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## DISCOVERY

# SCIENCE

Teacher Manual.



#### **CLASS-2**

## **CHAPTER 1 Types of Plant**

#### **Just Do More**

Peepal Tree (Pg 6) Bud (Pg 8)

#### **EXERCISE**

- **A** 1. (a) Trees 2. (c) soft 3. (c) leaf
- **B** 1. True 2. True 3. False 4. True
- C 1. trunk 2. trees 3. Fruits 4. ground
- **D** 1. There are many kinds of plant around us. They are trees, shrubs, herbs, clumbers and creepers.
  - 2. Plants which are very big, tall and strong are called trees. For eg. mango tree, banyan tree etc.
  - 3. Climbers are plants with weak stems that need support to grow. For eg. pea plant, money plant. Creepers are plants with weak stems that grow along the ground. For eg. watermelon plant, pumpkin plant.

#### HOTS

Leaves need water, sunlight and air to make food.

#### Let's Enjoy

Do it yourself.

#### Life Skill

1

Do it yourself.

### **CHAPTER 2 Useful Plants**

#### Just Do More (Pg 15)

- 1. Do it yourself.
- 2. Tamato, Onion

(Pg 17)

Rubber

1. Sunflower oil

2. Do it yourself.

Eraser

#### **EXERCISE**

(c)

- A 1. (b) furniture 2. (c) Turnip 3. (c) sunflower
- B Column A Column B
- 2. Cardamom (d) Spice
- 3. Rose (e) Perfume
- 4. Cotton (a) Fibre
- **5.** Rice (b) Cereal

- C Plants are very useful for us. They are main source of our food. They also give us fibre for clothes, wood for furniture etc. They also keep the air clean and fresh.
  - The dried seeds, fruits, roots or bark of plants that enhance the 2. taste of food are called spices.

For eg. Cardamom, pepper etc.

We put flowers in flower vase and decorate our home. We also use flowers to make bouquets.

#### HOTS

No, we cannot make perfume from all kinds of flowers. We can only make perfumes with flower that have good fragrances.

#### Let's Enjoy

**A** Do it yourself. В

Do it yourself.

**C** Do it yourself.

#### **CHAPTER 3 Domestic Animals**

#### Just Do More (Pg 26)

- 1. Buffaloes
- (b) Sheds

2. Dogs

- (f) Kennels
- 3. Oxen
- Oxen carts (c)
- 4. Horses
- (a) Stables (d) Milch animals

- 5. Cows 6. Hens
- (e) Coop

#### **EXERCISE**

- A 1. (b) homes 2. Both (a) and (b)
  - 3. (b) leather
- B 1. True

- 3. True 4. False

 $\mathbf{C}$ 1. Dogs, Cats

- 2. Cheese, Butter
- 3. Sarees, Scarfs
- 4. Donkey, Elephant
- The animals that are kept in homes or at farms are called D 1. domestic animals.

For eg. Cow, dogs, cat, goat etc.

2. True

- We should take milk because it has all the nutrients and is a 2. complete food.
- 3. Animals who live with us in our homes are called pet animals. For eg. Cats, dogs, rabbits etc.

#### HOTS

Cheese, Butter, Ghee, Curd

#### Let's Enjoy

1. Camel

2. Horse

#### Life Skill

Do it yourself.

#### **CHAPTER 4** Wild Animals

#### Just Do More

(Do it yourself) (Pg 29)

(Pg 32)

1. wild

2. swallow 3. Elephants

4. Snakes

#### EXERCISE

A

1. (c) Both (a) and (b)

2. (c) den

3. (a) nests 4. (a) herbivorous

B 1. wild C

2. omnivore

3. vulture 4. deer

- 1. The animals that live in forests are called wild animals.
- 2. The animals that eat plants only are called herbivorous animals.
- The animals that can eat both plants and flesh of other animals are called omnivorous animals.

#### HOTS

Vultures are called jungle cleaners because they eat flesh of dead animals. By doing this, they keep the surrounding area clean.

