

# Answers

## Theme 1: How Do We Live? Lesson-1: About Food and Digestion

### Main Coursebook

#### ReKAP

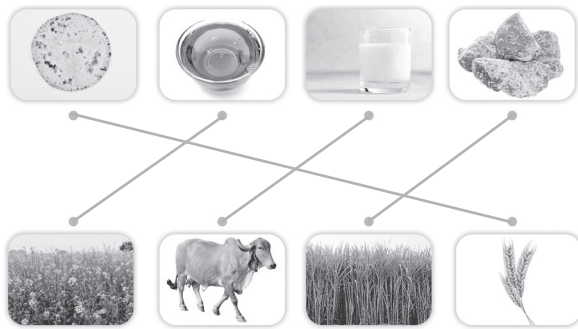
#### Kinaesthetic:

Accept all relevant responses.

#### Auditory:

1. Vitamin C helps us fight off colds.
2. Vitamin D from sunlight helps us make our bones strong.

#### Pictorial:



**Interacting better:** Accept all relevant responses.

#### Understanding better (Page 9)

1. Stomach
2. Baking

#### Learning better

- A. 1. a      2. c      3. c      4. b      5. c
- B. 1. False    2. True    3. True    4. False    5. False
- C. 1. Sugar and starch
2. Cookies
3. Roasting and frying
- D. 1. Digestion is the process of converting the food we eat into simpler form so that it can be used by our body. The human digestive system is made up of the mouth, food pipe, stomach, liver, pancreas, large intestine, small intestine, rectum and anus.
2. In order to save food from spoiling, we preserve it. There are different methods used for food preservation.
- **Refrigeration** : Most food items are stored in a refrigerator at low temperature to prevent them from spoiling.
  - **Boiling** : Some food items are boiled at high temperatures to kill germs. For

example, milk is boiled to save it from getting spoilt.

- **Salting and sweetening** : Germs cannot grow in too much salt or sugar. Thus, some food items are treated with salt or kept in sugar solution. For example, fish, meat and pickles are preserved through salting.
- **Dehydration/air tight containers** : Storing food items in airtight containers or removing water completely from certain food items helps preserve them.
- **Adding preservatives** : Sometimes, artificial preservatives are added to food items to prevent them from getting spoilt. Jams and ketchup contain preservatives.

#### Creating better:

Accept all relevant responses.

#### Thinking better:

Fat-rich foods do provide more energy than carbohydrate-rich foods, but there are important reasons why we are told not to eat too much of them:

1. **Too much fat can be bad for your health:** If you eat a lot of fat, especially unhealthy fats, it can lead to heart disease, high blood pressure and weight gain.
2. **Fats are easy to store as body fat:** When we eat more fat than our body needs for energy, it gets stored as extra fat in our body, which can lead to being overweight or obese.
3. **Healthy fats are okay in small amounts:** Not all fats are bad. Healthy fats, like those in nuts, fish and avocados, are good for our body, but we still need to eat them in the right amounts.

#### Choosing better:

2. Distribute the extra food among house help, security guards and other community helpers.

### Students' Worksheets

#### Worksheet 1

- A. 1. Carbohydrates      2. Proteins
3. Vitamins                4. Minerals
5. Roughage

- 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. Digestion is the process of converting the food we eat into simpler form so that it can be used by our body.  
2. Baking is a method in which dry heat is used to cook food in an oven. For example, we can bake cakes and cookies.  
3. Roasting is a method in which food is cooked on a hot tawa or directly over fire. For example, we roast vegetables, cottage cheese, nuts, etc.  
4. Frying is a method in which the food is cooked in oil or ghee. For example, puri, fritters, etc are fried.  
5. Boiling is the method in which food is cooked by boiling in water. For example, rice, potatoes, dals, etc. are boiled.  
B. 1. baking 2. roasting 3. steaming  
4. frying 5. boiling  
C. 2.

### Book of Holistic Teaching

#### Developing better

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

### Book of Project Ideas

#### Making better

Accept all relevant responses.

### Theme 1: How Do We Live? Lesson-2: About Tongue and Teeth

### Main Coursebook

#### ReKAP

**Kinaesthetic:** Accept all relevant responses.

#### Auditory:

The teeth chew the food into small pieces, making it easier to swallow.

#### Pictorial



**Interacting better:** Accept all relevant responses.

#### Understanding better (Page 15)

1. True
2. False

#### Understanding better (Page 16)

1. Different kinds of teeth in our mouth are incisors, canines, premolars and molars.
2. There are 12 molars present in an adult.

#### Learning better

- A. 1. c 2. b 3. a 4. c 5. b  
B. 1. calcium 2. three 3. Premolars  
4. twice 5. dental floss  
C. 1. The different taste buds located on the tip of tongue are bitter, sour, salty and sweet.  
2. Incisors  
3. When we do not take proper care of our teeth, it results in tooth decay. Tooth decay can result in pain, bad breath, bleeding gums and indigestion.  
D. 1. There are four different types of teeth. These are incisors, canines, premolars and molars. The function of each type of teeth are as follows.  
i. **Incisors:** Incisors are present at the front of the lower and upper jaws. Incisors are used for biting and cutting food.  
ii. **Canines:** Canines are present on either side of the incisors, on each jaw. They help in tearing and gripping our food.

iii. **Premolars:** Two premolars are present next to each canine tooth. Premolars help in crushing the food and act like nutcrackers.

iv. **Molars:** There are twelve molars in total. These are the last teeth present in the jaws. They help in crushing and grinding food most effectively.

2. We should care for our teeth as mentioned below.

- We should brush our teeth twice a day (morning and before bedtime).
- We should use a dental floss if food is stuck between our teeth.
- We should include food items rich in calcium and vitamin C in our diet.
- We should visit a dentist regularly.

