



TEACHERS RESOURCE MANUAL

EVS - Social Science Grade 3





A TRIP ACROSS THE STATE

Intorduction

The unit "A trip across the state" is a dazzling journey through the state Kerala. This unit will help the learners to understand the geographical features of Kerala, fourteen districts, peculiarities of each district and places of attraction.

They do come across the emerald green landscapes captivated by ancient traditions and soothed by the gentle rhythm of swaying coconut trees. They also get an opportunity to explore highland, midland, and coastal regions of Kerala, know more about the agricultural aspects and different traditions.

They will also be able to read the political map of Kerala and find out different aspects of each district, like the capital, the southernmost district, the northernmost district, districts with seashore, districts without railway line etc.

Learning Outcomes

Major Learning Outcome

Understanding different features of the state Kerala both geographically and politically.

Specific Outcomes

Conceptual

- To understand the geographical divisions and climate in Kerala.
- To recognise Kerala's unique geographical features like beaches backwaters and hills.
- To understand the diverse agriculture and crop patterns in Kerala
- To understand the political divisions of the state 'Kerala' and its neighbouring states.
- To understand important features and tourist attractions of Kerala
- To understand the importance of airports, railway lines, seaports etc.
- Skills
 - Map reading and Interpretation Skills
 - Skill to identify the crops according to their geographical area.
 - Skill to plan a journey according to the need of the companions.

Attitudinal

- Appreciates and respects the environmental and cultural aspects.
- Positive attitude towards wildlife and vegetation.
- Positive attitude towards development without exploiting the nature.
- Approximate time envisaged for the transaction of the unit

:

- Indoor Classroom interactions :
- Outdoor Activities

Activities

Introductory activity

The little ones are always fascinated with vehicles like aeroplane, train, bus, car etc. The teacher can start asking questions like," Have you ever travelled on train or aeroplane?" When? Elicit responses and then start the story of Balu and Aman.

How many airports?

Teacher reads the first part of the text and asks whether they had such experience? For example, whether they had been to the airport to receive or see off someone. Elicit responses.



- Teacher can also ask questions like
- Which airport did you go?
- How far is it from your place?
-?
- Teacher can show pictures/video of famous international airports and give some information about them.



- Teacher can also encourage learners to collect such pictures and paste it in their EVS book.
- After that the teacher leads the learners to answer the questions in page 255.
- Checks the answers, does necessary corrections.
- Where is Kerala?
- The teacher continues with the story of their visit to Aman's house and directs them to the climate in that place. Here the teacher can ask some questions about the weather in their area.

For instance

- How is the weather today?
- Is it always the same weather here, or is there any change?
- What type of climate do you like? Etc.
- And explains that except in highland, Kerala has humid wet climate with relatively high temperature.
- Here the teacher shows the geographical map of Kerala and asks them to examine it.
- Learners are given chances to answer questions in page 256.

How many Districts?

• Teacher conversates with the learners about

the place they visited. She can ask questions like

- How did you spend your holidays (the previous one)?
- Where did you go?
- Who all were there with you?
- Do you like to visit places?
- And continues by telling, even Balu and his friends liked to visit places
- Let us see where they wanted to visit, directs them to page 257.

Kerala's Map

- Then the teacher can introduce the political map of Kerala and discuss about it.
- What do these different colours indicate?
- Do you know any of these places? How do you know?
- Here the teacher asks the children to answer the questions at the top of page 258 and continues with the rest of the lesson.
- "Balu, Aman and Greeshma started counting the districts, can you all check, how many districts are there in Kerala?"
- Gives a chance to count the number of districts from the map and asks them to answer the questions given at the bottom of page 258.
- The teacher should check the answers and do necessary corrections. They can also complete the work in Page 259 (name the districts).
- Here the teacher can lead the learners to page 262 and make them draw Kerala's political map and label the districts (working gallery activity1).

Map index

- The teacher exhibits a map similar to the one in page 260 and asks them to guess the meaning of the indicators given in the map.
- Teacher can ask questions like
- Why are aero planes drawn in the map?
- Can you check how many airports are there in Kerala?
- What do birds indicate?

