Word Search

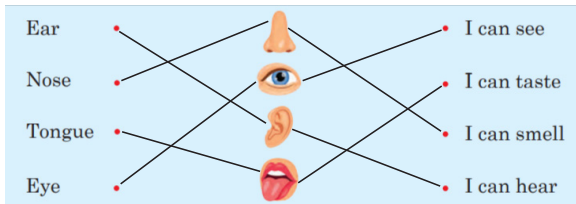
1. Tongue 2. Nose 3. Ear 4. Eye 5. Skin

Life Skills



Explore More

1. Do it Yourself
 2.



Chapter – 6 Our Needs

Tell Me Now (Page 44)

Food to eat; Clothes to wear; A hand use to live in

Tell Me Now (Page 45)

It is Your Own Choice

Tell Me Now (Page 47)

Summer, Winter, Rainy

Tell Me Now (Page 49)

1. Wood, 2. Grass, 3. Leaves

Learn and Revise

- A. 1. (c) Both 2. (c) Raincoat 3. (b) house
B. 1. W O O L 2. L E A T H E R 3. C O T T O N
C. (a) (iii) Breakfast (b) (iv) Winter (c) (ii) Leather (d) (i) Igloo
D. 1. We need food to live. Food also help us grow.
2. We need clothes to cover our body and to look smart. Clothes protect our body from cold, heat and dust.
3. A house becomes home when a family lives in it.
E. 1. (c) Cooking 2. (a) Bathing 3. (b) Sleeping

Hots (Think and Answer)

We eat healthy food to keep our body fit and healthy.

Let's Talk

Raju will be more healthy than Aayush because he eat food which has vitamins and minerals.

Explore More

1. Its depend upon your choice
2. Do it yourself

Chapter – 7 Keeping Fit

Tell Me Now (Page 53)

2, 4, 5, 6, 1, 3

Tell Me Now (Page 55)

G, B, B, B, G, B

Tell Me Now (Page 56)

1. Take a bath
2. Take proper sleep for 8 hours every night
3. Do daily physical exercise
4. Run daily in morning
5. Take healthy foods for breakfast on time

Learn and Revise

- A. 1. (b) Good 2. (c) daily 3. (b) take rest
B. (b), (d), (e)
C. 1. We need a good health because healthy body keeps our mind healthy.
2. Exercise make our body healthy and strong.
3. Cleanliness keeps harmful germs and insects away from us. So, we should keep ourselves and our surroundings clean.
D. 1. (b) we can fall ill 2. (d) eight hours every day 3. (a) in being fit
4. (c) in keeping good health.
E. 1. REST 2. CLEAN 3. BATH 4. BRUSH

Hots (Think and Answer)

We brush our teeth twice a day to keep them **clean and healthy**.

Let's Talk

Exercise makes our body healthy and strong. We must exercise daily.

Explore More


1. Brushing teeth 2. Taking bath 3. Swimming
4. Washing hands 5. Eating healthy food 6. Drinking clean water
2. Do it yourself

Chapter – 8 Air Around Us

Tell Me Now (Page 59)

3, 5, 6, 7, 8

Tell Me Now (Page 60)

1. 
2. a. I cannot live without air. b. I can live without air.
c. I cannot live without air. d. I cannot fly without air.

Learn and Revise

1. (c) living 2. (b) breathe 3. (a) Air 4. (b) storm
1. feel 2. wind 3. air 4. weight
1. (d) All around us 2. (a) Air helps to move 3. (b) Air takes up space
4. (c) Fast and strong wind
1. We need air to breathe and remain alive. People, animals and plants cannot live without air.
2. We cannot see air but we can feel it when it moves.
3. Moving air is called wind.
4. Windmill, Glider

Hots (Think and Answer)

Balloon become heavier when it feel with air.

Chapter – 9 Safety First

Tell Me Now (Page 65)

Red, Yellow, Green

Tell Me Now (Page 67)

a. queue b. alone c. zebra

Tell Me Now (Page 68)

- (i) (b) I can burn (ii) (d) I can fall and get hurt
- (iii) (a) I can get electric shock (iv) (c) I can cut the finger

Learn and Revise

1. (b) Safety 2. (c) footpath 3. (c) zebra crossing
1. ✗ 2. ✗ 3. ✗ 4. ✓
1. open 2. clear 3. queue 4. window

- D. 1. Before you cross a road, look right, then left, and then right again. If no vehicle is coming from any side, then only cross the road.
2. We should walk on the left side of the road.
3. When someone gets injured give him first aid treatment and then call doctor.

Explore More

- 2, 5, 6
- Ok, Zebra crossing, Turn to left, Turn to right

Hots (Think and Answer)

While playing in a park, we should not climb a tree or hang from its branches because we may fall and it is dangerous for us.

Chapter – 10 Water

Tell Me Now (Page 72)

- bath
- planting trees
- cleaning
- washing
- washing

Tell Me Now (Page 73)

Cooking food, Putting out fire, Washing utensils

Tell Me Now (Page 74)

RIVER, LAKE, WELL, POND, SEA, HANDPUMP

Learn and Revise

- A. 1. (b) living 2. (c) both 3. (c) clean
B. 1. Well 2. Purifier 3. Sea
C. 1. Drink, cook food
2. Rain, River, Lake
3. We Must always drink clean water. Drinking impure water can make us sick. If water is not clean, we must boil and filter it before drinking.
4. We get underground water from wells, tubewells and handpumps.
D. 1. (d) Underground water
2. (a) Clean water
3. (c) Salty water
4. (b) Purified water

Word Search

RIVER, TANK, WELL, POND, LAKE, OCEAN, SEA

Hots (Think and Answer)

We should not waste water. We should use only as much water as we need. Water is precious. We have to save it.

Explore More

- Cross, Cross
- Students can do yourself

Chapter – 11 Weather and Seasons

Tell Me Now (Page 79)

Windy, Hot, Rainy, Spring

Tell Me Now (Page 80)

Tick, Round, Tick, Round, Tick

Tell Me Now (Page 81)

Windy day: 2, 5

Rainy day: 1, 3, 4

Learn and Revise

- A. 1. (a) cotton 2. (a) raincoat 3. (a) Weather
B. 1. F 2. F 3. T 4. T
C. 1. (d) hot day 2. (a) cold day 3. (b) rainy day 4. (c) storms
D. 1. We wear woolen clothes in winter.
2. We wear cotton cloth in summer.
3. We see a rainbow in the sky after it rains.

Hots (Think and Answer)

We see a rainbow in the rainy season.

Word Search

Summer, Winter, Rainy, Autumn

Explore More

Students can do yourself

Chapter – 12 Materials Around Us

Tell Me Now (Page 84)

Name of the objects: a. Shoes b. Belt c. Pencil d. Toys e. Eraser f. Pot

Name of materials: a. leather b. leather c. rubber d. rubber e. rubber f. clay

Use of the objects: a. Wear b. wear c. writing d. playing e. erasing f. drinking

Tell Me Now (Page 86)

Table, Chair, Glass, Cup, Water bottle

Tell Me Now (Page 88)

a. (ii) Leather b. (iv) Glass c. (v) Silk d. (iii) Clay e. (i) Rubber

Learn and Revise

- A. 1. (a) Wood 2. (c) metals 3. (a) rubber
B. 1. steel 2. leather 3. clay 4. plastic
C. 1. We get leather from the skin of dead animals.
2. Balloons are made up of rubber.
3. We get wool from wool.
D. 1. plastic 2. tree 3. cotton 4. silk

Hots (Think and Answer)

We should not cut trees because it gives us clean air and rain which is necessary for human being survival.

Life Skills

- a. Gold b. Cotton c. Wool d. Water

Explore More

Students can do yourself

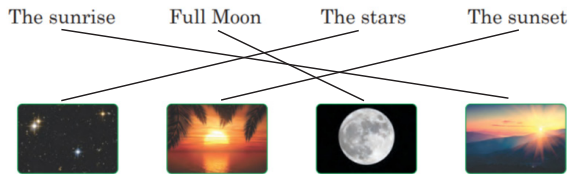
Chapter – 13 Up in the Sky

Tell Me Now (Page 92)

It is Sun. We see the Sun in day.

It is Moon. We see the Moon in night.

Tell Me Now (Page 94)



Learn and Revise

- A. 1. (a) The moon 2. (c) heat 3. (a) west
B. 1. (b) rises in the east. 2. (c) shines at night. 3. (a) have different shapes
C. 1. The sun gives us heat and light. 2. The sun set in the west.
3. When the moon looks like a ball, we call it full moon. 4. We see stars in the night.
D. 1. Sun 2. Moon 3. Stars
E. Tick (1), Tick (3), Tick (4)

Hots (Think and Answer)

Night sky different from a day sky due to sun and moon.

Life Skills

Students can do yourself

Explore More

1. Students can do yourself
2. B. Sky, A. The moon, B. The Sun, B. Clouds

Chapter – 14 Going into the Space

Tell Me Now (Page 98)

The Moon, Astronaut, Rocket

Tell Me Now (Page 100)

Rakesh Sharma, Kalpana Chawla, Sunita Williams

Learn and Revise

- A. 1. (c) space suit 2. (c) Rakesh Sharma 3. (c) into space.
B. 1. A person who goes into space is called an astronaut.
2. Yuri Gagarin was the first person to go into space.
3. Rakesh Sharma was the first Indian to go into space.
C. 1. F 2. F 3. F 4. F
D. 1. (e) Stayed in the space about six months 2. (d) First Indian woman to go to the space
3. (a) First Indian to go into space 4. (b) First person to go into space
5. (c) First person to go to the Moon

Hots (Think and Answer)

It is not possible today to live on the Moon due to no air on the Moon, but for future human beings surely stay at the Moon also.

