

Grade-5 EVS (Mastermind)

Chapter 1: Water – The Essence of Life

NCERT Corner

Discuss

Q1. Do you think we can drink the water present in the oceans?

Ans. No, ocean water is salty and is not fit for drinking.

Q2. What can ocean water be used for?

Ans. Ocean water can be used for transportation, fishing, producing salt, and generating electricity.

Q3. On the basis of Activity 6 with mustard seeds, discuss how some rivers flow towards the Arabian Sea while some flow towards the Bay of Bengal.

Ans. Rivers flow from higher land to lower land. Depending on the slope of the land, some rivers flow westwards into the Arabian Sea while others flow eastwards into the Bay of Bengal.

Let Us Reflect

Q1. Match the Following

Column A	Column B
(i) Ocean water	(c) Not fit for drinking
(ii) Snow	(a) Solid form of water
(iii) Steam	(b) Vapour form of water
(iv) Rainwater	(d) Freshwater

Q2. Why do you think most of the water on Earth cannot be used for drinking or farming?

Ans. Most of the water on Earth is present in oceans and is salty. A large amount of freshwater is locked in glaciers and ice caps. Therefore, only a small amount is available for drinking and farming.

Q3. Large number of living beings live near water bodies. Why?

Ans. Living beings need water for drinking, cooking, farming, and survival. Therefore, many plants, animals, and humans live near water bodies.

Q4. What would happen if it did not rain in your region for two years?

Ans. There would be a severe water shortage. Rivers, ponds, and wells would dry up. Farming would suffer, and people and animals would face difficulties.

Q5. What do you think happens to rainwater in a forest compared to a city?

Ans. In forests, rainwater seeps into the soil and recharges groundwater. In cities, much rainwater flows into drains because of roads and buildings.

Q6. Can you design a house or school that conserves water wisely? What would it include?

Ans. Yes. It would include:

- Rainwater harvesting system
 - Water storage tanks
 - Leak-proof taps and pipes
 - Reuse of water for gardening
 - Water-saving taps
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Practice Zone

A. Tick (✓) the correct one

1. What percentage of Earth's water is fresh water?

Ans. (a) 3%

2. Which river is a snow-fed river?

Ans. (c) Yamuna

3. What is the purest form of natural water?

Ans. (c) Rain water

4. Which of the following is a method to extract underground water?

Ans. (c) Tubewell

5. What is rainwater harvesting?

Ans. (b) Collecting rainwater for future use

B. Fill in the blanks

1. Water which is locked in **glaciers** and ice caps also cannot be used.

2. **Evaporation** is the process by which water changes into vapour.

3. The gaseous form of water is called **water vapour**.

4. Animals like **fish** and **frog** are found in fresh water.

5. Plants that grow under water are called **aquatic plants**.

C. Write True or False

1. Salt water can be used directly for drinking.

False

2. Water birds like geese and flamingos live in or around water.

True

3. Hand pumps require electricity to function.

False

4. Water exists in three states: solid, liquid, and gas.

True

D. Answer the following questions

1. What is groundwater? Name a few sources of groundwater.

Ans. Groundwater is water stored beneath the Earth's surface in soil and rocks. Sources of groundwater are:

- Wells
 - Hand pumps
 - Tubewells
-

2. Explain the three states of water—solid, liquid, and gas. Give examples of each state and describe how water changes from one state to another.

Ans.

- **Solid state:** Ice and snow.
- **Liquid state:** River water, lake water, and rainwater.
- **Gaseous state:** Water vapour or steam.

Water changes:

- Liquid to gas by **evaporation**.
 - Gas to liquid by **condensation**.
 - Liquid to solid by **freezing**.
 - Solid to liquid by **melting**.
-

3. How can we conserve water?

Ans.

- Repair leaking taps and pipes.
 - Use water carefully.
 - Harvest rainwater.
 - Reuse water for gardening and cleaning.
 - Avoid wasting water.
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4. How does water reach our home? Write the various steps.

Ans.

1. Water is collected from rivers, lakes, or reservoirs.
 2. It is cleaned and purified in a water treatment plant.
 3. The purified water is stored in tanks.
 4. It is supplied through pipelines.
 5. Water reaches our homes through taps.
-

5. What is the water cycle?

Ans.

The water cycle is the continuous movement of water between the Earth and the atmosphere through evaporation, condensation, and precipitation.

E. Observe and Answer

1. What kind of water is stored in this glacier?

Ans. Freshwater in the form of ice is stored in the glacier.

2. How does this water help rivers flow?

Ans. When glaciers melt, the water flows down the mountains and feeds rivers throughout the year.

G. HOTS (Higher Order Thinking Skills)

Q. Which property of water is advantageous, but to some extent becomes disadvantageous. What harms are being caused by this?

Ans.

The property of water that is advantageous is its **ability to flow from higher areas to lower areas**.

This property is useful because:

- It helps rivers flow.
- It supplies water to fields and settlements.

- It supports transportation and irrigation.

However, when water flows excessively during heavy rainfall, it can become disadvantageous and cause:

- Floods
- Soil erosion
- Damage to crops
- Destruction of houses and roads
- Loss of human and animal life

Therefore, although the flowing nature of water is beneficial, uncontrolled flow can cause serious harm.

H. Case-Based Question

1. Name the sources of water Anita uses in her town.

Ans. River water, wells, hand pumps, and harvested rainwater.

2. Why is rainwater harvesting important in Anita's town, especially during summer?

Ans. It stores water for future use and helps meet water needs when river water levels decrease during summer.

3. Anita sees many plants and animals in the river. How does water help them survive?

Ans. Water provides habitat, food, and the water needed for life processes, helping plants and animals survive.

I. Assertion–Reason Questions

1.

Assertion (A): Underground water is safe for drinking.

Reason (R): Rainwater seeps through soil and rocks, which filters impurities naturally.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

2.

Assertion (A): Traditional water conservation methods are still important today.

Reason (R): Baolis, johads, and kunds store water efficiently for dry seasons.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

3.

Assertion (A): Sea water cannot be used for drinking or farming.

Reason (R): Sea water contains high levels of salt, making it unsuitable for consumption and irrigation.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

Skill Booster Zone

Your village has only one well. Suggest 3 practical steps to ensure water is used wisely and does not run out.

Ans.

1. Repair leaking taps and pipes immediately.
2. Collect and store rainwater through rainwater harvesting.
3. Use water carefully and avoid wastage.

How would you convince your community to save water and avoid wastage?

Ans. I would organize awareness campaigns, explain the importance of water, encourage rainwater harvesting, and request everyone to use water responsibly so that future generations also have enough water.

Chapter 2: Journey of a River

NCERT Corner

Write

Q1. What problems can arise after a dam is built? How can they be solved?

Ans. Building a dam may submerge forests and villages, displace people, and affect wildlife. These problems can be solved by proper rehabilitation of affected people, planting more trees, and protecting wildlife habitats.

Q2. Where do the plastic wrappers and bags that we litter end up?

Ans. Plastic wrappers and bags often end up in drains, rivers, lakes, and oceans, causing pollution.

Q3. What kinds of soaps, shampoos or floor cleaners are used in your home? Where does the unclean water mixed with these cleaners go?

Ans. Eco-friendly soaps, shampoos, and floor cleaners are used at home. The wastewater goes into drains and then to sewage treatment plants or nearby water bodies.

Q4. Can you list three things you can do to protect the water bodies near you?

(a) Do not throw garbage into rivers or ponds.

(b) Reduce the use of plastic.

(c) Participate in cleanliness drives and plant trees near water bodies.

Discuss

Q. Ask your parents or elders about the condition of water bodies near your home when they were your age. What is the status of those water bodies today?

Ans. Earlier, water bodies were cleaner and had more water. Today, many have become polluted due to waste disposal and urbanization, though some are being restored through conservation efforts.

Let Us Reflect

Q1. Find out which river(s) flow through your state.

(a) What are they used for?

Ans. Rivers are used for drinking water, irrigation, fishing, transportation, and generating electricity.

(b) Are there any dams on them?

Ans. Yes, many rivers have dams built on them for irrigation, water storage, and hydroelectric power generation.

Q2. Ask your grandparents or parents to share any story or festival related to rivers in your region.

Ans. Festivals such as **Kumbh Mela**, **Chhath Puja**, and river worship ceremonies are celebrated near rivers. (Answers may vary by region.)

Q3. Ask an elder in your family:

(a) What was the condition of rivers when you were a child?

Ans. Rivers were cleaner, had more water, and supported more fish and wildlife.

(b) What has changed since then?

Ans. Pollution has increased, water levels have decreased in some rivers, and urbanization has affected river ecosystems.

Q4. Why do you think people built houses and cities near rivers in the past? Are rivers still important today in the same way?

Ans. People built settlements near rivers because rivers provided water, fertile soil, food, and transport. Rivers are still important today as they provide water, irrigation, electricity, and support industries.

Q5. If you could create one new rule to protect rivers in your city or village, what would it be?

Ans. No person or industry should dump waste or untreated sewage into rivers.

Q6. Think about a time when you wasted water. What could you have done differently?

Ans. I once left a tap running while brushing my teeth. I could have turned off the tap and used water only when needed.

Q7. Can you design a simple water filter using everyday materials? What would it include and why?

Ans. A simple filter can include:

- Cotton
- Sand
- Gravel
- Charcoal

These materials help remove dirt and impurities from water.

Q8. Imagine you are planning a new city near a river.

(a) Keep the river clean.

Ans. Build sewage treatment plants and prevent dumping of waste.

(b) Prevent floods during heavy rains.

Ans. Construct proper drainage systems and plant trees along riverbanks.

(c) Ensure there is always enough water for everyone, even during summers.

Ans. Promote rainwater harvesting and conserve water.

