

Answers

Theme 1: We the People

Chapter 1: Living and Non-living Things

Main Coursebook

I am ready

Accept all relevant responses.

Icebreaker:

plants, humans, birds

In-text Question:

1. Stars and Clouds (Accept all relevant responses).
2. Building and Roads (Accept all relevant responses).

In-text Question:

1. False
2. False

I am learner

- A. 1. a. 2. c. 3. b. 4. c. 5. c.
- B. 1. False 2. True 3. True
4. True 5. False
- C. 1. Different animals move by walking.
2. Cloud is a natural thing and car is a man made thing.
3. Living things breathe through lungs, gills or air holes.
- D. 1. The characteristics of non-living things are as follows:
- They do not move.
 - They do not need food.
 - They do not breathe.
 - They do not grow.
 - They do not feel.
 - They do not reproduce.
2. Living things can move, grow, need food, feel, breathe and reproduce. Non-living things do not move, do not grow, do not need food, do not feel, do not breathe and do not reproduce.

I am a thinker

Non-living thing

I am an all-rounder

A. English:

1. Accept all relevant responses.
2. Accept all relevant responses.

B. Maths:

1. 916, Nine hundred sixteen
2. 513, Five hundred thirteen

C. Social Studies:

Wood is obtained from the plant, which is a living thing. However, stones are usually obtained from rocks, which is a non-living thing.

Students' Worksheets

Worksheet 1

- A. 1. natural 2. man-made
3. living 4. non-living
5. grow
- B. 1. natural things 2. man-made things
3. living things 4. breathing
5. air
- C. 1. True 2. True 3. True
4. False 5. False

Worksheet 2

- A. 1. M 2. N 3. M 4. N 5. N
B. 1, 2, 4
C. 1. STARS 2. ROCKS 3. PLANTS
4. CLOUDS 5. ANIMAL

Worksheet 3

- A. 1. Living 2. Non-living 3. plants
4. Plants 5. lungs
- B. 1. N 2. L 3. N 4. N 5. L
- C. 1. → e 2. → a 3. → b
4. → d 5. → c

Teacher's Worksheets

Worksheet 1

- A. Accept all relevant responses.

Worksheet 2

- A. 1. living 2. living
3. non-living 4. non-living
5. living 6. living
7. non-living 8. living
9. non-living 10. living
11. non-living 12. living
- B. a. AR b. OAP c. IPE
d. OUNTAIN e. OAD

Theme 2: We Live in Harmony

Chapter 2: Birds

Main Coursebook

I am ready

Crow; Peacock; Sparrow

Icebreaker:

Peacock

In-text Question:

1. Eagle (accept all relevant responses).
2. Duck (accept all relevant responses).

In-text Question:

1. Sparrow (accept all relevant responses).
2. Crane (accept all relevant responses).

In-text Question:

1. No
2. Yes

I am a learner

A. 1. b 2. b 3. b 4. b 5. a

B. 1. curved 2. four 3. Body
4. wings 5. Penguin

C. 1. Sparrows, pigeons and peacocks.

2. Penguin

3. Down feathers, body feathers and flight feathers.

D. 1. Birds have light body and their bones are hollow from inside.

Their body is shaped like a boat. This helps them move easily.

The tail of birds acts like rudder of a boat. It helps them change their direction while flying.

The feathers present on their wings also help them in flying.

2. When the wings of birds move upwards and backwards, this movement is called upstroke. Similarly, when the wings move downwards and forwards, the movement is known as downstroke.

I am a doer

Accept all relevant responses.

I am an all-rounder

A. English:

1. A bird's body is covered with feathers.
2. A parakeet's beak helps crack open nuts and hard fruits.

B. Maths: 228

C. **Social Studies:** Different birds travel long distances in search of food and habitat. Some birds even migrate from one continent to another.

Students' Worksheets

Worksheet 1

A. 1. tailor bird 2. woodpecker
3. humming bird 4. duck
5. parakeet

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

C. 1. → c 2. → d 3. → e 4. → a 5. → b

Worksheet 2

A. 1. hawks, eagles
2. hens, chickens
3. cranes, herons
4. upstroke, downstroke
5. sparrows, pigeons

B. 1. different 2. do not have
3. wings 4. beak 5. Baby

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

Worksheet 3

A. 1. Wading 2. eggs 3. feathers
4. Perching 5. weaver

B. 1. Vulture 2. Sparrow
3. Humming bird 4. Hawk
5. Woodpecker

C. 1. short, hard and pointed
2. broad and flat
3. two
4. penguin
5. warm

Worksheet 4

A. 1. Crow 2. Eagle 3. Hen
4. Penguin 5. Duck

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

C. 1. → d 2. → a 3. → b
4. → e 5. → c

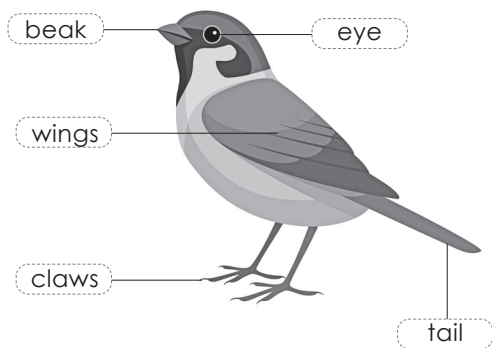
Teacher's Worksheets

Worksheet 1

A. 1. sparrows crows
2. hawks eagles
3. woodpeckers parakeets
4. ducks geese

5. cranes herons

B.



Worksheet 2

- A.
1. In this type of wing movement, the wings of birds move upwards and backwards.
 2. In this type of wing movement, the wings of birds move downwards and forwards.
 3. Body feathers are slightly bigger than the down feathers. They also cover the bird's body. Body feathers give a definite shape to the bird's body.
 4. Down feathers are small and fluffy. They cover the bird's body and keep it warm.
 5. Flight feathers are long and flat. They are attached to the wings and tail. These feathers help the bird fly.
- B.
1. Birds fly with the help of their wings. They have a light body and hollow bones. The feathers present on their wings also help them in flying.
 2. Eagles and owls are called birds of prey as these birds hunt and eat small animals such as mice, frogs and snakes.