Why are ships drawn in the map? (the miniatures forms are given just to identify the harbours, the number of harbours be counted cannot using the indicators. teachers can mention about the major ports where ships anchor and this also will change time to time. Now there are two major ports in kerala cochin and





vizhinjamPlaces in rivers where boats anchor are also generally called harbours. Students can be encouraged to name some of such river harbours)

- What do umbrellas indicate?
-
- Let the learners interpret the map and write in their notebook.
- Now let them answer to the questions at the bottom of page 259 and top of page 260.
- Here the teacher can show a video on different tourist destination in Kerala

- After that the teacher directs the learners to page 261 and discusses about Bhavya's declaration.
- Why did Bhavya say that their visit is to Alappuzha? Elicit responses.
- ♦ Have you visited Alappuuzha?
- What are the places of attraction?
- Which is the bird sanctuary in Alappuzha?
- Here the teacher can show a video on Kumarakom bird sanctuary.
- Learners can also answer to questions in the box in page 261.

Working Gallery

Now the children can find the answers for the questions given in the working gallery by examining the map or with the help of the teacher.

Working gallery activities can be done in between the lessons. For example, working gallery activity 1 is already given along with the reading of the map.

Puzzle making can be given as homework or group work in the class.



MAPS AND DIRECTIONS

Intorduction

This chapter, will help learners to embark on an exciting journey to become a master navigator! It helps to explore different types of maps, learn how to "read" their symbols and legends, and discover how to follow clear directions to get where you need to go.

Get ready to:

- Unfold the mysteries of map symbols and legends.
- Practice following directions, step by step.
- Plan adventures using maps and directions.
- By the end of this chapter, the learners will be confident in using maps and directions to explore their neighborhood, plan a trip to a new place, or even navigate the exciting world of video games! So, pack your curiosity, grab a compass (or your phone's map app!), and let's get started!

Learning Outcomes

Major learning outcomes

• Understand and explain maps and how it helps us navigate the world.

Specific outcome

Conceptional

- Identifies and names the cardinal directions (north, south, east and west) on a map and in the real world.
- Explains the purpose of symbols on a map and identifies the meaning of common symbols (e.g., park, school, house)
- Interprets the symbols used on a map.

• Skill based

- Follows written directions that use cardinal directions (e.g., walk north two blocks)
- Uses the mariner's compass to determine directions on a map.
- Give clear and concise directions using cardinal directions to guide someone to a specific location.

♦ Attitudinal

- Uses a map to locate specific places (eg., playground, library) based on the information provided on the map.
- Creates a basic map of a familiar location (e.g., classroom, schoolyard) using symbols and cardinal directions.
- Approximate time envisaged for the transaction of the unit:
 - Indoor Class room interactions:
 - Outdoor Activities:

Activities

Introductory activity

• The teacher asks some questions related to the last chapter,

Like:

- Do you think Aman and his friends will go to Alapuzha?
- Why did Balu's father give them the map?
- How did map help them to find a suitable place?
- Have you seen a map other than Kerala map? etc....
- After that teacher asks them to read the first



part of page 264.

- Then the teacher says, "Let us play a game with our classroom map" and plays 'Treasure hunt' (First the teacher hides some items in the class room and shows the map of the class room. In the map, it should be mentioned clearly, where the items are hidden. Those who find the items can take it themselves.
- ♦ After that the teacher asks the learners to examine the map given in their course book (264).
- Teacher can ask some questions to make sure that they have observed the picture thoroughly. For instance:
 - What items are there in the classroom?
 - Where is the door?
 - Where is the chair?
 - Where are the windows? Etc.
- Then the teacher asks whether they can draw their own classroom map. The teacher can also ask what information they should need to draw the map, leading them to directions. Now the teacher processes the part directions in TB page 265.
- After the process, the learners conclude that the direction where the sun rises is the East and opposite to that is the West. If we are facing the Sun then the left hand side is the North and the right hand side is the South. Based on these conclusions the teacher can ask the learners about the directions related to the classroom.

For example

- In which direction is the door of our classroom?
- Where are the windows? Etc.
- Now the teacher explains the directions on a map, like the bottom part of the map is the South and the top part is the North. The right-hand side is the East and the left-hand side is the West.
- After this, the teacher can group the learners into four or five groups and ask them to do

classroom mapping as group activity. Teacher can give instruction wherever necessary. After the completion, each group can present their work in the classroom. After discussion and consolidation, they can display it in the classroom.

