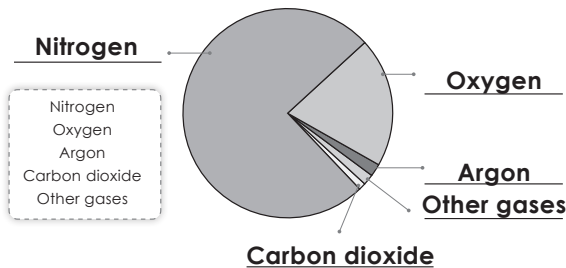


Answers

Theme 4: Living With Changes Chapter 7: Changes in Our Environment

Main Coursebook

I am ready



Icebreaker: smoke

In-text Question

1. No 2. Yes

In-text Question

1. False 2. True

I am a learner

- A. 1. c 2. b 3. b 4. c 5. c
- B. 1. True 2. False 3. True
4. False 5. True
- C. 1. These are the gases that prevent the escape of heat from our atmosphere, back into the space.
2. Global warming.
3. Carbon dioxide, methane and ozone.
- D. 1. The contribution of different greenhouse gases to the greenhouse effect are as follows:
- Carbon dioxide:** If the amount of carbon dioxide keeps increasing at the same rate, in the coming years, the Earth's temperature will increase to such levels that it will become inhabitable.
 - Methane:** It is produced by the decay of organic material and released in the atmosphere. It is also given out by the animals after they digest their food.
 - Water vapour:** This acts as the Earth's most abundant greenhouse gas. This contributes about 35–75 per cent to the greenhouse effect.
 - Ozone:** In the upper regions of the stratosphere, ozone helps absorb the

ultraviolet rays from the Sun. But in the regions near the ground, it acts as a greenhouse gas and a pollutant.

- v. **CFCs:** These are non-toxic chemicals, consisting of chlorine, fluorine and carbon atoms. CFCs destroy the ozone layer and trap heat in the lower parts of the atmosphere, thereby causing the warming of the Earth's surface.
2. The gradual rise in the temperature of the Earth is known as global warming. Following are some steps to control global warming:
- Careful use of electricity
 - Reducing the use of fossil fuels
 - Planting more and more trees
 - Using public transport in place of private ones

I am a thinker

Accept all relevant responses.

Holistic Box

A. English:

- Aloe vera is good for human skin and prevent wrinkles.
- Reshma threw the empty shoe box in the dustbin.

B. Maths: C: O, U

S: E, N, V, I, M, T

B: R

C. Social Studies: It results in global warming.

Students' Worksheets

Worksheet 1

- A. 1. glasshouse 2. Sun
3. greenhouse 4. warming
5. carbon dioxide
- B. 1. False 2. False 3. True
4. True 5. False
- C. 1. →c 2. →d 3. →e 4. →b 5. →a

Worksheet 2

- A. 1. global warming 2. rising
3. reduce 4. planting
5. public
- B. 1. TEMPERATURE 2. DROUGHT
3. FLOODS 4. ICE CAPS
5. ENVIRONMENT
- C. 1. False 2. True 3. True
4. False 5. False

- ii. **On hill slopes:** Cutting down the hill slopes into steps or terraces prevent soil erosion. This is because steps slow down the water flow, causing soil from one step to be left on the next step.
- iii. **On fields near rivers:** During monsoon, many rivers overflow and flood the fields. To prevent this, embankments are built along the rivers. The embankment holds the water between the river banks and prevents soil erosion.

I am a doer

Accept all relevant responses.

I am an all-rounder

A. English:

- I grew apple trees in my garden.
- Ben watered the plants on Saturday.

B. Maths: 6

C. **Social Studies:** It prevents soil erosion.

Students' Worksheets

Worksheet 1

- A. 1. uppermost 2. solid 3. erosion
4. human activities; natural forces
5. fertility
- B. 1. SOIL 2. ROCK
3. EROSION 4. VEGETATION
5. NATURAL FORCES
- C. 1. False 2. True 3. False
4. True 5. True

Worksheet 2

- A. 1. erosion 2. soil 3. erosion
4. top 5. soil
- B. 1. DESERT 2. FLOOD
3. HILL SLOPES 4. CULTIVATION
5. SOIL EROSION
- C. 1. False 2. True 3. True
4. False 5. True

Worksheet 3

- A. 1. Covered land prevents soil erosion.
2. We cannot hinder the natural forces.
3. Our responsibility is to prevent the soil erosion.
4. Soil conservation is the protection of soil against erosion.
5. Growing trees and afforestation are effective methods of soil conservation.