Theme 2: We Live in Harmony

Chapter 3: Animals

Main Coursebook

I am ready

live on land; fly in air; swim in water

Icebreaker:

Butterfly

In-text Question:

1. Antennae
2. Wings

In-text Question:

1. Butterfly
2. Honeybee

I am a learner

- A. 1. c. 2. a. 3. a. 4. b. 5. b.
- B. 1. wild 2. pets 3. three 4. antennae 5. eggs
- C. 1. Head, thorax and abdomen.
2. The waxy outer shell of cockroaches helps to protect their internal organs.
3. Accept all relevant responses.
- D. 1. Honeybees have a small body, covered in hair. They have a pair of short antennae and three pairs of legs. They also have two pairs of wings. Honeybees have five eyes— two large eyes and three small eyes. A female bee has a stinger. Honeybees make honey in their hives and live in large colonies.
2. Cockroaches have a flattened, reddish-brown body. They have large eyes, a pair of long antennae and a mouth underside their head. Cockroaches have a waxy outer shell. This shell protects their internal organs. They also have a pair of wings that help them to fly.

I am a thinker

Houseflies and mosquitoes are small insects. Houseflies usually sit on dirty places and transfer the microorganisms from dirty places to the clean places. Mosquitoes bite and transfer diseases from one person to another. This way they can spread diseases like food poisoning, malaria and many others.

I am an all-rounder

- A. **English:**
1. animals: P 2. grasshopper: S
- B. **Maths:** $110 + 90 = 200$
- C. **Social Studies:** No. The shape of honeycombs of beehives are hexagonal in shape.

Students' Worksheets

Worksheet 1

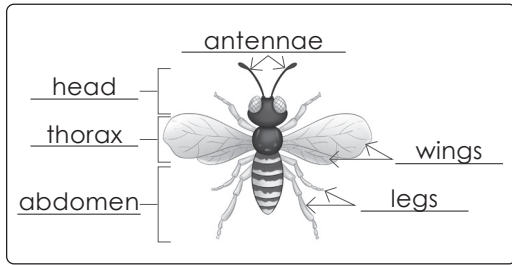
- A. 2, 4, 5
- B. 1 → d 2 → e 3 → a 4 → b 5 → c
- C. 1. False 2. False 3. False
4. True 5. True

Worksheet 2

- A. 2, 3, 4
- B. 1. Earthworm 2. Cockroach
3. Lizard 4. Spider
5. Ant
- C. 1. large 2. three 3. warm
4. small 5. grasshopper

Worksheet 3

- A. 1. domestic 2. forests 3. insects
4. thorax 5. eggs
- B.

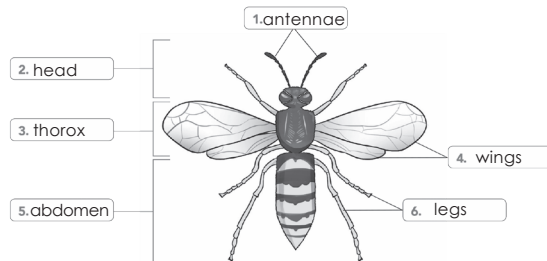


- C. 1. False 2. False 3. True
4. False 5. True

Teacher's Worksheets

Worksheet 1

A.



- B. 1. T 2. F 3. T 4. T
5. F 6. T 7. T
- C. 1. houseflies bees
2. ants bed-bugs

Worksheet 2

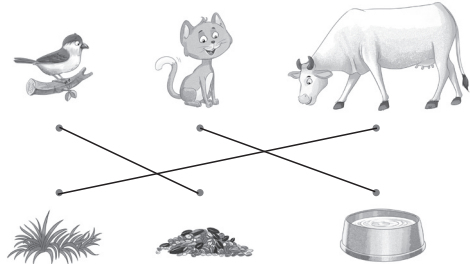
- Insects reproduce by laying eggs. Baby insects hatch from eggs.
- Insects have three pairs of legs, that is, a total of six legs.
- Head, thorax and abdomen.
- Domestic animals are the animals that live among us. For example, cat and sheep.
- Cockroaches have a waxy outer shell to protect their internal organs.
- While digging underground tunnels to live, ants dig out a mound of mud that looks like a small hill. Such hills are known as ant hills.

Theme 3: Where We Live

Chapter 4: Food and Feeding Habits of Animals

Main Coursebook

I am ready



Icebreaker:

Accept all relevant responses.

In-text Question:

1. True 2. False

In-text Question:

1. Snakes and frogs 2. Rabbits and rats

I am a learner

- A. 1. b 2. b 3. b 4. b 5. a
- B. 1. → d 2. → a 3. → e 4. → c 5. → b
- C. 1. Animals need food for energy, growth and to stay healthy.
2. Oilseed cakes are energy-giving and milk-producing foods.
3. Some grass-eating animals, such as cows and buffaloes first swallow the grass without chewing it. Then, bring it back into their mouth and chew it with their grinding teeth. This is called chewing the cud.
- D. 1. Herbivores: Animals that eat grass or green plants are called plant-eating animals or herbivores. For example, goats, cows and giraffes are herbivores.
Carnivores: Animals that eat other animals are called carnivores. For example, lions, tigers and leopards are carnivores.
Omnivores: Animals that eat other animals as well as plants. Crows and bears are omnivores.
2. Some flesh-eating animals, such as snakes and frogs, swallow their food whole. Some animals, such as lions, tigers, foxes and dogs, chew flesh and bones. Animals, such as rabbits, rats and squirrels, gnaw their food and have

sharp front teeth. Some grass-eating animals, such as cows and buffaloes, use their biting teeth to cut the grass. Animals, such as cats and dogs, lap milk or water with their tongue.

I am a doer

Accept all relevant responses.

I am an all-rounder

A. English:

1. earthworm 2. plant-eating


B. Maths:


- C. **Social Studies:** Suggestion: Asian elephants, loth bears, tigers, Nilgiri tahrs and so on.

Students' Worksheets

Worksheet 1

- A. 1, 3

B. 1.  H 2.  H 3.  O

4.  S 5.  O

- C. 1. False 2. False 3. True
4. True 5. False

Worksheet 2

- A. 2, 3, 5

- B. 1. grow 2. herbivores
3. tongue 4. Gnaw
5. lap

- C. 1. → a 2. → e 3. → b
4. → c 5. → d

Worksheet 3

- A. 1, 2

- B. 1. The chain through which food passes from one living thing to another.
2. Animals that eat other animals are called carnivores.
3. Animals that eat dead animals are

called scavengers.