• After the completion of classroom map, the teacher can lead them to the school map by asking them to observe the map in page 266. After examining it carefully the learner should answer the questions in page number 267. The teacher can ask more questions to comprehend the map.

For instance,

- What is in the North?
- Where is the lab?
- In which direction of the kitchen is the well? Etc.
- Now the teacher asks the learners whether they can draw their school map and what information they need to draw the map.
- Here also she can ask some questions like
 - How many gates does our school have? Where are they?
 - Can you tell in which directions are they located?
 - Where is the stage?
 - In which direction is the office room? Elicit responses.
- Continue the school mapping as group activity. Give instruction whenever necessary. Teacher can do the same processing of classroom map.
- After that the teacher shows the map of the panchayat or municipality where the school is located and asks them to identify their school, rivers, paddy fields, forests etc in that map.
- Later the teacher asks them to examine the map given in page 269 and identify the symbols.
- ♦ After completing these activities, the teacher can ask to draw the map of their village and mark the path to their house in the space given in working gallery on page 268.





Intorduction

Have you ever thought, how are we fulfilling our daily needs and where do these necessary items come to your house so fast? The answer lies in a world full of amazing jobs! In this chapter, we'll explore why jobs are important and how different people use their skills to make our world a better place. We'll learn about farmers who grow food, builders who build houses, doctors who keep us healthy, teachers who help us learn, and artists who create beautiful things. Get ready to discover the exciting world of jobs and maybe even find some ideas for what you want to be when you grow up!

Learning Outcomes

Major Learning Outcome

Understands the importance of jobs and the dignity of jobs.

Conceptional

- Understands the concept of "needs" and "wants" and how jobs help to fulfill them.
- Recognises that jobs contribute to the smooth running of a community.

Skill based

- Identifies jobs, like doctors, nurses, firefighters, police officers, teachers, artists, writers, musicians, architects, designers, inventors and sanitation workers.
- Understands that these jobs help to keep people safe, healthy, educated and entertained.
- Recognises tools used in these jobs (e.g. stethoscope for doctor, firehose for firefighter, paint brush for artist etc).

Attitudinal

- Understands that every job has its own importance and dignity.
- Appreciates and admires all kinds of jobs
- Approximate time envisaged for the transaction of the unit
 - Indoor Class room interactions:

• Outdoor Activities:

Activities

- Let's play a game today says the teacher and starts with the game 'Hot seat'. (The teacher gives some lots with different jobs to some learners. Eg: teacher, doctor, carpenter, farmer etc. Those who got the lot will sit on a seat one by one. Others will ask some questions to the one on the seat and find out what the job is.
- The questions can be
 - Where do you work?
 - Do you have a uniform?
 - Do you work on shifts? Etc.
- Those who find the job with the least number of questions are the winners. The game can be continued with different children.
- After that, the teacher asks some questions about Balu, Aman and their family.
 - Do you remember Aman and Balu?
 - Do you think they visited Alappuzha?
- Then leads them to the unit 'People and their living' (page 270).
- After reading the first part the teacher asks some questions.
 - Have you seen a fishing net?
 - Do you know how it works?
- Here the teacher plays a video of, the working of a fishing net.



• Then continues with the questions.

- Why did Greeshma become sad?
- Do you think the fishermen should stop fishing? Why?
- How did Aman's father console her?
- Do you have fishermen in your area?
- From where do you get Fish?
- Do you know how many districts of Kerala have coastal line?
- The teacher allows the learners to check the map of Kerala and find out how many districts have coastal line. Let them note it in their notebook.
- Greeshma's father is a teacher and Aman's father is a contractor.
 - What jobs do your parents do?
 - What jobs are there in your area?
- Let the learners list the jobs individually and consolidate them in groups. After consolidation let them present it in the class.
- Here the teacher can encourage the learners to complete the activity in page 271. Teacher can help them whenever necessary.
- Continue the activity 'jobs and tools' (page272) similarly.
- After that the teacher continues by asking Bhavya's question.
 - Why do people do different jobs? Elicit responses.
- To make it clear, teacher can ask about their needs from morning to evening.
- Writes them on the board and asks them how do we get each of these items? Consolidates by telling that we need to do jobs to fulfill our daily needs as well as special needs.
- From this list the teacher leads them to basic needs such as food and ask them from where do they get food. Elicit responses and get the term crops.
- The teacher then asks, "Where do we grow crops" and try to get the answer fields.
- Check whether they have visited any fields and ask them to share their experience.
- After that the teacher can ask to read the passage on page 273 'Farmers feed us'.
- Here the teacher can remind them about the geographical division of our state Kerala.

