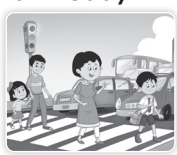
Answers

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 remain 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 repellers.
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. 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. 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 of 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. UNCONSCIOUS
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 crowded places
3. do not avoid using hand sanitiser

4. maintain social distancing
5. cover your mouth when sneeze

Teacher's Worksheets

Worksheet 1

A. 1. scratches; scrapes
2. pain
3. early
4. overcrowded
5. overcrowd

B. Accept all relevant responses.

Worksheet 2

1. Wash your hands frequently.
   Avoid going to overcrowded places.
2. Always reach on time to avoid last minute rush due to delay.
   Stay alert for announcements especially those that are made for passengers.
3. Clean the minor cuts properly. After which apply antiseptic and cover it with a bandage.
4. One can apply insect repellers to avoid insect bite. In case of serious symptoms seek medical assistance.
5. 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

1. Oxygen 2. Carbon dioxide

In-text Question

1. True 2. 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.
2. Exosphere
3. 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**
1. beautiful 2. 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. 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

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

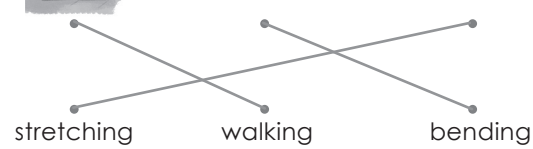
1. During the day, the land gets heated more quicker than the sea. As the air above the hot land gets heated, it rises higher. The cool air from the nearby sea rushes in to take its place. Thus, we have a sea breeze that blows from the sea towards the land during day time.
2. At night, the land cools 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. Y 2. N

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. Chemical 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

Teacher's Worksheets

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	N	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 a 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**

1. Rupali went to market to buy fruits but she forgot to bring her purse.
2. 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**E
W**A**T**E**R
ME**L**T**I** **N**G
V**A**P**O** **U**R
FR**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**LU**T** **I**O**N**
IN**S**O**L**U**B**LE
S**O**L**U**B**L**E
S**A**LT
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

1. Solute is a component that is present in a smaller quantity. A solvent is a component that is present in a larger quantity.
2. Solution is a mixture of two or more substances. For example, salt is added to water to make the salt solution.
3. Anything around us that occupies space and has some mass is called matter.
4. 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

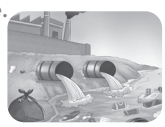
I am ready

a.  EP

b.  EF

c.  EP

d.  EF

e.  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.

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. 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. False 3. False
4. False 5. True

Teacher's Worksheets

Worksheet 1

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.
2. 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.
3. 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

1. Air pollution 2. Land pollution
3. Water pollution

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.