4. Grass and oilseed cakes.

5. Lions, tigers, foxes and dogs.

- C. 1. True 2. False 3. True

4. True 5. False

Worksheet 4

- A. 1. Domestic animals

2. Snakes and frogs

3. Cud is the food that animals bring back up from their stomach into the mouth for chewing again.

4. An earthworm swallows soil that contains bits of dead plants and animals in it.

5. A butterfly uses its long sucking tube to suck nectar from flowers.

- B. 4, 5

- C. 1. snakes, frogs

2. Accept all relevant responses.

3. Accept all relevant responses.

4. cows, buffaloes

5. cats, dogs

Teacher's Worksheets

Worksheet 1

- A. 1. C 2. O 3. H 4. H 5. O

6. H 7. C 8. C 9. H 10. O

- B. 1. WOLF; LION

2. BEAR; CROW

3. COW; HORSE

Worksheet 2

- A. 1. c 2. b 3. c 4. b

Enrichment Activities

- A. Accept all relevant answers.

- B. Accept all relevant answers.

- C. Accept all relevant answers.

- D. Accept all relevant answers.

Revision Worksheet

- A. 1. b 2. c 3. c

- B. 1. man-made

2. twigs

3. antennae

- C. 1. →e 2. →c 3. →d
4. →b 5. →a

- D. 1. chair plants animals
2. owl hawk sparrow
3. ant hen cockroach

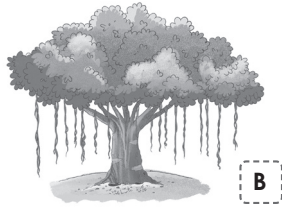
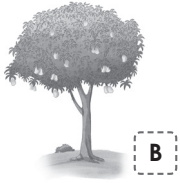
- E. 1. Some things are given to us by nature. They are called natural things. Examples are the Sun, the Moon, the stars, clouds, plants and animals, rocks and so on. We cannot create natural things.
2. Some things are made by humans. They are called man-made things. Examples are buses, cars, aeroplanes, buildings, roads and so on.
3. The different types of beaks are as follows:
- Short, sharp and hooked beak
 - Short, hard and pointed beak
 - Strong and curved beak
 - Strong and pointed beak
 - Short and broad beak
 - Long and slender beak
 - Broad and flat beak

Answers

Theme 4: How We Live Chapter 5: Plants

Main Coursebook

I am ready



Icebreaker

Flower. Accept all relevant responses.

In-text Question:

1. Tap root
2. leaves

In-text Question:

1. True
2. False

I am a learner

- A. 1. c 2. b 3. b 4. b 5. b

- B. 1. True 2. False 3. True
4. False 5. False

- C. 1. Stem, branches, leaves, buds, flowers and fruits.
2. The leaves make food for the plant by photosynthesis. Therefore, leaf is called the kitchen of the plant.
3. Two functions of stem are as follows.
i. It hold the plant upright.
ii. it transports water from roots to other parts of the plant.
- D. 1. The root grows under the ground. There are two types of roots – tap roots and fibrous roots.

A tap root has one thick root. Many smaller roots grow from the main root. Plants, such as carrot, radish, turnip, bean and mustard, have tap roots.

A fibrous root has a number of roots that grow from the end of the stem. It does not have a main root. Plants, such as grass, wheat, rice, onion and banana, have fibrous roots.

2. Leaves of different plants have different shapes, sizes and colours. Some leaves are oval-shaped, while some are heart-shaped. They may have smooth or uneven edges. Lamina of some leaves is waxy, while some other leaves have hairy lamina. This wide variation in appearance of leaves is known as leaf diversity.

I am a thinker

Yes. This statement is true because animals depend on plants. If plants are removed, then all the animals would die.

I am an all-rounder

A. English:

1. flour
2. saw

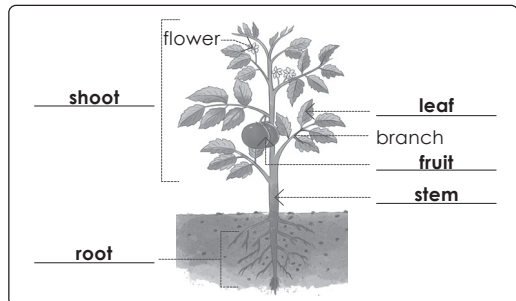
B. Maths: 250

C. Social Studies: Rice

Students' Worksheets

Worksheet 1

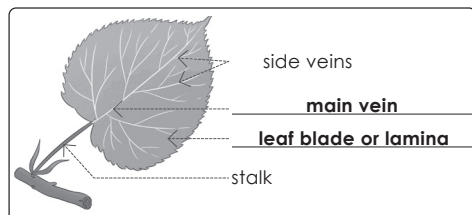
A.



- B. 1. shoot 2. root 3. leaves
4. lamina 5. flower
- C. 1. ROOT 2. STEM 3. LEAF
4. FLOWER 5. FRUIT

Worksheet 2

A.



- B. 1. round-shaped leaf
2. hand-shaped leaf
3. spear-shaped leaf
4. heart-shaped leaf

5. needle-shaped leaf

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

Worksheet 3

- A.
1. Tap root and fibrous root.
 2. Accept all relevant responses.
 3. It is a flat and broad part of the leaf.
 4. It is a process by which the plant's green leaves make food with the help of air, water and sunlight.
 5. A young flower is called a bud.

B.

| plants | animals |
|--|---|
| 1. They can make their own food. | 1. They eat plants and other animals. |
| 2. They cannot move from one place to another. | 2. They can move from one place to another. |
| 3. They breathe through tiny pores on their leaves called stomata. | 3. They breathe through lungs, gills or air holes. |
| 4. They reproduce by seeds. | 4. They reproduce by laying eggs or giving birth to their young ones. |
| 5. They do not have sense organs. | 5. They have sense organs. |

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

Worksheet 4

- A. The part of the plant that grows above the ground is stem. (Accept all relevant responses.)

Functions of the stem

A stem has the following functions:

- It keeps the plant upright.
- It provides support to the branches.
- It carries water from the roots to the leaves and other parts of the plant.
- In some plants, stems store the extra food. Examples of such plants are potato, ginger and sugarcane.

- B. The part of the plant that grows under the ground is roots. (Accept all relevant responses.)

Functions of the root

Roots have the following functions:

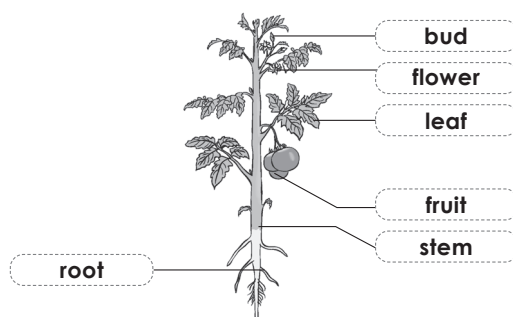
- They fix the plant to the soil.
- They absorb water and nutrients from the soil for the plant.
- Some of these also store food for plants. Examples of such roots are carrots and turnip.