**Creating better:** Accept all relevant responses.

**Thinking better:**

People have different tastes because everyone's body and brain are unique. Your friend might enjoy certain foods that you don't because their taste buds might be more sensitive or they might have grown up eating those foods, which makes them like them more. Some foods have flavors or textures that are more appealing to certain people. For example, one person might love spicy foods while another might find them too hot or uncomfortable.

**Choosing better:**

1. He should consult the dentist.

## 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

## Book of Holistic Teaching

### Developing better

#### A. English

1. "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 times

C. **Social Studies:** Chinese

## Book of Project Ideas

### Making better

Accept all relevant responses.

## Theme 2: How Do We Save Nature? Lesson-3: All About Clothes

## Main Coursebook

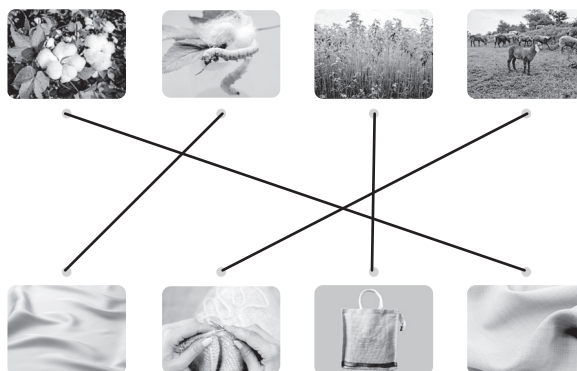
### Kinaesthetic:

Accept all relevant responses.

### Auditory:

1. We wear sweaters in winters to keep our body stay warm and retain heat.
2. We wear light cotton clothes during summers.

### Pictorial



### Interacting better:

Accept all relevant responses.

### Understanding better (Page 21)

1. No 2. No

### Understanding better (Page 22)

1. True 2. False

### Learning better

- 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. For example, jute, cotton, silk, wool, etc.  
2. Knitting  
3. In knitting, loops are made with the yarn using needles. The yarn is then pulled through these loops to make new loops.
- D. 1. After the fabric is woven, it is bleached to remove any kind of impurity. This process is called bleaching. After bleaching, the fabric is coloured or dyed using different chemicals.  
2. Three ways to take care of clothes are as follows.
- We should wash our clothes properly to keep them free from germs and dust.
  - Delicate and woollen clothes, such as coats and trousers, should be cleaned with very soft detergent.
  - We should not use strong chemicals and detergent for washing clothes.

### Creating better:

Accept all relevant responses.

### Thinking better:

It's important to think about where our clothes come from because the making of clothes can affect the Earth. When clothes are made, factories use a lot of water, energy and chemicals, which can harm the environment.

To be more environment friendly when shopping for clothes, we can do a few things:

- Buy less** – Instead of getting lots of new clothes, we can wear the clothes we already have or buy only what we really need.
- Choose natural materials** – Clothes made from cotton, wool or bamboo are better for the Earth because they break down faster than plastic clothes like polyester.
- Recycle or donate** – If your clothes are too small or you don't wear them anymore, you can donate them to others or recycle them instead of throwing them away.
- Look for eco-friendly brands** – Some companies work hard to make clothes in

ways that are better for the environment, like using less water and energy.

### Choosing better:

- He should give them to someone who would wear them.

## 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. coloured
- B. 1. True    2. True    3. False  
4. False    5. False
- C. 2, 3, 5

## Book of Holistic Teaching

### Developing better

#### A. English:

- My sister's jacket is bright red and perfect for the winter.
- My cousin's shoes are so comfortable that I borrow them often.

#### B. Maths:

The store has 30,135 metres of cloth altogether.

#### C. Social Studies:

- water

## Book of Project Ideas

### Making better

Accept all relevant responses.

### Theme 3: How Do We Adapt?

#### Lesson-4: Plants – Food Preparation and Storage

##### Main Coursebook

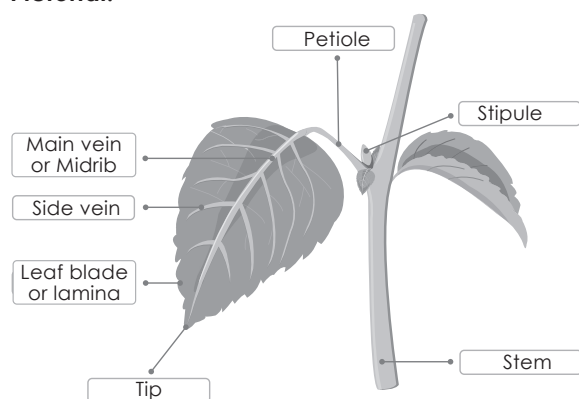
##### Kinaesthetic:

Accept all relevant responses.

##### Auditory:

Piku's roots lived deep in the soil, drinking water to help Piku grow strong.

##### Pictorial:



##### Interacting better:

Accept all relevant responses.

##### Understanding better (Page 27)

1. Chlorophyll
2. The extra food is stored in plants in the form of starch.

##### Understanding better (Page 28)

1. No
2. Yes

##### Learning better

- A. 1. c    2. c    3. b    4. c    5. a
- B. 1. b    2. e    3. d    4. c    5. a
- C. 1. On the under side of the leaf, there are some small openings or pores. These are called stomata. Through the stomata, leaves take in water and carbon dioxide and give out oxygen and water vapour.
2. Indoor plants
3. Human beings and animals need energy to perform various functions. This energy is supplied by the food we eat. Green plants use sunlight to prepare food through photosynthesis. That food helps them grow. The plants are consumed by human beings and animals. Therefore, energy is transferred 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. Some special plants are as follows:

##### Insectivorous plants

Insectivorous plants such as the venus flytrap and pitcher plant, feed on insects for their food requirements. The leaf of a venus flytrap is folded into two halves. When an insect comes and sits on the leaf, the two halves close and the insect gets trapped inside.