#### Let's Enjoy

A Do it yourself.

1 Lions

2. Birds

3. Snakes

4. Rabbits

5. Monkeys

#### CHAPTER 5 **Bones and Muscles**

#### Just Do More (Pg 38)

1. False

2. True

3. False

#### EXERCISE

A 1. (c) Both (a) and (b) 2. (a) skeleton

3. (b) 206 bones

4. (a) joint

5. (a) Skin

1. B True 2. False

3. False

4. True

C 1. move 2. 600

Skeleton

4. posture

- **D** 1. Bones are hard and stiff. They help to protect delicate parts of our body.
  - 2. Skeleton is a framework of bones in our body.
  - 3. The main function of bones and muscles in our body is to give shape and support.
  - 4. To keep our muscles strong we should do regular exercise and eat healthy food like milk, fruits, vegetables etc.
  - 5. The position of our body when we sit, stand or move is called posture.

We must sit straight when we eat, study or work sitting on a chair.

#### HOTS

- A If we do not have any bone we will not be able to stand,. bend or do other activities.
- B Basketball.

#### Let's Enjoy

- A Do it yourself.
- B 1. Skeleton 2. Mus
  - 2. Muscles 3. Exercise 4. Swimming
- C Do it yourself.

### **CHAPTER 6 Healthy Food**

#### Just Do More (Pg 41)

Do it yourself.

(Pg 44)

| Energy-giving | <b>Body Building</b> | Protective |
|---------------|----------------------|------------|
| Food          | Food                 | Food       |
| Wheat         | Milk                 | Orange     |
| Rice          | Meat                 | Banana     |
| Bean          | Pulses               | Spinach    |

#### **EXERCISE**

| A            | 1. | (a) Food       | 2. (a) Patato |          |
|--------------|----|----------------|---------------|----------|
|              | 3. | (b) Egg        | 4. (c) Apple  |          |
|              | 5. | (c) burgers    |               |          |
| B            | 1. | three 2. work  | 3. plants     | 4. water |
|              | 5. | healthy        |               |          |
| $\mathbf{C}$ | 1. | (a) Patato     | (b) Sugar     |          |
|              | 2. | (a) Egg        | (b) Milk      |          |
|              | 3. | (a) Vegetables | (b) Fruits    |          |

## D Column A Column B 1. Breakfast (c) Morning 2. Eggs (a) Body building 3. Rice and wheat (d) Energy giving

- 4. Dinner5. Fruits(e) Night(b) Protective
- E 1. We all need food to live and grow. It gives us energy to work and play.
  - 2. Food can be divided into three groups. Energy giving food, body building food and protective food.
  - 3. We need protective food because it protects us from diseases.
  - 4. F Wash your hands before and after meal.
    - F Do not waste food.
      - F Drink plenty of water.

#### HOTS

- A We should always wash our hands before eating to make them germ free.
- **B** We should eat a balanced diet to become strong and healthy.

#### Let's Enjoy

Do it yourself.

#### Life Skill

Flies sit on the uncovered food. This spreads germs that makes Disha sick oftenly.

## **CHAPTER 7 Housing and Clothing**

#### Just Do More

Do yourself (Pg 48)

(b) nucca

(Pg 52)

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

#### **EXERCISE**

2 (c) ice

| A | 1. | (b) pucca  |         | 2. (c) ice     |         |
|---|----|------------|---------|----------------|---------|
|   | 3. | (c) wood   |         | 4. (a) winter  |         |
| B | 1. | Kutcha Hou | se      | 2. Igloo       |         |
|   | 3. | Raincoats  |         | 4. Woollen clo | othes   |
| C | 1. | True       | 2. True | 3. False       | 4. True |

5. False

- **D** 1. A house protects us from heat, cold, rain and wind.
  - 2. Wood, mud and straws are used to make kutcha house.
  - 3. People living on mountains make houses with slopping roofs so that rain water and snow can easily fall off.
  - 4. A raincoat is waterproof and does not let water enter through it.