Explore More

Students can do yourself

Test Paper – 1

- a. kennel b. green c. spices d. five
- a. iii. To taste b. i. Nest c. iv. Bathing d. ii. Have thorns
- a. A bee's home is called hive.
b. Plants need light, air, water to grow.
c. Food provides energy. Food is needed for growth. Food helps in maintaining good health.
d. Eyes, Ear, Nose, Tongue, Skin are five sense organs.
- EYE, SKIN. EAR, NOSE, TONGUE
- Vegetables: Carrot, Radish
Insects: Bees, Ants
Fruits: Mango, Papaya
Shrubs: Rose, Hibiscus

Test Paper – 2

- a. (i) Air b. (ii) living c. (i) The moon d. (iii) daily
- a. iii. Rakesh Sharma b. iv. Star c. ii. A well d. i. Storm
- a. The sun gives us light, heat, and energy
b. A person who goes into space is called an astronaut.
c. Water is used for drinking, harvesting and house.
d. We should always walk on the left side on the road.
- a. F b. T c. F d. F

Infinity Science

Class - 2

Chapter – 1 Plants Around Us

Tell Me Now (Page 7)

Root; Leaf; Flower; Fruit

Tell Me Now (Page 9)

Shrubs, Herbs, Climbers, Creepers

Tell Me Now (Page 11)

- (a) Lotus: Live in water; Cactus: Live in hot, dry and sandy deserts.
(b) Leaves make food for the plant.
Stem supports the plant and bear branches, leaves, flowers and fruits.
Root fixes the plant to the soil and absorbs water and useful salts.

Learn and Revise

- A. 1. (c) Climbers 2. (a) Trees 3. (a) Lotus 4. (a) desert
B. 1. hard 2. many 3. Climbers 4. soft 5. Leaves
C. 1. (c) Tree 2. (d) Creeper 3. (e) Climber 4. (b) Herbs 5. (a) Shrub
D. 1. Neem, Mango, Banyan, Palm (Students may give any 2 answers).
2. Root, Stem, Leaves, Flowers and Seeds are important parts of a plant.
3. Seeds
4. i. Two examples of Creepers are Watermelon and pumpkin.
ii. Two examples of Climbers are Money plant and pea.

Life Skills

Flower Leaf Fruit Stem Root

Chapter – 2 Uses of Plants

Tell Me Now (Page 14)

Fruit, Flower, Leaf, Root, Stem

Tell Me Now (Page 17)

1. Fruit 2. Stem 3. Root 4. Flower 5. Seed 6. Leaf

Tell Me Now (Page 21)

1, 3 and 6

Learn and Revise

- A. 1. (b) Coconut 2. (a) Cotton plant 3. (c) Both 4. (a) Rose
B. 1. Fleshy and juicy 2. flavour 3. raw 4. food grains 5. Tulsi
C. 1. Mango, Apple 2. Carrot, Spinach 3. Turmeric, Black pepper
4. Mustard, sunflower

- D. **A** **B**
1. Wheat (d) Cereal
 2. Pepper (a) Spice
 3. Sugarcane (e) Sugar
 4. Teak (b) Wood
 5. Acacia (c) Gum
- E. 1. Plants give us food like cereals, pulses, fruits and vegetables, etc.
 2. Tea comes from the leaves of tea plant. Coffee comes from the seeds of coffee plant.
 3. Eraser, tires, rubber bands

Word Search

Fruits	Nuts	Vegetables	Foodgrains
PINEAPPLE	CASHEWNUTS	CAULIFLOWER	WHEAT
APPLE	WALNUTS	BEANS	CORN
GRAPES	COCONUT	SPINACH	RICE

Hots (Think and Answer)

Plants are called our green friends because we get food, air, cloth, wood, etc. from plants.

Chapter – 3 Domestic Animals

Tell Me Now (Page 25)

Cow: Shed Dog: Kennel Horse: Stable

Tell Me Now (Page 27)

P, P, E, E, F, E, F

Tell Me Now (Page 29)

1. Silkworm 2. Bees 3. Buffalo

Tell Me Now (Page 30)

1. dung 2. dog 3. elephant 4. donkey

Learn and Revise

- A. 1. (b) houses 2. (a) hen 3. (b) Donkey 4. (a) Cow
- B. 1. Cow, Buffalo 2. Hen, Duck 3. Buffalo, Crocodile 4. Donkey, Elephant
 5. Cat, Dog
- C. 1. (b) Bee 2. (a) Sheep 3. (e) Buffalo 4. (c) Silkworm 5. (d) Hen
- D. 1. Domestic animals are which we keep them in our house.
 2. We get silk from silkworms.
 3. Goats, sheep and chickens give us meat.
 4. The dung of cows, buffaloes and camels is used as manure. Manure is added to the soil to make it fertile. Dried dung of animals is used as a fuel. We keep dogs and cats as pets in our homes. Dogs guard our homes. Cats scare away mice from our homes.

Word Search

1. LEATHER 2. HONEY 3. WOOL 4. MILK
5. MEAT 6. EGG 7. SILK

Let's Talk

1. Cat
2. Elephant
3. Cow
4. Dog

Life Skills

1. Cow give us milk. Milk is very good for health.
2. Horse pulls a tonga. Horse carries load also.

Explore More

Do it Yourself

Chapter – 4 Wild Animals

Tell Me Now (Page 36)

Bird, Mongoose, Snake, Monkey

Learn and Revise

1. (a) Monkeys 2. (c) Both 3. (a) Cow 4. (c) Jackal
1. Nest 2. burrow 3. den 4. shed
- Camel, Jackal
1. Wild animals live in different kinds of homes.
 2. Mongoose, snake
 3. Birds make nests to lay eggs and to keep their babies safe.
 4. Animals such as bears, cats, dogs and crows eat both plants and flesh of other animals. They are called omnivores.

Word Search

1. WHALE
2. HYENA
3. DOG
4. CROCODILE
5. ZEBRA
6. VULTURE
7. TIGER
8. DOLPHIN

Hots (Think and Answer)

Many animals live in the forest. If we destroy the forest, they lose their homes. If forests are destroyed, there might be less rain. They protect the earth, keep the soil healthy, and stop floods.

Explore More

1. Do it yourself
2. (a) Tiger (b) Giraffe (c) Monkey (d) Spider

Chapter – 5 Bones and Muscles

Tell Me Now (Page 41)

Heart, Lungs, Stomach, Kidneys

Tell Me Now (Page 42)

Circle 1, 3, 5, 6

Tell Me Now (Page 44)

2, 3, 4

Learn and Revise

1. (c) Bones 2. (b) joint 3. (a) 600 4. (a) Muscles

- B. 1. together 2. heart 3. fit 4. Hard 5. bones
- C. Tick (✓), cross (✗), Tick (✓)
- D. 1 Muscles are responsible for all of our body movements. They help the bones to move.
 2. Muscles of our eyes work independently. They do not need the support of the bones.
 3. There are 206 bones and 600 muscles in our body.
 4. Proper posture is essential for our bones and muscles to function properly.
- E. a. HEART b. SKIN c. BRAIN d. EYES e. HAND
 f. LEG g. STOMACH

Hots (Think and Answer)

Football, Football is an outdoor game and it keep our muscles strong.

Explore More

1. Do it yourself 2. Do it yourself

Chapter – 6 Food

Tell Me Now (Page 47)

1. a. Apple b. Rice 2. a. Butter b. Rice c. Milk d. Bread

Tell Me Now (Page 49)

C, P, P, P, P, C

Tell Me Now (Page 50)

Do it yourself

Tell Me Now (Page 51)

Cross (2, 3, 4)

Learn and Revise

- A. 1. (c) both of these 2. (a) energy giving food 3. (c) at a fixed time 4. (b) 6 to 8
- B. Tick (1, 3, 5, 6)
- C. 1. proteins 2. Dinner 3. Food 4. Health 5. morning
- D. 1. Food give us energy to work and play.
 2. Rice, bread, sugar, butter, sweets
 3. Milk, fish, egg
 4. The diet we have every day must contain enough and the correct quantities of all the food components from all the food groups. Such a diet is called a balanced diet.
- E. 1. a. Fruits b. Vegetables c. Milk 2. a. Rice b. Bread c. Sugar

Hots(Think and Answer)

Fast foods such as pizza, burgers, wafers and cold drinks are harmful for our teeth and our health.

Life Skills

1. energy 2. proteins 3. vitamins 4. milk

Explore More

1. Do it yourself 2. Do it yourself

Chapter – 7 Houses and Clothes for Us

Tell Me Now (Page 55)

Hut, Tent, Houseboat, Caravan, Summer, Summer, Winter, Winter

Tell Me Now (Page 57)

1. Tent 2. Caravan 3. Igloo

Tell Me Now (Page 59)

1. a 2. b 3. a

Learn and Revise

- A. 1. (c) bricks and cement 2. (c) In caravans 3. (b) summer 4. (a) warm
B. 1. Heat, cold 2. Cement 3. Canvas 4. Straw 5. Flat
C. 1. (c) Tent 2. (d) Bungalow 3. (e) Caravan 4. (a) Snow 5. (b) Hut
D. 1. We all need a house to live in. House protects us from animals, thieves, enemies and heat outside.
2. A pucca house is a strong house made of bricks, cement, strong wood and iron rods.
3. Houses are made of different materials like straw, mud, wood, leaves, bamboo, bricks, tiles and stones.
4. We wear warm woolen clothes in winter.

Word Search

BUNGALOW, TENT, HOUSEBOAT, IGLOO

Hots (Think and Answer)

People make sloping roofs in areas with lots of rain to help the water flow off the roof easily.

Explore More

1. Do it yourself 2. Do it yourself

Chapter – 8 Safety Rules

Tell Me Now (Page 63)

1. Cross the road through the zebra crossing. Look to you right, then look to your left and then right again before crossing the road and cross the road when it is clear.
2. Never play on the road.

Tell Me Now (Page 65)

Do not touch electric switch, Do not play with sharp object, Do not light matchstick

Learn and Revise

- A. 1. (c) in the park 2 (b) at the zebra crossing 3. (c) Three 4. (a) playing
B. 1. Footpath 2 shelves 3. queue 4. tube
5. safe
C. 1. If someone gets hurt, we should be prepared to help before the doctor comes or you go to the doctor.

2. Never go for swimming alone. Do not go into the deep water. Always use a swimming tube.
3. Do not play with sharp or pointed objects. You may get hurt. Do not touch electric wires, switches or plugs. You may get an electric shock.

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

Hots (Think and Answer)

We should not climb a tree or swing from the branches of a tree because you may fall down and get hurt.

Life Skills

Do it yourself

Explore More

1. Red light indicates to stop.
2. Yellow light indicates to wait.
3. Green light indicates to go.

Chapter – 9 Our Needs

Tell Me Now (Page 69)

Do it yourself

Tell Me Now (Page 70)

Cross (1, 2, 4, 5)

Learn and Revise

- | | | | |
|----------------|-------------|--------------|---------------------------------------|
| A. 1 (b) dirty | 2. (b) pure | 3. (b) storm | 4. (a) sick persons |
| B. 1. sick | 2. parks | 3. plants | 4. things 5. air |
| C. 1. T | 2. T | 3. F | 4. F 5. T |
- D. 1. We get fresh air in the parks and gardens. We should keep the windows of our houses open to let in fresh air.
2. Air also contains gases, smoke and dust.
3. All living things need air to breathe.
4. Wind help us in flying kites and winnowing. Wind helps gliders move and boats sail. Strong winds help in running windmills.
5. A very strong wind is called a storm.
- E. breeze, storm, wind

Hots (Think and Answer)

We should grow more plants around us to make air clean.

