

# Answers

## Theme 1: All About Us Chapter 1: Food and Digestion

### Main Coursebook

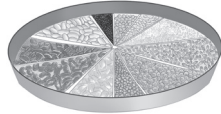
#### I am ready



F



V



P

#### Icebreaker

#### DIGESTIVE SYSTEM

#### In-text Question

1. Stomach
2. Baking

#### I am a learner

- A. 1. a    2. c    3. b    4. b    5. c
- B. 1. False    2. True    3. True  
4. False    5. False
- C. 1. Sugar and starch.  
2. Cake  
3. Baking and roasting.
- D. 1. The human digestive system is made of mouth, food pipe, stomach, liver, pancreas, small intestine, large intestine and anus.

**Mouth:** The process of digestion starts here.

**Food pipe:** The chewed food goes from mouth to food pipe.

**Stomach:** It is a hollow bag-like structure, where the food is churned.

**Small intestine:** It is a very long, coiled tube where the food mixes with the digestive juices.

**Large intestine:** The undigested food from the small intestine is passed into the large intestine.

**Anus:** The semi-solid undigested food from the large intestine is passed out of the body through the anus.

2.
  - i. **Refrigeration:** Most food items are stored in a refrigerator at low temperature to prevent them from spoiling.
  - ii. **Boiling:** Some food items are boiled at high temperatures to kill germs.
  - iii. **Salting and sweetening:** Germs are unable to grow in too much salt or sugar. Thus, some food items are

treated with salting or kept in sugar solution.

- iv. **Dehydration/air tight containers:** Storing food items in airtight containers or removing water completely from certain food items helps in preserving them.
- v. **Adding preservatives:** Sometimes, artificial preservatives are added to food items to prevent them from spoiling.

#### I am a thinker

Eating excessive fat-rich food may result in obesity.

#### I am all-rounder

- A. **English:** Digestion; Dehydration; Congestion  
B. **Maths:** ₹470  
C. **Social Studies:** No

### Students' Worksheets

#### Worksheet 1

- A. 1. Carbohydrates    2. Proteins  
3. Vitamins    4. Minerals  
5. Small intestine
- B. 1. False    2. True    3. True  
4. True    5. False
- C. 1. → a    2. → c    3. → d  
4. → e    5. → b

#### Worksheet 2

- A. 1. MOUTH    2. FOOD PIPE  
3. STOMACH    4. LARGE INTESTINE  
5. SALIVA
- B. 1. Digestion    2. stomach  
3. small intestine    4. blood vessels  
5. anus
- C. 1. True    2. False    3. False  
4. False    5. True

#### Worksheet 3

- A. 1. It is the process of converting the food we eat into simpler form so that it can be used by our body.  
2. It is a method that uses dry heat to cook food in an oven.  
3. It is a method in which the food is cooked on a hot tawa or directly over fire.  
4. It is method in which the food is cooked in oil or ghee.

5. It is a method in which the food is cooked by boiling in water.
- B. 1. baking      2. roasting      3. steaming  
4. frying      5. boiling
- C. 2.

#### Worksheet 4

- A. 1. Steaming      2. Frying      3. Roasting  
4. Boiling      5. Baking
- B. 1. True      2. False      3. False  
4. True      5. True
- C. 1. → b      2. → c      3. → d  
4. → e      5. → a

### Teacher's Worksheets

#### Worksheet 1

- A. 1. CARBOHYDRATES  
2. PROTEINS  
3. VITAMINS  
4. MINERALS  
5. FATS  
6. WATER  
7. ROUGHAGE  
8. DIGESTION
- B. 1. rice, sugar  
2. oil, ghee  
3. pulses, peas  
4. milk, fruits

#### Worksheet 2

- Boiling is a process in which germs are killed in some food items at high temperatures. For example, milk is boiled before consuming and to save it from spoiling.
- Sometimes, artificial preservatives are added to food items to prevent them from spoiling. Jams and ketchups contain preservatives.
- Germs are unable to grow in too much salt. Thus, some food items are treated with salting. For example, fish, meat and pickles are preserved through salting.
- Refrigeration is a process in which most food items are stored in a refrigerator at low temperature to prevent them from spoiling.
- Dehydration is a process in which food items are stored in airtight containers or by removing water completely to preserve them.
- We need to cook some food items before eating. There are different methods of cooking food—baking, roasting, steaming, frying and boiling.

## Theme 1: All About Us

### Chapter 2: Tongue and Teeth

#### Main Coursebook

#### I am ready



Salty



Sweet



Bitter

#### Icebreaker

Tongue

#### In-text Questions

1. True      2. False

#### In-text Questions

1. Incisors, canines, premolars and molars.  
2. 12

#### I am a learner

- A. 1. c      2. a      3. a      4. a      5. b
- B. 1. sweet      2. three      3. Premolars  
4. twice      5. dental floss
- C. 1. These are located near the tip, at the back and at the sides of our tongue.  
2. Incisors  
3. When bacteria attacks different parts of the teeth, it results in their decay that is known as tooth decay.
- D. 1. Following are the four different types of teeth:
- Incisors:** These are used for biting and cutting the food.
  - Canines:** These help in tearing our food.
  - Premolars:** These help in crushing the food.
  - Molars:** These help in crushing and grinding food.
2. i. We should brush our teeth twice a day (morning and before bedtime).  
ii. We should use a dental floss if food is stuck between our teeth.  
iii. We should include food items rich in calcium and vitamin C in our diet.  
iv. We should visit a dentist for regular check-ups.

#### I am a doer

Accept all relevant responses.

#### I am an all-rounder

- A. **English:**
- "I have 12 teeth in my upper jaw and 14

teeth in my lower jaw".

2. "Brush your teeth twice a day to prevent tooth decay."

B. **Maths:** 42 minutes

C. **Social Studies:** Tongue

## Students' Worksheets

### Worksheet 1

- A. 1. Tongue      2. four      3. Teeth  
4. two      5. three
- B. 1. False      2. True      3. False  
4. True      5. False
- C. 1. → e      2. → d      3. → a  
4. → b      5. → c

### Worksheet 2

- A. 1. TONGUE      2. TEETH  
3. TEMPORARY SET      4. PERMANENT SET  
5. CEMENTUM
- B. 1. Tongue      2. sweet      3. salty  
4. bitter      5. sour
- C. 1. False      2. True      3. False  
4. True      5. True

### Worksheet 3

- A. 1. two      2. three      3. four  
4. pain      5. dental floss
- B. 1. → b      2. → a      3. → d      4. → e      5. → c
- C. 1. True      2. False      3. True  
4. False      5. True

### Worksheet 4

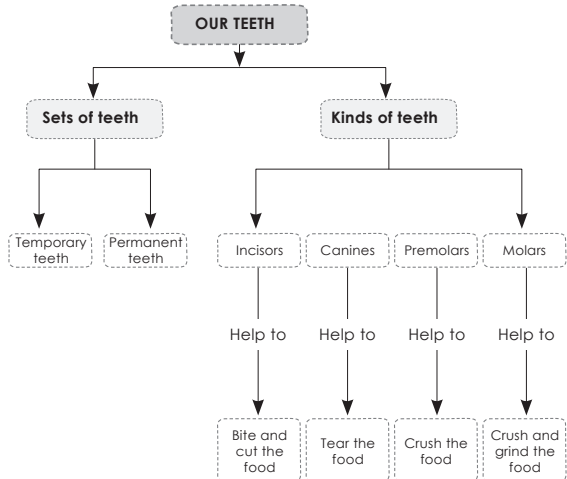
- A. 1. CROWN      2. NECK      3. ROOT  
4. ENAMEL      5. DENTINE
- B. 1. False      2. True      3. True  
4. True      5. False
- C. 1. → e      2. → d      3. → c      4. → b      5. → a

## Teacher's Worksheets

### Worksheet 1

- A. 1. → c      2. → a      3. → d      4. → e      5. → b
- B. 1. The outermost part of the crown is called enamel. It is white and hard and forms the outer covering of the tooth.
2. Taste buds are small structures present on the tongue. These help us recognise different tastes, such as sweet, sour, bitter and salty. The taste buds for the bitter taste are present at the back of the tongue.