##### Parasitic plants

Parasitic plants depend on other plants for their food requirements. Such plants cannot perform photosynthesis as they have no chlorophyll. They grow on other plants and get the required nutrients from the host plant. For example, yellow rattle, dodder, broomrape and rafflesia.

##### Creating better:

Accept all relevant responses.

##### Thinking better:

Plants, like carrots, store their food in their roots, and others, like beans, store it in their seeds. Here's how these storage methods help:

1. **Roots (like carrots):** When plants store food in their roots, it helps them survive during the winter or dry seasons. The root stores food in the form of starch, which is like a plant's "energy reserve." When the plant needs food to grow or start new leaves, it can use the stored food from the root to get energy and start growing again when conditions are better.
2. **Seeds (like beans):** In seeds, plants store food to help the baby plant grow when it first starts. When a seed is planted and starts to sprout, it needs food before it can make its own through sunlight. The food stored in the seed helps the plant grow until it has enough leaves to make its own food from the sun.

##### Choosing better:

2. Richa should ask the teacher for help if she doesn't understand something.

## 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. Venus flytrap 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

## Book of Holistic Teaching

### Developing better

- A. **English:** Sunlight, night  
B. **Maths:** Rahul arranged all the 60 trees in 6 rows.  
C. **Social Studies:** Ashoka tree

## Book of Project Ideas

### Making better

Accept all relevant responses.

## Theme 3: How Do We Adapt? Lesson-5: Plants – Adaptation and Survival

## Main Coursebook

### Kinaesthetic:

Accept all relevant responses.

### Auditory:

- The colour of Chotu's leaves is bright green.
- Leaves have different shapes, like they can be round or long.

### Pictorial



Lotus leaf



Peepal leaf



Maple leaf



Oak tree leaves



Pine tree leaves



Croton leaf

### Interacting better:

Accept all relevant responses.

### Understanding better (Page 34)

- No
- Yes

### Understanding better (Page 35)

- Water lily
- Hydrilla

### Understanding better (Page 36)

- Cactus
- Rice

### Learning better

- A. 1. a                      2. b                      3. a                      4. b                      5. b
- B. 1. False                      2. False                      3. True  
4. True                      5. True
- C. 1. The word 'terrestrial' means living on land. Thus, terrestrial plants are the plants that grow on land. For example, rubber, cotton, etc.  
2. The roots of plants in marshy areas grow outside the soil for air, as air cannot penetrate the clayey soil.



3. The two uses of plants of the grass family are given as follows:

- (i) Some plants of this family provide food for human beings and animals, such as wheat, jowar and rice.
- (ii) Plants, such as bamboo, are used to make different things, like baskets, chairs, brooms, mats and toys.

D. 1. Terrestrial habitats include hills, mountains, plains, deserts, marshes, hot and damp areas.

- a. Trees found in hilly and mountainous areas are usually straight and tall. Such trees have needle-like leaves. As the mountains experience snowfall, leaves of these trees let the snow slip off the trees.
- b. Trees in the plains have many branches and leaves. These trees can tolerate heat and can grow in warm climates. Leaves of these trees are flat and lose water to keep the tree cool in summers. However in winter, these leaves shed off to prevent loss of water.
- c. Many plants that grow in hot and damp areas also have big, broad leaves. This helps them absorb more sunlight and lose extra water when it is very humid. To protect themselves from too much water, some plants have a waxy coating on their leaves. This helps keep the right amount of water inside.
- d. Plants in deserts do not have any leaves. This helps reduce any loss of water through them. Such plants have spines in place of leaves. These plants prepare their food in the green and fleshy stems as the stems contain chlorophyll. The stems are also used for storing water in such plants.

2. Various adaptations exhibited by aquatic plants are as follows:

- a. Floating plants: As the name suggests, floating plants float on water. They are light in weight and small in size. Such plants help in protecting small water animals from the direct heat of the Sun. Examples include, water lettuce, duckweed and water hyacinth.

b. 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 surface of the water. Such floating leaves act as a nesting place for small birds.

c. Underwater plants: These plants are completely submerged in 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.

#### **Creating better:**

Accept all relevant responses.

#### **Thinking better:**

If a plant that usually grows in wet areas is moved to a dry, hot place to survive the plant would need to develop features that help it keep water, store energy and protect itself from the heat. Here are some changes the plant might need to make:

- a. Roots: The plant would need to grow deeper or wider roots to find water underground. In a dry place, the water is often deep, so the plant's roots need to reach it.
- b. Leaves: The plant might need to shrink or lose its leaves because leaves lose water through tiny holes called stomata. In a dry place, it's important to keep water inside, so the plant might have fewer or smaller leaves to reduce water loss.
- c. Thicker skin or waxy coating: The plant might develop a waxy coating or thicker skin on its leaves or stem. This helps prevent water from escaping, just like a waterproof jacket helps keep you dry in the rain.
- d. Storage: The plant could start to store water in its stem, leaves, or roots, like a cactus does. This helps it survive when there is not much rain.
- e. Flowers and seeds: The plant may change how it flowers or makes seeds. It might only flower when there is rain, or the seeds might be able to wait for the right conditions to grow.

#### **Choosing better:**

- 1. Stop the child from plucking flower and leaves.

## 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

## Book of Holistic Teaching

### Developing better

#### A. English:

- Jogita plants bamboo trees in the backyard of her house.
- The gardener waters the plants.

#### B. Maths:

There will be 20 flowers in one garden.