C. 1. Stems 2. Roots 3. Leaves
4. Leaves 5. Stems

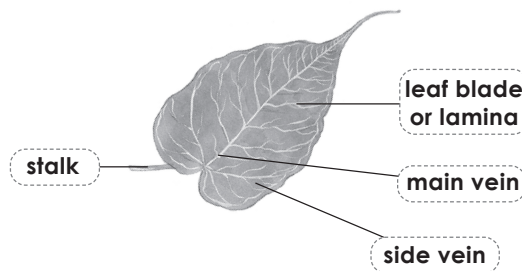
Teacher's Worksheets

Worksheet 1

A.



B.



Worksheet 2

1. The root of a plant grows below the ground. There are two types of roots – tap roots and fibrous roots. But the shoot grows above the ground and it has stems, branches, leaves, buds, flowers and fruits.
2. The stem keeps the plant upright. It provides support to the branches. It carries water from the roots to the leaves and other parts of the plant.
3. When the same type of plant is grown in a large area, it is called a crop. For example, corn, wheat and rice.
4. The green leaves of the plant make food with the help of air, water and sunlight by the process called photosynthesis.
5. Tap root: Carrot, radish and turnip
Fibrous root: Wheat, rice and onion

Theme 5: Our Solar System
Chapter 6: Pride of India: The
Indian Scientist

Main Coursebook

I am ready

National Science Day - 28th February

Earth Day - 22nd April

World Environment Day - 5th June

Icebreaker: EXPERIMENT

In-text Question:

1. Prafulla Chandra Ray
2. Dr Vikram Sarabhai

I am a learner

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

- B. a. botanist; physicist b. epilepsy
c. astronomer d. chemistry
e. India

- C. 1. Prafulla Chandra Ray is known as the Father of Indian chemistry. He founded India's first chemical factory.
2. A P J Abdul Kalam known as the Missile Man of India as he successfully headed a programme that produced a number of missiles for our defence forces.
3. Asima Chatterjee is highly recognised for her work in the fields of medicine and chemistry.
- D. 1. Dr Vikram Ambalal Sarabhai was a physicist and an astronomer (space scientist). He founded the Indian Space Research Organisation (ISRO) in 1969. He is globally known as the Father of the Indian Space Programme. He also set up India's first rocket-launching station at Thumba near Thiruvananthapuram.
2. Sir Jagadish Chandra Bose was a botanist (scientist of plants) and a physicist (scientist of physics). He was the first person to prove that, like animals and humans, plants also can feel.

I am a doer

Accept all relevant responses.

I am an all-rounder

A. **English:**

1. He
2. She

B. **Maths:** 10

C. **Social studies:** Ferdinand Magellan

Students' Worksheets

Worksheet 1

- A. 1. botanist
2. Chemistry
3. rocket
4. A P J Abdul Kalam
5. genetics
- B. 1. Sir J C Bose
2. Prafulla Chandra Ray
3. Dr Vikram Sarabhai
4. A P J Abdul Kalam
5. Har Gobind Khorana
- C. 1. False 2. True 3. True
4. False 5. False

Worksheet 2

- A. 1. Sir J C Bose
2. Asima Chatterjee
3. Har Gobind Khorana
4. Prafulla Chandra Ray
5. Dr Vikram Sarabhai
- B. 1. Chemistry 2. Chemistry
3. Botany and Physics
4. Physics
5. Medicine and Chemistry
- C. 1. C 2. I 3. I 4. I 5. C

Worksheet 3

- A. 1. missiles 2. chemical 3. Thumba
4. medicine 5. astronomer
- B. 1. PHYSICIST 2. CHEMIST
3. ASTRONOMER 4. BOTANIST
5. SCIENTIST
- C. 1. →d 2. →e 3. →a
4. →c 5. →b

Worksheet 4

- A. Accept all relevant responses.
- B. 1. Crescograph is used to measure the growth of plants.
2. Dr Vikram Ambalal Sarabhai was a renowned astronomer.
3. Dr A P J Abdul Kalam served as President of India.
4. Asima Chatterjee developed medicine for malaria and epilepsy.
5. Prafulla Chandra Ray founded the first chemical factory.
- C. 1. True 2. True 3. False
4. False 5. True

Teacher's Worksheets

Worksheet 1

- A. 1. →c 2. →e 3. →b 4. →a 5. →d
- B. 1. Sir J C Bose was a botanist and a physicist. He was the first person to prove that plants also can feel, just like animals and humans.
2. Har Gobind Khorana was a scientist of chemistry of living organisms.
3. A P J Abdul Kalam is known as the Missile Man of India as he successfully headed a programme that produced a number of missiles for our defence forces.

Worksheet 2

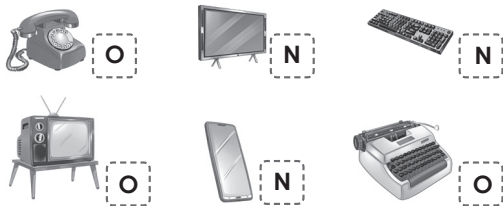
- A. 1. Sir J C Bose
2. Prafulla Chandra Ray
3. medicine
4. Medicine
5. A P J Abdul Kalam
6. space
- B. 1. F 2. T 3. F
4. T 5. F 6. F
7. F

Theme 5: Our Solar System

Chapter 7: Ancient Scientific Inventions of India

Main Coursebook

I am ready



Icebreaker:

1. LUDO 2. CHESS

In-text Question:

1. *Charaka Samhita* 2. Patanjali

I am a learner

- A. 1. c 2. b 3. a 4. b 5. b
- B. 1. inventions 2. prevention
3. 5,000 4. spinning
5. weave

- C. 1. Experiments by scientists leading to new findings are called inventions.
2. We should practise yoga regularly to keep ourselves healthy and fit.
3. Ayurveda can be practised by the following ways.
- i. Sleeping and waking up early.
ii. Eating fresh and healthy food.
(Accept all relevant responses)
- D. 1. Practising yoga strengthens our body and relaxes our mind. It is one of the most accepted forms of exercise around the world. Yoga originated in India around 5,000 years ago. The great Indian yogic sage, Patanjali, wrote different 'sutras' (ancient Indian books) on Yoga. These sutras were later developed by other practitioners of yoga and taken to all corners of the world.
2. *Charkha* or spinning wheel, invented around 500 AD, is scientific invention of ancient India. The spinning wheel was used to spin the animal or plant fibres, such as wool or cotton, into thread or yarn. Many studies suggest that ancient Indians were the first to spin and weave cotton into clothes.