- The teacher can encourage them to find out different crops grown in lowland, middle land and highland.
- They can find information using different means like internet, talking to elders or reading books about Kerala's agriculture.
- They can complete the activity on page number 273
- Now let us see what Balu and Aman found when they visited a paddy field. The teacher continuous with the part 'Visit to a paddy field'.
- Here, the teacher shows pictures of different steps of paddy cultivation and mention the name
- After that the learners can do the activity 'steps of cultivation' (match the following) in page 276
- Later the teacher can play a video on paddy cultivation and ask them to complete the box in page 277 as homework.
- The teacher can also plan a visit to the rice mill and show them how the outer layer of paddy grains are removed. Let them note the steps and write down in the box in page 277
- Then the teacher shows pictures of tools and machines used in cultivation.
- Let them point out the name and write down in which stage of cultivation they are used (page 278). Also mention which tools were used in Olden times to do all these works. The teacher can ask the learners to compare the tools and write similarities and differences.
- Teacher can also assign this as a project work and ask them to paste pictures wherever necessary. The best project work can be acknowledged and appreciated.

Agricultural festivals

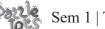
In this section the teacher can ask some questions about the festival they recently celebrated and ask them to share their experience. The teacher can list out the names on the blackboard or chart. Then the teacher reminds them about the Onam celebration they had in school and recollects the memories with them.



- After that, asks to read Agricultural festivals (page 278) and have a discussion on, why they are called 'Agricultural festivals'.
- They can talk to the elders in the locality to know more about Onam and Vishu as agricultural festivals.
- Learners can prepare a questionnaire to interview the elderly one.
- Teacher can also ask them to find out different agricultural festivals celebrated in the other states of India.
- Later the teacher can show a video on different agricultural festivals celebrated in India.
- Learners can collect pictures of different

agricultural festivals and paste it in the box given in page number 279.

- They can also complete the activities
- 'How is Onam celebrated in your place' (page number 280). Here the teacher can invite someone, locally to tell about the Onam celebration in olden days and ask the learners to compare it with the current celebration.
- The children can also complete the last box in page 280 by answering "What job would you like to do when you grow up? Why?"
- Evaluation and correction can be done on each activities.







TEACHERS RESOURCE MANUAL

EVS - Social Science Grade 4





UNLOCKING THE MYSTERIES

Learning Outcomes

Major Outcome

• Identify different types of earth movements and natural phenomena caused by them.

Specific Outcomes

♦ Conceptual

- 1. Understand that Earth rotates on its own imaginary axis, a movement called rotation.
- 2. Recognize that Earth's rotation causes sunrise and sunset, leading to day and night.
- 3. Understand what a shadow is and why it changes with time.
- 4. Comprehend that Earth moves around the Sun in its orbit, a movement called revolution.
- 5. Recognize Earth's revolution as the cause of seasonal changes.

٠ Skills

- 1. Ability to conduct experiments with various materials.
- 2. Ability to observe experimental results and form conclusions.
- 3. Ability to illustrate learned concepts.
- 4. Ability to access subject-related sites using the Internet and gather additional information.

Attitudinal

- 1. Develop an inquisitive disposition towards observing natural wonders.
- 2. Foster awareness that universal truths can be explained with the help of science.
- ٠ Approximate Time For Unit Completion
 - Indoor classroom interactions: 8 Periods
 - Outdoor activities: 1 Hour

Activities

Introductory activity



Sem 1 | TRM | SS | Grade 4

Children are naturally fascinated by the wonders of nature. This lesson aims to inspire inquisitive thinking. It begins with a description of dusk by the sea, followed by analytical questions to engage the students.

Example Questions:

- Do you visit the beach on your days off?
- What is the most beautiful view at the beach during dusk?
- Now Read "The Magic of the Golden Sky" in the textbook.