## Worksheet 2



## Theme 2: Resources We Care For Chapter 3: All About Clothes

### Main Coursebook

#### I am ready



SUMMER

WINTER

MONSOON

Icebreaker: GLOVES

#### In-text Question

1. No
2. Yes

#### In-text Question

1. True
2. False

#### I am a learner

- A. 1. c      2. a      3. c      4. a      5. a
- B. 1. True      2. False      3. False  
4. True      5. True
- C. 1. Natural fibres are the materials that are derived from plants or animals. (Accept all relevant responses).
2. Knitting
  3. In knitting, long needles are used to interconnect a series of loops formed by a continuous yarn or thread.

- D. 1. After the fabric is woven, it is bleached to remove any kind of impurities. This process is called bleaching. After bleach, the fabric is coloured or dyed by using different chemicals. This process is called colouring.
2. i. We should wash our clothes properly to keep them free from germs and dust.  
 ii. Delicate and woollen clothes, such as coats and trousers, should be cleaned carefully.  
 iii. We should not use harsh chemicals and detergents for washing clothes.

### I am a thinker

Woollen clothes will not absorb sweat and we will feel hot on a summer day.

### I am an all-rounder

#### A. English

- i. Rehan is my cousin. His jacket is warmer than mine.  
 ii. My brother's shirts are brighter than mine.

#### B. Maths: 10

#### C. Social Studies

2. Water

## Students' Worksheets

### Worksheet 1

- A. 1. winters                      2. summers  
 3. rainy season                4. winters  
 5. summers
- B. 1. False            2. False            3. True  
 4. False            5. True
- C. 1, 2, 5

### Worksheet 2

- A. 1. Jute            2. Linen            3. Cotton  
 4. Wool            5. Fur
- B. 1. → b    2. → a    3. → d    4. → e    5. → c
- C. 1. natural; synthetic            2. wrinkle  
 3. Nylon                              4. Cotton  
 5. stretchable

### Worksheet 3

- A. 1. threads                      2. garment  
 3. intertwined                4. twisted  
 5. bleached
- B. 1. True                              2. True  
 3. False                              4. False  
 5. False
- C. 2, 3, 5

## Teacher's Worksheets

### Worksheet 1

- A. 1. Jute and linen.  
 2. Rayon and polyester.  
 3. In weaving, two sets of threads are intertwined with each other, either horizontally or vertically.  
 4. In spinning, a mass of fibres is drawn and twisted followed by the winding of the fibre into a bobbin.  
 5. Clothes protect us from weather and also make us look attractive.
- B. 1. T    2. F    3. F    4. T    5. F

### Worksheet 2

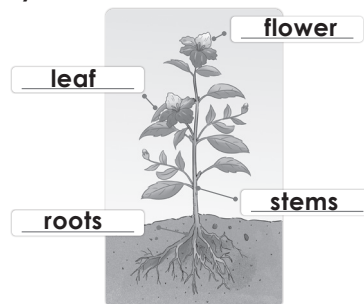
- A. 1. c            2. a            3. a            4. c
- B. 1. Silk and woollen clothes are very sensitive and easily attacked by insects, such as silverfish and moths.  
 2. We should never store any clothes without washing. Silk and woollen clothes are very sensitive and easily attacked by insects, such as silverfish and moths. We should store such clothes with some naphthalene balls or dried neem leaves in them.  
 3. Raincoats are made of waterproof material, and therefore, protect us from the rain.

## Theme 3: We Adapt to Survive

### Chapter 4: Plants – Food Preparation and Storage

## Main Coursebook

### I am ready



### Icebreaker: Leaves

### In-text Question

1. Chlorophyll    2. Starch

### In-text Question

1. No                      2. No

### I am a learner

- A. 1. c      2. c      3. b      4. c      5. a
- B. 1. → b    2. → e    3. → d    4. → c    5. → a
- C. 1. It is a small opening or a pore that is present on the under side of the leaf.  
2. Indoor plants  
3. Energy flows from the Sun to plants and then to animals and human beings.
- D. 1. During photosynthesis ('photo' means light and 'synthesis' means putting together), plants absorb sunlight with the help of chlorophyll. Green leaves convert air and water into food in the presence of sunlight. This food is produced in the form of simple sugar (glucose).  
2. i. Plants with no leaves: Agave and cactus do not have leaves. These plants make food in their green stems.  
ii. Non-green plants: These plants lack chlorophyll, and therefore, they cannot prepare their own food. They depend on dead and decaying plants and animals for their food. Mushroom is one such example.  
iii. Plants with dark red leaves: Some plants, such as croton, appear dark red, even though they contain chlorophyll. In such plants, a red substance is present that hides the green colour from chlorophyll.

**I am a doer:** Accept all relevant responses.

### I am an all-rounder

- A. **English:** sunlight; night  
B. **Maths:** 6  
C. **Social Studies:** Ashoka

## Students' Worksheets

### Worksheet 1

- A. 1. Green                      2. Chlorophyll  
3. sunlight                      4. kitchen  
5. above
- B. 1. True                      2. False                      3. False  
4. False                      5. False
- C. 1. → b    2. → e    3. → a    4. → d    5. → c

### Worksheet 2

- A. 1. ROOT                      2. LEAVES  
3. CHLOROPHYLL            4. WATER

### 5. SUNLIGHT

- B. 1. green  
2. absorption  
3. Stomata  
4. water, carbon dioxide  
5. oxygen, water vapours
- C. 1. True                      2. False                      3. True  
4. True                      5. False

### Worksheet 3

- A. 1. Cactus and agave.  
2. They depend on dead and decaying plants and animals for their food.  
3. Due to the presence of a red substance that hides the green colour from chlorophyll.  
4. Because it feeds on insects for its food requirements.  
5. Yellow rattle, dodder and broomrape.
- B. 1. → e    2. → b    3. → a    4. → c    5. → d
- C. 1. True                      2. False                      3. False  
4. True                      5. True

### Worksheet 4

- A. 1. MIDRIB                      2. SIDE VEINS  
3. PHOTOSYNTHESIS        4. SUNLIGHT  
5. GLUCOSE
- B. 1. glucose                      2. starch                      3. oxygen  
4. Plants                      5. Sun, animals
- C. 1. Y                      2. N                      3. Y                      4. N                      5. Y

## Teacher's Worksheets

### Worksheet 1

- A. 1. CHLOROPHYLL  
2. STOMATA  
3. VEIN  
4. MIDRIB  
5. PORES
- B. 1. CACTUS                      2. AGAVE  
3. CROTON                      4. MUSHROOM  
5. VENUS FLYTRAP            6. DODDER

### Worksheet 2

- A. 1. Leaf                      2. Midrib                      3. Croton  
4. Stomata                      5. Starch
- B. 1. Through the stomata, leaves take in water and carbon dioxide and give out oxygen and water vapours.  
2. Insectivorous plants feed on insects for their food requirements while parasitic plants depend on other plants for

their food requirements. Sundew and cobra lily are insectivorous plants whereas yellow rattle and rafflesia are parasitic plants.

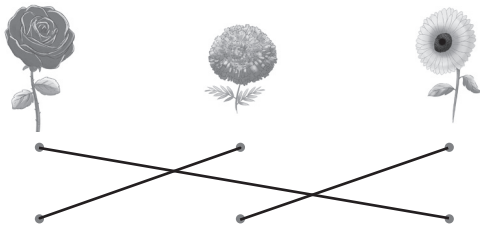
3. Animals exhale carbon dioxide, which is then taken up by the plants. Plants provide food and oxygen for the animals.
4. We should protect both plants and animals. We should plant more and more trees. We should protect wild animals in different sanctuaries, national parks and forest reserves.

### Theme 3: We Adapt to Survive

#### Chapter 5: Plants – Adapting and Surviving

#### Main Coursebook

#### I am ready



MARIGOLD

SUNFLOWER

ROSE

#### Icebreaker: BANYAN

#### In-text Question

1. No
2. Yes

#### In-text Question

1. Lotus
2. Hydrilla

#### In-text Question

1. Agave
2. Bamboo

#### I am a learner

- A. 1. a                      2. b                      3. a  
 4. b                      5. b
- B. 1. False                2. False                3. True  
 4. True                    5. True
- C. 1. These are the plants that grow on land.  
 2. This happens because air cannot penetrate the clayey soil.  
 3. They provide food for human beings and

animals, such as wheat and rice. Some plants, such as bamboo, are used to make different things, such as baskets and mats.

