

4

Growing up with Nature

Chapter Notes:

1. A Special Village: Solar Power



- **A Modern Village:** Reena and Amit's village is unique because it is fully solar-powered.
- **Solar Panels:** These are devices used to capture sunlight and convert it into electricity for appliances like fans, bulbs, and televisions.
- **Benefit:** It is a clean, natural way to get energy without harming the environment.

2. The "Flame of the Forest"

- **Appearance:** The tree bears bright orange-red flowers.
- **The "Flame of the Forest":** When these flowers bloom, the entire forest looks reddish-orange from a distance, giving it this nickname.
- **Local Names:** It is known as Kesuda in Gujarat.

3. Living in Eco-Friendly Houses

- In the city, we see buildings made of cement and steel. But in the village, houses are made of:
 - **Natural Materials:** Village houses are often built using clay, hay, cow dung, and wood.
 - **Benefits:** These materials keep the houses cool in summer and warm in winter.
 - **Traditional Art - Gond Art:** A traditional form of painting on walls where artists draw trees, animals, birds, and humans using natural colors.
 - **Natural Dyes:** Colors are made using extracts from flowers (hibiscus, marigold), leaves, beetroot, or even powdered colored stones mixed with rice flour and water.

4. How the Village Protects Food & Health

- **Protecting Food:** Villagers use natural methods to keep insects and pests away from stored grains in-
 - **Earthen Pots:** Lined with Neem leaves.
 - **Bamboo Baskets:** Coated with cow dung on the outside.
- **Traditional Containers:** In Uttarakhand, a container called a Tumri is made from a dried, hollowed-out bottle gourd.
- **First-Aid from Nature:**
 - **Neem Oil:** Used as a natural mosquito repellent.
 - **Tulsi (Indian Basil):** Leaves are used for medicinal purposes (like treating colds).
 - **Ajwain (Carom Seeds):** Used for stomach health and digestion.

5. Respecting Nature: The Jenu Kurubas

- **The Jenu Kurubas:** A tribe from Karnataka whose name means "honey." They show deep respect for nature by singing songs to apologize to the bees before collecting honey.
- **Sacred Groves:** These are small patches of forest protected by local communities. No one is allowed to cut trees or hunt animals here, preserving the biodiversity of the area.

6. Sacred Groves and Festivals

- India has a rich tradition of worshipping plants and animals:
 - **Vat Purnima:** Worshipping the Banyan tree.
 - **Hari Jiroti:** A festival for planting fruit-bearing trees.
 - **Kaziranga Elephant Festival:** Organized to create awareness about protecting elephants.

7. Our Responsibility: Protecting Nature

- We rely on nature for fruits (food), cotton (clothing), and neem (healthcare). To protect our world, we should:
 - Reduce paper waste (to save trees).
 - Say "No" to plastic (to prevent soil and water pollution).
 - Provide for wildlife: Keep food and water out for birds.
 - Organize Clean-up Drives: Keep our parks and neighborhoods clean.
 - Plant Trees: Grow herbal gardens at home or school.

New Terms






Word	Meaning
• Palash	- A tree with bright orange-red flowers, called Flame of the Forest.
• Village	- A small place where people live, usually near farms or nature.
• Natural materials	- Things found in nature like clay, wood, leaves, etc.
• Clay	- Soft soil used to make pots and houses.
• Hay	- Dried grass used for roofs and feeding animals.
• Dye	- A colour used for colouring cloth or materials.
• Extract	- To take out something useful from plants or other things.
• Earthen pots	- Pots made from clay.
• Bamboo	- A tall plant used to make baskets, furniture, etc.
• Neem	- A plant with medicinal uses and insect-repellent properties.
• Insects	- Small animals like ants, flies, and mosquitoes.
• Pests	- Insects or animals that harm crops or food.
• Tribe	- A group of people living together with the same culture and traditions.
• Honey	- Sweet food made by bees.
• First-aid	- Immediate help given to an injured person.
• Solar energy	- Energy obtained from the sun.
• Festival	- A special day of celebration.
• Sacred groves	- Forest areas protected by people for religious reasons.
• Resources	- Useful things we get from nature.
• Environment	- Everything around us including air, water, plants, and animals.

Activity 1 (Page 58)

1. Write names of five colourful flowers in your area. For example, Palash is called Kesuda in Gujarat.

Name of the flower	Local name	Draw and colour flower of your choice

Ans.

Name of Flower	Local Name (Example)	Draw & Colour
• Palash	- Kesuda (Gujarat)	
• Hibiscus	- Gudhal	
• Marigold	- Genda	
• Rose	- Gulab	
• Sunflower	- Surajmukhi	

Activity 2 (Page 60)

Make the model of a house using materials from nature such as clay, wooden sticks, hay, grass, leaves, etc. Decorate it with an art form of your choice.

Ans.