Discussion

- Do you agree with Sarah's thoughts about the sunset?
- Has anyone told you that the sun does not set into the sea?

Experiment

• Let's conduct an experiment to understand this phenomenon.

Materials Needed:

- Plastic ball
- Steel rod
- Lighted torch

Procedure:

- 1. 1. Divide the class into groups of three or four.
- 2. 2. Provide each group with the necessary materials.
- 3. 3. Conduct the experiment as a group activity.
- After the experiment, let the children answer questions in the textbook. If needed, provide explanations and help them write their answers. Show the video "Day and Night for Kids" using the provided link in the textbook.

Picturisation:

• Use the pictures in the textbook to illustrate

what happens during day and night.

• **Rotation**: Read the sentence in the textbook and write the definition of rotation in your notebook.

Shadow

- Measure the length of the shadow using a large plastic ball, a small pencil, and a lighted torch. Spin the ball to show the difference in shadow length throughout the day. This experiment aims to clarify how the length of the shadow changes with time.
- Assignment: Complete the activity on page 230 of the textbook to measure and record shadow sizes.
- Earth's Merry-Go-Round:
 - Record sunrise and sunset times using a calendar as a group activity.
 - Show videos to explain the differences in sunrise and sunset times in December, April, and September. The links are provided in the textbook.
 - Activity: Read the paragraph on page 231 of the textbook.

Discussion:

- Why are there seasons?
- Why does the length of the day vary in different months?

Revolution: Understand that the movement of Earth around the Sun in a fixed path is called revolution. The path is known as an orbit. Earth revolves from west to east, completing one revolution in about 365.242 days.

Assessment Activity: Complete the worksheet on page 232 of the textbook.

ASSESSMENT

• What to Assess?

Acquisition of Facts and Information:

• Understanding Earth's two types of motion:

rotation and revolution.

- The reason for day and night.
- The concept of shadows and how their lengths depend on the time of day.
- The cause of climate changes.
- The reason for the variation in day length across different months.

Some specimen questions to assess conceptual understanding

- Which of the following is a type of motion exhibited by Earth?
 - a) Vibration
 - b) Rotation
 - c) Translation
 - d) Oscillation
- What term describes the Earth's movement around the Sun?
 - a) Revolution
 - b) Rotation
 - c) Oscillation
 - d) Precession
- How long does it take for the Earth to complete one rotation on its axis?
 - a) 24 hours
 - b) 30 days
 - c) 365 days
 - d) 12 hours
- What is the primary effect of Earth's rotation?
 a) Change in seasons
 - b) Day and night cycle
 - c) Change in climate
 - d) Tides
- How long does it take for the Earth to complete one revolution around the Sun?
 - a) 24 hours
 - b) 30 days
 - c) 365 days
 - d) 12 months

True or False Questions

- 1. Earth's revolution is responsible for the occurrence of day and night.
- 2. Earth's rotation takes approximately 24 hours to complete.
- 3. One complete revolution of Earth around the Sun takes approximately one year.

Fill in the Blanks

- 1. Earth's rotation on its axis takes approximately hours.
- 2. Earth's revolution around the Sun takes approximately days.
- 3. The motion of Earth spinning around its own axis is called _____.
- 4. The motion of Earth moving around the Sun in an elliptical orbit is called
- 5. The phenomenon of day and night is a result of Earth's _____.

Matching Questions

- Match the terms with their correct definitions:
- 1. Rotation a) Movement of Earth around the Sun
- 2. Revolution b) Spinning of Earth around its axis

Short Answer Questions

1. What are the two types of motion that the

Earth exhibits?

2. What causes the change in seasons on Earth?

Skills

• Ability to conduct experiments using provided materials and draw conclusions based on observations.

Attitudes

• Developing an inquisitive approach towards natural phenomena and interpreting them scientifically.

Working Gallery and Unit Assessment

• Activities in the gallery are also intended for a consolidated assessment of the unit. Please remember that the activities in the working gallery are only examples and should be adapted and expanded as needed





Introduction

Children are naturally curious about the wonders of the night sky. They are familiar with the Moon, the Sun, and the countless stars they see when they look up. This lesson aims to expand their knowledge about these celestial bodies and introduce them to new concepts.