- D. 1.
  - i. Trees found in hilly areas are usually straight and tall. Such trees have needle-like leaves. Trees, such as fir, pine and cedar, are some trees found in hilly areas.
  - ii. Trees in the plains have a lot of branches and leaves. These trees can tolerate heat and can grow in warmer climates. Examples of such trees are mango, sal and banyan.
  - iii. Plants that grow in hot and damp areas also have a lot of leaves to prepare food in the presence of sunlight. Examples include coffee, tea, rice and pepper.
  - iv. Plants in deserts do not have any leaves. Such plants have spines in place of leaves. Examples of such plants include agave and cactus.
  - v. Areas that are wet and humid are known as marshy areas. Examples include papyrus and cattails.
2.
  - i. **Floating plants:** These plants float on water. They are light in weight with smaller sizes. Examples include, water lettuce, duckweed and water hyacinth.
  - ii. **Fixed plants:** These plants remain fixed to the water bed, for example, water lily and lotus. These plants have hollow and light stem, letting the leaves and flowers float on the water surface.
  - iii. **Underwater plants:** These plants are completely submerged in the water. Such plants have narrow, long and ribbon-like leaves. Examples of such plants include tape grass, pondweed and hydrilla.

#### I am a thinker:

They get raw materials from water.

#### I am an all-rounder:

##### A. English

1. Jogita plants bamboo trees in the backyard of her house.
2. Rahul forgets to water the plants in his balcony.

##### B. Maths: 200

- C. **Social Studies:** Yes. Ashoka tree has anti-cancer properties.

## Students' Worksheets

### Worksheet 1

- A. 1. habitat                      2. Terrestrial  
3. Accept all relevant responses.  
4. hilly                              5. branches, leaves
- B. 1. False                      2. False                      3. True  
4. False                      5. False
- C. 1. → e                      2. → a                      3. → c  
4. → b                      5. → d

### Worksheet 2

- A. 1. needle-like                      2. Evergreen  
3. spines                              4. marshy  
5. mangroves
- B. 1. True                      2. False                      3. False  
4. True                      5. True
- C. 1. DAMP                      2. PLAINS                      3. TERRESTRIAL  
4. DESERT                      5. MARSHY

### Worksheet 3

- A. 1. The region or natural environment where an animal or a plant live naturally is called habitat.  
2. These are the special features of a plant or an animal that allow it to survive and thrive in its habitat.  
3. These are the plants that grow on land. For example, rubber and cotton.  
4. These are the plants that float on water. For example, duckweed and water lettuce.  
5. These are the plants that are completely submerged in the water. For example, tape grass and hydrilla.
- B. 1. DUCKWEED                      2. WATER LILY  
3. LOTUS                              4. TAPE GRASS  
5. HYDRILLA
- C. 1. False                      2. True  
3. True                              4. False  
5. True

### Worksheet 4

- A. 1. PINE                              2. BANYAN  
3. PEPPER                              4. AGAVE  
5. CATTAILS
- B. 3.
- C. 1. Y                      2. N                      3. Y                      4. N                      5. N

## Teacher's Worksheets

### Worksheet 1

- A. 1. mango                      2. pepper                      3. papyrus  
4. duckweed                      5. tape grass                      6. bamboo  
7. bamboo
- B. 1. b                      2. d                      3. c                      4. e                      5. a

### Worksheet 2

1. Floating plants float on water. They are light in weight with smaller sizes. Such plants help in protecting small water animals from the direct heat of the Sun. Examples include water lettuce and duckweed.
2. Fixed plants remain fixed to the water bed, for example, water lily and lotus. These plants have hollow and light stems, letting the leaves and flowers float on the water surface. Such floating leaves act as a nesting place for small birds.
3. Underwater plants are completely submerged in the water. Such plants have narrow, long and ribbon-like leaves. These plants remove the carbon dioxide exhaled by aquatic animals through photosynthesis, thereby helping clean the water. Examples of such plants include tape grass, pondweed and hydrilla.
4.
  - i. Some plants of the grass family provide food for human beings and animals, such as wheat and rice.
  - ii. Plants, such as bamboo, are used to make different things, such as baskets, chairs, mats and toys.
  - iii. Some of the grass plants are used to make medicines, such as Bermuda grass and couch grass.
  - iv. When grass is used in its dry form, it is used as a packing material.

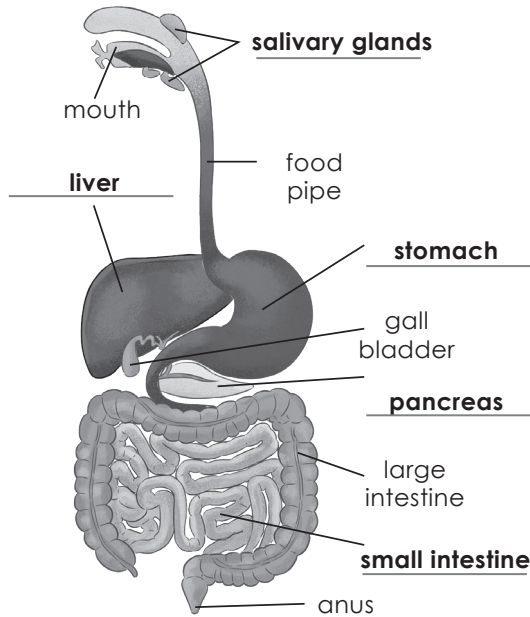
### Enrichment Activities

- A. Try yourself  
B. Try yourself  
C. Try yourself  
D. Try yourself  
E. Try yourself  
F. Try yourself  
G. Try yourself

### Revision Worksheet

- A. 1. b                      2. c                      3. c                      4. b                      5. c  
B. 1. artificially                      2. food                      3. branches

4. medicine    5. chlorophyll
- C. 1. False    2. True    3. False
4. False    5. True
- D.



- E. 1. Proteins help our body grow and repair.
2. Chlorophyll impart green colour to the plants leaves.
3. Animals cannot prepare their own food.
4. If we do not take proper care of our teeth, it results in their decay.
5. Clothes should be allowed to dry in an open room.
- F. 1. Incisors are present at the front of the lower and upper jaws. These are total eight in number, four on each jaw. Incisors are used for biting and cutting the food.
2. Natural fibres are the materials that are derived from plants or animals. We obtain fibres, such as jute, linen and cotton, from plants. Fibres, such as silk, wool and fur, are obtained from animals. Synthetic fibres are the materials that are artificially prepared and are not found in nature. These fibres are also known as man-made fibres. Examples of such fibres are rayon, polyester and nylon. Synthetic fibres are wrinkle-free, waterproof, non-porous and stretchable.
3. Broomrape and rafflesia are two parasitic plants.
4. Plants, such as cactus and agave, do not have leaves. They make food in their green stems. There are some non-green

plants, such as mushrooms. These plants lack chlorophyll, and therefore, they cannot prepare their own food. They depend on dead and decaying plants and animals for their food.

5. Plants prepare their food in the form of glucose. This is used in several ways:
- It is used to get energy.
  - Some amount of it is used for growth.
  - The extra food is stored in stems, leaves or roots in the form of starch.

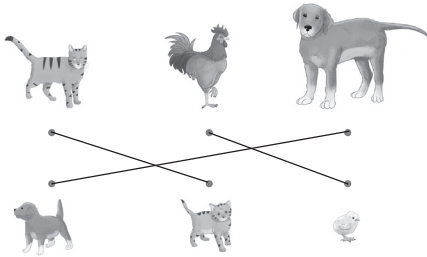


# Answers

## Theme 4: Things We Need Chapter 6: Reproduction in Animals

### Main Coursebook

#### I am ready



**Icebreaker:** Kangaroo

#### In-text Question

1. False                      2. True

#### In-text Question

1. Yolk                        2. Tadpole

#### I am a learner

- A. 1. c                      2. a                      3. a  
4. c                        5. a
- B. 1. True                2. False                3. False  
4. True                    5. True
- C. 1. It is the process of producing more of their own kind by living things.  
2. To protect the inner parts of the egg.  
3. It is a process through which a nymph grows into an adult insect.
- D. 1. An egg has a thin but hard outer shell called the eggshell. Inside the eggshell, albumen is present. The albumen is a jelly-like white substance and rich in proteins. Inside the albumen lies the yellow-coloured yolk. The growing baby inside an egg is called the embryo. The embryo goes through different stages of development inside the egg before hatching. The baby that comes out of the egg is called a chick.
2. Female frogs also lay eggs in large clusters, called spawns, in ponds. Baby frogs, called tadpoles, hatch from these eggs. They have tails and swim under the water. After going through a series of changes, called the metamorphosis, tadpoles grow into adult frogs.