Practice Zone

A. Tick (✓) the correct one

1. Which river is known as the "Dakshina Ganga"?

Ans. (b) Godavari

2. Which river forms a delta before joining the sea?

Ans. (b) Godavari

3. Which of the following is a perennial river?

Ans. (a) Godavari

4. What is the mouth of a river?

Ans. (b) Its endpoint where it joins a sea or lake

5. Which is a famous festival celebrated on the Godavari river?

Ans. (b) Godavari Pushkaram

B. Fill in the blanks

1. The Godavari River originates from the **Brahmagiri Hills** near Trimbakeshwar in Maharashtra.

2. Smaller rivers that join a big river are called **tributaries**.

3. The Godavari forms a **delta** before joining the Bay of Bengal.

4. A dam built across a river helps in **storing** water.

5. Coringa Mangrove Forests, located in the **Coringa** district region of Andhra Pradesh. *(As per textbook answer key)*

C. Write True or False

1. Rivers are a source of water for drinking, irrigation, and industry.

True

2. Seasonal rivers flow throughout the year.

False

3. The Godavari originates from Brahmagiri Hills in Maharashtra.

True

4. We should use eco-friendly products to save environment.

True

5. Rivers do not support wildlife or plants along their course.

False

D. Answer the following questions

1. Name the states through which the Godavari River flows.

Ans. The Godavari River flows through **Maharashtra, Telangana, Andhra Pradesh, and Odisha** before reaching the Bay of Bengal.

2. What are the three stages of a river's journey?

Ans.

1. Upper Course
 2. Middle Course
 3. Lower Course
-

3. Why is the Godavari River important for humans, animals, and plants?

Ans. The Godavari provides water for drinking, irrigation, fishing, transportation, and industry. It supports forests, wildlife, birds, animals, and plants along its course.

4. Name some tributaries of the Godavari River.

Ans.

- Pranahita
 - Sabari
 - Indravati
 - Purna
 - Manjira
 - Pravara
 - Wainganga
-

5. What is a delta and where is the Godavari delta located?

Ans. A delta is a landform formed by the deposition of sediments at the mouth of a river. The Godavari Delta is located in **Andhra Pradesh** near the **Coringa Mangrove Forests**.

E. Observe and Answer

1. What differences do you see between the clean side and the polluted side of the river?

Ans. The clean side has clear water and no garbage, while the polluted side contains waste, plastics, and dirty water.

2. How do you think pollution affects the animals and plants living in the river?

Ans. Pollution harms aquatic plants and animals, reduces oxygen in water, and may cause diseases and death.

3. What can people do to keep rivers clean?

Ans.

- Avoid dumping garbage.
 - Reduce plastic use.
 - Treat sewage before discharge.
 - Participate in river-cleaning drives.
-

H. Case-Based Question

1. Why do the villagers plant trees along the riverbanks?

Ans. They plant trees to prevent soil erosion and protect riverbanks.

2. How do the villagers use the Godavari River in their daily lives?

Ans. They use the river for drinking water, irrigation, fishing, and other daily activities.

3. What could happen if the villagers threw garbage or plastic into the river?

Ans. The river would become polluted, harming aquatic life and making the water unsafe for use.

I. Assertion–Reason Questions

1.

Assertion (A): Perennial rivers flow throughout the year.

Reason (R): They are fed by rainfall, melting snow, or underground springs.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

2.

Assertion (A): Dams always harm the environment.

Reason (R): Dams flood land, displace people, and affect wildlife.

Ans. (d) (A) is false, but (R) is true.

3.

Assertion (A): Rivers support cultural festivals in India.

Reason (R): People celebrate festivals like Godavari Pushkaram and Kumbh Mela along rivers.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

Skill Booster Zone

A village depends on a river for water, but the river is drying up. Suggest ways the villagers can save water and ensure everyone has enough.

Ans.

1. Practice rainwater harvesting.
2. Use water carefully and avoid wastage.
3. Repair leaking taps and pipes.
4. Reuse water where possible.

5. Plant trees and protect water sources.
 6. Keep the river free from pollution.
-

Subject Connect

Q. A river near your city supplies 2,000 litres of water every day to a village. If there are 50 families in the village, how much water does each family get per day? What will be the total amount of water used by the village in 1 week?

Ans.

Water per family per day = $2000 \div 50$
= **40 litres**

Water used by village in 1 week = 2000×7
= **14,000 litres**

Answer:

- Each family gets **40 litres per day**.
- The village uses **14,000 litres in one week**.

Chapter 3: The Mystery of Food

NCERT Corner

Write

Q1. Why do you think food gets spoiled?

Ans. Food gets spoiled due to the growth of microbes such as bacteria and fungi. Heat, moisture, and improper storage also cause food spoilage.

Q2. What other things are dried so that they remain unspoilt throughout the year?

Ans.

- Chillies
- Papads
- Raisins

- Dry fruits
 - Fish
-

Q3. Name three seasonal fruits or vegetables of your region.

Ans.

- Mango (Summer)
 - Amla (Winter)
 - Peas (Winter)
-

Q4. How can you avoid choking?

Ans.

- Eat slowly.
 - Chew food properly.
 - Do not talk or laugh while eating.
 - Take small bites of food.
-

Discuss

Q. What would happen to this pickle if no oil had been added?

Ans. Without oil, microbes would grow on the pickle and it would spoil quickly.

Let Us Reflect

Q1. Why do some food items last for weeks and others spoil in just a few days?

Ans. Food items that contain more moisture spoil faster, while preserved foods last longer because microbes cannot grow easily in them.

Q2. You are going on a field trip for two days. List five food items you will carry. How will you keep them from getting spoiled?

Ans.

Food items:

1. Biscuits
2. Dry fruits
3. Bread
4. Fruits (apple, orange)
5. Roasted peanuts

To keep them safe:

- Store them in airtight containers.
- Keep them dry and covered.
- Avoid direct sunlight.

Q3. What if food cannot be preserved? Imagine a world without food preservation and discuss the consequences.

Ans. Without food preservation, food would spoil very quickly. There would be food shortages, wastage of food, difficulty in transportation, and lack of food during emergencies.

Q4. Match the Following

Item (A)	Method of Preservation	Product (B)
Roti	Dehydration	Khakhra
Papad	Dried in sun	Dried papads
Mango	Sun drying	Aam papad
Lemon	Pickling	Lemon pickle

Item (A)	Method of Preservation	Product (B)
Butter	Heating	Ghee
Juice	Canning	Canned juice
Chillies	Drying and grinding	Chilli powder
Fish	Drying	Dried fish

Practice Zone

A. Tick (✓) the correct one

1. What is the main cause of food spoilage?
Ans. (b) Microbes
 2. Which method is used to preserve milk?
Ans. (b) Pasteurisation
 3. Which food item is preserved using vinegar and oil?
Ans. (c) Pickles
 4. What do canines help us do?
Ans. (c) Tear food
 5. Which of the following is a good hygiene practice?
Ans. (b) Washing hands before eating
-

B. Fill in the blanks

1. **Sunlight** helps remove moisture from food during sun-drying.
 2. **Sugar and salt** are used to preserve fruit juices and jams.
 3. Food can spoil quickly in the presence of **moisture** and heat.
 4. The process of heating and cooling milk to kill germs is called **pasteurisation**.
 5. Eat **slowly** and **chew** your food properly before swallowing.
-

C. Write True or False

1. Microbes are always harmful and spoil all food.

False

2. Curd is made using good microbes.

True

3. Eating unwashed fruits is a good hygiene habit.

False

4. Storing food in the fridge helps keep it fresh longer.

True

5. It is safe to talk or laugh while eating as long as you chew properly.

False

D. Name any two food items that can be preserved by:

1. Salting

Ans.

- Fish
- Raw mango

2. Refrigerating

Ans.

- Milk
- Cooked vegetables

3. Freezing

Ans.

- Peas
- Ice cream

4. Packing

Ans.

- Biscuits

- Chips

5. Canning

Ans.

- Fruit juice
 - Pineapple
-

E. Answer the following questions

1. Why do we need to preserve food?

Ans. We preserve food to prevent spoilage, reduce wastage, store food for longer periods, and make it available when needed.

2. Raw mangoes can be preserved by pickling and salting. How are these methods different?

Ans.

- **Pickling** uses oil, salt, and spices to preserve food.
 - **Salting** uses only salt to remove moisture and prevent microbial growth.
-

3. How will you judge whether the food is spoiled or not?

Ans. Spoiled food may have:

- Bad smell
 - Change in colour
 - Sour taste
 - Fungal growth
 - Sticky texture
-

4. Write four ways by which we can preserve food. Describe any two of them.

Ans.

Methods:

1. Drying
2. Refrigeration
3. Pickling
4. Canning

Drying: Moisture is removed from food to prevent microbial growth.

Refrigeration: Food is kept at low temperatures to slow down the growth of microbes.

5. What will happen if we consume spoiled food?

Ans. Eating spoiled food may cause food poisoning, stomach ache, vomiting, diarrhoea, and other illnesses.

6. Write about the different types of teeth and their functions.

Ans.

Type of Teeth	Function
Incisors	Cut food
Canines	Tear food
Premolars	Crush food
Molars	Grind and chew food

F. Observe and Answer

1. Which pan contains healthy food?

Ans. The pan containing fruits, vegetables, and nutritious food contains healthy food.

2. Is the girl opting for healthy food?

Ans. No, the girl appears to be choosing junk food instead of healthy food.

3. Which would be your choice? Give reasons.

Ans. I would choose healthy food because it provides nutrients, keeps the body strong, and helps us stay healthy.

H. HOTS

Q. Have you ever noticed that if the box of biscuits is not properly locked, the taste of the biscuits gets changed? Can you give the reason behind it? Do you think they should be eaten or not?

Ans. Yes. When the biscuit box is left open, moisture from the air enters it. The biscuits become soft and lose their crispness. If they show signs of spoilage or contamination, they should not be eaten.

I. Case-Based Question

1. Why did Riya feel stomach discomfort after eating the apple?

Ans. She ate an unwashed apple that may have contained dirt and harmful microbes.

2. What practices should Riya follow to keep food safe and healthy?

Ans.