#### C. Social Studies:

The Ashoka tree has many medicinal properties like its bark, flowers and leaves are used in Ayurvedic treatments to treat conditions like menstrual disorders, inflammation and digestive issues. Yes, Ashoka tree is used as a symbol of peace, prosperity and harmony.

## Book of Project Ideas

### Making better

Accept all relevant responses.

### Theme 4: How Do We Evolve? Lesson-6: Animals - Reproduction

## Main Coursebook

### Kinaesthetic:

Accept all relevant responses.

### Auditory:

- Some examples of big domestic animals are cows and dogs.
- We often see butterflies in our gardens or homes.

### Pictorial



Sheep



Cow



Dog



Puppy



Lamb



Calf

### Interacting better:

Accept all relevant responses.

### Understanding better (Page 41)

- False
- True

### Understanding better (Page 42)

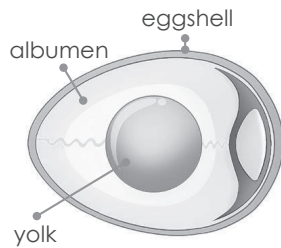
- Yolk
- Tadpoles

### Learning better

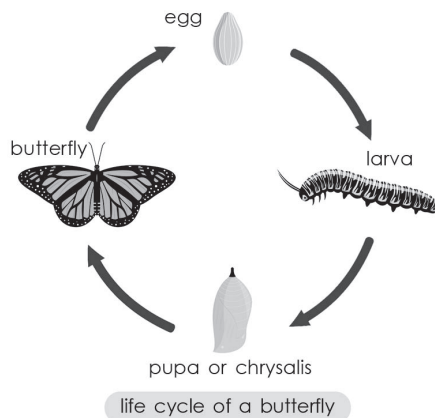
- A. 1. c 2. a 3. a 4. c 5. a
- B. 1. True 2. False 3. False  
4. True 5. True
- C. 1. For continuation of life, all living things produce more of their own kind. This process of producing more of their own kind is called reproduction.
2. An egg has a thin but hard outer shell called the eggshell. Most of the eggs have a hard covering on their outer surface because the eggshell protects the inner parts of the egg.
3. When the caterpillar feeds on leaves after a while, it sheds its skin and forms a covering called the pupa or chrysalis. The shedding of skin is called moulting.
- D. 1. An egg has a thin but hard outer shell called the eggshell. The eggshell protects the inner parts of the egg. 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 yolk is rich in fats, minerals and vitamins. The yolk provides food for the baby growing inside the egg. 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 after hatching is called hatchling or chick.



2. 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 on leaves. After a while, it sheds its skin and forms a covering called the pupa or chrysalis. The shedding of skin is called moulting. Later on, the pupa bursts open and a butterfly comes out.



### Creating better:

Accept all relevant responses.

### Thinking better:

Animals like birds and insects build nests or lay their eggs in specific places to keep their babies safe and help them grow. These places are usually chosen because they protect the eggs or babies from danger, like bad weather or predators (animals that might try to eat them). This help ensures the survival of their young ones as follows.

- It will protect their babies from predators
- For birds, it provide right temperature to hatch.
- Some insects and birds choose places where food is easy to find. This way, the parents can bring food to their babies, helping them grow strong and healthy.
- Nests protect eggs and babies from rain, wind and sun.

### Choosing better:

- Help your friend with their homework.

### 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   |        |

### Book of Holistic Teaching

#### Developing better

##### A. English:

The egg of a bird has an outer hard shell, a hard jelly-like albumen and a yellow-coloured yolk.

##### B. Maths: E, O, T and I

##### C. Social Studies:

In a physical map, light blue is used for shallow waters and a darker shade of blue is used for deep waters.

### Book of Project Ideas

#### Making better

Accept all relevant responses.

## Theme 4: How Do We Evolve?

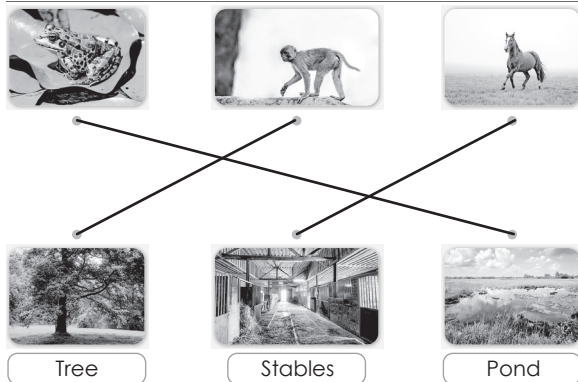
### Lesson-7: Animals – Adaptation and Survival

#### Main Coursebook

##### Kinaesthetic:

Accept all relevant responses.

##### Pictorial



##### Interacting better:

Accept all relevant responses.

##### Understanding better (Page 48)

1. False
2. True

##### Understanding better (Page 49)

1. Chameleons
2. Elephants

##### Learning better

- A. 1. c    2. a    3. a    4. c    5. c
- B. 1. land    2. fur    3. Herbivores
4. Parasites    5. hibernation
- C. 1. Aquatic animals are the animals that live in water. Such animals have limbs or fins that help them in swimming. Examples are fish, turtles and crabs. Animals, such as fish and crabs have gills to breathe under water.
2. Squirrel
3. Aestivation is a process in which animals undergo bouts of sleep during summers.
- D. 1. Terrestrial animals - These animals have lungs to breathe and legs to move. These animals also have sense organs and nervous system to detect the changes in the surrounding environment.
- Aquatic animals - These animals have limbs or fins that help them in swimming.
- Amphibians - These animals have lungs for breathing. Such animals also have limbs that help them to swim in water.
- Aerial animals - These animals have wings to fly. Aerial animals have light bodies that help them to fly.