**I am a doer:** Accept all relevant responses.

**I am an all-rounder**

- A. **English:** the, a, an  
B. **Maths:** E, O, D, U, T, I  
C. **Social Studies:** Accept all relevant responses.

### Students' Worksheets

#### Worksheet 1

- A. 1. forever            2. lifespan            3. lifespan  
4. life cycle            5. reproduction
- B. 1. True                2. True                3. True  
4. True                5. True
- C. 1. Humans            2. Birds                3. birds  
4. mammals            5. Dolphin

#### Worksheet 2

- A. 1. mammals            2. milk                3. mammals  
4. enemies            5. eggs
- B. 1. LIFESPAN            2. LIFE CYCLE  
3. REPRODUCTION    4. EGGS  
5. YOUNG ONES
- C. 1. False                2. False                3. True  
4. False                5. True

#### Worksheet 3

- A. 1. Fish and frogs.  
2. It protects the inner parts of the egg.  
3. The growing baby inside an egg is called the embryo.  
4. Animals that give birth to young ones are called mammals. Accept all relevant responses.  
5. Mammals feed and protect their young ones from enemies.
- B. 1. → c            2. → e            3. → b            4. → a            5. → d
- C. 1. Y                2. N                3. N                4. Y                5. N

#### Worksheet 4

- A. 1. Eggshell            2. Albumen            3. Yolk  
4. Embryo                5. Chick
- B. 1. EGGSHELL            2. ALBUMEN            3. YOLK  
4. EMBRYO                5. CHICK
- C. 1. N                2. Y                3. N                4. N                5. N

### Teacher's Worksheets

#### Worksheet 1

- A. 1. Animals that give birth to young ones are called mammals.  
2. Birds reproduce by laying eggs.  
3. The albumen is a jelly-like white substance and rich in proteins.  
4. Female frogs also lay eggs in large

clusters, called spawns, in ponds. Baby frogs, called tadpoles, hatch from these eggs. They have tails and swim under the water. After going through a series of changes, called the metamorphosis, tadpoles grow into adult frogs.

5. Moulting is the process of shedding of caterpillar's skin.

B. Accept all relevant responses.

### Worksheet 2

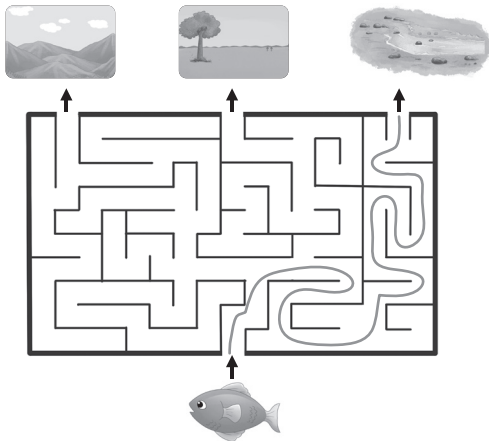
- A. 1. BUTTERFLY                      2. CATERPILLAR  
 3. CHRYSALIS                        4. TADPOLE  
 5. MAMMALS
- B. 1. tadpole      2. yolk              3. chrysalis  
 4. nymph        5. eggs            6. butterfly  
 7. shedding    8. adult insect
- C. 1. dog                                  2. metamorphosis  
 3. Cocoon

## Theme 4: Things We Need

### Chapter 7: Animals- Adapting and Surviving

#### Main Coursebook

I am ready



#### Icebreaker

Giraffe

#### In-text Question

1. False                                  2. True

#### In-text Question

1. Stick insect  
 2. Bear

#### I am a learner

- A. 1. c                                      2. a                                      3. a  
 4. c                                      5. c
- B. 1. land                                      2. fur  
 3. Herbivores                              4. flesh, other animals  
 5. hibernation
- C. 1. These are the animals that live in water. For example, fishes, turtles and crabs.  
 2. Squirrel  
 3. It is defined as the long bouts of sleep during summers.
- D. 1. i. **Terrestrial animals:** These animals have lungs to breathe and legs to move. These animals also have sense organs and a nervous system to detect the changes in the surrounding environment.  
 ii. **Aquatic animals:** These animals have limbs or fins that help them in swimming.  
 iii. **Amphibians:** These animals have lungs for breathing. Such animals also have limbs that help them to swim in water.  
 iv. **Aerial animals:** These animals have wings to fly. Aerial animals have light bodies that help them to fly easily.  
 v. **Arboreal animals:** These animals have strong limbs that help them climb up and down trees.
2. i. **Fast movement:** Some animals move very fast to escape from enemies.  
 ii. **Colour:** Many animals change their body colour to match the colour of the surroundings.  
 iii. **Large size:** The size of some animals is sufficiently large that they cannot be eaten by other animals or predators.  
 iv. **Poisonous bite:** Some animals protect themselves with their poisonous bite or sting.  
 v. **Hibernation:** It is a process in which some animals sleep for several months continuously.  
 vi. **Aestivation:** It is a process in which animals undergo bouts of sleep during summers.  
 vii. **Spines:** Spines refer to sharp needle-like structures present on the body of some animals. When any other animal tries to attack these animals, the spines prick the skin and leave the attacker in pain.  
 viii. **Shells:** Some animals possess a tough and protective shell over their body. When any other animal attacks, they

hide themselves inside the shell for protection.

### I am a thinker

Animals cannot survive in different environments if they have no adaptations. Yes, the number of animals will decrease.

### I am an all-rounder

- A. **English:** a, an, the  
B. **Maths:** 44  
C. **Social Studies:** Accept all relevant responses.

## Students' Worksheets

### Worksheet 1

- A. 1. Habitat                      2. desert  
3. penguins                      4. terrestrial  
5. Cat
- B. 1. True                              2. True  
3. False                              4. True  
5. True
- C. 1. → d                              2. → e  
3. → a                              4. → b  
5. → c

### Worksheet 2

- A. 1. lungs                              2. nervous  
3. Aquatic                              4. fins  
5. Fishes, crabs
- B. 1. ADAPTATION                      2. HABITAT  
3. TERRESTRIAL                      4. AQUATIC  
5. AMPHIBIAN
- C. 5.

### Worksheet 3

- A. 1. These are the characteristics of animals that help them survive successfully in their habitats.  
2. It is a place where a living thing lives and has adapted to survive.  
3. These are the animals that live on land.  
4. These animals have sense organs and a nervous system to detect changes in the surroundings.  
5. These are the animals that live in water.
- B. 1. cat, dog  
2. fish, crab  
3. frog, salamander  
4. bat, sparrow  
5. squirrel, monkey
- C. 1. N      2. Y      3. N      4. Y      5. Y

### Worksheet 4

- A. 1. Lungs                              2. Limbs or fins  
3. Wings                              4. Bat  
5. Strong limbs
- B. 1. WATER                              2. LIMBS  
3. FINS                              4. GILLS  
5. SWIMMING
- C. 1. True                              2. False  
3. True                              4. True  
5. False

## Teacher's Worksheets

### Worksheet 1

- A. 1. e      2. d      3. a      4. b      5. c
- B. 1. fast movement                      2. colour  
3. hibernate                              4. aestivation  
5. spines                              6. poisonous  
7. Protective

### Worksheet 2

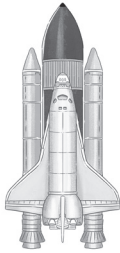
1. Arboreal animals are the animals that spend most of their time on trees. Examples of such animals are monkeys, squirrels and tree lizards.
2. Frogs have lungs for breathing. These also have limbs that help them to swim in water.
3. Spines are sharp needle-like structures present on the body of some animals. Porcupine uses spines for their protection.
4. Hibernation is a process in which some animals can sleep for several months continuously. They do so to protect themselves from the extremely cold climatic conditions. Frogs and lizards hibernate.
5. In aestivation the animals undergo bouts of sleep during summers. This is done to prevent excessive loss of water from their bodies.
6. Camouflage is the phenomenon where an animal hides itself by blending in its surroundings.