Materials Required:

- Clay or mud
- Hay or dry grass
- Small stones
- Cardboard (for base)
- Wooden sticks or twigs
- Leaves
- Natural colours (from flowers/leaves)

Steps to Make the Model

1. Base & Walls

- Take a small flat piece of cardboard or clay as the base.
- Shape walls using clay. Make 4 walls, leaving a space for the door and windows.
- Smooth the walls and let them dry slightly.

2. Roof

- Use wooden sticks as roof supports.
- Cover the sticks with hay, grass, or straw to make the roof.
- Stick it using mud paste or glue.

3. Doors & Windows

- Make small doors and windows using clay or small wooden pieces.
- Decorate with leaves or small sticks around them.

4. Decoration

- Paint the walls using natural dyes (from flowers, beetroot, turmeric, etc.).
- Draw Gond art designs or patterns of animals, birds, and trees.
- Use small stones or leaves to make a garden in front of the house.

5. Finishing Touches

- Place tiny bamboo baskets or earthen pots outside the house (optional).
- Add a tree made from clay and leaves next to the house to make it look like a village.

Tips for a Beautiful Model

- Use bright colors for flowers and designs.
- Ensure the roof sticks are stable so it doesn't fall.
- Keep the house small enough to place on a table or shelf.
- Let it dry completely before moving it.



Activity 3 (Page 60)

Let us prepare a natural dye.

Step 1. Collect some flowers, leaves, barks, and roots, such as beetroot, hibiscus, and marigold that have colouring properties.

Step 2. Boil any of the collected plant parts in approximately 1–2 litres of water for 30 minutes to an hour covering the container with a plate. (Please take help from your teacher or an elder.)

Step 3. Strain the liquid to remove the plant materials, leaving behind the natural dye.

Now, try to paint a piece of cloth such as a lightcoloured handkerchief or hand towel using the dye you have prepared. Note that you need to soak the cloth overnight, squeeze it and dry it the next morning.

Ans.

Preparing a Natural Dye – Steps & Explanation

Panel 1: Gathering Ingredients

- Drawing: A basket filled with bright red Hibiscus flowers, yellow Marigold petals, and some sliced Beetroot.
- Label: “Step 1: Collect natural materials with strong colors.”

Panel 2: The Boiling Process

- Drawing: A large pot sitting on a stove with steam rising from under a lid. The water inside is turning a deep, rich color (like dark pink or orange). An adult is standing nearby to help.
- Label: “Step 2: Boil the plant parts in 1–2 litres of water for an hour.”

Panel 3: Straining the Dye

- Drawing: A glass jar with a sieve (strainer) on top. Deep colored liquid is being poured through the sieve, and the used-up flower petals are caught in the mesh.
- Label: “Step 3: Strain the liquid to get your pure natural dye.”

Panel 4: The Final Result

- Drawing: A white handkerchief being dipped into a bowl of the dye. Next to it, show the handkerchief hanging on a clothesline, now a beautiful shade of soft pink or sunny yellow.
- Label: “Step 4: Soak the cloth overnight, squeeze, and dry!”

Activity 4 (Page 62)

Find out some traditional ways of preserving grains and vegetables at your place, and fill the following table. One example is given.

Name	Commonly used in which state	Details of the container
Tumri	Uttarakhand	Constructed with a round or oval shaped dried bottle gourd

Ans.

Name	Commonly used in which state	Details of the container
• Tumri	- Uttarakhand	- Constructed with a round or oval-shaped dried bottle gourd
• Kothi	- Rajasthan	- Large storage made of mud and cow dung, used to store grains safely
• Bharola	- Himachal Pradesh	- Big wooden container used for storing wheat and maize
• Kanagi	- Karnataka	- Bamboo container coated with mud to keep grains dry and safe
• Matka	- Gujarat	- Earthen pot used to store grains and pulses, keeps them cool
• Dholi	- Punjab	- Metal or wooden storage bin used for storing large quantities of grains

Activity 5 (Page 63)

Discuss with the elders in your family and write the name of the plant, its parts, and its uses, in the table given below.

Name of the plant	Parts of the plant	Use(s)
Indian basil (<i>Tulsi</i>)	Leaves	
Carom seeds (<i>Ajwain</i>)		

Ans.

Name of the plant	Parts of the plant	Use(s)
• Indian basil (<i>Tulsi</i>)	- Leaves	- Used to treat cough and cold, boosts immunity
• Carom seeds (<i>Ajwain</i>)	- Seeds	- Helps in digestion and relieves stomach pain
• Neem	- Leaves	- Used for skin problems and keeps insects away
• Aloe vera	- Leaves (gel)	- Used for skin care and healing wounds
• Ginger	- Root	- Helps in cough, cold, and digestion
• Turmeric (<i>Haldi</i>)	- Root	- Used for healing wounds and boosting immunity
• Mint (<i>Pudina</i>)	- Leaves	- Helps in digestion and gives freshness
• Clove (<i>Laung</i>)	- Flower bud	- Used to relieve toothache and cold

Discuss (Page 63)**Q 1. What things should be kept in a first-aid box?****Ans.** Things in a first-aid box: Bandages, antiseptic, medicine, mosquito repellent.**Q 2. Why do you think providing first-aid is important if someone gets injured?****Ans.** Providing first-aid is important because:

- **Saves life** – Immediate help can prevent the condition from becoming serious.
- **Prevents further injury** – It stops the injury from getting worse.
- **Reduces pain and discomfort** – Basic care can give quick relief.
- **Promotes faster recovery** – Early treatment helps healing begin sooner.
- **Provides support until help arrives** – It helps the injured person until a doctor or medical help is available.