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 animals.
- 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 another animal attacks, they hide themselves inside the shell.

##### Creating better:

Accept all relevant responses.

##### Thinking better:

If animals stop adapting, it could be very bad for life on Earth! Adaptation is how animals change or adjust to their surroundings to survive. If animals didn't adapt, they might not be able to cope with changes like different weather, food shortages or new dangers. Here's how it could affect life:

1. Loss of animals: If animals can't adapt to changes, like a warmer climate or a lack of food, they might not survive. This could lead to some animals going extinct, which means they would not exist anymore.
2. Disruption of ecosystems: Animals and plants work together in nature to form ecosystems (the environment where living things interact). If some animals go extinct because they can't adapt, it could cause problems for the other animals and plants.
3. Impact on humans: Animals help humans in many ways, like providing food, medicines and even keeping the environment

healthy. If animals can't adapt and start disappearing, it could make life harder for humans too.

#### Choosing better:

1. Roshan should go and talk to that classmate who is sitting alone and looking sad.

### 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. 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 3

- 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

### Book of Holistic Teaching

#### Developing better

- A. **English:** a, an, the  
B. **Maths:** 44 hens  
C. **Social Studies:** Climatic maps

### Book of Project Ideas

#### Making better

Accept all relevant responses.

## Theme 5: How Does the Universe Work? Lesson-8: Earth and Its Neighbours

### Main Coursebook

#### Kinaesthetic:

Accept all relevant responses.

#### Auditory:

1. Mars is much colder than Earth. Also, Earth is at the right distance from the Sun, making it warm enough for water to stay liquid and for life to thrive.
2. Earth has one moon.

#### Pictorial

1. Solar
2. Lunar

#### Interacting better:

Accept all relevant responses.

#### Understanding better (Page 56)

1. Merury
2. Jupiter

#### Understanding better (Page 57)

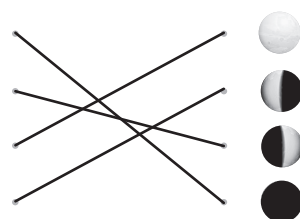
1. Moon
2. First quarter moon

#### Learning better

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

#### B.

1. New Moon
2. First Quarter Moon
3. Full Moon
4. Third Quarter Moon



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

**Mercury:** Mercury is the smallest planet in our solar system. It is the closest planet to the Sun. Mercury has no Moons.

**Venus:** Venus is the second planet from the Sun. It is almost as big as the Earth. Venus is the hottest planet in our solar system. Venus has no Moons. The average surface temperature of Venus is 464 degree celsius.

**Earth:** The Earth is the third planet from the Sun. It is the only planet where life exists. The Earth has one Moon.

**Mars:** Mars is the fourth planet from the Sun. It has two Moons. It is called the red planet because its surface is covered with red dust.

**Jupiter:** Jupiter is the fifth planet from the Sun. It is the largest planet in the solar system. It has 95 Moons moving around it.

**Saturn:** Saturn is the sixth planet from the Sun. It is the second largest planet in the solar system. It is surrounded by beautiful rings. It has 146 Moons.

**Uranus:** Uranus is the seventh planet from the Sun. It is the third largest planet in our solar system. It is a very cold planet and has 28 Moons. Uranus has faint rings.

**Neptune:** Neptune is the farthest planet from the Sun. It is also a cold planet and is blue in colour. It has 16 Moons.

2. The Moon revolves around the Earth. The Moon is the natural satellite of the Earth. The 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.

#### Creating better:

Accept all relevant responses.

#### Thinking better:

If Earth were closer to the Sun, life on Earth would be very different, and it might be harder for humans, animals and plants to survive. Our life must have been different in ways shared below:

- a. Much hotter temperatures: The closer we are to the Sun, the hotter the Earth would be. This would make many places too hot to live in. Also, we might not have enough water, and it would be difficult to grow food.
- b. More dangerous weather: With more heat, the weather might become more extreme. There could be bigger storms, heat waves and droughts (times with no rain). This would make life very tough for people and animals.
- c. Changes to plants and animals: Many plants and animals need a certain temperature to survive. If Earth were closer to the Sun, they might not be able to live because it would be too hot. Some animals might not find enough food and plants might not be able to grow.
- d. Shorter days: If Earth were closer to the Sun, it might also affect how long a day lasts. Days could be shorter or longer, which could mess up how plants grow or how animals sleep.

#### Choosing better:

2. He should always complete his work, without anyone telling him to do so.

### 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:** Fourth planet from the Sun; Red planet; 2 Moons

**SATURN:** Sixth planet from the Sun; Second largest planet; 62 Moons

### Book of Holistic Teaching

#### Developing better

##### A. English:

Rina reads in a book that the Sun is a star in the solar system. It excites her to know that our Sun is not alone in space, instead it is with eight planets. She also reads that all the eight planets move around the Sun in a fixed path.

B. **Maths:** 8, 16, 24, 32

C. **Social Studies:** INSAT-1B, APPLE

### Book of Project Ideas

#### Making better

Accept all relevant responses.

## Theme 6: How Was Our Country Made?

### Lesson-9: The Plant and Animal Life of India

### Main Coursebook

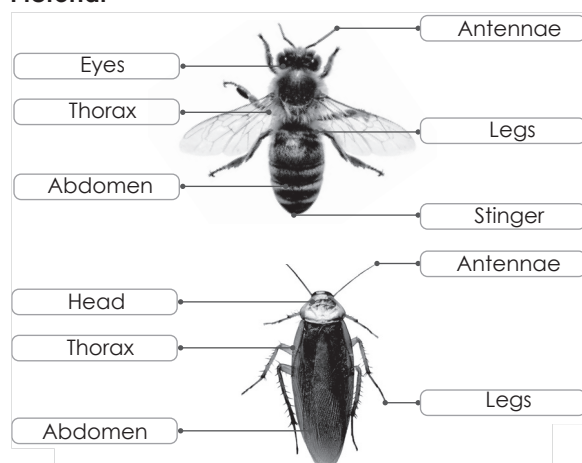
#### Kinaesthetic:

Accept all relevant responses

#### Auditory:

1. The roots were like strong hands, holding the plant tight in the soil.
2. Leaves are important for a plant as they absorb the sunlight to make food for the plant.