Life Skills

Do it yourself

Explore More

Do it yourself

Chapter – 10 Water: An Important Element

Tell Me Now (Page 75)

Do it yourself

Tell Me Now (Page 77)

well, pond, sea, rain

Tell Me Now (Page 79)

Ice, Water, Water vapour or steam, Water and ice

Learn and Revise

- A. 1 (c) both 2. (a) rain 3. (c) Sea
- B. 1. safe 2. liquid 3. germs 4. growing
- C. 1. We get water from rain, lakes, ponds, rivers, wells and hand pumps.
2. Water exists in three forms—solid, liquid and gas.
3. When the Sun's energy heats up water in rivers, lakes or the ocean, this changes into water vapour. This is called evaporation. During evaporation, warm water vapour rises into the sky.
4. Way up in the sky, water vapour cools down and turns back into liquid water droplets. This process is called condensation. The droplets gather to form clouds.
- D. water, water, steam

Crossword Puzzle

Across

1. RIVER 4. DRINK 5. GERMS

Down

2. RAIN 3. TAP

Hots (Think and Answer)

Water that we get from ponds, lakes and rivers is not fit for drinking. It contains dirt and germs. If we drink this water, it may make us sick.

Life Skills

Do it yourself

Explore More

1. a. STEAM b. CLOUD c. VAPOUR d. SOLID
2. Do it yourself

Chapter – 11 The Sun, The Moon and Shadow

Tell Me Now (Page 83)

Do it yourself

Tell Me Now (Page 86)

1. Rakesh Sharma 2. First 3. One

Learn and Revise

- A. 1 (a) hot 2. (a) east 3. (c) dark shape 4. (a) Neil Armstrong
- B. 1. (d) satellite of the earth. 2. (a) to dry clothes.
3. (b) moves with us. 4. (e) in the morning.
5. (c) evaporates the water.
- C. 1. Shadow is made when an object blocks light. When our body blocks the path of light, our shadow is formed on the opposite side of the light.
2. The sun gives us heat and light. Plants use the sun's light to make food. The heat of the sun dries wet clothes.
3. There is no air to breath and water to drink on the moon. Moon has no light of its own.
4. A person who travels in a spacecraft is called an astronaut.
- D. Similarity: Both the sun and the moon appear in the sky.
Difference: The sun is a star that has its own light and energy, while the moon is a natural satellite that reflects the sun's light.

Hots (Think and Answer)

If the distance between the Sun and the Earth gets smaller, it will get much hotter on Earth.

Let's Talk

Do it yourself

Life Skills

Rakesh Sharma became first Indian to go into space. He was the first Indian astronaut.

Kalpna Chawala was the first Indian woman to go into space. She went into space for the first time in 1997.

Sunita Williams, woman of Indian origin woman, stayed in space for about six months in 2007.

Explore More

1. Do it yourself 2. Do it yourself

Chapter – 12 Rocks and Minerals

Tell Me Now (Page 89)

Diamond, Charcoal, Chalk

Tell Me Now (Page 91)

1. Chalk (Limestone) 2. Blackboard (Limestone)

Tell Me Now (Page 92)

Jewellery, making glass or mirror, building

Learn and Revise

- A. 1 (c) sandstone 2. (c) white marble 3. (b) limestone 4. (b) Diamond
- B. 1. (d) are of different colours, sizes and shapes.
2. (c) a very hard rock.
3. (a) is used to cut glass.
4. (b) the softest mineral.
- C. 1. White marble 2. Diamond 3. Graphite 4. Mica

- D. 1. All rocks are made up of minerals.
 2. Coal is mainly used for cooking, in factories and for running steam engines.
 3. Marble
- E. 1. Marble, Sandstone 2. White marble 3. Marble, sandstone

Hots (Think and Answer)

Marble, Granite, Sandstone, Slate

Life Skills

1. Mice 2. Quartz 3. China clay 4. Talc 5. Graphite

Explore More

1. Taj Mahal White marble
 Red Fort sandstone
 Chalk graphite
2. Do it yourself
3. 1. DIAMOND 2. MICA 3. TALC 4. QUARTZ

Chapter – 13 Our Environment

Tell Me Now (Page 96)

Tick, Cross, Tick, Tick, Cross, Cross, Tick, Cross

Tell Me Now (Page 97)

Water, air

Tell Me Now (Page 99)

1. Electricity 2. Trees 3. Plastic 4. Water

Learn and Revise

- A. 1. (c) environment 2. (a) sick 3. (b) low volume 4. (a) covered bins
- B. 1. Polythene 2. environment 3. Natural 4. Dirty
- C. 1. T 2. T 3. F 4. T 5. T
- D. 1. Our environment means all the living things and non-living things. Every things around us make our environment.
2. Due to many human activities such as throwing garbages in water-bodies, bathing animals in the pond, Washing clothes in the rivers, etc. make water polluted.
3. Air gets polluted due to smokes coming out of the vehicles, chimney of the factories also add smoke to the air. Burning of leaves and bursting of crackers also release smokes that pollute the air.
4. We need a clean and healthy environment to lead a healthy life. When we misuse any resources, environment gets polluted. Polluted environment makes us unhealthy.
5. Say 'No' to plastic bags. In place of plastic bags, use paper, cloth or jute bags. Stop bursting the crackers. It pollutes the air. Do not waste water, since it is scarce and precious. Plant more and more trees. They make the air clean and fresh.
- E. 1, 4, 5

Hots (Think and Answer)

We should not waste paper. It is made by cutting trees.

Let's Talk

Do it yourself

Explore More

1. and 2. Do it yourself

Test Paper – 1

- A. 1. a. creeper 2. c. both of these 3. a. Duck 4. c. Jackal 5. c. 206
B. 1. Bones 2. Balanced 3. Leaves 4. Flavour 5. sheep
C. Herbivores: 1. Cow 2. Elephant
Carnivores: 1. Lion 2. Tiger
D. 1. Carnivores are animals that eat other animals (meat) for food.
2. Posture is the way we hold our bodies when we sit, stand, or move.
3. Fast foods such as pizza, burgers, wafers and cold drinks are harmful for our teeth and our health.
4. Plants make the air fresh and clean. Fresh air keeps us healthy.

Test Paper – 2

- A. 1. b. Limestone 2. c. winter 3. a. fire 4. a. pure 5. c. rain
B. 1. Ice 2. Water 3. Steam 4. Water
C. 1. c. is used to cut glass 2. d. The softest mineral
3. e. Bungalow 4. b. Snow
5. a. Caravan
D. 1. A person who travels in a spacecraft is called an astronaut.
2. Coal is black and soft rock. It is mainly used for cooking, in factories and for running steam engines.
3. Shadow is made when an object blocks light. Shadow is a dark shape produced by an object when it comes between light and a surface. When our body blocks the path of light, our shadow is formed on the opposite side of the light.
4. Way up in the sky, water vapour cools down and turns back into liquid water droplets. This process is called condensation. The droplets gather to form clouds.

Infinity Science

Class - 3

Chapter – 1 Living and Non-living Things

Tell Me Now (Page 7)

Living things, Living things, Non-living things, Living things

Tell Me Now (Page 12)

Gills, Stomata, Lungs, Spiracle

Tell Me Now (Page 14)

Puppies, Kittens, Eggs

Learn and Revise

- A. 1. (a) natural thing 2. (a) non-living things 3. (a) Fish
4. (c) Touch-me-not 5. (c) Cockroach
- B. 1. False 2. True 3. True 4. True 5. False
- C. 1. eggs 2. food 3. non-living thing 4. grow 5. gills
- D. 1. Things that have life in them are called living things. For example, animals, plants, etc.
2. Characteristics of Living things:
i. Living things can move
ii. Living things breathe
iii. Living things need food and water
iv. Living things can feel
v. Living things excrete
vi. All living things grow
vii. Living things reproduce
3. Things that do not have life are called non-living things. For example, air, water, rocks, etc.
4. Plants:
i. Plants cannot move.
ii. Plants can make their own food.
iii. Plants breathe in air through small holes called stomata on their leaves.
iv. Plants have no sense organs.
v. Plant reproduce through seeds, stems, roots or leaves.
Animals:
i. Animals can move.
ii. Animals can not make their own food.
iii. Animals breathe in air through nose, lungs, gills or air-holes.
iv. Animals have sense organs to feel about the things.
v. Animals reproduce by giving birth to young ones or by laying eggs.
5. **Through Roots:** An example of a plant that produces new plants through its roots is the sweet potato. It can grow new plants from its root.

Through Seeds: An example of a plant that produces new plants through its seeds is the sunflower. Sunflowers produce seeds that grow into new plants when planted.

Hots (Think and Answer)

Animal and plants can not survive independently. Animals get food, fibres, medicines and many other things from plants. They also get oxygen from plants. Plants depend on animals for carbon dioxide, the gas they need to make their food. They also depend on animals for dispersal of seeds and manure.

Explore More

2. INSECTS; SNAKE; BIRD; FISH

Chapter – 2 Parts of a Plant

Tell Me Now (Page 19)

Fruit, Flower, Leaf, Stem, Root

Tell Me Now (Page 23)

- | | | | |
|---------|----------|---------|-----------|
| 1. True | 2. False | 3. True | 4. Flower |
| 5. Seed | 6. Leaf | | |

Tell Me Now (Page 26)

- | | | | |
|-----------|-----------|------------|---------------|
| 1. Carrot | 2. Potato | 3. Spinach | 4. Watermelon |
|-----------|-----------|------------|---------------|

Learn and Revise

- A. 1. (b) Potato 2. (c) Coriander 3. (b) Leaf 4. (c) Chlorophyll
- B. 1. Tap and fibrous 2. Leaf 3. Fruit 4. Seed
- C. Use labelling of page 24, Structure of Leaf
- D. 1. Leaf (iii) kitchen of the plant
2. Carrot (iv) root
3. Root hair (ii) absorbs water and nutrients
4. Trunk (i) the stem of a tree
- E. 1. **Root System**

- i. Root is the underground part of a plant. Root fixes the plant in the soil.
- ii. Roots absorb water and nutrients from the soil.
- iii. The root system is mostly found underground.
- iv. Roots store food.
- v. The root system provides stability and support.