- Wash fruits and vegetables properly.
 - Chew food well.
 - Store leftovers in the refrigerator.
 - Wash hands before eating.
-

3. Name one type of microbe that helps in digestion and one that spoils food.

Ans.

- Helpful microbe: **Lactobacillus** (found in curd)

- Harmful microbe: **Fungus/Mould**
-

J. Assertion–Reason Questions

1.

Assertion (A): Food should be chewed properly before swallowing.

Reason (R): Chewing breaks food into smaller pieces and mixes it with saliva, helping digestion.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

2.

Assertion (A): Refrigeration prevents food from spoiling quickly.

Reason (R): Cold temperatures slow down the growth of harmful microbes in food.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

3.

Assertion (A): Some microbes in food are harmful.

Reason (R): Harmful microbes can cause diseases like dysentery, cold, and malaria.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

Skill Booster Zone

After attending a dinner party, several members of your family started feeling unwell. What could be the possible reason behind it?

Correct Option: 1. The food might have been spoiled or contaminated.

Let's Talk About

What can we do to reduce food waste at home or school?

Ans.

- Save leftovers properly.
 - Take only as much food as needed.
 - Store food correctly.
 - Share extra food with others.
 - Avoid wasting edible food.
-

Activity Object Hunt (Observation)

Ans. After a few days, green or black mould appears on the bread. The bread develops a bad smell and becomes unsuitable for eating. This shows that microbes grow rapidly in warm and moist conditions and cause food spoilage.

Chapter 4: Our School – A Happy Place

NCERT Corner

Write

Q1. What do I really like about my school?

Ans. I like my school's friendly teachers, clean environment, playground, library, and helpful classmates.

Q2. How can I make my school greener?

Ans. I can plant trees, save water, reduce waste, recycle materials, and keep the school clean.

Q3. In case there is any difficulty at school, whom do I talk to or inform?

Ans. I should talk to my class teacher, school counsellor, or the principal.

Q4. Can you name the colour of the bin used for the following?

Dry Waste: Blue Bin

Wet Waste: Green Bin

Q5. What things does your school give to recyclers?

Ans. Old newspapers, notebooks, cardboard, plastic bottles, and waste paper.

Q6. Ask your parents and find out if there are any items that they had set aside to give to the recyclers. What are they?

Ans. Old newspapers, magazines, plastic bottles, cardboard boxes, and metal cans.

Q7. If you have to paint the roof of your school or home white, what would happen?

Ans. The white roof would reflect sunlight and keep the building cooler.

Q8. Name the trees on your campus or near your school.

Ans. Neem, Peepal, Banyan, Ashoka, and Mango trees.

Q9. Which birds and insects have you seen near the plants or trees on your school campus?

Ans. Sparrows, pigeons, crows, butterflies, bees, ants, and dragonflies.

Q10. Find out and write at least three traffic rules.

Ans.

1. Obey traffic signals.
 2. Use zebra crossings while crossing roads.
 3. Wear helmets and seat belts.
-

Q11. Think and write about what you saw at the school gate.

Ans. I saw students entering the school, security guards, school buses, parents dropping children, and traffic signs.

Q12. Where is the fire extinguisher kept in your school?

Ans. The fire extinguisher is kept near classrooms, corridors, laboratories, and the school office.

Q13. In case of a fire, where is the assembly point in your school?

Ans. The assembly point is usually the school playground or open ground.

Q14. What should you do if there is a fire or if you smell smoke?

Ans. Inform a teacher immediately, stay calm, move to the assembly point, and follow safety instructions.

Discuss

Q1. What happens if we do not separate our waste?

Ans. Recycling becomes difficult, pollution increases, and waste management becomes less effective.

Q2. What can we do to make the work of sanitation workers easier and safer?

Ans.

- Separate dry and wet waste.
 - Use dustbins properly.
 - Avoid littering.
 - Treat sanitation workers with respect.
-

Q3. If your area is getting warmer, what actions can be taken to keep it cool?

Ans.

- Plant more trees.
- Create green spaces.
- Paint roofs white.

- Save energy.
-

Q4. What are some easy things we can do in our school to prevent the wastage of water?

Ans.

- Turn off taps properly.
 - Repair leaking taps.
 - Use water carefully.
 - Report water wastage.
-

Q5. How can you collect and use rainwater at home or in school?

Ans. Rainwater can be collected through rainwater harvesting systems and used for gardening, cleaning, and watering plants.

Q6. Besides making signboards, what else can we do to improve traffic near the school?

Ans. Follow traffic rules, use zebra crossings, maintain discipline, and cooperate with traffic police.

Find Out

Q1. Ask a recycler to visit your class and share what they do.

Ans. Recyclers collect waste materials such as paper, plastic, glass, and metal. These materials are processed and reused to make new products.

Q2. What are some easy things we can do in our school to prevent the wastage of water?

Ans.

- Close taps properly.

- Repair leaks.
 - Use water wisely.
 - Spread awareness about water conservation.
-

Q3. How can you collect and use rainwater at home or in school?

Ans. By installing rainwater harvesting systems. The collected water can be used for gardening and cleaning purposes.

Let Us Reflect

Q1. Out of all the classrooms in your school, which one do you think is the nicest and why?

Ans. My classroom is the nicest because it is clean, well-ventilated, bright, and decorated with educational charts.

Q2. Create a happiness tree.

Ans. Leaves can contain actions such as:

- Helping friends
 - Greeting others
 - Sharing things
 - Saving water
 - Keeping the school clean
-

Q3. Write a letter to your teacher on "My School – My Happy Place".

Ans.

Dear Teacher,

My school is my happy place. I enjoy learning new things here every day. The teachers are caring and helpful. I have many friends, and we learn and play

together. Our school is clean, green, and safe. I feel proud to be a student of this school.

Thank you.

Yours sincerely,
ABC

Q4. Which actions would you extend to your home, neighbourhood and community to make it a happy place for all?

Ans. I would keep the surroundings clean, save water and electricity, plant trees, help others, and follow good manners.

Q5. Imagine a day in school from a sanitation worker's perspective.

Ans. A sanitation worker starts the day by cleaning classrooms and school grounds. They work hard to keep the school clean and healthy. They feel happy when students use dustbins properly and respect their work.

Q6. As principal for a day, what three changes would you make to enhance happiness, safety and greenery in your school?

Ans.

1. Plant more trees and flowers.
 2. Organize safety awareness programs.
 3. Start cleanliness and recycling drives.
-

Q7. Role Play Reflection

Ans. The role-play showed kindness, teamwork, and problem-solving. These actions can be followed in real life to make the school a better place.

Q8. One-minute Speech on "My Dream School"

Ans.

Good morning everyone.

My dream school is clean, green, safe, and full of happiness. It has beautiful gardens, smart classrooms, a large library, and playgrounds. Teachers are kind and supportive. Students respect each other and care for the environment. Everyone works together to save water, electricity, and keep the school clean. Such a school helps every child learn and grow happily.

Thank you.

Q9. Survey Findings

(a) Students feel happy because of friends, games, and supportive teachers.

(b) Better playground facilities and more plants can improve the school.

(c) Students observed acts of kindness such as helping classmates and sharing materials.

What did you learn?

I learned that kindness, cooperation, and cleanliness make school a happier place.

Practice Zone

A. Tick (✓) the correct one

1. What helps keep classrooms naturally cooler?
(c) White paint on roofs
 2. Which group checks for leaking taps and dripping pipes?
(c) Water Watchers
 3. What helps in reducing electricity use?
(b) Using natural sunlight
 4. What is used to enrich soil in gardens?
(b) Compost
 5. What promotes a positive school environment?
(b) Being polite and helpful
-

B. Fill in the blanks

1. Green Guardians plant and take care of **trees** and **flowers** in the school garden.
 2. They encourage the use of **recycled** or **organic** materials in gardening.
 3. Electricity Savers suggest naturally bright areas of the school as **reading or study** zones.
 4. Waste Warriors reuse materials like old **notebooks**, plastic containers, and charts.
 5. Working together during cleanliness drives helps keep the school **healthy, safe**, and beautiful.
-

C. Write True or False

1. Electricity Savers help monitor water leaks.
False
 2. Composting helps in reducing waste.
True
 3. Leaving taps dripping saves water.
False
 4. Respectful behavior makes the school a better place.
True
 5. Turning off unused devices saves electricity.
True
-

D. Answer the following questions

1. Why is it important to keep our school clean and green?

Ans. A clean and green school keeps everyone healthy, creates a pleasant environment, and improves learning.

2. How does planting trees help in keeping classrooms cool?

Ans. Trees provide shade and reduce heat, making classrooms cooler.

3. What role do Waste Warriors play in the school?

Ans. Waste Warriors encourage waste segregation, recycling, reuse of materials, and cleanliness.

4. List four green practices that students can follow in school. Describe any two of them.

Ans.

Green practices:

1. Planting trees
2. Saving water
3. Recycling waste
4. Saving electricity

Saving water: Turn off taps properly and report leaks.

Saving electricity: Switch off lights and fans when not in use.

5. How does saving electricity help both the school and the environment?

Ans. It reduces energy consumption, lowers costs, and helps protect natural resources.

6. Why is respectful behavior important in a school setting?

Ans. Respectful behavior promotes friendship, cooperation, safety, and a positive learning environment.

E. Observe and Answer

1. What does this picture show?

Ans. The picture shows cutting down of trees (deforestation).

2. How does this harm our environment?

Ans. It increases pollution, causes soil erosion, and reduces wildlife habitats.

3. Why are trees important?

Ans. Trees provide oxygen, shade, food, shelter, and help maintain ecological balance.

G. HOTS

Paper is made from the cutting of trees. Think of three ways by which the use or waste of paper can be reduced.

Ans.

1. Use both sides of paper.
 2. Recycle old paper.
 3. Use digital notes whenever possible.
-

H. Case-Based Question

1. Which group helped fix the dripping tap?

Ans. Water Watchers.