- B. 1. CREEPERS 2. PRESERVE
3. TERRACE 4. HARVESTING
5. AFFORESTATION
- C. 1. steps slow down the water flow
2. during monsoon many rivers overflow
3. embankments are built along the rivers
4. the winds blow off soil easily from the bare land
5. the farmers grow some cover crops such as creepers and grasses

Worksheet 4

- A. 1. afforestation 2. slopes
3. erosion 4. control
5. rivers
- B. 1. GRASSES 2. PLOUGHING
3. DEFORESTATION 4. OVERGRAZING
5. HUMAN ACTIVITIES
- C. 1. False 2. True 3. False
4. False 5. True

Teacher's Worksheets

Worksheet 1

- A. 1. soil 2. flood
3. Bihar 4. deforestation
- B. 1. formation 2. Flood
3. Chambal Valley 4. arid
5. Protection 6. afforestation
7. creepers 8. embankments

Worksheet 2

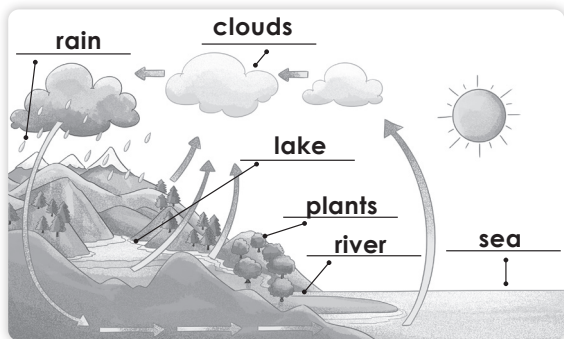
- A. 1. Natural 2. hold
3. erosion 4. embankments
- B. 1. To hold the soil and prevent it from being blown away.
2. The steps slow down the water flow, causing soil from one step to be left on the next step.
3. To hold the water between the river banks and to prevent soil erosion.

Theme 5: Living Across Ages

Chapter 9: Our Life Supports

Main Coursebook

I am ready



Icebreaker: car; bike

In-text Question

- No
- Yes

In-text Question

- False
- True

In-text Question

- Yes
- No

I am a learner

- A. 1. a 2. a 3. a 4. b 5. b
- B. 1. True 2. False 3. True
4. False 5. True
- C. 1. Troposphere, stratosphere, mesosphere, thermosphere and exosphere.
2. Nitrogen
3. In sedimentation, we allow the impurities to settle down at the bottom of container.
D. 1. The four properties of air are as follows:
i. Air has weight
Air has some weight, although this weight is comparatively less than that of liquids and solids.
ii. Air takes up space
Air occupies space. An inflated balloon appears bigger in size in comparison to a deflated balloon.
iii. Air exerts pressure
Since air has weight, it, therefore, exerts pressure. The air pressure at the mountains is comparatively less than the air pressure at sea level.
iv. Air exerts pressure in all directions.

- Insoluble impurities are the impurities that do not dissolve in water and can be seen. These impurities can be removed by the methods of sedimentation, and decantation and filtration.

Soluble impurities are impurities that dissolve in water and cannot be seen. These impurities can be removed by methods of evaporation and distillation.

I am a thinker

Accept all relevant responses.

I am an all-rounder

A. English:

- Rihan will get up early every day and drink a glass of lukewarm water.
- Rohan will go to a toy shop to fill air in his basketball.

B. Maths:

A: 2

W: 2

C. Social Studies: Hardeep Singh Puri

Students' Worksheets

Worksheet 1

- A. 1. different 2. oxygen
3. outermost 4. troposphere
5. ultraviolet (UV)
- B. 1. False 2. True 3. True
4. False 5. False
- C. 1. →e 2. →c 3. →a
4. →b 5. →d

Worksheet 2

- A. 1. pressure 2. inflated 3. 78 per cent
4. oxygen 5. Humidity
- B. 1. EXOSPHERE 2. MESOSPHERE
3. TROPOSPHERE 4. STRATOSPHERE
5. THERMOSPHERE
- C. 1. True 2. False 3. False
4. False 5. True

Worksheet 3

- A. 1. In filtration, we separate impurities from water by using filter paper. In this, the insoluble impurities collect on the filter paper while the water collects in beaker or container kept below the filter, as filtrate.
2. In decantation, we first allow the impurities to settle down at the bottom of container. Then, without disturbing the sediment that is present at the bottom of

the beaker, we drain the clean water on the top into another beaker.