#### HOTS

People staying in slums in cities make kutcha houses because they keep on moving from place to place and their houses are temporary.

#### Let's Enjoy

C

- 1. (d) Bungalow 2. (b) Tent 3. (a) Igloo
- 4. (e) Houseboat 5. (f) Caravan 6. (c) Slopping Roof
- **B** Do it yourself.
- C Do it yourself.

## CHAPTER 8 Things Around Us

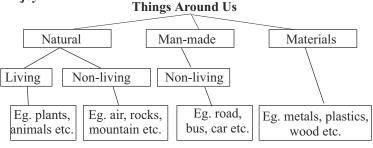
- **A** 1. (a) natural 2. (b) Living things
- 3. (c) Clothes

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

|    | Natural Things                    |    | Man-made Things          |
|----|-----------------------------------|----|--------------------------|
| 1. | Things given by nature.           | 1. | Things made by man.      |
| 2. | They can be living or non living. | 2. | They are non living.     |
| 3. | For eg. clouds, water etc.        | 3. | For eg. cars, roads etc. |

- **D** 1. The things which are given by nature are called natural things. For eg. Air, water, stars, roads etc.
  - 2. No, all non-living things are not man-made. They can be natural also.
  - 3. (a) Car
- (b) Roads
- 4. Metals are used to make utensils, machines, cars etc.

#### Let's Enjoy



#### **CHAPTER 9**

#### **Rocks and Minerals**

- A 1. (c) Both (a) and (b) 2. (b) Marble 3. (c) Slate 4. (a) a hard rock
  - 1. (a) Coal (b) Chalk (c) State
- B 1. (a) Coal (b) Chalk (c) State 2. (a) Marble (b) Granite (c) Sandstone
  - 2. (a) Marble (b) Granite (c) Sandstone
    3. (a) Iron (b) Silica (c) Talc
- C 1. Column A Column B

| Pots      | (b) | China | Clay     |
|-----------|-----|-------|----------|
| Mirrors   |     | (c)   | Silica   |
| Gemstone  |     | (a)   | Emerald  |
| Soft Rock |     | (e)   | Chalk    |
| Hard Rock |     | (d)   | Graphite |

- **D** 1. Granite 2. Slate 3. Quartz 4. Talc
- E 1. Rocks are made up of certain substances called minerals.
  - 2. All rocks are made up of minerals.
  - 3. Gemstones are minerals commonly used in jewellery making.

#### HOTS

Chalk cannot be used to make lead of pencils since it is soft rock and will break up while writing.

#### Let's Enjoy

- A Do it yourself.
- **B** Do it yourself.

#### CHAPTER 10 Air is Everywhere

- A 1. (c) breathe 2. (b) storm 3. (b) direction
- **B** 1. see 2. dirty 3. sick
  - 4. water vapour 5. useful
- C 1. Dirty 2. fresh and clean 3. Wind 4. seeds
- **D** 1. Glider 2. Boat 4. Windmill
- E 1. Air is necessary for all living things to breathe or live.
  - 2. Germs, dust and smoke makes the air dirty.
  - 3. Moving air is called wind.
  - 4. (a) It helps us to fly a kite.
    - (b) It helps to dry wet clothes.
    - (c) It helps in winnowing.

#### HOTS

- A Clothes take a long time to dry in rainy season because it is not windy and clothes need wind to dry.
- **B** We should stay indoors when a strong wind blows because it cause damage to human life also.

#### Let's Enjoy

Do it yourself.

#### CHAPTER 11 Water Around Us

- **A** 1. (c) Both (a) and (b) 2. (c) Both (a) and (b)
  - 3. (c) rain
- **B** 1. Rain 2. cooking and drinking
  - 3. filter and boil 4. tubewells
- C 1. Cooking 2. Drinking 3. Washing 4. Bathing
- **D** 1. In homes, we get water from taps.
  - 2. Some rainwater goes into the ground. This is called groundwater.
  - The drinking water which is clean and pure is called potable water.
  - 4. F Repair leaking taps.
    - F Turn off the taps when not in use.