#### Pictorial



#### Interacting better:

Accept all relevant responses

#### Understanding better (Page 63)

1. Yes
2. No

#### Understanding better (Page 64)

1. No
2. No

#### Learning better

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 called fauna.  
2. These animals live in the ocean water.  
3. Indian mountains: Snow leopard

Plains: Deer

Indian waters: Whale

Thar: Blackbuck

- D. 1. **Flora in the mountains**

Trees, such as pine, spruce and maple, are found in the mountain areas.

#### Flora on 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. **Animals in the deserts**

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 desert.

#### Animals on the plains

Most of the animals that live on the plains are herbivores, such as bison, deer and elk. Such animals, especially bison, move in large groups called herds. Birds, such as the yellow-headed blackbird and chestnut-collared longspur, are also found in the plains.

#### Creating better:

Accept all relevant responses

#### Thinking better:

If the animals in the Thar Desert had thick fur, they would feel very hot because the fur would trap heat. This would make it hard for them to survive in the desert's extreme heat.

#### Choosing better:

2. Unity as strength



## 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. 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

## Book of Holistic Teaching

### Developing better

#### A. English

In the national park, Khushi is cheerful after seeing the beautiful flowers moving in the wind like they are waving at her. She also sees a sandal tree which has a mesmerising fragrance. The keeper of the park tells her that the wood of the sandal tree is very expensive.

#### B. Maths: 0.4

#### C. Social Studies:

The Himalayas are home to diverse flora and fauna due to their unique climate and geography.

**Flora:** Rhododendrons, Deodar trees

**Fauna:** Snow Leopard, Red Panda

## Book of Project Ideas

### Making better

Accept all relevant responses.

## Theme 7: How Do We Work? Lesson-10: Our Safety Habits

## Main Coursebook

### Kinaesthetic:

Accept all relevant responses

### Auditory:

- Rahul helped Priya by cleaning the cut with water and putting on a bandage.
- Taking care of small injuries helps us to stay safe and happy while playing.

### Pictorial



### Interacting better:

Accept all relevant responses

### Understanding better (Page 70)

- No
- Yes

### Understanding better (Page 71)

- False
- True

### Learning better

- 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 remain safe.  
2. i. Clean the cut properly.  
iii. After that apply an antiseptic.  
iii. Cover the cut with a bandage.  
3. 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 immediate help.  
D. 1. When an insect bites you, it can cause your skin to hurt and turn red around that bitten area. This happens because your body is trying to protect itself from the insect's bite. The pain and burning are just signs that your body is working hard to heal the bite. For example, the skin



appears slightly swollen and red after a mosquito bite. A person often feels itchy at these sites.

## 2. Minor cuts

Minor cuts often include scratches and scrapes on skin. Although these cuts are less serious, it is necessary to clean them properly. After that we can apply an antiseptic and cover the cut with a bandage.

## Insect bite

An insect bite is a painful condition that can cause pain, redness, swelling and even a burning sensation. To avoid insect bites, we can use an insect repellent.

## Unconsciousness

If a person becomes unconscious, we should allow them to lie flat on the ground.

We should not make a crowd near the fainted person and let fresh air reach them properly. We should sprinkle some water on the face of the person and immediately call for medical help.

## Burns

A burn is a damage to the skin caused by heat, fire or steam. We should use cold water to soothe the burnt area and seek medical help.

## Creating better:

Accept all relevant responses

## Thinking better:

1. Walk, don't run, in the school corridors. It will prevent accidents and keep everyone safe.
2. Never touch electric sockets or wires. It will avoid the risk of getting an electric shock.
3. Keep sharp objects like scissors away from others. It will prevent accidental injuries.

## Choosing better:

1. He should cross the road at the zebra crossing. (✓)

## Students' Worksheets

### Worksheet 1

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

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

### Worksheet 2

- 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 face mask  
2. Avoid going to overcrowded places.  
3. Carry hand sanitiser and use it.  
4. Maintain social distancing.  
5. Cover your mouth when you sneeze.

## Book of Holistic Teaching

### Developing better

#### A. English

1. We should avoid going to places where it is very crowded.
2. Ritika always wears a helmet while cycling.

#### B. Maths: 51.25

#### C. Social Studies: Local municipal corporation

## Book of Project Ideas

### Making better

Accept all relevant responses.

## Theme 7: How Do We Work? Lesson-11: Air and Weather

## Main Coursebook

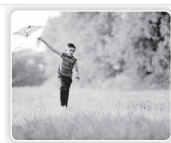
### Kinaesthetic:

Accept all relevant responses

### Auditory:

On sunny days, we love flying kites and the air helps them soar high in the sky, dancing with joy.

### Pictorial

☐☒☒☐☒☐**Interacting better:**

Accept all relevant responses

**Understanding better (Page 76)**

1. Oxygen
2. Carbon dioxide

**Understanding better (Page 77)**

1. True
2. True

**Learning better**

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

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

C. 1. Sea breeze: During the day time, the land gets heated faster than the sea. As the air above the 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 the day time.

Land breeze: At night, the land cools down faster than water. The air above the land is cooler as compared to the air above the sea. The hot air above the sea rises and the cool 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.