Activity 6 (Page 65)

Find out the traditional dances and songs of your region. Perform a traditional dance with the help of your classmates and teachers for the Annual Day of your school.

Ans.**Traditional Dances and Songs of India**

State	Dance	Songs
• Gujarat	- Garba, Dandiya Raas	- Garba songs (Navratri songs)
• Punjab	- Bhangra, Giddha	- Punjabi folk songs (harvest songs)
• Rajasthan	- Ghoomar, Kalbelia	- Rajasthani folk songs
• Maharashtra	- Lavani	- Lavani songs
• Tamil Nadu	- Bharatanatyam	- Carnatic music
• Assam	- Bihu	- Bihu songs
• West Bengal	- Chhau	- Folk and devotional songs
• Kerala	- Kathakali	- Classical music and temple songs

Discuss (Page 65)**Q. Imagine if there is no light in your area for two days. What changes will you see in your life?****Ans.** If there is no light in my area for two days, many changes will happen in my life:

- I will not be able to study at night properly.
- We cannot use fans, lights, or air conditioners, so it may feel hot and uncomfortable.
- Mobile phones and laptops cannot be charged, so communication becomes difficult.
- We cannot watch TV or use the internet for learning and entertainment.
- Water supply may stop if electric pumps do not work.
- Food may spoil in the refrigerator due to no electricity.
- It will be difficult to cook and do daily work, especially at night.
- Shops and businesses may close early.
- Nights will be dark and unsafe, and we may need candles or torches.

Conclusion: Electricity is very important for our daily life, and we should save it and use it wisely.

Activity 7 (Page 66)

Talk to your elders and find out the rituals in connection to animals and plants which are celebrated in your locality. A few examples are given below.

Name of the festival	Plants/Animals associated	Activity
Vat Purnima	Banyan tree	Worshipping
Hari Jiroti	Fruit-bearing trees	Plantation
Kaziranga Elephant Festival	Elephant	Awareness drive

Ans.

Name of the Festival	Plants/Animals Associated	Activity
• Vat Purnima	- Banyan tree	- Worshipping the tree
• Hari Jiroti	- Fruit-bearing trees	- Plantation
• Kaziranga Elephant Festival	- Elephant	- Awareness drive
• Nag Panchami	- Snake	- Worshipping snakes and offering milk
• Govardhan Puja	- Cow	- Worshipping cows and decorating them
• Makar Sankranti	- Birds (like kites attract them)	- Feeding birds and celebrating harvest
• Tulsi Vivah	- Tulsi plant	- Worshipping and decorating the plant

One Point Learning

Let us reflect

1. What are the things that we use from nature in our daily life?

Activities	Collected from nature			
Eating	Fruits			
Clothing	Cotton			
Healthcare	<i>Neem</i>			
Any other				

Ans.

Activities	Collected from nature
• Eating	- Fruits, vegetables, grains
• Clothing	- Cotton, wool
• Healthcare	- Neem, Tulsi
• Any other	- Wood (for furniture), water

2. What challenges arise when we overuse natural resources?

For example, if we overuse wood from nature, our forests deplete.

- **Water:** _____
- **Soil:** _____
- **Sea products:** _____
- **Any other:** _____

Ans.

- **Water** : Water shortage, drying of rivers and wells
- **Soil** : Loss of fertility, soil erosion, poor crop growth
- **Sea products** : Fewer fish and marine life due to overfishing
- **Any other** : Pollution, deforestation, loss of wildlife

3. How can we protect the natural environment around us?



At home



At school







In parks



In our locality

Ans.

Place	Ways to Protect Environment
 At home	<ul style="list-style-type: none"> • Save water and electricity • avoid plastic, • do not waste food
 At school	<ul style="list-style-type: none"> • Keep classrooms clean • use dustbins, save paper • plant trees
 In parks	<ul style="list-style-type: none"> • Do not litter • do not pluck flowers • protect plants and animals
 In our locality	<ul style="list-style-type: none"> • Keep surroundings clean • plant trees, spread awareness • avoid plastic

4. Design your herbal garden

Here is a space for your herbal garden. Draw pictures of your favorite herbs in different parts of the garden and write down their names. Are there some herbs that you like less?

Draw them too!

Ans.

My herb garden