Lesson Overview

In this lesson, students will learn that, in addition to Earth, there are seven other planets that revolve around the Sun. Supplementing the textbook content with pictures and videos can enhance understanding and engagement.

Major Learning Outcome

• Students will understand basic facts about the Celestial Bodies and human explorations to some of them.. They will also learn that the solar system consists of the Sun, the planets that orbit it, and the moons that orbit those planets.

Specific Learning Outcomes

• Conceptual Understanding

- 1. Recognize that there are other celestial bodies in the universe besides the Moon.
- 2. Understand that Earth is just one planet in the celestial family called the Solar System.
- 3. Gain knowledge about the other planets in the Solar System.
- 4. Learn that the Moon is Earth's natural satellite.
- 5. Realize that other planets also have natural satellites.
- 6. Gain more knowledge about the Moon and India's lunar explorations.
- 7. Learn about Sputnik, the first artificial satellite.
- 8. Understand that the Moon was the first celestial body on which humans set foot and learn more about the Apollo missions.
- 9. Identify India's artificial satellites and understand their importance.

Skills

- 1. Develop the ability to observe celestial bodies using digital applications.
- 2. Gain the ability to build a model of the Solar System.
- 3. Extract appropriate information from various sources such as video clips, blogs, and applications.

Attitudinal

- 1. Develop the perspective that Earth is only a small part of the infinite universe and that humanity is one among countless creatures.
- 2. Feel proud of the achievements humanity has made through science.
- 3. Foster pride and national consciousness in India's achievements in space exploration.
- Approximate Time for Unit Delivery
 - Indoor classroom activities: 14 Periods
 - Outdoor activities: 3 Hours

Activities

Introductory activity

 In Lesson 1, the children learned that the Earth revolves around the Sun. Apart from the Earth and the Sun, the closest known celestial body to them is the Moon. Therefore, it is advisable to start with the Moon and then move on to other



celestial bodies. Show the class the launch

video of Chandrayaan-2 through the link provided in the textbook.

 For better convenience, the video link is given here in the form of a QR Code



 Encourage the children to write answers to analysis questions based on the video. The teacher should provide necessary interventions and guidance during this activity.

Chandrayaan-2

- Chandrayaan-2 is the second lunar exploration mission developed by the Indian Space Research Organisation (ISRO) after Chandrayaan-1. It includes a lunar orbiter, the Vikram lunar lander, and the Pragyan rover, all developed in India. The mission used the GSLV Mk-III rocket system.
- The textbook includes a link to the launch of Chandrayaan-2 to provide more information about the surface of the Moon. Students should also watch the launch of Chandrayaan-3 through the link provided below.

Chandrayaan-3

 Show the launch video of Chandrayaan-3 to the class. The mission demonstrates India's continuous efforts and advancements in lunar exploration. (Watch the Chandrayaan-3 launch video)



♦ Follow-Up Discussion

After watching the videos, engage the class in a discussion with the following questions:

- 1. What did you find most interesting about the Chandrayaan missions?
- 2. How do you think these missions help us understand more about the Moon?
- 3. What are the differences between Chandrayaan-2 and Chandrayaan-3?
- Encourage students to express their thoughts

and write short essays or reports based on their observations. This activity will help reinforce their understanding of lunar exploration and the significance of these missions.

Observing the Sky

• Children can have a planetarium experience in the classroom through digital apps like Stellarium, Sky view, star tracker etc. after reading a textbook about observing the sky with a telescope. It can give children the same feeling of night sky observation.



More about the Solar System

- In page 236, there is a video link, For convenience it is converted in to a Barcode and is given below
 - Open this barcode and display the video. You can give instructions to say and write the names of the planets seen in the video. After that, the teacher should help students write short descriptions about the planets.
- The eight planets in the solar system move around the Sun. In order of increasing distances from the Sun, these are
 - **Mercury:** Mercury is the smallest planet in the solar system and the closest to the Sun.
 - Venus: Venus is the second planet from the Sun and Earth's closest planetary neighbour. It is the third brightest object in the sky after the Sun and Moon.
 - **Earth:** Our home planet, the third from the Sun.
 - Mars: The fourth planet from the Sun, Mars is one of Earth's two closest planetary neighbours. It is one of the easiest planets to spot in the night sky.
 - Jupiter: Jupiter is the biggest planet in our solar system. It is more than twice as massive as all the other planets combined.