## Theme 5: Our Universe

### Chapter 8: Earth and Its Neighbours

#### Main Coursebook

**I am ready**



**Icebreaker: Sun**

**In-text Question**

1. Mercury      2. Jupiter

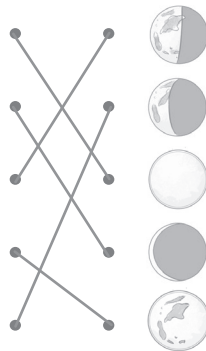
**In-text Question**

1. Moon  
2. First quarter Moon

**I am a learner**

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

1. New Moon  
2. Waning crescent Moon  
3. Waning gibbous Moon  
4. Full Moon  
5. Third quarter Moon



- C. 1. Eight  
2. Astronomer  
3. The people who study the heavenly bodies are called astronomers.  
D. 1. The Sun and the planets that move around it form the solar system.

**Mercury:** It is the smallest planet. It is the closest planet to the Sun.

**Venus:** It is the second planet from the Sun. It is almost as big as the Earth.

**Earth:** It is the third planet from the Sun. It is the only planet where life exists.

**Mars:** It is the fourth planet from the Sun.

It is called the red planet because its surface is covered with red dust.

**Jupiter:** It is the fifth planet from the Sun. It is the biggest and coldest planet in the solar system.

**Saturn:** It is the sixth planet from the Sun. It is the second largest planet in the solar system.

**Uranus:** It is the seventh planet from the Sun. It is a cold planet.

**Neptune:** It is the farthest planet from the Sun. It is also a cold planet and is blue in colour.

2. The Moon revolves around the Earth. Moon takes 27 days and 8 hours to revolve around the Earth. During this motion, the sunlight falls on the different parts of the Moon, resulting in its various shapes. These are called phases of the Moon.

**I am a doer**

Accept all relevant responses.

**I am an all-rounder**

- A. **English:** It, her, she  
B. **Maths:** 8, 16, 24, 32  
C. **Social Studies:** Yes. Aryabhata and Bhaskara-I.

#### Students' Worksheets

**Worksheet 1**

- A. 1. planets      2. planet      3. Sun  
4. Sun      5. light; heat  
B. 1. False      2. False      3. True  
4. True      5. False  
C. 1. → d      2. → e      3. → a      4. → c      5. → b

**Worksheet 2**

- A. 1. eight      2. Earth      3. third  
4. Mars      5. sixth  
B. 1. Mercury      2. Venus      3. Jupiter  
4. Saturn      5. Uranus  
C. 1. Mercury      2. Venus      3. Earth  
4. Jupiter      5. Neptune

**Worksheet 3**

- A. 1. The Sun is the largest heavenly body in the solar system.  
2. The Sun contains hot gases and gives out heat and light.  
3. In our Solar system, there are eight planets.  
4. Mars is the fourth planet from the Sun.

5. Uranus has 27 moons.

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

#### Worksheet 4

- A. 3, 4.
- B. 1. The Sun and the planets that move around it form the solar system.  
2. Planets are large bodies that move around a star.  
3. The Sun is the largest heavenly body in the solar system.  
4. The Moon revolves around the Earth.  
5. Stars are huge balls of fire and light.
- C. **URANUS:** Seventh planet from the Sun; Cold planet; 27 Moons  
**MARS:** Closest planet to the Sun; Smallest planet; No Moons  
**SATURN:** Sixth planet from the Sun; Second largest planet; 62 Moons

#### Teacher's Worksheets

##### Worksheet 1

- A. 1. a                      2. c                      3. c
- B. 1. Constellation      2. Earth  
3. Jupiter                      4. Saturn  
5. Uranus                      6. Neptune  
7. Moon                      8. Star  
9. Aryabhata

##### Worksheet 2

- A. 1. Astronomy                      2. Neptune
- B. 1. A star is a huge ball of fire and light. But a planet is a large heavenly body that moves around a star. A planet does not have light of its own. It gets light and heat from the Sun.  
2. A solar system is made up of the Sun and eight planets that move around the Sun.  
3. A heavenly body that revolves around a planet is called a satellite. The Moon is the natural satellite of the earth.  
4. A group of stars that form a shape in the sky is called a constellation.  
5. Aryabhata was an Indian Mathematician and astronomer born in the year 476 AD. He studied planetary motion and said that the Moon does not have light of its own and shines only when it takes light from the Sun.

## Theme 6: India – Our Country

### Chapter 9: Flora and Fauna of India

#### Main Coursebook

##### I am ready



Deer



Seal



Rose

##### Icebreaker: Tree

##### In-text Question

1. Yes                      2. Yes

##### In-text Question

1. False                      2. False

##### I am a learner

- A. 1. b                      2. b                      3. c  
4. a                      5. c
- B. 1. True                      2. False                      3. True  
4. False                      5. False
- C. 1. Plant life on the Earth is known as flora and animal life is known as fauna.  
2. Fishes and dolphins live in the ocean.  
3. Indian mountains: Snow leopard  
Plains: Deer  
Indian waters: Whale  
Thar: Blackbuck
- D. 1. Flora of mountains: Trees, such as pine, spruce and maple, are found in the mountain areas.  
Flora of coastal plains: Coastal plains have plants, such as lupine and horsetail. Trees, such as oak and magnolia, are found here. Some non-flowering plants, such as ferns and mosses, are also found in these areas.  
2. Fauna of Thar: Animals, such as blackbuck, desert fox and Indian Gazelle, are found in the Thar desert. Birds such as harriers, falcons, kestrels and vultures, are also found in the Thar.  
Fauna of plains: Most of the animals that live on the plains are herbivores, for example, bison, deer and elk. Such animals, especially bison, move in large groups or herds that count millions in number.

### I am a thinker

Animals cannot survive in the Thar with thick fur on their bodies.

### I am an all-rounder

- A. **English:** cheerful, beautiful, sandal, mesmerising, expensive  
 B. **Maths:** 0.4  
 C. **Social Studies**  
 Flora: pine and maple  
 Fauna: snow leopard and blackhorn sheep

### Students' Worksheets

#### Worksheet 1

- A. 1. flora      2. fauna      3. India  
 4. 47,513      5. 11.4 per cent  
 B. 1. False      2. False      3. True  
 4. True      5. False  
 C. 1. PINE      2. SPRUCE      3. MAPLE  
 4. DEODAR      5. ASTERS

#### Worksheet 2

- A. 1. plains  
 2. coastal plains  
 3. water; fertile  
 4. Thar  
 5. coastal plains  
 B. 1. True      2. True      3. False  
 4. True      5. False  
 C. 1. FLORA      2. FAUNA      3. HABITATS  
 4. PLANT      5. SUNFLOWERS

#### Worksheet 3

- A. 1. 2,000  
 2. 90,000  
 3. Bighorn sheep; Chamois.  
 4. Bison; Deer  
 5. Whales; Seals.  
 B. 1. mountains      2. plains  
 3. Indian waters      4. Indian waters  
 5. Thar  
 C. 1. → c      2. → b      3. → a  
 4. → e      5. → d

#### Worksheet 4

- A. 1. 2,000      2. 90,000      3. mountains  
 4. plains      5. Indian waters  
 B. 1. False      2. False      3. True  
 4. True      5. True  
 C. 1. → e      2. → c      3. → a  
 4. → b      5. → d

### Teacher's Worksheets

#### Worksheet 1

- A. 1. Maple      2. Magnolia  
 3. Mosses      4. Cedar  
 5. Ferns

B.