Shoot System

- i. Stems, branches, and leaves make up the shoot system.
- ii. The shoot system supports the plant, transports water and nutrients, and performs photosynthesis.
- iii. The shoot system is mostly found above the ground.
- iv. The shoot system includes leaves that produce food through photosynthesis.
- v. The shoot system helps in growth, reproduction, and gas exchange.

2. The stem has several important functions:
 - i. Stem carries water and minerals from the roots to upper parts of the plant.
 - ii. It carries food prepared by the leaves to other parts of the plant.
 - iii. The stem of some plants like potato and ginger store food in them. These stems are called underground stems . We use such parts as our food.
3. Plants require the following to make their food (through photosynthesis):

Sunlight: Provides energy for the process.

Water: Absorbed through the roots, used in photosynthesis.

Carbon dioxide (CO₂): Absorbed from the air through the stomata in the leaves.

Chlorophyll: The green pigment in leaves that absorbs light energy.
4. The stomata are small pores found on the surface of leaves, and their main functions are:

Gas exchange: Stomata allow carbon dioxide to enter the leaf for photosynthesis and allow oxygen, a byproduct of photosynthesis, to exit.

Regulation of water loss: Stomata also allow the plant to release water vapour in a process called transpiration, which helps in cooling the plant and maintaining water balance.

Regulation of gas exchange: Stomata can open and close depending on environment conditions to conserve water and maintain proper gas exchange.

Hots (Think and Answer)

If plants did not have chlorophyll, they would not be able to conduct photosynthesis, as chlorophyll is the pigment that absorbs sunlight to convert it into energy. Leaves are generally green in colour. This colour is due to a pigment called Chlorophyll. Chlorophyll is essential for plants to produce oxygen, which is necessary for the survival of most living organisms.

Explore More

Across

1. MANGO
3. CORIANDER
5. BEAN

Down

4. ONION
2. GINGER
6. MANGO

Let's talk

1. Plants, like all living organisms, need certain environmental conditions to love. In general, for plant good health, they need a good balance of light, air, humidity, and temperature, which is often easier to achieve in spaces with windows or natural airflow. Here are some reasons why they shouldn't be kept in completely closed rooms:

Lack of sufficient light: Most plants, especially those that require sunlight for photosynthesis, may not get enough light in a closed room. If a plant is kept indoors with insufficient natural, it can become weak.

Poor air circulation: Plants need fresh air for gas exchange (taking in carbon dioxide and releasing oxygen). In a closed room with poor ventilation, the carbon dioxide levels can rise and oxygen levels may drop, which is not good for plant health.

Humidity and temperature issues: In a room, humidity and temperature can fluctuate in a way that might not be ideal for plant growth. If the room is too hot, too dry, or too humid, plants might become stressed or more susceptible to diseases and pests.

2. Pumpkin and watermelon plants have a unique growth habit that allows them to spread along the ground for several reasons:

Maximising space for fruit production: These plants are typically vines, and by spreading out along the ground, they can cover a large area, providing more space for their fruits to grow. This increases their chances of producing more fruit and successfully reproducing.

Support and stability: Pumpkin and watermelon vines have long, flexible stems that can easily grow along the ground. The ground provides natural support for these sprawling plants, preventing them from toppling over or being damaged by wind.

Efficient use of resources: As the vines spread, they can access more sunlight and water over a broader area. Additionally, the plant's roots can grow along the length of the vine, allowing the plant to take up nutrients from a wider area.

Chapter – 3 Foods for Animals

Tell Me Now (Page 30)

Herbivores: Cow, Goat, Zebra, Rabbit

Carnivores: Tiger, Lion, Cheetah, Wolves, Deer

Omnivores: Bear, Dog

Tell Me Now (Page 32)

Suck their food, Suck their food, Leaves of tree, Suck the flower

Tell Me Now (Page 26)

2. Carrot

2. Potato

3. Spinach

4. Watermelon

Learn and Revise

- A. 1. (a) herbivores 2. (a) Rodents 3. (a) producers 4. (a) rat
- B. 1. False 2. True 3. True 4. False
- C. 1. live 2. Carnivorous 3. lap up 4. Mosquitoes 5. swallow
- D. 1. Herbivores eat only plants.
2. Some grass-eating animals like cows, buffaloes, goat and sheep first swallow grass without chewing it. After some time, they chew it with their grinding teeth. This is called 'chewing the cud'.
3. Tiger, lion, snake, frog, eagle, owl, crocodile and lizard are flesh-eating animals.
4. Flesh-eating animals generally have long pointed teeth to cut the flesh and strong grinding teeth to chew the bones and flesh.
5. All living things need energy to live and grow. They get this energy from their food. Animals depend on plants for food. Herbivores eat plants to get energy. Some herbivores are eaten by carnivores. This forms a chain called the food chain.
- E. 1. Chameleon 2. Elephant 3. Honeybee 4. Buffalo
- F. a. O b. O c. C d. C e. C f. C
g. H h. H i. H j. H k. H l. H

Explore More

1. Do it yourself 2. Make arrows

Hots (Think and Answer)

We should not hunt or kill animals because it harms nature and the balance of life on Earth.

Let's Talk

Carnivores have small front teeth because they do not need them to eat. They use their sharp teeth, called canines, to tear meat.

Chapter – 4 Birds-Feathers, Beaks and Claws

Tell Me Now (Page 39)

Parrot, Pigeon, Myna, Sparrow, Duck, Hen

Tell Me Now (Page 43)

Pigeon, Swan, Eagle, Hen

Tell Me Now (Page 48)

1. Woodpecker—Two-ended toes
2. Pheasant—Nail-like toes
3. Hawk—Large curved claws-talons
4. Duck—Webbed feet

Learn and Revise

- A. 1. (c) Both 2. (b) Woodpecker 3. (c) Ostrich 4. (c) streamlined
5. (a) fishing 6. (a) Swan
- B. 1. conical 2. webbed 3. Tail 4. hooked
- C. 1. False 2. True 3. False 4. True 5. False
- D. 1. The streamlined shape of body of birds help them fly in the air easily.
2. Body of a bird is covered with four kinds of feathers– body feathers, down feathers, flight feathers and tail feathers.
3. Birds use their beaks to catch, hold and eat food.
4. The sharp strong claws of the birds of prey are called talons.
5. The claws are suited to a bird's food and living habits.
- E. 1. Parrot 2. Eagle 3. Hen 4. Eagle

Hots (Think and Answer)

A bird gets most of its energy to fly from the food it eats.

Explore More

1. Do it yourself
2. a. Sparrow b. Feather c. Home d. Rice, wheat

Let's Talk

1. An eagle has strong claws to catch and hold its food, like fish or small animals.
2. Aeroplanes are smooth to help them fly faster and use less energy.

Chapter – 5 Birds Home-Nest and Caring

Tell Me Now (Page 52)

- a. i b. iii c. iv d. ii

Tell Me Now (Page 54)

- (a) Weaver bird, (b) Robin, (c) Tailor bird, (d) Woodpecker

4. In Small intestine the food is completely digested. The blood takes up the important nutrients from the food and carries them to different parts of the body.

5. The kidneys are the main excretory organs. They are bean-shaped and located at the lower part of the abdomen. They filter blood and make urine.

E. i. d ii. c iii. d iv. a

Word Search

LUNGS, NERVES, KIDNEY, BRAIN, HEART, FOOD, PIPE, MOUTH, SKIN

Explore More

1. After running or exercising, our heart pumps faster and stronger to send more blood and oxygen to our muscles.

2. Our body sweats from sweat glands found mostly on our skin, especially on your forehead, underarms, and hands.

Have Fun!

The kidneys are the main excretory organs. They are bean-shaped and located at the lower part of the abdomen. They filter blood and make urine.

Let's Talk

1. EYES 2. TONGUE 3. NERVES 4. KIDNEYS 5. BRAIN

Chapter – 7 Safety and First-Aid

Tell Me Now (Page 68)

1. a. zebra b. Stop, Go c. carelessness d. cover
2. a. red b. yellow c. green

Tell Me Now (Page 71)

2 and 3 (Tick)

Learn and Revise

- A. 1. (c) Red 2. (b) Zebra 3. (c) First aid 4. (a) scissors
B. 1. zebra crossing 2. helmet 3. Traffic signals 4. electric shock 5. doctor

C. 1. Accidents can be prevented by following certain simple rules.

2. i. Always walk on the footpath.
ii. Cross the road at the zebra crossing only.
iii. Cross the road at the zebra crossing only.
3. Clean the wound with savlon and apply any antiseptic lotion. Tie a bandage over the wound. Take the injured to a doctor and obey the advice of the doctor.
4. i. Do not jump on the desks or tables.
ii. Do not run down the staircase.
iii. Do not throw chalk or duster at your classmates.
5. We should not push others in a moving bus because we will fall and make injured.

Explore More

- A. Do it yourself
B. Scissors, Knives, Blades, Electric wires

Have Fun!

Daily gas leak checks are essential to ensure safety, prevent wastage, and protect both people and equipment from any harm.

Let's Talk

People wear helmets while riding two wheelers due to avoid head injury in road accidents.

Chapter – 8 A House

Tell Me Now (Page 74)

Tent, Igloo, Houseboat, Pucca House, Stilt House

Learn and Revise

- A. 1. (b) Caravan
3. (a) cement and bricks
- B. 1. Heat, cold
3. Air, light
- C. Kutcha houses are made of mud, straw, weak wood, leaves
Pucca houses are made of stones, bricks, cement, steel and strong wood.
- D. 1. False
4. False
- E. 1. i. A good house should have separate rooms for cooking food, receiving guests, sleeping and studying.
ii. It should have a proper drainage system with covered drains because mosquitoes breed in stagnant water in uncovered drains.
2. i. Kitchen waste and other garbage should not be littered around. They should be collected in covered dustbins and removed regularly.
ii. The floors of the house should be swept, mopped and disinfected regularly.
iii. Sinks, washbasins and bathrooms must be washed and disinfected regularly.
3. Things in the house be dusted regularly to keep insects and bacteria away.
4. People use wiremesh in doors and windows which checks the entry of flies, mosquitoes and other insects but allows fresh air.
5. gypsies and banjaras keep moving from one place to another. They live in caravans. A caravan has wheels on which it moves.
6. We should keep bathrooms disinfected regularly to safe from bacteria and viruses.
2. (a) Igloo
4. (a) Flies and mosquitoes
2. Curtains
4. insects
2. True
3. True
5. True

Word Puzzle

Across

1. HOUSEBOAT
2. CARAVAN

Down

3. TENT
4. IGLOO

Hots (Think and Answer)

A proper drainage system is necessary for a good house mosquitoes breed in stagnant water in uncovered drains.