#### HOTS

Boiling water is safe for drinking as boiling kills all the germs and makes water clean, tasteless, colourless and odourless. After boiling water becomes potable.

#### Let's Enjoy

Do it yourself.

#### CHAPTER 12 Forms of Water

- A 1. (a) solid 2. (a) steam 3. (a) evaporation
- **B** 1. False 2. True 3. False 4. False
- C 1. Water becomes steam (water vapour).
  - 2. Water freezes; freezing.
  - 3. Water vapour turns liquid; condensation.
- **D** The journey of water from the earth to the sky and back to the earth is called water cycle.
- E 1. Three forms of water are solid, liquid and gas.
  - 2. We can change water into ice by freezing.

3. When liquid water changes from liquid form to water vapour, it is called evaporation.

#### HOTS

The water turns into ice when we cool it in freezer because the temperature in the freezer is very low which turns liquid water into ice.

#### Let's Enjoy

**B** 1.

**C** 1.

- A Do it yourself.
- B 1. Snow
- 2. Cloud
- 3. Steam
- 4. Sun

5. Ice

#### **CHAPTER 13**

#### The Sun and Shadows

- **A** 1. (a) hot
- 2. (a) east
- 3. (b) light
- 3. morning

- west
   shortest
   False
- 2. heat5. move
- 2. False
- 3. False
- 4. True

4. (a) noon

- 5. True
- **D** 1. Sunlight gives us heat and light.
  - 2. A shadow is formed when the path of light is obstructed by an object.
  - 3. A shadow is always formed on the opposite side of light.

#### HOTS

We cannot see things in total darkness because we need light to see things.

#### Let's Enjoy

Do it yourself.

#### **Model Test Paper 1**

**A** 1. (c) leaf

2. (b) leather

3. (a) Skin

4. (c) burgers

- 5. (b) pucca
- **B** 1. True
- 2. False
- 3. False
- 4. True

- 5. False
- C 1. Sheep

- (c) Wool
- 2. Energy giving food
- (e) Butter

3. Cereals

(a) Wheat

4. Snakes

(b) Holes

5. Breakfast

(d) Morning

- D 1. Grass Coriander
  2. Chillies Pepper
  3. Eggs Milk
  4. Tent Houseboat
- E Do it yourself.
- F Climbers are plants with weak stems which need support to grow. For eg. pea plant, money plant. Creepers are plants with weak stem that grow along the ground. For eg. pumpkin, watermelon.
- **G** 1. Animals who live with us in our homes are called pet animals.
  - 2. The animals that eat both plants and flesh of other animals are called onmivorous animals.
  - 3. The framework of bones in our body is called skeleton.
  - 4. We need food to stay alive.

Wood, mud and straw are used to make kutcha house.

#### **Model Test Paper 2**

- **A** 1. (c) Slate 2. (b) storm 3. (c) rain 4. (a) steam
  - 5. (a) east
- **B** 1. Marble 2. seeds 3. drinking 4. solid
  - 5. shortest
- C 1. Chalk Slate
  - 2. Granite Marble
  - 3. Graphite Talc
  - 4. Cars Roads
  - 5. Plants Rocks
- **D** 1. Quartz 2. Wind 3. Potable 4. Freezing
  - 5. Evaporation
- **E** The journey of water from the earth to the sky and back to the earth is called water cycle.
- F Drinking, washing, bathing.
- **G** 1. Gemstones are hard minerals, commonly used in making jewellery.
  - 2. Air is necessary for all living things to breathe and live.
  - 3. Shadow is formed when the path of light is obstructed by an object.
  - 4. Metals can be used to make utensils, machines, cars etc.
  - 5. The three forms of water are solid, liquid and gas.

# DISCOVERY SCIENCE



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