W	H	A	L	E	S	Z	X	C	V
A	S	D	F	G	H	D	E	E	R
L	B	I	S	O	N	T	Y	L	U
R	B	N	M	L	K	J	H	K	R
U	K	L	H	G	F	D	E	R	Y
S	B	V	C	X	Z	N	M	K	U
E	A	S	D	F	E	W	E	R	Q

#### Worksheet 2

1. Snow leopard; Bighorn sheep  
 2. Bison; Deer  
 3. Seal; Walrus  
 4. Blackbuck, Desert fox

### Enrichment Activities

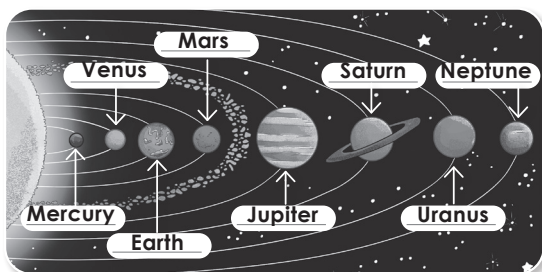
- A. Try yourself  
 B. Try yourself  
 C. Try yourself  
 D. Try yourself  
 E. Try yourself  
 F. Try yourself  
 G. Try yourself

### Revision Worksheet

- A. 1. c      2. c      3. c      4. a      5. b  
 B. 1. astronomy      2. planetary      3. mountain  
 4. Jupiter      5. constellation  
 C. 1. False      2. False      3. False  
 4. False      5. True  
 D. 1. fish      housefly      cuttlefish  
 2. chameleon      stick insect      elephant  
 3. snake      spider      bear  
 4. frog      dormice      whale  
 5. porcupine      turtle      tortoise

- E.
1. There are some animals that can sleep for several months continuously. They do so to protect themselves from the extremely cold climatic conditions. This process is called hibernation. Animals, such as bears, frogs, dormice and lizards, hibernate. During hibernation, animals use stored-up fat in their body as a source of energy.
  2. Many animals change their body colour to match the colour of the surroundings. The phenomena where an animal hides itself by blending in its surrounding is known as camouflage. Chameleons, stick insect and cuttlefish are a few examples that change colours for their protection.
  3. Spines refer to sharp needle-like structures present on the body of some animals. When any other animal tries to attack these animals, the spines prick the skin and leave the attacker in pain. Porcupines use this method to protect themselves from any attackers.
  4. The Sun and the planets that move around it form the solar system. A planet is a large body that moves around a star. The Sun is a star in the solar system, eight planets move around it.
  5. A butterfly lays eggs on a leaf. A larva hatches out of the egg. The larva of a butterfly is called a caterpillar. After hatching, the caterpillar feeds aggressively on leaves. After sometime, it sheds its skin and forms a covering called the pupa or chrysalis.

F.



# Answers

## Theme 7: Let Us be Aware Chapter 10: Safety First

### Main Coursebook

#### I am ready



Icebreaker: BANDAGE

#### In-text Question

1. No                      2. Yes

#### In-text Question

1. False                      2. False

#### I am a learner

- A. 1. c      2. c      3. b      4. c      5. b
- B. 1. False      2. False      3. True  
4. True      5. True
- C. 1. Safety rules are the rules that are followed to be safe.  
2. Allow him/her to lie flat on the ground for fresh air to reach him/her properly. We should sprinkle some water on the face of the person and call for help immediately.  
3. After cleaning the cut properly, apply antiseptic and cover it with a bandage.
- D. 1. i. Wash your hands thoroughly.  
ii. Avoid going to overcrowded places.  
iii. Wear face mask and carry hand sanitiser before stepping out.  
iv. Avoid unnecessary travel.  
v. Make sure to dispose of the used tissues after coughing or sneezing.
2. i. **Minor cuts:** After cleaning the cut properly, apply antiseptic and cover it with a bandage.  
ii. **Insect bite:** We can use insect repellents.  
iii. **Unconsciousness:** We should allow the patient to lie flat on the ground. We should not overcrowd around the fainted person and let fresh air reach him/her. We can also sprinkle some water on the face of the person.  
iv. **Burns:** We should use cool (not cold) water to soothe the burnt area.

#### I am a doer

Accept all relevant responses.

#### I am an all-rounder

##### A. English:

1. very                      2. regularly

##### B. Maths: ₹51.25

##### C. Social Studies: Public Works Department

### Students' Worksheets

#### Worksheet 1

- A. 1. danger                      2. zebra crossing  
3. everywhere                      4. Never  
5. Never
- B. 1. crowded                      2. mask  
3. unnecessary                      4. sanitiser  
5. used
- C. 1. Unsafe                      2. Unsafe                      3. Safe  
4. Safe                      5. Unsafe

#### Worksheet 2

- A. 1. Accidents can cause pain and injury.  
2. While travelling, always reach little early to avoid last minute rush.  
3. Never carry sharp objects during any journey.  
4. Never go to overcrowded places to avoid COVID.  
5. Always dispose off used tissues after coughing and sneezing.
- B. 1. True                      2. False                      3. False  
4. True                      5. True
- C. 1. FIRST AID                      2. ANTISEPTIC  
3. BANDAGES                      4. UNCONCIOUS  
5. BURNS

#### Worksheet 3

- A. 1. Wash your hands thoroughly.  
2. Avoid going to overcrowded places.  
3. Wear face mask and carry hand sanitiser before stepping out.  
4. Avoid unnecessary travel.  
5. Make sure to dispose of the used tissues after coughing or sneezing.
- B. 2, 3, 4
- C. 1. wear mask  
2. avoid crowd places  
3. do not avoid using hand sanitiser



- maintain social distancing
- cover your mouth when sneeze

## Teacher's Worksheets

### Worksheet 1

- A.
- scratches; scrapes
  - pain
  - early
  - overcrowded
  - overcrowd
- B. Accept all relevant responses.

### Worksheet 2

- Wash your hands frequently  
Avoid going to overcrowded places.
- Always reach on time to avoid last minute rush due to delay.  
Stay alert for announcements especially those that are made for passengers.
- Clean the minor cuts properly. After which apply antiseptic and cover it with a bandage.
- One can apply insect repellents to avoid insect bite. In case of serious symptoms seek medical assistance.
- For fire burns, we should use cool water to soothe the burnt area and seek medical help.

## Theme 7: Let Us be Aware Chapter 11: Air and Weather

### Main Coursebook

#### I am ready



rainy                      summer                      winter

#### Icebreaker

ATMOSPHERE

#### In-text Question

- Oxygen
- Carbon dioxide

#### In-text Question

- True
- True

#### I am a learner

- A. 1. c    2. c    3. c    4. a    5. c
- B. 1. → c    2. → e    3. → d    4. → a    5. → b
- C. 1. Air is a mixture of different gases, water vapour and dust particles.
- Exosphere
  - The moving air is called wind.
- D. 1. i. **Nitrogen:** It helps plants grow and stops fire from getting bigger.
- ii. **Oxygen:** We need oxygen for breathing. It is also essential for burning.
- iii. **Carbon dioxide:** Plants use it for photosynthesis. It also helps in putting out fire and thus, is used as fire extinguishers.
- iv. **Argon:** Light bulbs and tube lights have argon in them.
2. i. **Wind:** It carries heat and moisture from one place to another, thereby affecting the weather.
- ii. **Land breeze and sea breeze:** During day time, the land gets heated up quicker than sea, resulting in sea breeze that blows from the sea towards the land. At night, the land cools down quicker than water. It results in a land breeze blowing from the land to the sea.
- iii. **Humidity:** When the Sun is bright, more water evaporates from the water bodies. This results in increased amount of water vapours in the air, which in turn increases the humidity. When humidity is high, the air has greater moisture content.

#### I am a thinker

Air pushes the candle flame away from the wax.

#### I am all-rounder

- A. **English**
- beautiful
  - colourful
- B. **Maths:** 3600 seconds
- C. **Social Studies:** By planting more trees, preventing the use of plastic bags. (Accept all relevant responses)

### Students' Worksheets

#### Worksheet 1

- A. 1. Air                                      2. 78
3. oxygen                                  4. carbon dioxide
5. argon
- B. 1. False                      2. True                      3. True
4. False                      5. True

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

### Worksheet 2

- A. 1. AIR 2. NITROGEN  
3. OXYGEN 4. CARBON DIOXIDE  
5. ARGON
- B. 1. space 2. weight 3. pressure  
4. blanket 5. five
- C. 1. False 2. False 3. True  
4. False 5. True

### Worksheet 3

- A. 1. Air is a mixture of different gases, water vapour and dust particles.  
2. Nitrogen, oxygen, argon and carbon dioxide.  
3. Air occupies space, has weight and exerts pressure.  
4. The blanket of air surrounding the Earth is called atmosphere.  
5. Atmosphere has five layers.
- B. 1. → e 2. → b 3. → d 4. → c 5. → a
- C. 1. N 2. N 3. N 4. Y 5. N

### Worksheet 4

- A. 1. TROPOSPHERE 2. STRATOSPHERE  
3. MESOSPHERE 4. THERMOSPHERE  
5. EXOSPHERE
- B. 1. wind 2. humidity  
3. weather 4. land breeze  
5. sea breeze
- C. 1. N 2. Y 3. Y 4. Y 5. Y

## Teacher's Worksheets

### Worksheet 1

A.