Explore More

Do it yourself

Let's Talk

1. Sloping roofs in hilly areas help snow or rain slide off, so the roof doesn't get damaged. They also resist strong winds.
2. People in Assam build stilt houses to stay safe from floods, stay cool, and get better air circulation.

Have Fun!

Do it yourself

Chapter – 9 Water

Tell Me Now (Page 81)

1. Drink
2. Bath
3. Making food
4. Washing cloth

Tell Me Now (Page 85)

1. water, melting
2. water droplets
3. Water cycle

Learn and Revise

- A. 1. (c) Rain 2. (a) Ocean 3. (b) Solid 4. (a) food
- B. 1. gaseous 2. liquids 3. heating 4. three 5. clouds
- C. 1. True 2. True 3. False 4. False
- D. 1. We need water to live.
2. Three states of water are solid, liquid and gas.
3. If we cool liquid water it changes into ice. This is called freezing.
4. Heating
5. When the Sun's rays heat water it evaporates.
- E. G, L, S

Hots (Think and Answer)

Water that falls from the sky is not salty, it sometimes has other substances in it that cause it not to be clean enough for you to drink, that's why rainwater is not fit for drinking

Explore More

Do it yourself

Let's Talk

Dehydration is when your body doesn't have enough water to carry out its normal functions. If dehydration is severe, it can lead to more serious problems like confusion, fainting, or organ failure.

Chapter – 10 Measurements

Tell Me Now (Page 88)

Do it yourself

Tell Me Now (Page 91)

Pendulum, Digital thermometer, measuring tape

Learn and Revise

- A. 1. b. kilometres
3. c. l
- B. 1. centimeter 2. millilitre 3. kilogram 4. kilometre 5. hour
- C. 1. Centimeter 2. kulogram 3. millimeter 4. millilitre 5. litre
6. metre 7. gram 8. centigrade 9. Fahrenheit
- D. 1. The temperature of the body of normal human is 37° C or 98.4° F.
2. It is important to use standard units for measurement to correct accuracy.
3. a. measuring tape b. milk measuring
c. clock d. thermometer
4. Hotness or coldness of a body is called its temperature.
5. Earlier, the people used sundial, sand clock and water clock, etc. to find out the time.

Hots (Think and Answer)

We need standard units of measurement to ensure consistency and accuracy.

Explore More

1 & 2. Do it yourself

Let's Talk

A tailor uses a measuring tape because it's flexible and can easily bend around the body.

Chapter – 11 Minerals, Rocks and Soils

Tell Me Now (Page 95)

Diamond, Marble, Necklace, Granite, sandstone, granite

Tell Me Now (Page 96)

1. Mineral 2. Crust 3. Manure 4. Loamy soil 5. Weathering

Learn and Revise

- A. 1. (a) clay 2. (c) All of these 3. (c) Humus 4. (a) Loamy
- B. 1. Sandy soil 2. Clayey soil 3. Humus 4. Loam 5. Topsoil
- C. 1. True 2. False 3. False 4. False 5. True
- D. 1. Soil is formed by breaking down of parents rocks.
2. Humus is the broken down parts of dead plants and animals. It makes the soil fertile.
3. Sandy soil, Clayey soil, Loamy soil
4. The different layers of soil are top soil, subsoil, weathered parent material and bed rock.
5. Earthworms, Ants
- E. BEDROCK, SUBSOILS, DIAMOND, SANDSTONE
- F. Diamond, Topsoil, Clay

Hots (Think and Answer)

Earthworms help farmers by making the soil healthier and more fertile for growing crops, That's why earthworms called 'Farmer's friends'.

Explore More

1 & 2. Do it yourself

Let's Talk

1. Farmers add fertilisers and manures to make the soil richer in nutrients, helping plants grow better and produce more crops.
2. Diamond is used to cut hard materials because it is the hardest material on Earth, so it can easily cut through tough substances.

Chapter – 12 Heavenly Bodies

Tell Me Now (Page 103)

The eight planets are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. We live on the earth. The Earth is the third planet of the solar system. The Earth is the only planet of the solar system which has life on it.

Tell Me Now (Page 106)

- a. ii b. iii c. iv d. v e. i

Learn and Revise

- A. 1. (a) Moon 2. (b) constellations 3. (a) Eight
4. (a) Kalpana Chawla
- B. 1. Earth 2. Sun 3. astronauts
4. eight 5. Sunita Williams
- C. 1. False 2. False 3. True
4. True 5. False
- D. 1. (e) a big star 2. (f) a planet 3. (d) a satellite
4. (a) results in of day and night 5. (c) Layers of air
6. (b) was a great Indian astronomer
- D. 1. Thus, rotation of earth causes day and night.
2. The sun and its planets make the solar system.
3. People who travel into space are called astronauts.
4. The eight planets of the solar systems are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.
5. Aryabhata, Varahmihira and Bhaskar
- E. BEDROCK, SUBSOILS, DIAMOND, SANDSTONE
- F. Diamond, Topsoil, Clay

Hots (Think and Answer)

The Earth looks blue from space because about 71% of its surface is covered by water, mainly oceans.

Explore More

- A. Do it yourself
- B. 1. MOON 2. SUN 3. ORION 4. SATELLITE

Let's Talk

1. We can not hear any sound on the Moon because there is no air on the moon.
2. People weigh less on the Moon because the Moon has less gravity than Earth.

Chapter – 13 Light, Sound and Force

Tell Me Now (Page 112)

Luminous objects: Bulb, torch, candle

Non-luminous objects: School bag, blackboard

Tell Me Now (Page 114)

- i. Clock ii. bell iii. drum iv. Mobile phone

Learn and Revise

- A. 1. (a) see the things around 2. (c) vibrating objects 3. (c) both 4. (a) Gravity
B. 1. Torch 2. ears 3. unpleasant 4. pleasant 5. Noise
C. 1. (d) Light 2. (c) Noise 3. (b) Pleasant sound 4. (a) Force
D. 1. The objects that give out light on its own are known as luminous objects.
2. School bag, pencil
3. A shadow is formed when an opaque object comes in the path of light.
4. Sun
5. The sound of heavy traffic, horns, loud noise speaker, burning crackers and people shouting together creates noise pollution.

Word Search

FORCE, SOUND, PUSH, PULL, NOISE, MUSIC, LARYNX, SHADOW

Explore More

Do it yourself

Hots (Think and Answer)

You can stretch rubber bands by applying force on them.

Let's Talk

1. We should speak softly to avoid noise.
2. Soft music help us to make freshness in mind and reduce stress also.

Chapter – 14 Our Environment

Tell Me Now (Page 119)

Living: Tree, child, dog, butterfly

Non-living: School bag, blackboard

Learn and Revise

- A. 1. (a) Dirty 2. (c) Soil 3. (d) All of these 4. (a) throwing plastic bags
B. 1. b. Asthma 2. c. Cholera 3. d. Life 4. e. Cutting trees
5. a. Land pollution
C. 1. True 2. False 3. False 4. False 5. True
D. 1. All living and non-living things found in our surroundings form an environment.
2. Biotic components: Plants, animals, human beings
Abiotic components: Air, water, soil, sunshine

3. Three fourth of our earth is covered with water. Due to which we not only get rain and drinking water but also we get fish, pearls and other precious things from these water bodies. These naturally occurring things are called natural resources.
 4. Polluted water causes many diseases, like diarrhea, cholera, jaundice and many other problems.
- E.
1. Land pollution
 2. i. Everyday we throw garbages and household wastes in the open, that pollutes the land.
 - ii. Plastic materials such as plastic bags or toys, do not decay, these things also pollute the lands.
 3. We should say 'No' to plastic bags.

Explore More

1. Do it yourself 2. a. ENVIRONMENT b. COAL c. PLASTIC

Hots (Think and Answer)

Without water there is no life on the earth.

Let's Talk

We should go to a park for a morning walk where many plants and trees are grown due to taking fresh air, which is essential for our life.

Test Paper – 1

- A. 1. c. River 2. c. Coriander
 3. c. Both a and b 4. b. Woodpecker
- B. 1. building cup-shaped nests 2. five 3. eggs 4. taproot
- C. 1. False 2. False 3. True 4. True 5. True
- D. 1. Things that have life in them are called living things. Things that do not have life are called non-living things.
2. The functions of a stem include supporting the plant, transporting water and nutrients from roots to leaves, and storing food.
3. A food chain is a pathway that shows how energy passes from one living thing to another. A food chain always starts with a green plant.
4. Talons are the sharp, curved claws of birds of prey, like eagles or hawks, used to catch and hold prey.

Test Paper – 2

- A. 1. b. Zebra 2. a. Force 3. a. Igloo 4. b. Solid
- B. 1. Kalpana chawla 2. doctor 3. loud 4. Curtains 5. solid
- C. 1. Loamy soil 2. Steam 3. Length
- D. 1. We need a house to provide us with shelter and protection from the rain, sun, and wind.
2. Melting is the process by which a solid changes into a liquid when it is heated.
3. Soil is formed through the process of weathering, where rocks are broken down into smaller particles.
4. The solar system consists of the Sun, eight planets (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune), moons, dwarf planets, asteroids, comets, and other celestial objects.
5. We should follow safety rules to prevent accidents, injuries, and harm to ourselves and others.