I am a thinker

Yes. Usually, people invent things when they are in dire need of it.

I am an all-rounder

- A. **English:**
1. unique 2. Due
- B. **Maths:** 20 minutes
- C. **Social studies:** Vasco Da Gama

Students' Worksheets

Worksheet 1

- A. 1. False 2. True 3. False
4. True 5. False
- B. 1. Sushruta 2. yogic 3. clothes
4. *Charkha* 5. Mahatma Gandhi
- C. 1. d 2. e 3. b 4. c 5. a

Worksheet 2

- A. 1. Charaka was a great Indian physician.
2. We should eat fresh food to remain healthy.
3. Patanjali is a yogic sage.
4. Indians were first to use the spinning wheel to weave clothes.

B. Maths: $\frac{1}{2}$

C. Social Studies:




Ministry of Road Transport & Highways

Students' Worksheets

Worksheet 1

A. 1. anywhere 2. desk 3. push
4. closed 5. zebra

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

C. 1.  2.  5. 
4.  5. 

Worksheet 2

A. 1. everywhere 2. danger
3. zebra crossing 4. pavement
5. Never

B. 1. closed 2. stones 3. cotton
4. dry 5. doctor

C. 1. Unsafe 2. Unsafe 3. Safe
4. Safe 5. Safe

Worksheet 3

A. 1. Do not throw dusters at others in the classroom.
2. In the playground, never push others.
3. Always walk on the pavement of the busy road.
4. Take an injured person to the clinic.
5. Tie a clean cloth over the wound.

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

C. 1. C 2. I 3. I 4. C 5. C

Teacher's Worksheets

Worksheet 1

A. 1. b 2. a 3. d 4. e 5. c
B. 1. School 2. First aid 3. House

C. 1. zebra 2. door 3. antiseptic
D. 1. Always 2. zebra 3. subway

Worksheet 2

A. 1. ✓ 2. ✗ 3. ✓
4. ✗ 5. ✓

B. 1. away 2. playground
3. clean 4. separate
5. clinic

C. 1. a 2. c 3. a

Enrichment Activities

A. Accept all relevant answers.
B. Accept all relevant answers.
C. Accept all relevant answers.
D. Accept all relevant answers.
E. Accept all relevant answers.

Revision Worksheet

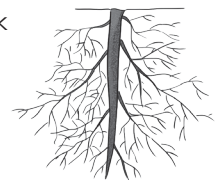
A. 1. a 2. a 3. a 4. a 5. b
B. 1. two 2. flower 3. Sir J C Bose
4. 6,000 5. exercise
C. 1. →b 2. →e 3. →a
4. →c 5. →d

D. 1. stem shoot root
2. mango peach watermelon
3. croton coleus corn
4. midrib main vein lamina
5. carrot radish banana

E. 1. The root grows under the ground. There are two types of roots – tap roots and fibrous roots.

Tap root

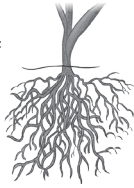
A tap root has one thick root. Many smaller roots grow from the main root. Plants, such as carrot, radish, turnip, bean and mustard, have tap roots.



tap root

Fibrous root

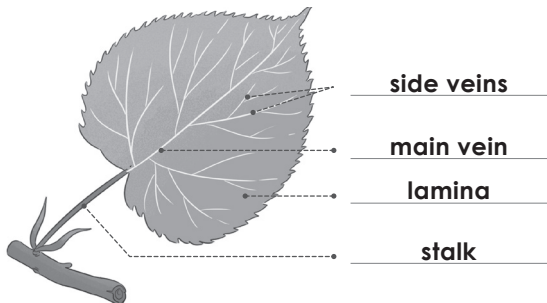
A fibrous root has a number of roots that grow from the end of the stem. It does not have a main root. Plants, such as grass, wheat, rice, onion and banana, have fibrous roots.



fibrous root

2. The three features of a house are:
 - It should be well lit.
 - It should be spacious.
 - It should be ventilated.
3. Most plants make their own food whereas animals cannot make their own food.
Animals can move from one place to other, whereas plants cannot do so.
4. Har Gobind Khorana was a scientist of chemistry of living organisms. He received the Nobel Prize for Medicine in 1968.
5. Ayurveda focusses on prevention of diseases by maintaining a healthy lifestyle. It can be practiced by:
 - Sleeping and waking up early
 - Eating fresh and healthy food using herbs and
 - Doing Yoga

F.

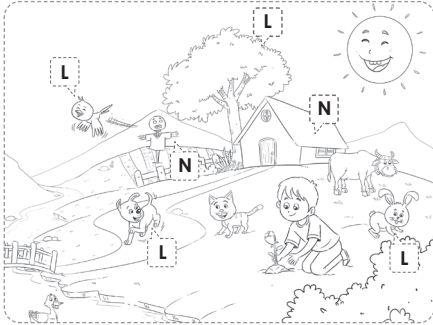


Answers

Theme 7: What Keeps Us Going Chapter 9: Our Environment

Main Coursebook

I am ready



Icebreaker

bicycle, public transport, trees

In-text Question

1. Air, water and temperature.
2. Plants, animals and human beings.

In-text Question

1. False
2. False

I am a learner

- A. 1. c 2. c 3. b 4. c 5. a
- B. 1. environment 2. biotic
3. pollution 4. Polluted
5. Reduce
- C. 1. An ecosystem consists of both living and non-living things that interact with each other.
2. Land pollution
3. Land pollution is caused by throwing garbage in open spaces.
- D. 1. The water in rivers, lakes, oceans and seas become polluted when waste water from our homes, streets and factories flow into it. This is called water pollution. In cities water of various factories, household wastes mixes into river and pollutes it. However, in villages water from the fields that contains chemical fertilisers mixes into rivers and pollutes it.
2. The three R's stands for Reduce, Reuse and Recycle.

Reduce-We should only buy what we really need. We should use utensils made of

steel or ceramic so that we can reduce the amount of paper trash.

Reuse-Reuse means to use things again. We should always try to find new ways to use things before throwing them away. We can reuse newspaper for packing gifts.

Recycle-Recycle means to make useful things out of things that we do not use any longer. We should sort dry waste into separate groups, such as paper, glass, plastic and metals. Then we should send these things to recycling plants for making new useful things.

I am a thinker

Accept all relevant responses.

I am an all-rounder

A. English

1. rich
2. lunch

B. Maths: 21st August

C. Social Studies

Suggestions:

We can avoid throwing waste here and there, instead of dustbins.

We should carry cloth bags whenever we go for shopping.