C	L	O	U	D	S	S	K	F	N
K	I	D	N	W	Y	S	O	L	Q
S	V	R	A	I	N	T	R	O	U
U	E	W	I	N	T	E	R	O	Z
N	F	G	M	D	S	C	L	D	S
S	T	O	R	M	E	H	E	K	H

B. Accept all relevant responses.

### Worksheet 2

1. During the day, the land gets heated more quicker than the sea. As the air above the hot land gets heated, it rises higher. The

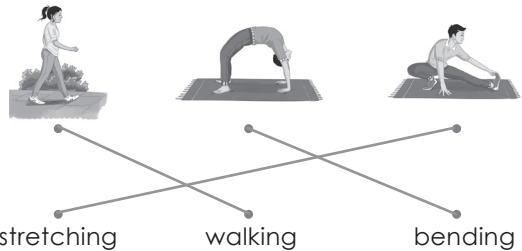
cool air from the nearby sea rushes in to take its place. Thus, we have a sea breeze that blows from the sea towards the land during day time.

2. At night, the land cools down more quicker than the water. Thus, the air above the land is cooler as compared to that above the sea. The hot air above the sea rises and the cooler air from the land moves towards the sea to take its place. Thus, a land breeze blows from the land to the sea at night.

## Theme 8: Technology and Us Chapter 12: Force, Work and Energy

### Main Coursebook

I am ready



Icebreaker:

chair, table, door

In-text Question

1. False 2. True

In-text Question

1. False 2. False

In-text Question

1. Energy 2. Sun

I am a learner

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

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

4. True 5. True

- C. 1. Work is done when force is applied on an object and it moves in the direction of the applied force.  
2. Muscular force  
3. Energy is the capacity to do work.
- D. 1. i. **Gravitational force:** Every object attracts another with a force known as the gravitational force. For example, ball thrown upwards falls back on the Earth's surface.  
ii. **Mechanical force:** When there is a direct contact between two objects,

mechanical force comes into play. For example, cutting a piece of paper.

- iii. **Frictional force:** It exists when two objects are in a contact in such a way that they rub against each other. For example, walking on the floor.
- iv. **Muscular force:** It is exerted by the muscles of the body. This force occurs due to the movement of body parts. For example, carrying a shoulder bag.
2. i. **Lever:** It is a rod-like simple machine used to cut things, open lids and lift weights. For example, nail-cutters.
- ii. **Pulley:** We can lift heavy objects with the help of a pulley. For example, fetching water from wells.
- iii. **Wheel and axle:** This machine comprises a wheel attached to an axle. Examples of wheel and axle include car and bicycle wheels.
- iv. **Inclined plane:** It is a type of surface that has one of its ends at a higher position than the other one. Examples include screws and wedges.

### I am a doer

Accept all relevant responses.

### I am an all-rounder

#### A. English:

1. on    2. inside

B. **Maths:** Perimeter: 100 m; Area: 625 square metres

C. **Social Studies:** Drilling machine, grinding machines and sewing machine.

## Students' Worksheets

### Worksheet 1

- A. 1. force                      2. shape; direction  
3. stop                        4. move  
5. direction
- B. 1. ELECTRIC                2. FRICTIONAL  
3. MUSCULAR                4. GRAVITATIONAL  
5. MECHANICAL
- C. 1. Mechanical              2. Frictional  
3. Frictional                 4. Mechanical  
5. Gravitational

### Worksheet 2

- A. 1. Work                    2. Simple                    3. reduce

4. lever                      5. fulcrum

- B. 1. LEVER                    2. PULLEY  
3. AXLE                        4. INCLINED PLANE  
5. WEDGE
- C. 1. Wedge                    2. Pulley  
3. Inclined plane            4. Lever  
5. Wheel and axle

### Worksheet 3

- A. 1. Sun                        2. solar  
3. Plants                      4. Wind; water  
5. electricity
- B. 1. HEAT                      2. SOUND  
3. CHEMICAL                4. ATOMIC  
5. GEOTHERMAL
- C. 1. I                            2. I                            3. C  
4. C                            5. I

### Worksheet 4

- A. 1. When two bodies are present at different temperatures, heat flows from higher to lower temperature. The energy obtained from such a transfer is known as heat energy.
2. The energy generated due to vibration of matter is known as sound energy. The vibration of matter produces sound.
3. Electrical energy is the movement of electrically charged particles.
4. This energy is produced as a result of chemical reaction between two substances.
5. The energy produced inside the surface of the Earth is called the geothermal energy.
- B. created; destroyed; one; chemical energy; mechanical energy
- C. 1. sound energy  
2. chemical energy  
3. electrical energy  
4. geothermal energy  
5. heat energy

## Worksheet 1

A.

R	H	I	U	O	P	R	E	R	B	N	M	V	C	X	Z
H	H	J	L	K	M	N	O	P	E	E	Z	X	C	V	B
E	N	M	A	S	D	F	G	H	I	J	K	L	Q	W	E
A	T	O	M	I	C	G	E	O	T	H	E	R	M	A	L
T	Z	X	C	M	N	B	V	C	X	Z	F	G	H	I	K
L	K	J	H	G	F	D	S	A	P	O	I	U	Y	S	T
C	E	L	E	C	T	R	I	C	A	L	B	H	J	O	A
I	I	O	V	B	V	C	X	Z	G	F	H	U	K	U	D
A	S	D	F	H	J	K	L	M	V	C	X	Z	I	Y	F
G	F	C	H	E	M	I	C	A	L	E	F	R	C	D	F

- B.
1. Gravitational force
  2. Frictional force
  3. Frictional force
  4. Mechanical force

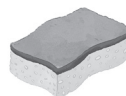
## Worksheet 2

1. Gravitational force is the type of force that attracts every object towards the Earth's surface.
2. Muscular force is exerted by the muscles of the body. This force occurs due to the movement of body parts.
3. When there is a direct contact between two objects, mechanical force comes into play. When an object exerts force on another, the state of the latter changes.
4. Frictional force exists when two objects are in a contact in such a way that they rub against each other. Such two objects tend to oppose the motion of each other.
5. When force is applied, it can change the shape and direction of an object, stop a moving object, move a stationary object or change the speed of a moving object.

## Theme 9: Never Give Up Chapter 13: Matter – Solids, Liquids and Gases

### Main Coursebook

I am ready



Icebreaker: Water

In-text Question

1. Three
2. Yes

In-text Question

1. Yes
2. No

I am a learner

- A. 1. a    2. c    3. a    4. a    5. c
- B. 1. False    2. True    3. False  
4. False    5. True

- C. 1. Anything around us that occupies space and has some mass is called matter.  
2. Cool down the contents of the bowl.  
3. Solution is a mixture of two or more substances. For example, sugar solution.
- D. 1. Matter can exist in three common states – solid, liquid and gas.

**Solid:** In solid, the particles are very tightly packed. Therefore, solids have a definite shape and volume. Examples include desks, chairs and doors.

**Liquid:** The particles of liquid are not as tightly packed as solids. Liquids do not have a specific shape. But they have a fixed volume. Examples include milk, water and juices.

**Gas:** Gases have neither a definite shape nor a definite volume. In gases, the particles are very loosely packed and are free to move in any direction. Examples include air, oxygen and nitrogen.

2. All three states of matter can be interchanged into one another. A solid can change into a liquid by heating (melting). A liquid changes to solid on cooling (freezing). Water changes into steam or water vapour on heating (boiling). Water vapour change into water on cooling (condensation).

**I am a thinker**

Evaporation, because water evaporates from clothes that results in their drying.

**I am an all-rounder**

**A. English**

- Rupali went to market to buy fruits but she forgot to bring her purse.
- Teena boarded the bus first and she got a good seat.