2. Humidity is the amount of water vapour present in the air at any particular time and place.
3. The moving air is called wind. It carries heat and moisture from one place to another.

D. 1. Air is a mixture of different gases, water vapour and dust particles.

**Nitrogen** - It helps plants grow and stops fire from getting bigger.

**Oxygen** - We need oxygen for our survival. It is also essential for lighting fire.

**Carbon dioxide** - Plants use it for

photosynthesis. It also helps in putting out fire and thus, is used as a fire extinguisher.

**Argon** - Light bulbs and tube lights have argon in them.

2. Factors affecting the weather are given below:

**Wind**

The moving air is called wind. It carries heat and moisture from one place to another, thereby affecting the weather.

**Land breeze and sea breeze**

During the day time, the land gets heated faster than the sea. As the air above the 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 the day time.

At night, the land cools down faster than water. The air above the land is cooler as compared to the air above the sea. The hot air above the sea rises and the cool 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.

**Humidity**

Humidity is the amount of water vapour present in the air at any particular time and place. When the Sun is bright, more water evaporates from the water bodies. This results in increased amount of water vapour in the air, which in turn increases the humidity. When humidity is high, the air has greater moisture content.

**Creating better:**

Accept all relevant responses

**Thinking better:**

If there was no wind, we wouldn't feel cool breezes on hot days, and flying kites would be impossible. Windmills wouldn't work, so we couldn't use wind energy, and plants might not spread their seeds easily.

**Choosing better:**

1. By planting trees and using public transportation. (✓)

## 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. Y 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

## Book of Holistic Teaching

### Developing better

- A. **English:**
- The cool sea breeze was very helpful in making the hot summer day more comfortable for everyone at the beach.
  - When the wind blows, it can be quite powerful and move leaves and branches around.

B. **Maths:** 3600 seconds

C. **Social Studies:**

Planting trees, using public transport, avoiding burning garbage

## Book of Project Ideas

### Making better

Accept all relevant responses.

## Theme 8: How Does Technology Work? Lesson-12: Force, Work and Energy

## Main Coursebook

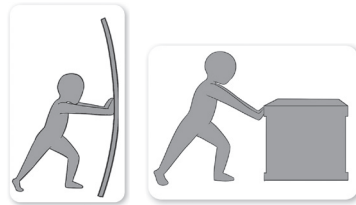
### Kinaesthetic:

Accept all relevant responses

### Auditory:

- The two machines used in the story are motorbike and a well pulley.
- A well pulley is a machine that helps in drawing water from the well.

### Pictorial



### Interacting better:

Accept all relevant responses

### Understanding better (Page 84)

- False
- True

### Understanding better (Page 85)

- Yes
- No

### Understanding better (Page 86)

- Energy
- Sun

### Learning better

- 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 and frictional force.  
3. Energy is the capacity to do work.
- D. 1. There are different kinds of energies which are as following:

### Heat energy

Heat energy is the energy that makes things hot or warm. When two bodies are present at different temperatures, heat flows from the higher to the lower temperature. For example, Sun, fire, etc.

### Sound energy

The energy generated due to vibration of matter is known as sound energy. This is the energy that we hear. For example, Honking of horn, playing flute, etc.

### Electrical energy

Electrical energy is the energy that comes from electricity. For example, charging a mobile, or watching a TV, lights, etc.

### Chemical energy

The energy stored in things like food, batteries, fuel, etc. is known as chemical energy. This energy helps us work. For example, fuel helps vehicles run.

2. The different kinds of simple machines are as following:

#### Lever

It is a bar-like simple machine used to cut things, open lids and lift weights. The point that helps turn or balance a lever is called fulcrum. Nail-cutters, scissors, tongs and pliers are some examples of levers used in our everyday lives.

#### Pulley

We can lift heavy objects with the help of a pulley. It consists of a wheel with a groove that carries a rope. Pulleys are used to fetch water from wells, lift cars with cranes, move lifts, etc. well (pulley) pliers (lever).

#### Wheel and axle

This machine comprises a wheel attached to an axle. An axle is a rod that passes through the centre of the wheel. Examples of wheel and axle include car and bicycle wheels.

#### Inclined plane

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 ramps, slides, ladders, etc.

#### Wedge

It is a triangular machine with at least one inclined surface. A wedge has a sharp edge towards its end. For example, knife, blade and axe.

#### Creating better:

Accept all relevant responses

#### Thinking better:

I would choose light energy to power a toy robot because it can use sunlight with a solar panel. This way, the robot can work without needing batteries, and it is good for the environment.

#### Choosing better:

1. Setting a time limit to avoid spending too much time on video games.

### 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. reduces  
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

### Book of Holistic Teaching

#### Developing better

##### A. English:

1. on
2. inside

##### B. Maths:

Perimeter = 100 m  
Area = 625 m<sup>2</sup>

**C. Social Studies:**

Conveyor Belt  
Lathe Machine  
Milling Machine

**Book of Project Ideas**

**Making better**

Accept all relevant responses.

**Theme 9: How Do We Survive?  
Lesson-13: All About Matter**

**Main Coursebook**

**Kinaesthetic:**

Accept all relevant responses

**Auditory:**

The example of a solid substance given in the text is wooden chair.

**Pictorial**



**Interacting better:**

Accept all relevant responses

**Understanding better (Page 91)**

1. There are three states of matter which exist in nature.
2. Yes, matter includes both living and non-living things. Anything that takes up space and has weight is considered matter, like plants, animals, rocks, and water.

**Understanding better (Page 92)**

1. True
2. False

**Learning better**

- 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. When water vapour is allowed to cool, it changes into water (liquid) again. The

process of changing a gas into liquid is called condensation.