3. In sedimentation, we allow the impurities to settle down at the bottom of container.
4. Soluble impurities are impurities that dissolve in water and cannot be seen.
5. Insoluble impurities are the impurities that do not dissolve in water and can be seen.

B. water; clean; rainwater; impure; purified

C. 1. No 2. Yes 3. Yes 4. Yes 5. Yes

Worksheet 4

A. Impure; clean; filtered; purified; three

- B. 1. FILTRATION 2. DISTILLATION
3. CHLORINATION 4. DECANTATION
5. SEDIMENTATION

C. 1. Yes 2. Yes 3. No 4. Yes 5. No

Teacher's Worksheets

Worksheet 1

1. a 2. b 3. d
4. b 5. b 6. d

Worksheet 2

1. Substances, such as dirt, impurities, certain living and dead things, dissolve in water and make it impure.
2. We need water for drinking, cooking, bathing, washing and various other activities. Plants also need water for survival.
3. In distillation, water (or any other liquid), mixed with impurities, is heated till it starts boiling. On boiling, the water evaporates and water vapours enter a condenser. In the condenser, water vapour changes into liquid again and collect in a flask (receiving flask) as distillate.
4. Air is a mixture of different gases. Clean air consists of nearly 78 per cent nitrogen, 21 per cent oxygen and less than 1 per cent of argon, carbon dioxide and other gases. Air also contains dust, smoke and water vapour.
5. i. Nitrogen: Plants get nitrogen from the soil with the help of bacteria.
ii. Oxygen: It is used for breathing and burning.
iii. Carbon dioxide: Plants use this gas to make their own food.
iv. Water vapour: It forms clouds and then condenses to fall as snow.

Theme 6: Living Together

Chapter 10: Safety and First Aid

Main Coursebook

I am ready



Icebreaker: weight loss

In-text Question

1. true 2. false

In-text Question

1. Yes 2. No

I am a learner

- A. 1. a 2. b 3. c 4. a 5. b
B. 1. True 2. True 3. False
4. False 5. True
C. 1. A fracture is a crack or breaks in a bone.
2. Different types of injuries often affect different body regions. Therefore, each body region usually requires different first aid.
3. Tourniquet is a piece of cloth tied around a wound or an arm or leg.
D. 1. A sprain is a torn tissue around a joint. A fracture is a crack or breaks in a bone. For a sprain, one should apply an ice pack or ice cube till the swelling subsides. For fracture, one should avoid unnecessary movement at the affected region.
2. In case of minor burns, one should apply antiseptic lotion or cream to avoid infection. In case of severe burns, one should cover burns that may form blisters. In case of chemical burns, one should use plenty of water to rinse off the chemical.

I am a doer

Accept all relevant responses.

I am an all-rounder

A. English

1. an 2. a

B. **Maths:** $16.2 \times 100 = 1620$ km

C. **Social Studies:** Yes; one should rinse off the chemical immediately using the plenty of water.

Students' Worksheets

Worksheet 1

- A. 1. everyone 2. safety rules
3. stay calm 4. germs
5. first aid
- B. 1. CUTS 2. INJURED
3. ANTISEPTIC 4. SCRATCHES
5. EMERGENCIES
- C. 1. True 2. False 3. True
4. False 5. True

Worksheet 2

- A. 1. upright 2. doctor 3. breathe
4. sprain 5. cream
- B. 1. PATIENT 2. TETANUS 3. COTTON
4. INJECTION 5. BANDAGE
- C. 1. False 2. False 3. False
4. True 5. True

Worksheet 3

- A. 1. Apply ice cubes to the sprained region.
2. A sling can be made from a piece of cloth.
3. Minor burns are painful and need urgent treatment.
4. Dip a sterile cloth in baking soda solution and use it as a wet compress.
5. One can suffer from burns from hot objects, such as boiling water, fire and so on.
- B. 1. FLARE 2. VICTIM 3. POISON
4. BLISTERS 5. COMPRESS
- C. 1. consult the doctor
2. minor burns are painful
3. apply baking soda to burns
4. one can suffer from hot objects
5. avoid using water for fire caused by petrol