INFINITY SCIENCE

Class - 4

Chapter – 1 Food and Digestion

Tell Me Now (Page 7)

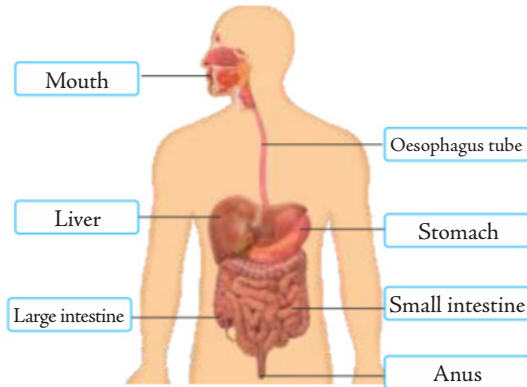
1, 4, 7, 8 – Correct

Tell Me Now (Page 14)

1. (d) frying in hot oil 2. (e) Digestion 3. (b) Stomach 4. (a) Saliva
5. (c) Preservation

Learn and Revise

- A. 1. (b) Potato 2. (b) proteins 3. (b) body-building foods 4. (a) mouth
5. (a) Boiling
- B. 1. a. Rice b. Bread c. Potatoes
2. a. Butter b. Olive oil c. Cheese
3. a. Oranges (Vitamin C) b. Carrots (Vitamin A) c. Spinach (Vitamin K)
4. a. Spinach (Iron) b. Bananas (Potassium) c. Milk (Calcium)
5. a. Eggs b. Chicken c. Lentils
- C. 1. Fats, carbohydrates 2. vitamins 3. sugar 4. blood 6. Proteins
- D.



- E. 1. We take food to live.
2. Water maintains our body temperature. It helps us to digest our food
3. Vitamins: Egg, meat, fruits Minerals: Apple, banana, grapes
4. A diet that provides us the nutrients essential for our body is called a balanced diet.
5. i. Storing the Food at Low Temperature
ii. Storing in airtight containers
- F. 1. i. Do not throw away the water in which pulses are soaked. It contains vitamins.
ii. We should not wash vegetables after cutting because in doing so certain vitamins and mineral salt are lost.

- iii. Food should be cooked in clean utensils using clear water.
 - iv. Overcooking should be avoided. Overcooking destroys the vitamins
2. We eat or drink through our mouth. When we eat solid food, we first cut it and chew it with our teeth. In the mouth, a digestive liquid, saliva mixes with the food. This makes a paste of the food. Saliva also changes the starch in the sugar with the help of an enzyme.
 3. From stomach the food is pushed into long coiled tube called the small intestine. From the small intestine the food goes to the large intestine. More digestive juices are added to the food in the small intestine. These juices mix with the food and change it into simple liquid form.
 4. Minerals also keep us healthy and fit. They help us to build strong bones, teeth and blood. We get minerals from fresh fruits. That's why food items rich in vitamins and minerals are known as protective foods.
 5. Food is valuable. So, preservation of food is necessary. If it is not preserved, it may begin to spoil. The process of treating food in a way that preserves its value for a long time is called preservation. Cooked or uncooked food can be preserved in different ways:
 - i. Storing the Food at Low Temperature
 - ii. Storing in airtight containers
 - iii. Boiling

Word Puzzle

1. PROTEINS 2. SALIVA 3. FATS 4. CARBOHYDRATES
5. VITAMINS

Hots (Think and Answer)

Food rich in fibre known as roughage. It helps in expelling out waste materials from the body. Salad, vegetables and fruits are rich in fibre content.

Let's Talk

1. We do many types of activities from morning till night. Children study and play games. After working or playing for a long time, we get tired and hungry.
2. Proteins are body building foods. It help us to grow. They also help to repair the body and keep us healthy. That is why, children need more proteins and their grandfather.

Explore More

Do it yourself

Chapter – 2 Teeth and Microbes

Tell Me Now (Page 20)

Students should label themselves

Tell Me Now (Page 23)

1. (c) Tearing teeth 2. (d) Cracking teeth 3. (b) Grinding teeth 4. (a) Cutting teeth

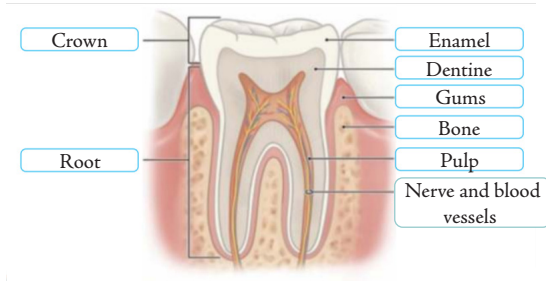
Tell Me Now (Page 25)

- (a) Fungi: Ringworm, Athletes foot
- (b) Bacteria: Cholera, Tuberculosis
- (c) Protozoa: Malaria, Dysentery
- (d) Viruses: Chicken pox, Dengue

Learn and Revise

- A. 1. (c) canines
2. (a) milk teeth
3. (c) six
4. (b) Caterpillar
5. (a) We must not brush our teeth every day.
- B. 1. premolar 2. plaque 3. chocolates 4. germs 5. root
- C. 1. True 2. True 3. False 4. False 5. True
- D. 1. i. Incisors or cutting teeth
ii. Canines or tearing teeth
iii. Premolars or cracking teeth
iv. Molars or grinding teeth
2. Humans have two sets of teeth—milk teeth and permanent teeth.
3. i. Bacteria are single-celled micro-organisms.
ii. Viruses are smaller than bacteria and can be seen only through a powerful microscope.
iii. Protozoa are single-celled micro-organisms.
iv. Fungi are organisms which grow on decaying matter.
4. i. Bacteria
ii. Viruses
iii. Protozoa
iv. Fungi
5. A tooth is made of three layers: enamel, dentine and pulp.
- E. 1. Without teeth it would not have been possible for us to enjoy our food. Chewing breaks the food into smaller pieces so that it may be digested easily. Without teeth we cannot bite raw vegetables, fruits and nuts.
2. i. Incisors or cutting teeth: We use them to bite our food.
ii. Canines or tearing teeth: These are used for tearing the food
iii. Premolars or cracking teeth: They are meant for crushing food.
iv. Molars or grinding teeth: They are boarder than the premolars and have broad upper surface to grind food.
3. Tooth decay result in bad breath, bleeding of gums and digestion.
Tips for Keeping Teeth Healthy
- i. We must brush our teeth at least twice a day every morning and every night before going to bed.
ii. We should wash our mouth after every meal.
iii. We should not eat many sweets, biscuits, toffees and chocolates too much.
iv. We should get our teeth examined by a dentist after every six months.
4. Microbes are very small organisms. They can be seen only through microscope. The microbes are found everywhere.
Malaria and dysentery are caused by protozoa.
5. There are some microbes which are useful to us. They help us in many ways.
i. Some bacteria change milk into curd and some help in making cheese.
ii. Some bacteria help in baking bread and making wines.
iii. Some bacteria help in the decay of dead plants and animals.
iv. Some bacteria help to digest food in animals.

F.



Word Puzzled

Across

1. MALARIA
4. INCISORS
6. DENTINE
7. VIRUSE

Down

2. ROOT
3. CURD
5. CANINE

Hots (Think and Answer)

We should not eat too much chocolates because it spoil the teeth.

Let's talk

1. We must brush our teeth well after meal to avoid the spoiling of teeth from bacteria.
2. We should wash our hands before and after having meal to avoid from germs and bacteria.

Explore More

Do it yourself

Have Fun

Bacteria, Virus, Protozoa

Chapter – 3 Safety First

Tell Me Now (Page 30)

Matchbox: It may cause burn to child

Knife: It may cause cut to child

Medicines: It may cause infections and reactions to child

Electric switches: It may cause electric shock to child

Tell Me Now (Page 33)

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

Tell Me Now (Page 35)

1., 2., 5. and 6.

Learn and Revise

- A. 1. (a) apply lime water 2. (c) both 3. (b) Synthetic 4. (a) wet hands
- B. 1. (b) Must be kept dry to prevent slipping on them.
2. (c) Should be handled carefully.

Learn and Revise

- A. 1. (c) animal's skin
2. (c) all of these
3. (a) Cotton, (c) Nylon
4. (a) Saree
- B. 1. saree 2. insects 3. raincoat 4. Naphthalene 5. winter
- C. 1. We get cotton from plants.
2. Synthetic fibres are made by chemical processes.
3. We should wear dry socks and comfortable shoes.
4. Polyester did not absorb lot of water.
5. The national dress of an Indian woman is sarees.
- D. 1. Frock 2. Jeans 3. Saree 4. Kurta
- E. 1. Natural fibres are those which are made from natural materials.
2. Nylon, rayon, polyester
3. Clothes protect us from heat, cold, dust and rain.
4. Warm clothes
5. We should wash clothes to protect us from germs and bacteria.
- F. 1. Clothes protect us from the heat of sun. In winter seasons, we like to wear thick and warm clothes. They protect us from the cold. In rainy season rain coat protects us from the rain.
2. Natural fibres are those which are made from natural materials. Synthetic fibres are prepared by different chemical processes.
3. The clothes should be regularly washed. Cotton clothes are washed with soap and water. We should rinse the clothes in water. After washing we should squeeze our clothes properly and dry them. We should iron the clothes and keep in an almirah.
4. People wear special clothes for specific work. Doctors and nurses wear white coats. People working in factories wear overalls. A soldier wear a uniform made from tough material. So that it does not tear easily. You wear a uniform to school so that you can be recognised as a student of your school.
5. We wear socks and shoes to protect our feet from cold, heat, dust, germs and worms. If we move without wearing shoes, it can cause cuts through which dirt, germs and worms may enter the body.

Hots (Think and Answer)

Ancient people wear clothes made by animal's skins because that time they did not know how to make clothes, so clothes are not available for them.

Let's Talk

1. Do it yourself
2. In winter seasons, we like to wear thick and warm clothes. They protect us from the cold.

Explore More

- A. 1. Fibre: Natural 2. Fibre: Natural 3. Fibre: Synthetic
Season: Summer Season: Winter Season: Rainy
- B. Natural: Cotton, Jute, Linen;
Synthetic: Rayon, Nylon, Polyester

Chapter – 5 Solids, Liquids and Gases

Tell Me Now (Page 49)

Solid Matter: Chair, Computer, Book, Pen

Liquid Matter: Milk, Water, Juice

Gaseous Matter: Steel span

Tell Me Now (Page 51)

Book: Definite shape. Easily held in hand.

Glass juice: It takes the shape of glass. It can flow.

Perfume bottle: No definite shape. It occupies space of bottle.