**B. Maths:** Accept all relevant responses.

**C. Social Studies:** Steel; cement

**Students' Worksheets**

**Worksheet 1**

- A.**
1. ice                                      2. water
  3. water                                    4. tightly
  5. loosely
- B.**
1. True                                    2. True
  3. False                                    4. False
  5. False
- C.** 1, 2, 5

**Worksheet 2**

**A.**

**I** C  
**W** A T E R  
**M** E L T I N G  
**V** A P O U R  
**F** R E E Z I N G

T	(F)	R	E	E	Z	I	N	(G)	N
H	O	C	N	A	N	I	B	D	W
A	P	S	Y	R	E	E	D	L	(V)
(I)	T	L	D	Q	H	H	Z	X	A
C	M	S	E	U	P	R	J	G	P
(E)	S	(W)	(A)	(T)	(E)	(R)	L	R	O
O	N	K	E	L	R	K	X	A	U
N	E	T	D	V	D	R	O	N	(R)
C	D	W	O	N	K	R	P	T	I
L	(M)	(E)	(L)	(T)	(I)	(N)	(G)	R	Z

- B.**
1. can change                              2. container
  3. fluids                                      4. free
  5. steam
- C.**
1. True                                      2. False
  3. True                                      4. False
  5. False

**Worksheet 3**

**A.**

**S** O L T I O N  
**I** N S O L U B L E  
**S** O L U B L E  
**S** A L T  
**S** U G A R

(S)	B	F	U	C	A	T	I	O	(S)	C	X
O	Q	C	E	A	N	I	B	D	U	S	R
L	O	R	S	E	I	P	I	L	G	E	E
U	T	L	D	(S)	A	L	T	R	A	S	L
T	M	S	E	U	P	R	J	G	(R)	C	I
I	S	X	U	E	B	T	L	R	N	K	T
O	N	K	E	L	R	K	X	A	X	S	I
(N)	E	T	D	I	D	R	O	N	W	N	O
C	O	(S)	O	L	U	B	L	E	I	O	N
Q	S	E	F	Y	R	J	W	R	Z	S	A
V	R	J	U	N	D	W	O	N	K	R	P
O	P	S	(I)	N	S	O	L	U	B	L	E

- B.** 1, 4  
**C.** 1. SOLIDS      2. DOORS      3. LIQUIDS  
 4. WATER      5. OXYGEN

**Worksheet 4**

- A.**
1. interchanged                          2. solid
  3. liquid                                    4. gas
  5. liquid
- B.** 3, 5  
**C.** 2, 4, 5

**Teacher's Worksheets**

**Worksheet 1**

**A. Solids:** Ball; Eraser; Pencil

**Liquids:** Juice; Milk; Water

**Gases:** Steam from boiling water; Air; Steam from hot tea

**Worksheet 2**

- Solute is a component that is present in a smaller quantity. A solvent is a component that is present in a larger quantity.
- Solution is a mixture of two or more substances. For example, salt is added to water to make the salt solution.
- Anything around us that occupies space and has some mass is called matter.
- Gases have neither a definite shape nor a

definite volume. In gases, the particles are very loosely packed and are free to move in any direction.

## Theme 9: Never Give Up

### Chapter 14: A Clean Environment

#### Main Coursebook

#### I am ready



EP

b.



EF

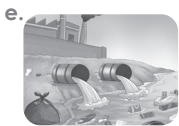


EP

d.



EF



EP

f.



EF

**Icebreaker:** DUSTBIN

#### In-text Question

1. False                      2. True

#### I am a learner

- A. 1. b      2. a      3. c      4. b      5. c
- B. 1. False      2. True      3. False  
4. True      5. False
- C. 1. Natural resources are the materials that occur naturally on the Earth. Examples include water, soil, plants and animals.  
2. Reuse  
3. The decrease in the purity of the air is called air pollution.
- D. 1. **Biodegradable wastes**  
Wastes that can decompose easily and mix with the soil are called biodegradable wastes. For example, vegetable peels, fruit peels and newspapers are biodegradable wastes.  
**Non-biodegradable wastes**  
Wastes that cannot decompose and mix with the soil are called non-biodegradable wastes. Such wastes remain in the environment for long periods of time. For example, plastic, glass and rubber are non-biodegradable wastes.

2. **Reduce:** This R equates using less. If we use anything in less amount, it will create less waste. For example, we can reduce the use of plastic bags and use cloth bags instead.

**Reuse:** This R equates using again. For example, we can use empty shampoo bottles and cans for storing things at home.

**Recycle:** This R equates making new things from old or used things. For example, we can recycle old newspapers and make paper from them.

**I am a doer:** Accept all relevant responses.

#### I am an all-rounder

- A. **English**  
1. because      2. and
- B. **Maths:** Accept all relevant responses.
- C. **Social Studies:** roots

#### Students' Worksheets

##### Worksheet 1

- A. 1. naturally                      2. natural resource  
3. Renewable                      4. Non-renewable  
5. Pollution
- B. 1. Natural resources are the materials that occur naturally on the Earth.  
2. Soil, water, fossil fuels, plants and animals.  
3. Renewable resources are available in unlimited amounts that do not deplete and can be used again and again.  
4. Non-renewable resources are the natural substances that are available in limited amounts only. Such resources deplete with time.  
5. Pollution is decreasing the purity of environment by increasing the harmful substances in air.
- C. 1. True                                      2. True  
3. False                                      4. False  
5. False

##### Worksheet 2

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

##### Worksheet 3

- A. 1. The decrease in the purity of the air is called air pollution.  
2. The decrease in the purity of water is called water pollution.

- When some harmful substances mix with soil and decrease its purity, it causes land pollution
- Biodegradable wastes are the ones that decompose easily and mix with the soil.
- Non-biodegradable wastes are the ones that cannot decompose and mix with the soil.

- B. 1. air    2. water  
 3. Harmful                                      4. Biodegradable  
 5. Non-biodegradable
- C. 1. AIR                                      2. OILS                                      3. WATER  
 4. NATURAL                                      5. RENEWABLE

#### Worksheet 4

- A. 1. Polluted                                      2. typhoid; diarrhoea  
 3. mix    4. remain  
 5. reduce; reuse; recycle
- B. 2, 5
- C. 1. True                                      2. True                                      3. True  
 4. False    5. True

### Teacher's Worksheets

#### Worksheet 1

- The decrease in the purity of the air is called air pollution. It occurs because of the burning of coal, diesel, petrol in vehicles and factories. When these substances burn, they release smoke in the air that pollutes the air. Polluted air is unfit for breathing.
- The decrease in the purity of water is called water pollution. It occurs due to washing of clothes and utensils in the rivers or lakes. During heavy rain or flood, chemicals, such as fertilisers and other factory wastes, enter the nearby water bodies and pollute them. Polluted water affects fishes and other aquatic life. Drinking polluted water also affects us as it causes diseases, such as typhoid and diarrhoea.
- When some harmful substances mix with soil and decrease its purity, it causes land and soil pollution. This type of pollution can occur due to agricultural (fertilisers), industrial (colouring of fabric) and domestic wastes (garbage).

#### Worksheet 2

- Air pollution
- Land pollution
- Water pollution

### Enrichment Activities

- Try yourself
- Try yourself
- Try yourself
- Try yourself
- Try yourself
- Try yourself
- Try yourself

### Revision Worksheet

- A. 1. c                                      2. b                                      3. a                                      4. b                                      5. a
- B. 1. Lever                                      2. Pollution                                      3. burn  
 4. sharp    5. Liquids
- C. 1. True                                      2. True                                      3. True  
 4. False    5. False
- D. 1. axe    screw    wedge  
 2. burn    insect bite    solar system  
 3. air    plants    fossil fuels  
 4. solid    liquid    fluid  
 5. weather    exosphere    mesosphere
- E. 1. Humidity is the amount of water vapour present in the air at any particular time and place.
2. During day time, the land gets heated quicker than the sea. As the air above the hot land gets heated, it rises higher. The cool air from the nearby sea rushes in to take its place. Thus, we have sea breeze that blows from the sea towards the land during day time.  
 At night the land cools down quicker than water. Thus, the air above the land is cooler as compared to that above the sea. The hot air above the sea rises and the cooler air from the land moves towards the sea to take its place. Thus at night, a land breeze blows, from the land to the sea.
3. Substances that do not dissolve in water completely are known as insoluble substances. Examples of insoluble

substances are glass and sand.

4. It is a type of surface that has one of its ends at a higher position than the other one. Inclined planes help load or raise any heavy object. Some common types of inclined planes are screws and wedges.
5. Unconsciousness is a condition in which a person may collapse.

F.