Worksheet 4

- A. In case of minor burns, one should apply antiseptic lotion or cream to avoid infection.
In case of severe burns, one should cover burns that may form blisters.
In case of chemical burns, one should use plenty of water to rinse off the chemical.
- B. 4, 5
- C. 1. should 2. should not
3. should 4. should
5. should not

Teacher's Worksheets

Worksheet 1

- A. 1. c 2. c 3. b
B. 1. F 2. F 3. T
4. F 5. T

Worksheet 2

- A. 1. Minor burns are painful, yet can be treated at home. One should keep the burned area under running and cold water till pain subsides. Apply an antiseptic lotion or cream to avoid infection. One can also apply baking soda and water instead of antiseptic lotion.
2. A fracture is a crack or break in a bone. For this, one can use a splint and avoid unnecessary movement at the affected region.
We can make splints from newspaper folds, cardboard or pillows to support the fractured region. A sling, made from a piece of cloth, can also be used.
3. Avoid using water if the petrol caught fire, as petrol will float on water which will increase the flare.
4. Remove clothing from the affected area. Use plenty of water to rinse off the chemical. Cover the area with sterile cotton or cloth and consult the doctor.
5. A fracture is a crack or break in a bone. For this, one can use a splint and avoid unnecessary movement at the affected region.
We can make splints from newspaper folds, cardboard or pillows to support the fractured region. A sling, made from a piece of cloth, can also be used.
6. Snake bite injects poison into the body of the victim. This causes a lot of pain and swelling. One should treat the victim immediately otherwise the poison can kill the victim. Apply a tourniquet just above the bite to stop the blood flow to the heart and slow down the spreading of poison. Immediately take the victim to the nearby hospital or a doctor.

Worksheet 4

- A. 1. reversible 2. heating
3. ash 4. temporary
5. dissolve
- B. 4, 5
- C. 2, 3, 4

Teacher's Worksheets

Worksheet 1

- A. 1. matter 2. permanent
3. miscible liquids 4. insoluble impurities
5. state of matter
- B. 1. F 2. F 3. T
4. F 5. F

C. chemical changes

Chemical change indicates a permanent change in a substance.

In a chemical change, a completely new substance forms

We cannot get back the old substance.

For example, heating the wood over fire changes it into ash. The molecules of wood are different from molecules of ash.

physical changes

Physical change is the change that indicates the change in the state of matter.

These changes are reversible and temporary.

We can get back the original state.

For example, on heating, solid wax turns into liquid wax. However, on cooling, the liquid wax turns into solid wax.

Worksheet 2

1. Accept all relevant answers.
2. A solute is a substance that dissolves, whereas a solvent is a substance in which the solute dissolves. For example, mixing salt in water forms a solution. In this mixture, salt is the solute and water is the solvent.

3. A solution forms when two or more substances mix together. A solution consists of a solute and a solvent.
4. A chemical change indicates a permanent change in a substance. In a chemical change, a completely new substance forms, and we cannot get back the old substance.

For example, heating the wood over fire changes it into ash. The molecules of wood are different from molecules of ash. This change is irreversible.

Revision Worksheet

- A. 1. c 2. b 3. c
- B. 1. filter paper
2. UV or ultraviolet
3. blisters
- C. 1. False 2. True 3. True
- D. 1. Exhale
2. Anti-tetanus injection
3. Soil Erosion
- E. 1. 1. CFCs (chlorofluorocarbons) are non-toxic chemicals, consisting of chlorine, fluorine and carbon atoms. CFCs destroy the ozone layer and trap heat in the lower parts of the atmosphere, thereby causing the warming of the Earth's surface.
2. Keep the patient upright in such cases with their head held back. Press the bleeding side firmly and keep an ice pack or wet cloth on the nose and head of the patient. Ask the patient to breathe through the mouth. In case of heavy bleeding, consult the doctor.
3. In a particular area, roots of plants and trees hold the soil. Cutting down trees causes soil to become loose and makes it possible for the soil to be easily carried away. Also, ploughing of hill slopes and overgrazing causes soil erosion.