Tell Me Now (Page 53)

(i) Sand: Insoluble

(ii) Sugar: Soluble

(iii) Common Salt: Soluble

(iv) Ghee: Insoluble

(v) Coconut oil: Insoluble

Learn and Revise

- A. 1. (a) Wax 2. (b) solvent 3. (b) Gas 4. (a) interchangeable 5. (a) Stone
- B. 1. molecules 2. solute 3. Space, weight 4. closely 5. solvent
- C. 1. F 2. T 3. T 4. T 5. T
- D. 1. Anything that has mass and occupies space is called matter.
2. The three states of matter are solid, liquid and gas.
3. Sugar and salt
4. Matter is made up of tiny particles called molecules.
5. Water
- E. 1. The molecules of solid are closely placed. In liquid, the molecules are less closely placed.
2. Two solids which are soluble in water are sugar and salt and two solids which are not soluble in water are sand and flour.
3. The substances which dissolve in a liquid are called solute. For example, salt. The liquids in which solids dissolve are called solvents. For example, water. The substances which dissolve in any solvent are called solutes. For example, salt-water.
4. When ice (solid form) is heated, it changes into water (liquid form) and when water is heated, it changes into water vapour (gaseous form). Similarly, when we cool the water vapour, it forms water. Water on cooling turns into ice. Thus, the states of matter are interchangeable either by heating or cooling.
5. A liquid is a substance that has no shape of its own. It takes the shape of the container in which it is kept. In liquid, the molecules are less closely placed. A gas is a substance that has no definite shape or volume. In gases, the molecules of a gas is weakest. The gas occupies the complete space in the container in which it is kept. It can move in any direction.

Hots (Think and Answer)

A liquid take the shape of container because it has no definite shape.

Let's Talk

1. Inter-molecular space is the empty space between the tiny particles (molecules) that make up everything around us. The amount of space between these molecules changes depending on whether the substance is a solid, liquid, or gas.

Hots (Think and Answer)

The leaves of a plant kept in the dark do not produce starch due to sunlight and oxygen.

Let's Talk

- Plants and animals in our surroundings are interdependent, means they depend on each other for survival in various ways.
- Plants and animals depend on each other for survival, forming a balance in nature. Humans play a significant role in preserving this balance by protecting the environment, conserving resources, and supporting sustainable practices.

Explore More

- A. a. CHLOROPHYLL b. MOULDS
B. Do it yourself

Chapter – 7 Survival of Plants

Tell Me Now (Page 66)

Do it yourself

Tell Me Now (Page 69)

1. Banyan (a) plains
2. Coconut (e) hot and damp area
3. Pitcher plant (d) insectivorous plants eat insects
4. Cactus (b) desert
5. Pine (c) hilly area

Tell Me Now (Page 71)

- (a) Spruce (b) Needle-like leaves (c) Hilly areas

Learn and Revise

- A. 1. (c) Pine 2. (c) Pitcher plant 3. (b) needle-like leaves
4. (c) Mangrove
- B. 1. Cactus, Palm 2. Water hyacinth, Duckweeds 3. Pine, oak
4. Hydrilla, Vallisneria 5. Pitcher plant, Venus flytrap
- C. 1. T 2. T 3. T 4. T 5. F
- D. i. Water hyacinth plants protect small water animals from the heat of the sun.
ii. Venus fly trap belong to the grass family.
iii. Duckweed plants protect small water animals from the heat of the sun.
iv. Cactus plants growing in deserts have spines instead of leaves.
- E. 1. Plants that grow in water are called aquatic plants. For example, Duck weed and Water lettuce
2. Pine, Deodar, Spruce
3. Rice, Wheat
4. Pitcher plant, Venus flytrap
- F. 1. In marshy areas, the soil is sticky and clayey. The trees that grow here are called mangroves. The clayey soil does not provide air mangroves to the roots for breathing. So some breathing roots come above the ground. These roots are called areal or breathing roots.
2. The stem of the lotus is hollow and light which keeps the leaves and the flowers afloat.

3. These plants are useful to us in many ways. They provide food for humans and animals. Cereals such as rice, wheat, jowar, bajra, sugarcane and bamboo belong to the grass family.
4. Bamboo is a useful grass plant which is used to make huts, baskets, chairs, mats, toys and brooms.

Hots (Think and Answer)

People worship the banyan tree for its long life, spiritual meaning, and its role in nature and culture.

Let's Talk

1. A leaf is often called the "kitchen of the plant" because it is the part of the plant where photosynthesis happens.
2. 1. Banyan 2. Lotus 3. Fir 4. Babul 5. Rubber

Explore More

- A. Do it yourself B. Do it yourself

Chapter – 8 Reproduction in Animals

Tell Me Now (Page 75)

Puppy, Calf, Kitten, Foal

Tell Me Now (Page 77)

- a. Dolphin b. Bats c. Fish d. Bird e. Dog

Learn and Revise

- A. 1. (b) Cow 2. (a) kittens 3. (c) Squirrel 4. (a) Fish
- B. 1. Mammals 2. water 3. egg 4. Bats
- C. 1. Cats (e) Give birth to young ones
 2. Monkeys (d) Arboreal animals
 3. Dolphins (c) Mammals
 4. Birds (b) Egg laying animals
 5. Albumen (a) Protects the embryo
- D. Water, Tree, Sky
- E. 1. Cow
 2. Hen
 3. The animals give birth to their young ones are called mammals.
 4. Mammals give birth to their young ones of their own kind. Birds reproduce by laying eggs.
- F. 1. Arboreal animals are animals that primarily live in trees. For example, Monkeys, Squirrels, Koalas
 2. Mammals take care of their babies for long period of time. Usually, the mothers care for the young ones. They feed the babies, clean them and keep them warm. Mothers protect them from enemies. As they grow the mother teaches them to find food and live on their own.
 3. Birds reproduce by laying eggs. Most birds like crow, sparrow, hen and eagle lay eggs. They lay eggs in nest. Birds sit on eggs to keep them warm. After some time, the eggs hatch and baby birds come out.

4. Reproduction is the biological process by which living organisms produce offspring, ensuring the survival of their species.

Word Search

COW, DOG, CAT, HUMANS, HORSE

Hots (Think and Answer)

Animals take care of their young in many ways, such as providing food, protection, warmth, shelter, and teaching them necessary survival skills. The methods vary based on the species and their environment, but the primary goal is to ensure the survival and well-being of their offspring.

Let's talk

- Snake: Lay eggs
Cow: Give birth to young ones
Horse: Give birth to young ones
Sparrow: Lay eggs
Hen: Lay eggs

Explore More

Do it Yourself

Chapter – 9 Adaptations in Animals

Tell Me Now (Page 81)

Mongoose, Bat, Giraffe, Turtle

Tell Me Now (Page 85)

- a. Cows, goats b. Lion, fox c. Bear, crow d. Vulture, Hyenas

Tell Me Now (Page 87)

1. Camel 2. Zebra 3. Leaf insect 4. Snake

Learn and Revise

- A. 1. (c) habitat 2. (c) carnivores 3. (b) Rabbit 4. (b) amphibians
5. (a) tearing teeth
- B. 1. Fish, Duck 2. Eagle, Bat 3. Tiger, Horse 4. Monkey, Squirrel
5. Frog, Salamander
- C. 1. Terrestrial (d) Camel
2. Aerial (b) Crow
3. Omnivore (a) Bat
4. Colour protection (c) Leaf insect
- D. Turtle: Turtle has limbs that help it to swim in water and to move on land.
- E. 1. Adaptation is the process by which animals or plants adjust to their environment in order to survive.
2. Penguin, Polar bear
3. Animals which live on tree are called arboreal animals.
4. Most herbivores have long and strong legs to help them run fast.

- E. 1 Those that spend most of their time in the air, like birds, bats, and insects—have evolved to have light bodies.
2. Some animals cannot survive in cold winter months. So they sleep for a great length of time in winter. They sleep in caves or underground burrows. This process of sleeping is called hibernation.
3. Camel has a thick and less hairy skin which protects it from the heat of sun.
4. The skin of animals acts as a protecting organ. It helps them to protect from various climatic conditions. Camel has a thick and less hairy skin which protects it from the heat of sun. Some animals like lizard, snake and some birds have scales or feathers on their skin. These protect their skin from drying. Some animals protect themselves from enemies by changing the colour of their skin resembles the colour of their surroundings. Their colour helps them in hiding from the enemies.
5. There are certain types of small animals that live on or inside the body of other animals. They are called parasites. The animals on which parasites depend for their food are called hosts. Mosquitoes, leeches, hookworms and bugs are parasites. They have suckers or sucking tubes to suck blood from their host.

Hots (Think and Answer)

Fish have several adaptations, like gills for breathing, fins for movement, and a streamlined body for swimming, that help them survive and thrive in their aquatic environment.

Let's Talk

1. Snakes don't have legs, so they move in a special way called slithering. They use their long, flexible body and muscles to move.
2.
 - i. Polar bear
Habitat: They live in cold region
 - ii. Frog
Habitat: These animals have limbs that help them to swim in water and to move on land. (Amphibian)
 - iii. Turtle
Habitat: These animals have limbs that help them to swim in water and to move on land. (Amphibian)

Explore More

Do it yourself

Chapter – 10 Force, Work and Energy

Tell Me Now (Page 91)

Force is applying on 2 and 4.

Tell Me Now (Page 93)

1. Lever and Wedge 2. Lever 3. Lever

Tell Me Now (Page 95)

1. Muscular energy 2. Wind energy 3. Water energy 4. Solar energy

Learn and Revise

- A. 1. (b) sun 2. (b) Frictional 3. (b) energy 4. (b) machine 5. (a) Atomic

- B. 1. energy 2. Friction 3. solar 4. Movement 5. opposite
- C. 1. Electrical bulb (d) Electrical to light
 2. Solar cookers (c) Solar energy to heat
 3. Television (e) Electrical to light and sound
 4. The sun (a) Solar energy
 5. Petrol engine in car (b) Heat energy
- D. i. Cutting ii. Moving iii. Tighten iv. Electricity
- E. 1. The different forms of energy are electrical energy, heat energy, atomic energy and wind and water energy and solar energy.
 2. Force can be used to push or pull something.
 3. When a force moves some object over some distance, it is called work done.
 4. Pushing a cart is an example of muscular force.
- F. 1. When a force is applied in the same direction as a moving object, it increases the speed of the object. For example, if you push a toy car in the same direction it is already moving, the car will move faster.
 2. Gravitational force is the force that pulls objects towards the Earth.
 3. Simple machines help us by making our work easy.
 4. When a force moves some object over some distance, it is called work done. Work done can be calculated by the following formula
 Work done = Force applied on an object \times Distance covered by the object

Hots (Think and Answer)

The harmful effects of sunlight are Sunburn, Skin Cancer, Heat Stroke, etc.