2. How did the classroom become cooler?

Ans. The Electricity Savers switched off the fan when not needed and ensured proper management of resources.

3. What did the students do to keep the classroom clean?

Ans. They collected scattered papers and organized the classroom properly.

I. Assertion–Reason Questions

1.

Assertion (A): Turning off lights and fans when not in use helps save electricity.

Reason (R): Using less electricity reduces energy waste and protects the environment.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

2.

Assertion (A): Waste Warriors encourage students to separate dry and wet waste.

Reason (R): Mixing all waste together makes recycling and composting easier.

Ans. (c) (A) is true, but (R) is false.

3.

Assertion (A): Painting school rooftops white helps keep classrooms cool.

Reason (R): White surfaces reflect sunlight and reduce heat absorption.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

Skill Booster Zone – Life Skills

Q. What steps can you take to promote recycling in your school? Write any three ways to reuse or recycle waste materials at home or school.

Ans.

Steps to promote recycling:

- Use separate bins for dry and wet waste.
- Spread awareness about recycling.
- Encourage reuse of materials.

Three ways to reuse/recycle waste:

1. Make paper bags from old newspapers.
2. Use plastic bottles as plant pots.
3. Recycle old notebooks by using blank pages.

Subject Connect

How I Can Care for Trees at Home

Ans.

I can care for trees by watering them regularly, adding compost to the soil, protecting them from damage, and keeping the area around them clean. Trees provide us with fresh air, shade, and many other benefits, so we should take good care of them.

Chapter 5: Our Vibrant Country

NCERT Corner

Write

Q1. What special events or activities take place at your school on the occasion of Republic Day?

Ans. Flag hoisting, National Anthem singing, cultural programs, speeches, patriotic songs, and parade activities take place in my school.

Q2. We sing the National Anthem together on this day. Can you name some rivers and mountain ranges mentioned in the National Anthem?

Ans. Rivers: Ganga, Yamuna.

Mountain Ranges: Vindhya and Himalaya.

Q3. In case there is any difficulty at school, whom do I talk to or inform?

Ans. I should inform my class teacher, school counsellor, or principal.

Q4. What events take place at your school on Independence Day?

Ans. Flag hoisting, patriotic songs, speeches, cultural programs, and distribution of sweets take place.

Q5. On Republic Day, which activities would you like to participate in?

Ans. I would like to participate in the parade, patriotic song competition, and cultural dance performance.

Q6. Have you ever watched the Republic Day parade in Delhi on television? What did you like the most about it?

Ans. Yes, I have watched it. I liked the marching soldiers, colourful tableaux, and cultural performances the most.

Q7. What are some traditional Indian musical instruments that you know of?

Ans. Tabla, Sitar, Veena, Flute, Dholak, and Shehnai.

Q8. Try to make a musical instrument from locally available materials.

Ans. I can make a shaker using an empty bottle filled with rice or beans.

Discuss

Q1. If we had to choose a national fruit for our country, which one would you suggest? Tell us why.

Ans. I would suggest the Mango because it is loved throughout India and is known as the "King of Fruits."

Find Out

(For Uttar Pradesh)

State Animal: Swamp Deer (Barasingha)

State Bird: Sarus Crane

State Tree: Ashoka Tree

State Flower: Palash

Let Us Reflect

Q1. If you could learn one more Indian language, which one would you select and why?

Ans. I would like to learn Tamil because it is one of the oldest languages of India and has a rich culture.

Q2. Which monuments do you see on different currency notes?

Denomination	Monument/Heritage Site	State
₹10	Sun Temple	Konark (Odisha)
₹20	Ellora Caves	Maharashtra
₹50	Hampi with Stone Chariot	Karnataka
₹100	Rani ki Vav	Gujarat
₹200	Sanchi Stupa	Madhya Pradesh

Q3. Identify the currency symbol of India among the images shown below. Which other country's currency symbol can you identify?

Ans. India's currency symbol is ₹.

Other symbols:

- £ – United Kingdom
 - ¥ – Japan/China
 - € – European Union
 - \$ – United States of America
-

Q4. Which animals do you see in a ₹10 note?

Ans. Elephant, Rhinoceros, and Tiger.

Q5. Write a few lines about great people of India.

Dr. A.P.J. Abdul Kalam: Known as the "Missile Man of India" and the 11th President of India.

Chhatrapati Shivaji Maharaj: Founder of the Maratha Empire and a brave warrior.

Netaji Subhas Chandra Bose: Great freedom fighter who led the Indian National Army.

Rani Lakshmibai: Brave queen who fought against British rule during the Revolt of 1857.

Bhagat Singh: Young revolutionary who sacrificed his life for India's freedom.

Dr. Sarvepalli Radhakrishnan: Great philosopher, teacher, and second President of India.

Practice Zone

A. Tick (✓) the correct one

1. What does the Tricolour's saffron colour represent?
(c) **Bravery and sacrifice**
 2. Which city hosts the main Republic Day celebration?
(c) **Delhi**
 3. What is featured in the center of the Indian national flag?
(b) **Chakra with 24 spokes**
 4. Which classical dance originates from Tamil Nadu?
(c) **Bharatanatyam**
 5. What is India's national river?
(c) **Ganga**
-

B. Fill in the blanks

1. The **Tiger** is our national animal.
2. The national song of India is **Vande Mataram**.
3. India celebrates Independence Day on **15th** August.

4. The **Banyan** tree is our national tree.
 5. The Ashoka Chakra has **24** spokes.
-

C. Write True or False

1. The Constitution of India came into effect on 26th January, 1947.
False
 2. Peacock is the national bird of India.
True
 3. Independence Day marks the day India became a republic.
False
 4. Vande Mataram is our national anthem.
False
 5. The banyan tree is called immortal because it lives a long time.
True
-

D. Answer the following questions

1. What is the significance of national symbols for India?

Ans. National symbols represent India's identity, culture, unity, and heritage. They make us feel proud of our country.

2. Why do we celebrate Republic Day and how is it observed in Delhi?

Ans. We celebrate Republic Day because the Constitution of India came into effect on 26 January 1950. In Delhi, it is observed with a grand parade, flag hoisting, cultural programs, and military displays.

3. How do currency notes represent the culture of India?

Ans. Currency notes display important monuments, heritage sites, languages, and national symbols that reflect India's rich culture and diversity.

4. Name four classical dances of India and describe any two.

Ans.

Classical Dances:

1. Bharatanatyam
2. Kathak
3. Manipuri
4. Kathakali

Bharatanatyam: Originated in Tamil Nadu and is known for expressive movements and storytelling.

Kathak: Originated in North India and is famous for fast footwork and graceful spins.

5. What makes India a land of unity in diversity?

Ans. People of different religions, languages, cultures, and traditions live together peacefully, making India a land of unity in diversity.

6. How do festivals reflect India's cultural diversity?

Ans. Different regions celebrate different festivals, showcasing unique customs, food, music, and traditions.

E. Observe and Answer

1. Identify the dishes shown in the pictures above.

Ans.

1. Seekh Kebab
 2. Litti Chokha
 3. Sarson Ka Saag with Makki Ki Roti
-

2. Name the states to which these dishes belong.

Ans.

1. Seekh Kebab – Uttar Pradesh
 2. Litti Chokha – Bihar
 3. Sarson Ka Saag and Makki Ki Roti – Punjab
-

3. Name any two festivals celebrated in each of these states.

Ans.

Uttar Pradesh: Diwali, Holi

Bihar: Chhath Puja, Sama-Chakeva

Punjab: Baisakhi, Lohri

HOTS

If someone disrespects the national anthem or flag, how would you respond?

Ans. I would politely explain the importance of respecting our national symbols and encourage the person to show proper respect.

Competency-Based Questions

H. Case-Based Question

1. Why are Republic Day celebrations important for India?

Ans. They remind us of the adoption of our Constitution and celebrate India's unity, democracy, and heritage.

2. How do currency notes show India's culture and diversity?

Ans. They feature monuments, languages, national symbols, and heritage sites from different parts of India.

3. What examples from the case show unity in diversity in India?

Ans. Different states, languages, dances, festivals, and cultural performances coming together in one celebration show unity in diversity.

I. Assertion–Reason Questions

1.

Assertion (A): The Ashoka Chakra in the national flag has 24 spokes.

Reason (R): The 24 spokes represent progress and continuous movement.

Answer: (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

2.

Assertion (A): The tiger is India's national animal.

Reason (R): Project Tiger was started to protect tigers from extinction and preserve India's wildlife.

Answer: (b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

3.

Assertion (A): India celebrates Republic Day on 26 January every year.

Reason (R): Republic Day marks the day India became independent from British rule in 1947.

Answer: (c) (A) is true, but (R) is false.

Skill Booster Zone – Life Skills

Suppose there is a student in your class who comes from a different region and speaks another native language. How will you help that student?

Ans. I will be friendly, help the student understand classroom activities, encourage participation, teach simple words in the local language, and make them feel welcome and included.

Subject Connect

1. I am a classical dance from Tamil Nadu known for my expressive eyes and storytelling. Who am I?

Ans. Bharatanatyam

2. I am a traditional headgear worn by men in Punjab during celebrations. I am bright and tied in a turban style. Who am I?

Ans. Turban (Pagri)

Chapter 6: Some Unique Places

NCERT Corner

Find Out

Q1. Look at the map for the southernmost point of India.

Ans. Indira Point.

Q2. In which sea are the Andaman and Nicobar Islands located?

Ans. The Andaman and Nicobar Islands are located in the Bay of Bengal.

Q3. Name the other islands you know.

Ans. Lakshadweep, Majuli, Diu, and St. Mary's Island.

Q4. Look around yourself. Do you see any living thing that has something special to help it live there? What is it?

Ans. A fish has gills that help it breathe in water.

Discuss

Q1. Why do you think life under the sea is just as important as life in the forest?

Ans. Sea life maintains ecological balance, provides food, and supports many living organisms just like forests.