Students' Worksheets

Worksheet 1

- A. 3, 4
- B. 1. Air, water and temperature.
2. The living and non-living things around us form the environment.
3. An ecosystem consists of both living and non-living things that interact with each other.
4. All living things in an ecosystem are called biotic components.
5. The non-living things are called abiotic components.
- C. 1. False 2. False 3. True
4. True 5. False

Worksheet 2

- A. 1, 2, 4, 5
- B. 1. water 2. air 3. Land
4. Reuse 5. Recycle
- C. 1. AIR 2. SOIL 3. WATER
4. SUNLIGHT 5. TEMPERATURE

Worksheet 3

- A. 1. Bathing and washing.
2. Reduce, Reuse and Recycle.
3. Reduce means to buy what we really need.
4. Reuse means to use things again.
5. Recycle means to make useful things out of things that we do not use any longer.
- B. 1. diseases 2. polluted 3. land
4. garbage 5. fuels
- C. 1. True 2. True 3. True
4. False 5. False

Worksheet 4

- A. 1. airtight 2. dry 3. compost
4. plants 5. biodegradable
- B. 1. When dirty and harmful things are added to the environment, it is called pollution.
2. When the smoke from cars, buses, trucks and factories pollutes the air in the city, it is called air pollution.
3. When garbage is thrown in open spaces, it is called land pollution.
4. When the water in rivers, lakes, oceans and seas becomes polluted by throwing wastewater from our homes, streets and factories, it is called water pollution.
5. In cities, the water is cleaned and made potable by water treatment plant.
- C. Smoke from cars, buses, trucks and factories pollutes the air in the city.

Teacher's Worksheets

Worksheet 1

- A. 1. c 2. c
B. 1, 2, 3, 4
C. 1. reduce 2. reduce 3. reuse
4. recycle 5. recycle

Worksheet 2

- A. 1, 8, 9 (Accept all relevant responses).
B. 1. N 2. Y 3. Y
4. Y 5. N 6. Y

Theme 7: What Keeps Us Going

Chapter 10: Air and Water

Main Coursebook

I am ready

Accept all relevant responses.

Icebreaker: Cloud

In-text Question

1. Atmosphere
2. Nitrogen, oxygen, carbon dioxide and some other gases.

In-text Question

1. False
2. True

I am a learner

- A. 1. a 2. a 3. c 4. b 5. b
B. rain, plants, lake, river and sea
C. 1. We need air to breathe and stay alive.
2. Freezing
3. Ice, water and water vapour.
D. 1. Water exists in three forms – ice, water and water vapour.

When water is boiled, it changes into water vapour. This process is called evaporation.

When water vapour cools down, it changes back into water droplets. This is called condensation.

When the water cools down further, it changes into ice. This process is called freezing.

When ice starts to change back into water, the process is called melting. Melting occurs with rise in heat or temperature.

2. The shortage of water is known as water scarcity. Sometimes, there is not enough rainfall in some areas. Rivers and ponds dry up, causing shortage of water.

I am a doer

Suggestion:

Turn off taps while brushing your teeth.

Use less or optimum water for household chores.

Turn off the taps when they are not in use.

I am an all-rounder

A. English

1. knob
2. plumber

B. Maths: ₹15.50

C. Social studies: Ship

Students' Worksheets

Worksheet 1

- A. 1. air 2. mixture 3. light
4. rain 5. three
- B. water vapour from river; water vapour from sea
- C. 1. False 2. True 3. False
4. True 5. False

Worksheet 2

- A. 1. All living things need air to breathe and stay alive.
2. Plants need air to make their own food.
3. Birds, aeroplanes, hot-air balloons and parachutes need air to fly.
4. Air is filled in balloons, tyres and footballs.
5. Air is needed to light a fire.
- B. When the Sun shines, water from rivers, ponds, lakes and seas heats up and changes to water vapour.
This water vapour goes up into the sky with the air. High up in the sky, the water vapour cools down to form tiny drops of water. These tiny drops come together to form clouds and fall down as rain. The rainwater flows back to the rivers, ponds, lakes and seas. This cycle of change in the form of water is called the water cycle.
- C. The shortage of water is known as water scarcity. Sometimes, there is not enough rainfall in some areas. Rivers and ponds dry up, causing shortage of water.

Worksheet 3

- A. 1. atmosphere 2. food
3. clouds 4. wells
5. boiled
- B. 1. Nitrogen, oxygen, carbon dioxide and some other gases.
2. Bathing and drinking.
3. Rainwater that seeps into the ground is called groundwater.
4. Ice, water and water vapour.
5. When water vapour cools down, they change back into water droplets. This is called condensation.
- C. Rainwater harvesting is a simple method of saving rainwater for later use. In this method, people collect rainwater in big containers, drums or storage tanks. This water is then filtered and used for bathing, washing and watering plants.

Worksheet 4

- A. 1. three 2. pipes 3. taps
4. cools 5. heat or temperature
- B. fresh; water; groundwater; impurities; salts
- C. 1. boiling
2. condensation
3. freezing
4. melting
5. rainwater harvesting

Teacher's Worksheets

Worksheet 1

- A. 1. All living things need air to breathe and stay alive.
2. Plants need air to make their own food.
3. Birds, aeroplanes, hot-air balloons and parachutes need air to fly.
4. Air is filled in balloons, tyres and footballs.
5. Air is needed to light a fire.
- B. 1. rain
2. groundwater
3. ice, water, water vapour
4. condensation
5. melting

Worksheet 2

1. ice, water and water vapour.
2. Rains, ponds, lakes, rivers, seas, well, tube wells.
3. Atmosphere is blanket of air that surrounds the Earth.
4. A natural process through which water recycles itself is called water cycle.
5. The shortage of water is known as water scarcity. Sometimes, there is not enough rainfall in some areas. Rivers and ponds dry up, causing shortage of water.
6. The Sun

Theme 8: Our Adventures Chapter 11: How the Earth Moves

Main Coursebook

I am ready

Accept all relevant responses.

Icebreaker: EARTH

In-text Question:

1. Centre
2. Rotation
3. 365 days and 6 hours

I am a learner

- A. 1. a 2. a 3. b 4. b 5. c
- B. 1. tilted 2. rotation 3. day; night
4. oval 5. daytime
- C. 1. Rotation and revolution.
2. In the absence of Earth's rotation, one part of Earth will have day and other part of the Earth will have night, only.
3. Rotation and revolution of Earth around the Sun causes different seasons.
- D. 1. An axis is an imaginary line around which an object spins or turns. It passes through the centre of an object. The Earth also has an axis. It passes through the North Pole and South Pole. The axis of the Earth is slightly tilted.
2. The movement of the Earth on its axis is called rotation. The Earth completes one rotation in 24 hours. This is the duration of a single day. As the Earth rotates, the part of the Earth that faces the Sun has daytime. The other half of the Earth has night. Thus, rotation of the Earth causes day and night.