Let's Talk

1. A screw joins two pieces of wood better than a nail because of Grip, Stronger Hold, Better for Stability.
2. a. Energy b. Wedge c. Gravity d. Solar

Explore More

1. & 2. Do it yourself

Chapter – 11 Beyond the Earth

Tell Me Now (Page 99)

Do it yourself

Tell Me Now (Page 101)

1. Planet having life (d) Earth
2. Planet nearest to the sun (c) Mercury
3. Largest planet (a) Jupiter
4. Planet known as the red planet (e) Mars
5. Planet closest to the earth (b) Venus

Tell Me Now (Page 105)

1. There are 8 planets in our solar system. They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune.
2. Mars is known as the Red Planet because its surface is covered with red dust and rocks.

3. Venus is the planet that is nearest to the Earth.
4. Jupiter is the largest planet in our solar system.
5. Venus is called the evening star or the morning star because it is bright and can be seen in the sky just after sunset (evening) or just before sunrise (morning).

Learn and Revise

- A. 1. (c) constellations 2. (c) star 3. (c) 8 4. (a) Jupiter 5. (c) Saturn
- B. 1. Jupiter 2. Venus 3. Telescope 4. Saturn 5. Mercury
- C. 1. earth 2. the moon 3. rotation 4. revolution 5. Constellations
- D. Inner core, Outer core, Mantle, Crust
- E. 1. There are some bright bodies which move around the sun along their fixed paths in the sky. These are called planets.
 2. The earth spins around its own axis. This movement is called the Rotation of the earth.
 3. Our earth completes one revolution in 365 days and 6 hours.
 4. The group of stars form shapes are called constellations.
 5. Earthworms, Ants
- F. 1. A heavenly body that revolves around a planet is called the satellite.
 2. The correct order of planets from nearest to sun is: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.
 3. A star is a huge ball of gases. It gives out light and heat. The planets do not give off any heat or light of their own. A planet is smaller than a star.
 4. The earth completes one rotation in 24 hours. The rotation of our earth causes day and night. Our earth completes one revolution in 365 days and 6 hours. This time period is called solar year. The revolution of earth gives rise to seasons.

Word Search

MERCURY, EARTH, VENUS, SATURN, URANUS

Hots (Think and Answer)

So, Earth has life, water, air, temperature, and many other unique things help make it a place where plants, animals, and people can live. That's why Earth is different from all the other planets.

Let's Talk

1. Without weather, water, or an atmosphere, the Moon's surface doesn't change much. Most of the marks on the Moon are craters left by space rocks hitting it a long time ago!
2. A heavenly body that revolves around a planet is called the satellite. INSAT and Hubble Space Telescope are two artificial satellites.

Explore More

Do it yourself

Chapter – 12 Air, Water and Weather

Tell Me Now (Page 110)

1. Cold 2. Summer 3. Winter 4. Summer

Tell Me Now (Page 114)

1. (c) Dew 2. (a) Evaporation 3. (b) Snow 4. (d) Rain

Tell Me Now (Page 116)

1. SEDIMENTATION
2. EVAPORATION
3. INSOLUBLE
4. CONDENSATION

Learn and Revise

- A. 1. (a) sun 2. (c) condensation 3. (a) dew
4. (b) decantation 5. (a) storm
- B. 1. Condensation 2. filter 3. wind
4. longer 5. faster
- C. 1. True 2. True 3. False
4. True 5. True
- D. a. In the morning we get slanting rays because the sun remains on one side of the sky. Therefore, the morning remains cool.
b. Because the sun shines over our head at noon and the sun's rays fall straight on the earth. It gets difficult to walk barefoot at noon.
c. After the sunset, heat escapes from the earth. Therefore nights remain cool.
- E. 1. The sun causes changes in weather.
2. The change of water into water vapour is called the evaporation.
3. The change of water vapour into water by cooling is called the condensation.
4. Temperature, Surface Area, Humidity
5. Insoluble impurities, soluble impurities
- F. 1. This process of settling down of heavy insoluble impurities is called the sedimentation. The clean water can be poured into another vessel. This is called the decantation.
2. The sun causes changes in weather. It affects the temperature and length of the day.
3. When the water vapour freezes in the air, it forms small icy-crystals. These are called snow.
4. Sedimentation, Decantation, Filtration, Boiling
5. The air pressure over the water is higher with cold dense air, which moves to occupy the space created over the land. The cool air that comes along is called the sea breeze.
Cold and dense air over the land begins to move to the water surface to replace the warmer rising air. The cool breeze from the land is called the land breeze.

Hots (Think and Answer)

Gaps are left between railway tracks so that the rails can expand and contract when the temperature changes.

Let's Talk

1. This happens because of condensation. During the night, the air cools down, and when the temperature drops, it can cause the moisture in the air to turn into liquid water. This is similar to how water droplets form on the outside of a cold glass. Since the surfaces of the cars and plants are cooler than the air, the water vapor in the air condenses on them, forming the drops.
2. a. Flood b. Driving c. Filtration d. Wind

Explore More

- A. Do it yourself B. Do it yourself

Chapter – 13 Soil

Tell Me Now (Page 121)

Do it yourself

Tell Me Now (Page 126)

Do it yourself

Learn and Revise

- A. 1. (b) Topsoil 2. (a) sand 3. (c) Loamy
4. (c) clayey 5. (b) soil erosion
- B. 1. conservation 2. Sandy 3. Embankments
4. three 5. terrace farming
- C. 1. Terrace farming is done on hillsides or sloped areas.
2. The topsoil provides the nutrients to the plants.
3. Deforestation is the main reason to cause the soil erosion.
4. Clay is the smallest particles in any type of soil
5. Loamy soil is well-drained in nature
- D. 1. Sand: The largest particles in any type of soil is sand.
2. Clay: Clay particles are much smaller than sand.
3. Silt: Silt is a medium-sized soil particles that is smooth.
- E. 1. Humus increases the fertility of the soil.
2. The topmost layer of the soil is called topsoil.
3. Wearing and carrying away the soil by natural forces is called soil erosion.
4. Wind and water are the main natural agents of soil erosion.
5. An embankment is a raised structure made of soil or rocks, used to prevent flooding or soil erosion along rivers or roads.
- F. 1. Soil is formed by weathering of rocks by the action of wind, rain and the sun.
2. Humus helps in plant growth by improving soil fertility.
3. In the hilly areas, most of the rain water flows down the slopes with great speed. It carries large quantities of soil and other loose materials with it. This type of soil erosion can be prevented by cutting steps in the slopes and by terrace farming.
4. It has high nutrients content and a good drainage quality which makes it very productive.
5. Sandy Soil: Sandy soil is light and dry. It does not have moisture content and gets heated quickly.
Clayey Soil: Clayey soil is wet in nature. It is suitable for planting seeds.
Silt Soil: Silt soil is the most fertile soil present on the earth.
Loamy Soil: Loamy soil is a combination of all the three soils.

Explore More

Do it yourself

Hots (Think and Answer)

Earthworms are called the friends of farmers because they help improve soil quality in several ways.

Let's Talk

1. sandy soil alone is not suitable for making pots, but a mixture of clay and sand is commonly used in pottery.
2. Do it yourself

Chapter – 14 A Clean World

Tell Me Now (Page 131)

1. Noise pollution
2. Water pollution
3. Land pollution

Learn and Revise

- A. 1. (c) headache 2. (c) Bathing cattle in the river 3. (c) both 4. (a) cholera
- B. 1. pollutants 2. unfit 3. Smoke 4. peace 5. rivers
- C. 1. False 2. False 3. True 4. True 5. False
- D. 1. It showing water pollution done by man.
2. i. It will make water dirty ii. Water is not fit for us for drinking.
3. It affects our health very badly and make germ.
- E. 1. The natural world, for example the land, air and water, in which people, animals and plants live.
2. The harmful substances make the air, water or land dirty. This is called pollution.
3. Cholera, diarrhea
4. Harmful substances that pollute air, water and land are called pollutants.
- F. 1. Air pollution causes breathing problem such as asthma and burning sensation in eyes. It also causes damage of nerves.
2. Noise pollution disturbs our peace. Continuous noise can cause high blood pressure, deafness and other health problems.
3. Smoke is harmful both to our health and to the environment.
4. The land pollution occurs mainly due to the indirect and direct effects of human activities. The unnecessary materials contaminate the quality of our land for instance, even the garbage on the streets is a kind of land pollution only. There are various causes which contribute to this pollution.

Word Search

1. NOISE 2. SMOKE 3. DUST 4. FUEL

Hots (Think and Answer)

The government of India has banned the excessive use of plastic bags for several important reasons: Environmental Pollution, Harm to Wildlife, Health Hazards, etc.

Let's Talk

Students should do themselves

Explore More

1. & 2. Do it yourself

Test Paper – 1

- A. 1. c. Carrot 2. b. six 3. b. synthetic 4. b. saree
- B. 1. True 2. True 3. True 4. False 5. False
- C. 1. acid 2. twice a day 3. cold water 4. Plants 5. shape
- D. 1. i. Always cross the road at the zebra crossing.
ii. Look both ways before crossing the street.
iii. Wear a helmet when riding a bicycle or scooter.
2. i. Wash clothes in good detergents.
ii. Store clothes in a clean and dry place to avoid damage.
iii. Iron clothes to remove wrinkles and keep them looking neat.
3. Molecules are tiny particles made up of two or more atoms that are joined together.
4. Stomata are small openings on the leaves of plants.
5. Food preservation is the method of keeping food fresh and safe to eat for a longer time.

Test Paper – 2

- A. 1. c. sundew 2. c. carnivores 3. b. machine 4. c. petroleum
- B. 1. pollution 2. terrestrial plants 3. mammals 4. solar energy
- C. 1. True 2. True 3. False 4. False 5. False
- D. 1. The solar system is made up of the Sun, eight planets (including Earth), and their moons. The Sun is at the center, and all the planets move around it.
2. Frost is tiny ice crystals that form on cold surfaces, like windows, when the temperature is below freezing. It happens when the water vapour in the air turns into ice instead of liquid water because of the cold weather.
3. Smoke is harmful because it has harmful chemicals that can make us sick. Breathing in smoke can hurt our lungs, cause coughing, and make it hard to breathe.
4. Venus flytrap is a plant that catches insects. It has special leaves that snap shut when an insect touches them. The plant then digests the insect to get nutrients.
5. Hibernation is when some animals, like bears, sleep during the cold winter months to save energy. They don't eat or move much during this time and wake up when it gets warmer.