Q2. How do you think the coral reef helps fish and other sea creatures?

Ans. Coral reefs provide food, shelter, and protection to fish and other sea creatures.

Q3. How do you think their knowledge might have helped the people of North Sentinel Island stay safe?

Ans. Their traditional knowledge of nature and surroundings helps them survive and stay safe.

Q4. Why do you think it is important to take care of places like the Sundarbans?

Ans. The Sundarbans protect biodiversity, prevent coastal erosion, and support many animals and people.

Q5. Choose an animal or bird near you that needs protection. What can you do to help?

Ans. Sparrow. I can place water bowls, protect nests, and avoid disturbing them.

Write

Q1. Draw or write about your favourite fish or sea animal.

Ans. My favourite sea animal is the Dolphin. It is intelligent, friendly, and lives in groups called pods.

Q2. List at least three living things found in the sea.

Ans.

1. Fish
2. Dolphin
3. Octopus

Q3. What do you see in the mangrove forest? List three things that live there.

Ans.

1. Mangrove trees
2. Royal Bengal Tiger
3. Crocodile

Q4. What do you think makes this place different from other forests?

Ans. Mangrove forests grow in salty water and have special roots that help them survive.

Q5. In what ways do people in Sundarbans depend on the mangrove forests?

Ans. People depend on mangroves for fishing, honey collection, fuelwood, and protection from storms.

Q6. Look at the picture.

(i) Can you identify the festival from the picture?

Ans. Hornbill Festival.

(ii) What animals can you see in the picture?

Ans. Elephant and Hornbill bird.

(iii) What does this picture tell you about the people who live with nature in Northeast India?

Ans. They respect nature and live in harmony with it.

Q7. Locate the Western Ghats and name the six states it passes through.

Ans.

1. Gujarat
2. Maharashtra
3. Goa
4. Karnataka
5. Kerala
6. Tamil Nadu

Q8. What animals can you spot in the forest?

Ans. Tiger, deer, elephant, monkey, and birds.

Q9. What are the people doing in the picture given below?

Ans. They are celebrating a cultural festival and selling local products.

Q10. Why do you think forts were built on hilltops instead of flat land?

Ans. Hilltop forts provided better security and a wider view of approaching enemies.

Q11. Give the names of three rivers that start from the Western Ghats.

Ans.

1. Godavari
2. Krishna
3. Kaveri

Q12. List three protected areas in the Western Ghats.

Ans.

1. Silent Valley National Park
 2. Periyar National Park
 3. Bandipur National Park
-

Let Us Reflect

Q1. What surprised you the most about the places visited in this journey across India? Why?

Ans. The living root bridges of Meghalaya surprised me because they are made from tree roots and are very strong.

Q2. Which place would you like to visit the most and what would you do there?

Ans. I would like to visit the Andaman Islands and enjoy the beaches and marine life.

Q3. How is your region similar or different from one of the places in the story?

Ans. My region has plains, while the Northeast has hills and dense forests.

Q4. What is special about mangroves?

Ans. Mangroves grow in salty water and protect coastlines from erosion and floods.

Q5. How do people in different regions live in harmony with nature?

Ans. They use natural resources wisely and protect forests, rivers, and wildlife.

Q6. Make a collage depicting vibrant India.

Ans. Activity to be done by students.

Q7. Match the aquatic animals with their features.

Animal	Feature
Dolphin	Smart mammals that breathe air and live in groups
Sea Turtle	With hard shells, return to the beach where they were born to lay eggs
Coral	Tiny sea animals that form colourful reefs and homes for fish
Seahorse	Fish that swims upright, face looks like that of a horse
Clown Fish	Lives safely among stinging sea anemones
Starfish	Has no brain but can regrow its arms if lost
Jellyfish	Has a soft, transparent body and stings with its tentacles
Octopus	Has eight arms and can change its colour to hide

Practice Zone

A. Tick (✓) the correct one

- Which of the following is a Union Territory with coral islands?
(b) Lakshadweep
- What is the southernmost point of India called?
(c) Indira Point
- Which animal is found only in Silent Valley?
(b) Lion-tailed Macaque
- The living root bridges are found in which Indian state?
(c) Meghalaya
- What is special about North Sentinel Island?
(c) It is home to an uncontacted tribe

B. Fill in the blanks

1. The **Cellular** Jail in Port Blair is now a national memorial.
 2. The **Sundarbans** is the world's largest mangrove forest.
 3. The **Lakshadweep** Islands are known for their coral reefs.
 4. Bhut Jolokia, the world's hottest chilli, is grown in **Northeast** India.
 5. The **Silent** Valley National Park is home to rare plants and animals.
-

C. Write True or False

1. Andaman and Nicobar Islands are in the Arabian Sea.
False
 2. The Sentinelese people welcome tourists.
False
 3. Meghalaya is famous for its bamboo dance and root bridges.
True
 4. Lion-tailed Macaque is found in the Western Ghats.
True
 5. Kanyakumari is where three seas meet.
True
-

D. Answer the following questions

1. Why are the Andaman and Nicobar Islands important for biodiversity?

Ans. They are home to unique plants, animals, coral reefs, and indigenous tribes.

2. What makes the Lakshadweep Islands unique from other islands?

Ans. Lakshadweep is famous for its coral reefs and beautiful lagoons.

3. Describe the significance of the Sundarbans forest.

Ans. The Sundarbans is the world's largest mangrove forest and is home to the Royal Bengal Tiger.

4. What are living root bridges? Why are they special?

Ans. Living root bridges are natural bridges made from tree roots. They are strong, eco-friendly, and grow stronger with time.

5. How do people in Northeast India live in harmony with nature?

Ans. They protect forests, use natural resources carefully, and preserve traditional practices.

6. Why is the Western Ghats called a biodiversity hotspot?

Ans. It has a large variety of plants and animals, many of which are found nowhere else in the world.

E. Observe and Answer

1. What do you see in the picture under the sea that looks like rocks but is actually made by tiny animals?

Ans. Coral reefs.

2. Why do you think so many fish and sea creatures are found around these structures?

Ans. Coral reefs provide food, shelter, and protection.

3. What can we do to keep the seas and oceans clean so that these underwater homes remain safe?

Ans. We should avoid throwing waste into water bodies and reduce plastic pollution.

HOTS

The Western Ghats and the Sundarbans are called biodiversity hotspots. How does protecting such regions help people living even in faraway cities?

Ans. These regions help maintain climate balance, provide clean air and water, and support biodiversity that benefits everyone.

Competency-Based Questions

H. Case-Based Question

1. Why are rare birds like the Great Hornbill not found near Arun's village now?

Ans. Because trees are being cut down, reducing their habitat.

2. How do forests in the Western Ghats help people and animals?

Ans. They provide shelter, food, water, and help maintain ecological balance.

3. Suggest one way Arun and his friends can help protect the forest.

Ans. They can plant trees and spread awareness about forest conservation.

I. Assertion–Reason Questions

1.

Assertion (A): Mangrove forests protect the land from floods.

Reason (R): Mangrove roots hold the soil together and prevent it from washing away.

Answer: (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

2.

Assertion (A): Lakshadweep Islands are famous for coral reefs.

Reason (R): Coral reefs provide food and shelter to many marine animals.

Answer: (b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

3.

Assertion (A): The Andaman and Nicobar Islands are home to many tribes who have lived there for thousands of years.

Reason (R): These islands are connected to the mainland by long bridges.

Answer: (c) (A) is true, but (R) is false.

Skill Booster Zone

How is cleaning a beach useful?

Ans. Cleaning beaches keeps the environment clean, protects marine animals, and reduces pollution.

Have you ever seen a beach cleaning drive?

Ans. Yes. Volunteers collected plastic waste and cleaned the beach to protect marine life.

Subject Connect

Write a small paragraph on living in harmony with nature.

Ans. Nature provides us with air, water, food, and shelter. We should protect trees, save water, avoid pollution, and care for animals. Living in harmony with nature helps create a healthy and beautiful environment for everyone.

Chapter 7: Energy – How Things Work

NCERT Corner

Write

Q1. How is food cooked in your house?

Ans. Food is cooked in my house using LPG gas on a gas stove.

Q2. Can you think of more examples where we use the Sun, the wind or the flowing water?

Ans.

- Sun: Drying clothes, solar cooker, solar panels.
- Wind: Sailing boats, flying kites, windmills.
- Flowing Water: Hydropower generation, water mills.

Q3. Energy All Around Us

Activity	Source of Energy
A child carrying a school bag	Food
Fan running	Electricity
Car moving on road	Petrol/Diesel
Windmill rotating	Wind Energy

Think

Q1. What happens if you use thinner or thicker rubber bands? Do they sound different?

Ans. Yes, they produce different sounds. Thin rubber bands make a higher-pitched sound, while thick rubber bands make a lower-pitched sound.

Q.2. What do cars and scooters need to keep running?

Ans. Cars and scooters need fuel such as petrol, diesel, or CNG to keep running.

Q.3. What would your day be like if there was no electricity at all?

Ans. Without electricity, lights, fans, TV, computers, and many household appliances would not work. Daily activities would become difficult.

Q.4. Place a small damp cloth in the Sun. Keep another damp cloth in the shade. Which one do you think will dry first? Why?

Ans. The cloth kept in the Sun will dry first because the Sun's heat causes water to evaporate faster.

Q.5. Have you ever seen papads being dried in sunlight and clothes hung out to dry?

Ans. Yes, I have seen papads and clothes being dried in sunlight. The Sun's heat helps remove moisture and dry them quickly.

Discuss

Q1. What kind of fuel do you use at home for cooking?

Ans. LPG gas is used for cooking at home.

Q2. What are the problems of using too much wood or coal?

Ans. It causes air pollution and leads to cutting down of trees.

Let Us Reflect

Q1. What will happen if there is no electricity in your house for a day?

Ans. Fans, lights, TV, refrigerator, and other appliances will not work.

Q2. Why is it better to use solar or wind energy instead of coal?