3. A solution is a mixture of two or more substances. Generally, a solution has two major components. The component that is present in the smaller quantity is called a solute. The component present in larger quantity is called the solvent. For example, sugar and water solution.

- D. 1. Matter can exist in three common states – solid, liquid and gas.

**Solids**

In solids, the particles are very tightly packed. Therefore, solids have a definite shape and volume. Some examples of solids are desks, chairs, doors and cars.

**Liquids**

The particles of liquids are not as tightly packed as solids. Therefore, liquids do not have a specific shape. But they have a fixed volume. Some examples of liquid are milk, water and juice.

**Gases**

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. Some examples of gases are air, water vapour, oxygen and nitrogen.

2. All the three states of matter can be interchanged into one another.

**Melting**

Somesolids can change into liquid by heating. Melting refers to the process by which a solid is converted into a liquid form. For example, when ice is taken out of the freezer and kept at room temperature, it gets converted into water.

**Freezing**

On cooling, some liquids change to solid. This process is called freezing. For example, when we place water in a freezer, it turns into ice.

**Boiling**

When water is heated, it gets changed into steam or water vapour. This is known as boiling.

**Condensation**

When water vapour is allowed to cool, it changes into water (liquid) again. The

process of changing a gas into liquid is called condensation.

### Creating better:

Accept all relevant responses

### Thinking better:

If everything around us were in a gaseous state, we couldn't sit, walk, or hold anything because there would be no solid objects. Life would be very hard as even houses and food would not stay in one place.

### Choosing better:

2. She should put a bucket under the flowing water to collect it.

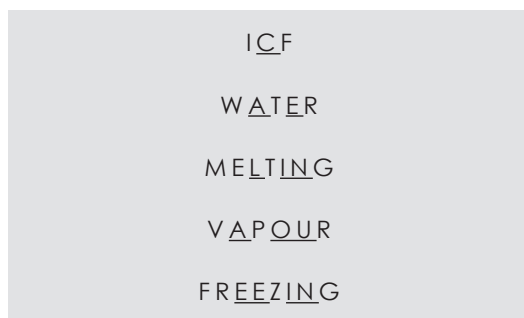
## Students' Worksheets

### 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.



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

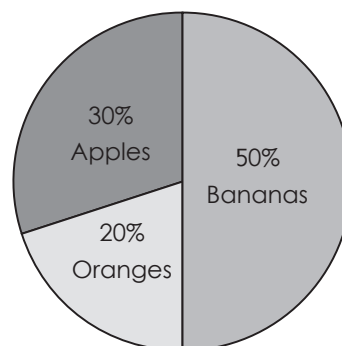
## Book of Holistic Teaching

### Developing better

#### A. English

1. Rupali went to the market to buy fruits, **but** she forgot to take her purse.
2. Teena boarded the bus **and** got the front seat.

#### B. Maths:



#### C. Social Studies: Steel and cement

## Book of Project Ideas

### Making better

Accept all relevant responses.

### Theme 9: How Do We Survive? Lesson-14: Our Environment

## Main Coursebook

#### Kinaesthetic:

Accept all relevant responses

#### Auditory:

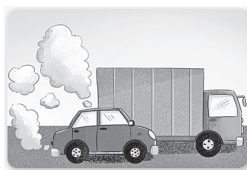
Some of the abiotic components mentioned in the text are air and water.



## Pictorial



EP



EP



EF



EF

**Interacting better:** Accept all relevant responses

**Understanding better (Page 98)**

1. True
2. True

**Learning better**

- 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. For example, water.

2. Reuse

3. 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.

- 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.

To reduce wastes and keep our surroundings clean, we should follow the three R's – reduce, reuse and recycle.

**Reduce**

This R means using less. If we use anything in lesser amount, it will create less waste.

For example, we can reduce the use of plastic bags and limit our purchases to only what we need.

**Reuse**

This R stands for using again. For example, we can use empty bottles and cans for storing things at home. We can also donate our clothes to those in need.

**Recycle**

This R means to make new things from old or used things. For example, we can recycle old newspapers and make paper from them.

**Creating better:**

Accept all relevant responses

**Thinking better:**

Air pollution releases harmful gases like carbon dioxide into the air, which trap the Sun's heat. This makes the Earth hotter, leading to climate change and problems like unusual weather and melting ice.

**Choosing better:**

1. She should pick up as much scattered garbage as she can and put it in the dustbin.

## 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. Such resources deplete with time.  
5. Pollution is decreasing the purity of environment by increasing the harmful substances in air, water and soil.
- 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.  
3. When some harmful substances mix with soil and decrease its purity, it causes land pollution.  
4. Biodegradable wastes are the ones that decompose easily and mix with the soil.  
5. 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. SOIL      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. False      3. False  
4. False      5. True

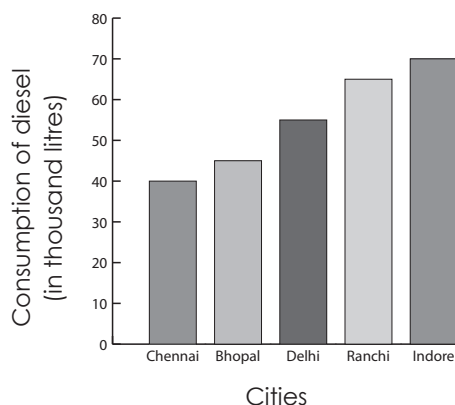
### Book of Holistic Teaching

#### Developing better

##### A. English

- because
- and

### B. Maths:



### C. Social Studies:

Bridges are made up of steel, cement, stone, bricks, asphalt, iron, aluminium, whereas some are made up of roots of living trees. Underline the materials that are biodegradable and are used to make bridges.

### Book of Project Ideas

#### Making better

Accept all relevant responses.