I am a thinker:

These extra six hours of the four years collectively results in a leap year. A leap year has 366 days instead of 365 days.

I am an all-rounder

A. English

1. under
2. in

B. Maths

1. 200 cm
2. 100 cm

C. Social studies

2. ball

Students' Worksheets

Worksheet 1

- A. 1. axis 2. North pole
3. rotation 4. revolution
5. seasons
- B. 1. b 2. a 3. d 4. e 5. c
- C. 1. true 2. false 3. true
4. false 5. false

Worksheet 2

- A. 1. axis 2. North pole 3. rotation
4. 365 days and 6 hours 5. oval
- B. 1. AXIS 2. TOP 3. ROTATION
4. SUN 5. REVOLUTION
- C. 1. An axis is an imaginary line on which Earth rotates.
2. The movement of the Earth on its axis is called rotation.
3. Rotation causes day and night.
4. 365 days and 6 hours.
5. The movement of the Earth around the Sun.

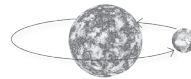
Worksheet 3

- A. 1. Ro 2. Ro 3. Ro 4. Re 5. Re
B. 3
C. 1. false 2. false 3. true
4. false 5. true

Teacher's Worksheets

Worksheet 1

A.



Revolution



Rotation

- B. 1. a 2. c 3. b 4. b

Worksheet 2

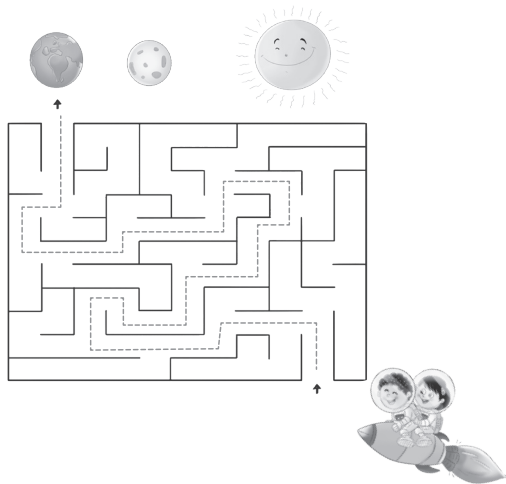
- A. 1. The movement of the Earth on its axis is called rotation.
2. The movement of the Earth around the Sun is called revolution.
3. Earth moves around the Sun in a fixed path. This path is called orbit.
4. An axis is an imaginary line around which an object spins or turns.
- B. 1. Day and night.
2. The day and night form due to rotation of the Earth.

Theme 8: Our Adventures

Chapter 12: Going into Space

Main Coursebook

I am ready



Icebreaker: I AM AN ASTRONAUT

In-text Question

1. Gravity 2. Craters

I am a learner

- A. 1. b 2. c 3. a 4. c 5. b
- B. 1. Astronomers 2. spacecraft
3. 1969 4. Moon
5. Indian
- C. 1. The suits of astronauts protect them from harmful rays and also have a supply of oxygen.
2. Sunita Williams
3. The potholes on the Moon are called craters.
- D. 1. We may travel anywhere on the Earth, but it is not easy to travel into space. Throw a stone up in the air, it will always fall back to the ground. This pull or force of attraction is called the force of gravity. It is not easy to get out of the Earth's pull and escape into space. A space rocket is used to carry a spacecraft into space.
2. Kalpana Chawla was the first woman of Indian origin to go into space. She went in the space shuttle, Columbia in 1997. She went into space again in January 2003.

I am a doer

Accept all relevant responses.

I am an all-rounder

- A. **English**
1. live 2. above
- B. **Maths:** 0.5 kg
- C. **Social Studies**
1. KALPANA CHAWLA
2. SUNITA WILLIAMS

Students' Worksheets

Worksheet 1

- A. 1. air 2. space 3. twinkle
4. Aryabhata 5. water
- B. 1. true 2. false 3. false
4. true 5. false
- C. 1. d 2. c 3. a
4. e 5. b

Worksheet 2

- A. 1. downwards 2. A spacecraft
3. Rakesh Sharma 4. can
5. air
- B. 1. Earth 2. vehicle
3. Moon 4. Chandrayaan-1
5. Rakesh Sharma
- C. 1. gravity 2. Neil Armstrong
3. Sunita Williams 4. craters
5. Kalpana Chawla

Worksheet 3

- A. 1. Chandrayaan is a series of space program carried out by Indian Space Research Organisation (ISRO).
2. The Moon does not have water and an atmosphere for life to exist.
3. Astronauts wear special suits that have provisions to store oxygen.
4. Chandrayaan-2 was headed by two women scientists, Vanitha Muthayya and Ritu Karidhal.
5. Sunita Williams is a woman of Indian origin to go into space.
- B. 1. C 2. I 3. I 4. C 5. I
- C. 1. true 2. true 3. false
4. true 5. true

Teacher's Worksheets

Worksheet 1

- A.
- 1969
 - Neil Armstrong
 - Edwin Aldrin; Michael Collins
 - craters
 - Rakesh Sharma
- B.
1. A spacecraft is a rocket in which astronauts go into space.
 2. Astronaut is a person who travels and works in a spacecraft.
 3. Space is the region that is present outside the Earth.
 4. Gravity is a force that pulls two objects towards each other.

Worksheet 2

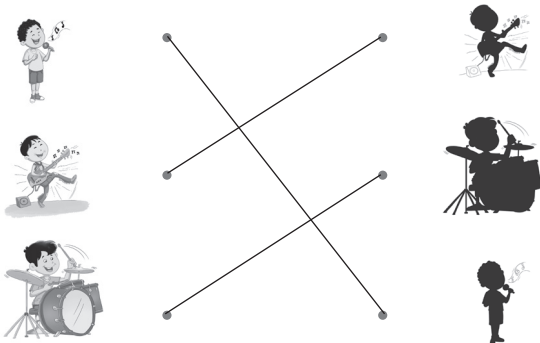
1. Gravity is a force that pulls two objects towards each other.
2. Craters are the huge potholes on the Moon's surface.
3. Special suits of astronauts contain a supply of oxygen. These suits also protect them from harmful rays of the Sun.
4. Moon lacks air and water. So, animals, plants and humans cannot survive there.
5. Astronauts conduct experiments inside the spacecraft. Sometimes, astronauts even have to repair the spacecraft while in space.
6. Kalpana Chawla was the first woman of Indian origin to go into space. She went in the space shuttle, Columbia in 1997. She went into space again in January 2003.