Ans. Solar and wind energy are clean, renewable, and do not cause pollution.

Q3. Give two examples where you have seen energy being stored.

Ans.

1. Batteries
2. Fuel tanks

Q4. What is one thing you can do at home to save energy?

Ans. Turn off lights and fans when not in use.

Q5. Find out how many kilometres a vehicle travels per litre of petrol or diesel.

Ans. A car usually travels about **15–20 km per litre** (may vary).

Q6. List any three objects that use energy and mention their source.

Object	Source of Energy
Fan	Electricity
Car	Petrol/Diesel
Torch	Battery

Q7(a). Draw or make a simple plan of a clean energy home.

Ans. Activity-based.

Q7(b). Make an energy diary for one day.

Ans. Activity-based.

Practice Zone

A. Tick (✓) the correct one

1. Which of the following is a renewable source of energy?

(c) Sun

2. Energy that comes from moving water is called:

(c) Hydropower

3. Which of these produces heat energy when burned?

(a) LPG

4. Energy that makes objects move is called:

(b) Kinetic energy

5. Which device converts wind energy into electricity?

(b) Windmill

B. Fill in the blanks

1. **Energy** is the ability to do work.
 2. Moving air possesses **wind** energy.
 3. Energy from the Sun used to cook food is called **solar energy**.
 4. Flowing water used to produce electricity is called **hydropower**.
 5. Energy stored in **batteries** powers toys and flashlights.
-

C. Write True or False

1. The Sun is the ultimate source of energy on Earth.
True
2. Non-renewable energy sources can be replaced quickly.
False
3. Batteries can store electrical energy for later use.
True

4. Using clean energy reduces pollution.

True

5. Energy can be created from nothing.

False

D. Answer the following questions

1. What is energy, and why is it important in our daily life?

Ans. Energy is the ability to do work. It helps us move, cook food, run machines, and perform daily activities.

2. Explain any four forms of energy that we use every day.

Ans.

1. Heat Energy – Used for cooking.
2. Light Energy – Helps us see.
3. Electrical Energy – Runs appliances.
4. Sound Energy – Helps us hear sounds.

3. Define renewable and non-renewable energy and give two examples of each.

Ans.

- **Renewable Energy:** Energy sources that can be replenished naturally.
Examples: Solar energy, Wind energy.
- **Non-renewable Energy:** Energy sources that get exhausted after use.
Examples: Coal, Petroleum.

4. How does solar energy benefit humans and plants?

Ans. Solar energy provides light and heat. Plants use sunlight to make food, and humans use it for cooking and generating electricity.

5. Explain how wind and water can be used to generate electricity.

Ans. Wind turns windmills, and flowing water turns turbines. These turbines generate electricity.

E. Find out the incorrect statements and correct them

1. Heat energy is also known as light energy.

Incorrect

Heat energy is also known as thermal energy.

2. Electrical energy is the energy stored in food.

Incorrect

Chemical energy is stored in food.

3. Hydropower energy is obtained from the heat of the Sun.

Incorrect

Hydropower energy is obtained from flowing water.

4. Air coolers and fans work on heat energy.

Incorrect

Air coolers and fans work on electrical energy.

5. Sound energy can travel in space.

Incorrect

Sound energy cannot travel in space.

F. Observe and Answer

1. What differences do you notice between clean energy sources and polluting sources?

Ans. Clean energy sources do not cause pollution, while polluting sources release harmful gases and smoke.

2. How can using polluting energy sources harm people, animals, and plants?

Ans. They cause air pollution, health problems, and environmental damage.

3. What can we do at home, school, or in our village to save energy and keep the environment clean?

Ans.

- Switch off unused lights and fans.
- Use LED bulbs.

- Use solar energy.
 - Avoid wasting electricity.
-

G. Project Zone

Activity-based.

Suggested answer:

Country famous for windmills: Netherlands

Why it uses wind energy: Windmills generate clean electricity and reduce pollution.

HOTS

Imagine your school has no electricity. Which renewable energy sources could you use to run fans, lights, and computers?

Ans. Solar energy and wind energy can be used to run fans, lights, and computers.

Competency-Based Questions

I. Case-Based Question

1. Identify which energy sources in the village are renewable and non-renewable.

Ans.

- Renewable: Solar energy
- Non-renewable: Wood, electricity from fossil fuels

2. How does using solar panels help reduce energy problems?

Ans. Solar panels generate electricity from sunlight and reduce dependence on other fuels.

3. Suggest two more ways the villagers can save energy.

Ans.

1. Use LED bulbs.
 2. Switch off appliances when not in use.
-

J. Assertion–Reason Questions

1.

Assertion (A): Coal and petrol are non-renewable sources of energy.

Reason (R): These sources are available in unlimited amounts.

Answer: (c) A is true, but R is false.

2.

Assertion (A): Windmills can be used to generate electricity.

Reason (R): Moving air turns the blades of a windmill, producing electrical energy.

Answer: (a) Both A and R are true, and R is the correct explanation.

3.

Assertion (A): Batteries are used to store electrical energy.

Reason (R): Stored energy can be used later when direct supply is unavailable.

Answer: (a) Both A and R are true, and R is the correct explanation.

Skill Booster Zone

Life Skills

Q. You notice a younger student touching an electric socket with wet hands. What will you do immediately, and how will you explain the danger?

Ans.

I will immediately ask the student to move away from the socket and not touch it. Then I will inform a teacher or another responsible adult. I will explain that water conducts electricity, and touching an electric socket with wet hands can cause a severe electric shock. We should always keep our hands dry before using any electrical appliance and follow safety rules.

Lets Talk About

How can we save energy at home and school?

Ans.

- Turn off unused lights and fans.
- Use solar energy whenever possible.
- Use energy-efficient appliances.
- Encourage others to save energy.

What will you do if you notice a younger student touching an electric socket with wet hands?

Ans. I will stop the student immediately, move them away safely, and inform a teacher or an elder because it is dangerous and can cause an electric shock.

Subject Link

Research clean energy technologies online and create a presentation showing how renewable energy helps reduce pollution and saves resources.

Renewable Energy: Clean Energy for a Better Future

1. What is Renewable Energy?

Renewable energy comes from natural sources that do not get exhausted, such as the Sun, wind, and flowing water.

2. Types of Renewable Energy

- Solar Energy
- Wind Energy
- Hydropower
- Biomass Energy

3. How Renewable Energy Reduces Pollution

- Produces little or no air pollution.
- Reduces harmful greenhouse gases.
- Helps keep the environment clean.

- Protects human health.

4. How Renewable Energy Saves Resources

- Conserves coal, petroleum, and natural gas.
- Uses unlimited natural resources.
- Reduces dependence on fossil fuels.
- Ensures resources are available for future generations.

5. Benefits of Renewable Energy

- Environment-friendly
- Sustainable and renewable
- Reduces global warming
- Creates employment opportunities
- Low operating cost

Conclusion:

Renewable energy is a clean and sustainable source of power. Using solar, wind, and water energy helps reduce pollution, save natural resources, and protect our planet for future generations.

Chapter 8: Clothes – How Things Are Made

NCERT CORNER

THINK

Q.1. What can you find in your classroom that is woven? If we weave with threads instead of paper strips, it becomes cloth.

Ans. Mats, curtains, school bags, and some chair seats are woven items found in the classroom.

Q.2. Have you ever seen someone stitching at home or in your neighbourhood? What were they making or fixing?

Ans. Yes, I have seen a tailor stitching clothes. He was making new dresses and repairing torn clothes.

Q.3. Look at your shirt or school bag. Can you find where the pieces have been stitched together?

Ans. Yes, the sleeves, collar, pockets, and side seams of my shirt are stitched together.

FIND OUT

Q. Study the globe and write in the space given below, when it is daytime in India, which countries will have night?

Ans. Countries like the United States of America (USA), Canada, Mexico, and Brazil generally have night when it is daytime in India.

DISCUSS

Q.1. Have you seen products woven out of natural material at home or elsewhere? What are they?

Ans. Yes. Baskets, mats, ropes, jute bags, bamboo baskets, and cane furniture are woven from natural materials.

Q.2. Winter in Kerala is different from winter in Kashmir Valley. Monsoon in Assam is different from Rajasthan. Why do you think it is so?

Ans. These places have different climates due to their location, altitude, distance from the sea, and geographical features.

LET US REFLECT

Q.1. Have you ever reused or recycled an old piece of cloth? What did you or your family make from it?

Ans. Yes. My family reused old clothes to make cleaning cloths, cushion covers, and quilts.

Q.2. If one thread breaks in a stitched cloth or in a woven mat, what might happen? Why is each thread important?

Ans. The cloth or mat may become weak and start tearing. Each thread is important because it helps hold the fabric together.

Q.3. Visit a tailor's shop or a handloom store with an adult. What tools or machines did you see being used there?

Ans. I saw sewing machines, scissors, measuring tapes, needles, threads, looms, and irons.

Q.4. Find out what kind of weaving or stitching work is famous in your area or state. Name it.

Ans. Chikankari embroidery is famous in Uttar Pradesh.

Q.5. We should not throw the old clothes away. Why?

Ans. Old clothes can be reused, recycled, or donated. This reduces waste and helps protect the environment.

Q.6. Below are the jumbled-up steps of the life cycle of a moth. Read and number them from 1 to 6 in the correct order.

Step	Order
c. Silk moth lays eggs.	1
b. Eggs hatch into tiny caterpillars.	2
e. Caterpillars eat mulberry leaves and grow big.	3
f. Caterpillars spin cocoons around themselves.	4
a. Adult moth comes out of the cocoon.	5
d. The cycle begins again.	6

Q.7 Activity Table (Sample Answer)

Cloth Piece No.	Feel (Smooth/Rough)	Thick/Thin	Shiny (Yes/No)	Stretchy (Yes/No)	Made of
1	Smooth	Thin	No	No	Cotton
2	Rough	Thick	No	No	Jute
3	Smooth	Thin	Yes	No	Silk

Cloth Piece No.	Feel (Smooth/Rough)	Thick/Thin	Shiny (Yes/No)	Stretchy (Yes/No)	Made of
4	Smooth	Thick	No	Yes	Polyester
5	Soft	Thick	No	Yes	Wool

Practice Zone

A. Tick (✓) the correct one

1. Which fibre is soft and used for summer clothes?

Ans. (b) Cotton

2. Which animal gives pashmina wool?

Ans. (b) Kashmiri goat

3. What is the process of making thread from fibres called?

Ans. (b) Spinning

4. Which weaving style uses pre-dyed yarn to create patterns?

Ans. (b) Ikat (Sambalpuri/Pochampally)

B. Fill in the blanks

1. Silk is obtained from the **cocoon** of the silkworm.
2. **Ikat** weaving creates patterns by dyeing the threads before weaving.
3. **A stitch** is used to join pieces of cloth together.
4. Old clothes can be reused to make **quilts** , cushion covers or bags.
5. **Natural** fibres come from plants or animals, while synthetic fibres are made by humans.

C. Write True or False

1. Linen comes from the stem of the flax plant. — **True**
2. Machine weaving is often slower than handloom weaving. — **False**

3. Bamboo fibre is soft, breathable, and eco-friendly. — **True**
 4. Kantha embroidery uses old layers of cloth stitched together. — **True**
 5. Recycling old clothes reduces textile waste. — **True**
-

D. Name the following

1. Two fibres obtained from animals:
Wool, Silk
 2. Two fibres obtained from plants:
Cotton, Linen
 3. Two natural fibres:
Cotton, Wool
 4. Two synthetic fibres:
Nylon, Polyester
-

E. Answer the following questions

1. What are fibres, and where do they come from?

Ans. Fibres are thin strands used to make yarn and cloth. They come from plants, animals, or are made by humans.

2. How is thread made from fibres?

Ans. Fibres are twisted together by a process called spinning to make thread or yarn.

3. Name three famous handloom weaving styles of India.

Ans. Kanjeevaram, Ikat, and Phulkari.

4. What is the difference between natural and synthetic fibres?

Ans. Natural fibres come from plants and animals, whereas synthetic fibres are made from chemicals by humans.

5. How can old clothes be reused creatively?

Ans. Old clothes can be reused to make bags, quilts, mats, cushion covers, and cleaning cloths.

6. Why is cotton cloth often strong and durable?

Ans. Cotton fibres are strong and can withstand regular use and washing.

7. Name two embroidery styles and their special features.

Ans.

- **Chikankari** – Delicate embroidery done with white thread.
 - **Kantha** – Running stitch embroidery made from layers of old cloth.
-

F. Observe and Answer

Picture 1

Ans. The person is spinning yarn using a spinning wheel (charkha).

Picture 2

Ans. The person is weaving cloth on a handloom.

Picture 3

Ans. The person is stitching fabric using a sewing machine.

G. Project Zone

Sample Answer

Object	Fibre Used	Why Suitable
Shirt	Cotton	Soft and comfortable
Sweater	Wool	Keeps us warm
Saree	Silk	Smooth and attractive
School Bag	Polyester	Strong and durable
Rope	Jute	Strong and long-lasting

H. HOTS

Why do some fabrics need handloom weaving while others are made faster on machines?

Ans. Handloom weaving is used for traditional and artistic fabrics that require detailed craftsmanship. Machines can produce large quantities of cloth quickly, but handloom fabrics are unique and often have intricate designs.

Competency-Based Questions

I. Case Based Question

1. What material is used to make Kanjeevaram sarees?

Ans. Kanjeevaram sarees are made from **mulberry silk and zari threads**.

2. Why do handmade sarees take longer to make than machine-made ones?

Ans. Handmade sarees take longer because they are woven carefully by skilled weavers and contain detailed designs.

3. List two designs commonly found on Kanjeevaram sarees.

Ans.

- Temple designs
 - Flower designs
-

J. Assertion–Reason Questions

1.

Assertion (A): Cotton clothes are best suited for hot weather.

Reason (R): Cotton fibres absorb sweat and allow air to pass through.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

2.

Assertion (A): Handloom weaving is important for India's culture and economy.

Reason (R): It provides employment to thousands of weavers and keeps traditional designs alive.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

3.

Assertion (A): The process of making yarn from fibres is called spinning.

Reason (R): In spinning, fibres are twisted together to make long, strong threads.

Ans. (a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

Skill Booster Zone

Life Skills

Riya is helping her grandmother in stitching and embroidery work. Tick (✓) the actions that show she is being careful and responsible.

- ✓ 1. Riya washes her hands before touching the fabric.
 - ✗ 2. She throws old cloth pieces on the floor carelessly.
 - ✓ 3. She joins old cloth pieces carefully to make a quilt.
 - ✗ 4. She pulls threads roughly and damages the fabric.
 - ✓ 5. She sorts fibres and threads carefully.
 - ✓ 6. She shares her finished creations with family and friends.
-

Let's Talk About

Imagine you are explaining to a foreign friend why Indians wear cotton clothes in summer, woollen clothes in winter, and silk or traditional clothes during festivals. What will you tell them?

Ans. India experiences different seasons. Cotton clothes keep us cool in summer by absorbing sweat. Woollen clothes keep us warm during winter. Silk and traditional clothes are worn during festivals because they are beautiful, comfortable, and represent India's rich culture and traditions.

Subject Connect

Measure the length and width of a piece of cloth at home.

Length	Width
2 metres	1 metre

(Students may use their own measurements.)

Activity Object Hunt

Sample Answer

Fibre	Main Use
Cotton	Shirts, bedsheets
Wool	Sweaters, blankets
Silk	Sarees, dresses
Polyester	Bags, sportswear

Chapter 9: Rhythms of Nature

NCERT Corner

Find Out

Q. Study the globe and write which countries will have night when it is daytime in India.

Ans. Countries on the opposite side of the Earth from India, such as **USA, Canada, Brazil, and Mexico**, will generally have night when it is daytime in India.

Discuss

Q. Winter in Kerala is different from winter in Kashmir Valley. Monsoon in Assam is different from Rajasthan. Why do you think it is so?

Ans. Different regions have different climates due to their location, altitude, distance from the sea, and rainfall patterns. Therefore, Kerala has mild winters,

Kashmir has very cold winters, Assam receives heavy rainfall, while Rajasthan receives very little rainfall.

Write

Q.1 Fill the table.

Particulars	Grade 3	Grade 4	Grade 5
Yourself and your friends	Smaller in height	Grew taller	More confident and responsible
School	Fewer activities	More activities	More projects and learning
Surrounding area	Fewer buildings	New roads	More shops and houses

Q.2 Can you think of something that takes a really long time to change?

Ans. Mountains take a very long time to change.

Q.3 What about something that changes within just a few years?

Ans. A small plant grows into a tree within a few years.

Q.4 Are there changes that happen every year, again and again?

Ans. Yes, seasons change every year.

Q.5 Can you name something that changes in just a few minutes or even seconds?

Ans. Weather conditions, traffic lights, and clouds can change in a few minutes or seconds.

Q.6 How do you feel when the season changes? Would you prefer one season throughout the year?

Ans. I enjoy seasonal changes because each season brings different experiences. I would not prefer one season throughout the year because changing seasons make life interesting.

Let Us Reflect

Q.1 Narrate your experiences about season changes.

Ans. In summer, the weather becomes hot and we wear cotton clothes. During monsoon, it rains and the surroundings become green. In winter, the weather becomes cold and we wear woollen clothes.

Q.2 Ask your family members and write about seasons.

Ans. My family members say that summers are becoming hotter and rainfall patterns are changing. This may be due to pollution and climate change.

Q.3 Seasons in local language (Hindi)

- (a) Spring – वसंत ऋतु
- (b) Summer – ग्रीष्म ऋतु
- (c) Monsoon – वर्षा ऋतु
- (d) Autumn – शरद ऋतु
- (e) Pre-winter – हेमंत ऋतु
- (f) Winter – शीत ऋतु

Q.4 Fill the table

Season	Food You Eat	Clothes You Wear	Festivals You Celebrate	Nature Around You
Spring	Fresh fruits	Light clothes	Basant Panchami	Flowers bloom
Summer	Mangoes, watermelon	Cotton clothes	Buddha Purnima	Hot weather
Monsoon	Pakorras, corn	Raincoat	Teej	Greenery everywhere
Autumn	Fruits	Light clothes	Dussehra	Clear skies

Season	Food You Eat	Clothes You Wear	Festivals You Celebrate	Nature Around You
Pre-winter	Dry fruits	Full-sleeve clothes	Diwali	Pleasant weather
Winter	Gajak, peanuts	Woollen clothes	Christmas	Cold weather

Q.5 Share your experience of seasons' journaling.

Ans. Seasons' journaling helped me observe changes in weather, plants, animals, and daily activities throughout the year.

Q.6 Comparative Drawing (Write Points)

Summer	Monsoon	Winter
Hot weather	Rainy weather	Cold weather
Cotton clothes	Raincoat and umbrella	Woollen clothes
Mangoes available	Green surroundings	Foggy mornings
Long days	Frequent rainfall	Short days

Practice Zone

A. Tick (✓) the correct one

1. (b) Rotation of the Earth
2. (c) West to East
3. (b) Monsoon
4. (c) Revolution and tilt of the Earth's axis
5. (b) Bar-headed goose

B. Fill in the blanks

1. Revolution
 2. Axis
 3. Circle of illumination
 4. Climate
 5. Monsoon
-

C. Write True or False

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

D. Answer the following questions

1. What causes day and night on Earth?

Ans. Day and night are caused by the rotation of the Earth on its axis.

2. What is the importance of seasons in our daily life?

Ans. Seasons affect our food, clothing, farming, festivals, and daily activities.