Theme 9: We Keep Clean, Safe and Healthy

Chapter 13: Light, Sound and Force

Main Coursebook

I am ready



Icebreaker

There are five sense organs in our body. Eyes help us sense light and ears help us sense sound.

In-text Question

1. Lamps and stars.
2. Chirping of birds and a lullaby.

I am a learner

- A.
1. b
 2. a
 3. b
 4. b
 5. b
- B.
1. → c
 2. → b
 3. → d
 4. → e
 5. → a
- C.
1. Candles and electric bulbs.
 2. Solar eclipse
 3. It is a push or pull that is used to move an object from its original position.
- D.
1. Pleasant sounds are chirping of birds, a lullaby and sound from a musical instrument. Unpleasant sound is also called noise. Examples include the sound of a horn and loud music.
 2. When the shadow of one heavenly body falls on another heavenly body, an eclipse occurs.

I am a thinker

Accept all relevant responses.

I am an all-rounder

- A. **English**
1. or
 2. but
- B. **Maths:** Accept all relevant responses.
- C. **Social Studies:** push

Students' Worksheets

Worksheet 1

- A.
1. light
 2. luminous
 3. non-luminous
 4. sound
 5. Sound
- B.
- 1, 2, 4
- C.
1. False
 2. True
 3. True
 4. False
 5. False

Worksheet 2

- A.
- 1, 4
- B.
1. P
 2. U
 3. U
 4. P
 5. P
- C.
1. False
 2. True
 3. True
 4. False
 5. False

Worksheet 3

- A. 1. eyes 2. luminous
3. give 4. non-luminous
5. Push or pull

B.

table lamp bonfire candle pen
flower vase lantern book water bottle

- C. 1. U 2. P 3. P 4. U 5. P

Teacher's Worksheets

Worksheet 1

- A. 1. Light 2. Sun
3. luminous objects
4. non-luminous objects
5. force 6. shadow
7. solar eclipse 8. lunar eclipse
- B. 1. Sun
2. non-luminous objects
3. shadow
4. sound
5. light

Worksheet 2

- When the path of light is blocked by an object which forms a dark patch, this dark patch or area is called a shadow.
- Sun and candles.
- A sound is produced when two things strike each other.
- Objects that generate their own light are called luminous objects. The objects that do not generate their own light are called non-luminous objects.
- Fork on a glass and ruler on a bottle.
- When the Moon comes between the Sun and the Earth.
It blocks the sunlight from reaching the Earth. This forms a shadow of the Moon on the Earth. This is called the solar eclipse.
- When the Earth comes between the Sun and the Moon.
Then, the Earth blocks the sunlight from the Sun reaching the Moon. This results in the formation of the shadow of the Earth over the Moon. This is called a lunar eclipse.

Theme 9: We Keep Clean, Safe and Healthy

Chapter 14: Soil

Main Coursebook

I am ready

Accept all relevant responses.

Icebreaker

We live on the Earth. Plants grow on the soil. Human beings and animals live on it.

In-text Question

- Living and non-living components.
- Yes

In-text Question

- Sandy soil 2. Loamy soil
- Loamy soil

I am a learner

- A. 1. a 2. c 3. b 4. c 5. b
- B. 1. rocks 2. humus 3. Sandy
4. Loamy 5. Sandy
- C. 1. Soil is formed by the breaking up of rocks due to the action of the Sun, rain and wind.
2. Clayey soil
3. Broccoli and cabbage.
- D. 1. Sandy soil, silt soil, clayey soil and loamy soil.

Sandy soil

Sandy soil contains tiny rock particle. It has poor water holding capacity.

Silt soil

Silt soil has small particles in comparison to sandy soil.

It has better water holding capacity than sandy soil.

Clayey soil

Clayey soil has very smooth and fine particles.

Clayey soil has a higher water-holding capacity.

Loamy soil

Loamy soil contains mixture of sandy, silt and clayey soil.

Loamy soil contains water and humus.

- Loamy soil is a mixture of sand, silt and clayey soil. It is the best soil for growing crops because it contains air, water and humus. Loamy soil is best for growing

crops such as wheat, sugarcane and cotton.

I am a doer

Accept all relevant responses.

I am an all-rounder

- A. **English:** or; and; and
B. **Maths:** Accept all relevant responses.
C. **Social Studies:** Floods occur mostly when rivers overflow after heavy rainfall. The overflowing water often removes the soil from one place and deposits it in another place.

Students' Worksheets

Worksheet 1

- A. 1. rocks 2. living 3. the
4. air 5. loamy
B. 1. e 2. a 3. d 4. b 5. c
C. 1. C 2. C 3. C 4. I 5. C

Worksheet 2

- A. 1. false 2. false 3. false
4. false 5. true
B. 1. Loamy 2. Humus 3. poor
4. clayey 5. suitable
C. 1. Earth 2. humus 3. loamy soil
4. sandy soil 5. clayey soil

Worksheet 3

- A. 1. upper 2. also 3. less
4. light 5. good
B. 1. e 2. d 3. b 4. a 5. c
C. 1. rocks 2. smooth 3. good
4. light brown 5. less

Worksheet 4

- A. 1. air
2. higher
3. different crops growing properties
4. loamy
5. cooling
B. 1. false 2. false 3. true
4. true 5. false
C. 1. thousands 2. tiny 3. clayey
4. loamy 5. humus

Teacher's Worksheets

Worksheet 1

- A. 1. c 2. a 3. b
B. 1. T 2. F 3. T

- C. 1. Humus 2. Clay 3. Sand 4. Stone

Worksheet 2

1. Rotten parts of dead plants and insects float on top. This is called humus.
2. The four main types of soil: sandy, silt, clayey and loamy.
3. Loamy soil
4. Pots and toys are also made from clayey soil.
5. Sandy soil is used to grow plants, such as cactus and aloe vera.
6. Soil is used for growing plants and making clay pots.
7. Loamy soil
8. Clayey soil. This soil is used for making pots and toys.

Enrichment Activities

- A. Accept all relevant answers.
B. Accept all relevant answers.
C. Accept all relevant answers.
D. Accept all relevant answers.

Revision Worksheet

- A. 1. b 2. b 3. c
B. 1. eyes 2. 1969 3. Loamy
C. 1. false 2. true 3. false
D.



Evaporation



Condensation



Freezing



Melting