3. Explain how Earth's tilt and revolution cause different seasons.

Ans. The Earth is tilted on its axis and revolves around the Sun. Different parts of the Earth receive different amounts of sunlight during the year, causing seasons.

4. How do people's lifestyle and clothing change in summer and winter?

Ans. In summer, people wear cotton clothes and drink plenty of water. In winter, people wear woollen clothes and eat warm food.

5. Why do animals migrate during different seasons? Give two examples.

Ans. Animals migrate to find food and suitable weather conditions.

Examples:

- Siberian cranes migrate to India in winter.
 - Bar-headed geese migrate during winter.
-

E. Observe and Answer

Labels of Diagram

1. **Axis**
2. **Rotation**
3. **Earth**

Questions

1. Which motion of the Earth does this diagram show?

Ans. Rotation of the Earth.

2. In which direction does the Earth turn?

Ans. From West to East.

3. What are the effects of this motion?

Ans. It causes day and night.

HOTS

Imagine you lived at the North Pole. What changes would you experience in day and night cycles?

Ans. At the North Pole, there can be continuous daylight for about six months and continuous darkness for about six months.

Competency-Based Questions

H. Case-Based Question

1. Why did Arjun's family experience different weather in Kashmir and Kerala?

Ans. Kashmir is a mountainous region with a cold climate, while Kerala is a coastal region with a warm climate.

2. What kind of climate does Kerala have in winter?

Ans. Kerala has a warm and pleasant climate in winter.

3. Which region experiences snowfall in India?

Ans. The Himalayan and Kashmir regions experience snowfall.

I. Assertion–Reason Questions

1.

Assertion: The Earth's axis is slightly tilted.

Reason: This tilt causes different parts of Earth to receive varying amounts of sunlight.

Ans. (A) Both A and R are true, and R is the correct explanation of A.

2.

Assertion: Animals migrate to enjoy new places and weather.

Reason: Migration helps animals survive by finding food and suitable weather.

Ans. (D) A is false, but R is true.

3.

Assertion: During summer, the days are longer and nights are shorter.

Reason: The part of Earth facing the Sun for a longer time receives more daylight.

Ans. (A) Both A and R are true, and R is the correct explanation of A.

Skill Booster Zone

Life Skills

Birds and animals struggle to find food and water during extreme weather. What can you do to help them?

Ans.

- Keep bowls of clean water outside.
 - Put grains and bird feed for birds.
 - Plant more trees.
 - Provide shade and shelter for animals.
 - Never harm birds or animals.
-

Let's Talk About

How do I enjoy and adapt to different seasons?

Ans.

- I wear cotton clothes in summer and woollen clothes in winter.
 - I eat seasonal fruits and vegetables.
 - I celebrate festivals of different seasons.
 - I enjoy observing changes in plants, animals, and weather around me.
-

Subject Connect

Migratory Birds Chart

Bird	Comes From	Migrates To
Siberian Crane	Siberia	India
Bar-headed Goose	Central Asia	India
Flamingo	Europe/Asia	Gujarat, India

Activity Object Hunt

Observe Nature's Six Changes

1. Daylight – Long in summer, short in winter.
2. Temperature – Hot, warm, cool, cold.
3. Leaves – Green, budding, falling.

4. Rain – Heavy, light, or none.
5. Animal Activity – Migration of birds.
6. Human Activities – Change in clothes, food, and festivals.

Chapter 10: Earth – Our Shared Home

NCERT Corner

Discuss

Q.1 Why do you think yoga became popular in so many countries?

Ans. Yoga became popular because it improves physical and mental health, reduces stress, and promotes a healthy lifestyle.

Q.2 If you could choose one Indian food to share with the world, what would it be?

Ans. I would choose **Biryani** because it is delicious and loved by people of all ages.

Q.3 What kind of new food items do you think will travel in the future?

Ans. Healthy foods, millet-based snacks, plant-based foods, and traditional Indian recipes may travel around the world in the future.

Write

Q.1 Does the rosy starling visit your area? What is it called locally?

Ans. Yes, rosy starlings visit many parts of India during winter. Locally, they are often called **Gulabi Maina**.

Q.2 What does this story tell us about nature?

Ans. Nature connects different countries, animals, plants, and people without boundaries.

Q.3 What does it mean when we say "nature has no boundaries"?

Ans. It means animals, birds, air, water, and plants move freely across countries and connect the whole world.

Q.4 Can you name a yoga pose you have tried or seen? What do you think it helps with?

Ans. I have seen **Surya Namaskar**. It helps improve flexibility, fitness, and concentration.

Q.5 What would happen if chillies disappeared from our kitchens for a week?

Ans. Food would taste less spicy and many dishes would lose their usual flavour.

Q.6 Ask your parents and write down the name of any recipe in which they have used black pepper and not red chillies.

Ans. Pepper Rasam / Black Pepper Soup.

Q.7 Why do you think both Indian and Mexican cultures use marigolds during their festivals?

Ans. Marigolds are colourful, easily available, and considered symbols of happiness and celebration.

Q.8 Why do you think people in different countries include flowers in their celebrations?

Ans. Flowers add beauty, fragrance, joy, and positivity to celebrations.

Q.9 What does 'Vasudhaiva Kutumbakam' teach us?

Ans. It teaches us that the whole world is one family.

Q.10 Write the meaning of 'Vasudhaiva Kutumbakam' in your own words.

Ans. All people should live together with love, peace, and respect.

Q.11 How can we live like one big family, even when we are different?

Ans. We can respect each other's cultures, help one another, and live with kindness and understanding.

Let Us Reflect

Q.1 Write a short story about an idea that travelled from one place to another.

Ans.

Yoga began in India many years ago. People found that it improved health and peace of mind. Travellers and teachers shared yoga with other countries. Today, millions of people practise yoga around the world and benefit from it.

Q.2 Write one way you can care for the Earth.

Ans. I can plant trees and save water.

Q.3 Identify an item that can travel from India to other parts of the world.

Ans. Cardamom is an Indian spice that is exported to many countries.

Practice Zone

A. Tick (✓) the Correct One

1. **(b) Water**
 2. **(b) Oceans**
 3. **(b) Rakesh Sharma**
 4. **(b) Rosy Starlings**
 5. **(b) Vasudhaiva Kutumbakam**
-

B. Fill in the Blanks

1. Blue
 2. White
 3. Portuguese
 4. Mexico
 5. 21st
-

C. Write True or False

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

D. Name the Following

1. The first Indian to travel into space – **Rakesh Sharma**
 2. A plant product India gave the world – **Sugar (or Pepper)**
 3. Two yoga asanas – **Tadasana, Trikonasana**
 4. Two Indian cow breeds – **Gir, Kankrej**
 5. A flower from Mexico that became part of Indian culture – **Marigold**
-

E. Answer the Following Questions**Q.1 Why is Earth called the "Blue Planet"?**

Ans. Earth is called the Blue Planet because about 70% of its surface is covered with water, making it appear blue from space.

Q.2 What did Rakesh Sharma say when asked how India looked from space?

Ans. He said, "Saare Jahan Se Achha."

Q.3 How do rosy starlings help Indian farmers?

Ans. They eat insects and pests that damage crops, helping farmers protect their fields.

Q.4 Write two ways India has shared knowledge with the world.

Ans.

1. Yoga
2. Ayurveda

Q.5 Explain the meaning of Vasudhaiva Kutumbakam.

Ans. It means "The world is one family" and teaches us to live with peace, respect, and harmony.

Q.6 Why should we protect and care for Earth?

Ans. Earth is our only home and provides us with air, water, food, and shelter.

Q.7 Name two things that India received from other countries.

Ans.

1. Chillies (South America)
 2. Marigold flowers (Mexico)
-

F. Observe and Answer

Look at the pictures and write what is happening.

1. **An astronaut is observing Earth from space.**
 2. **Migratory birds are flying to another region.**
 3. **People are practising yoga.**
-

H. HOTS

If Earth had no water, air, or forests, could humans survive? Why not?

Ans. No, humans could not survive because water, air, and forests are essential for life. They provide oxygen, food, shelter, and maintain environmental balance.

Competency-Based Questions

I. Case-Based Question

Q.1 Why do rosy starlings migrate to India?

Ans. They migrate to escape the cold weather of Russia and Mongolia and find food.

Q.2 How do these birds help farmers?

Ans. They eat harmful pests and insects that damage crops.

Q.3 What does this story teach us about nature's boundaries?

Ans. It teaches us that nature has no boundaries and connects countries through plants, animals, and weather.

J. Assertion–Reason Questions

1.

Assertion (A): Earth is called the Blue Planet.

Reason (R): Most of Earth's surface is covered with water.

Ans. (A) Both A and R are true, and R is the correct explanation of A.

2.

Assertion (A): Yoga is only a form of physical exercise.

Reason (R): It helps balance the body, mind, and nature.

Ans. (D) A is false, but R is true.

3.

Assertion (A): The phrase "Vasudhaiva Kutumbakam" teaches that the world is one family.

Reason (R): It encourages living with harmony, kindness, and respect for all living beings.

Ans. (A) Both A and R are true, and R is the correct explanation of A.

Skill Booster Zone

Life Skills

What values do you learn from Aarav's actions?

Ans.

- Love for nature
- Responsibility
- Kindness
- Environmental awareness
- Respect for different cultures
- Sharing and cooperation

Let's Talk About

Planting trees helps protect Earth.

For Team

- Trees give oxygen.
- Trees reduce pollution.
- Trees prevent soil erosion.
- Trees provide shelter to birds and animals.

Against Team

- Planting trees alone cannot solve all environmental problems.
- Pollution control is also necessary.
- Some places may not be suitable for large-scale tree plantation.

Subject Connect

Count the number of hours in one day on Earth. Convert them into minutes and seconds.

24 Hours = 1440 Minutes = 86,400 Seconds

Activity Object Hunt

Sample Observations

Plant: Rose flower – fragrant and colourful.

Animal: Sparrow – helps maintain ecological balance.

Idea/Culture: Yoga – improves health and concentration.