Dartle Tots

- Saturn: Saturn is the sixth planet from the Sun and the second largest. It is unique among the planets for its dazzling system of icy rings.
- Uranus: Uranus is a very cold and windy world. It has 13 faint rings and 28 small moons. Uranus rotates at a nearly 90-degree angle from the plane of its orbit, making it appear to spin sideways.
- Neptune: Neptune is one of two ice giants in the outer solar system. Most of its mass is made up of a hot, dense

fluid of "icy" materials.



For more information let the children watch the video in the Barcode (Page 238)

More about the Moon

Open the link on page 238 of the textbook to learn more about the solar system. This video explains more about satellites. Earth has only one natural satellite, the Moon, but students should be informed that the number of moons for planets like Jupiter, Saturn, Uranus, and Neptune is still being discovered.

Phases of the Moon:

- **Full Moon**: When the visible surface of the Moon is fully round and lit up.
- New Moon: When the Moon's dark side is toward Earth.
- **Waxing**: The period when the illuminated part of the Moon increases.
- **Waning**: The period when the illuminated part of the Moon decreases.

Exploration

GRADE -

• Let the children watch the prestigious launch and landing of Apollo 11



Video link in Page No 240 is converted in to the Barcod

• Students have witnessed the launch of Chandrayaan 2 and 3. Before that,

Chandrayaan 1 mission was successfully completed. Collect information and prepare short notes on these three explorations. Don't forget to grade the assignment.

- Chandrayaan1: India's first mission to the Moon, launched successfully on October 22, 2008, from SDSC SHAR, Sriharikota using the PSLV-C11 launch vehicle.
- Chandrayaan-2: The second lunar exploration mission developed by ISRO. It includes a lunar orbiter, the Vikram lunar lander, and the Pragyan rover. The GSLV Mk-III rocket system was used.
- Chandrayaan-3: A follow-on mission to Chandrayaan-2, launched on July 14, 2023. It consists of a lander and rover configuration, demonstrating end-to-end capability in safe landing and roving on the lunar surface.

Space Explorations of Other Countries

 Other countries have also successfully explored the Moon. Show a picture of Sputnik 1, the first artificial satellite. To learn more about the Apollo 11 mission and the first man to land on the Moon, open the link on page 240 of the textbook.

Discussion Questions:

- 1. What did you understand after watching the video?
- 2. Where did they land?
- 3. How many people landed?

Students should collect information about the first moon landing and prepare a note.

 Apollo 11: The NASA program that resulted in American astronauts walking on the Moon. On July 20, 1969, Neil Armstrong and Edwin Aldrin, Jr. became the first humans to land on the Moon while Michael Collins orbited above.

Discussion Questions:

- 1. Who first stepped on the Moon?
- 2. Who came second?
- 3. Who piloted the command module?

Dazzle Tots

Natural and Artificial Satellites

- After reading the section on natural and artificial satellites, introduce some artificial satellites of India. Explain why they were launched as mentioned in the textbook.
 - Let the children now do the related Worksheet
 - Pluto Just for discussion. After reading about Pluto, discuss why it was removed from the list of planets.

Working Gallery

Barcodes of the video links in page number 243



Solar System Models



In addition to the activities given in the working gallery, the teacher can assign suitable group activities, providing the necessary materials for the model. Let the children undertake the project (picture calendar) mentioned in the textbook. The teacher's interventions can be to clear doubts and provide guidance.





Introduction

The unit "Our Great Leaders" serves as a comprehensive guide to educating students about the profound impact and contributions of some of India's most eminent leaders.

India has contributed many great leaders to the world, each leaving a profound impact on various aspects of society. However, it is impossible to include all these remarkable individuals in a single lesson. Therefore, we have selected a few exemplary leaders to represent different sections and fields. These include Mohandas Karamchand Gandhi for his pioneering role in non-violent resistance, Jawaharlal Nehru for his leadership in politics and nation-building, Dr. B.R. Ambedkar for his advocacy of social justice and his role in drafting the Indian Constitution, Sarojini Naidu for her contributions to the freedom movement and women's empowerment, and Dr. A.P.J. Abdul Kalam for his advancements in science and his inspirational presidency. This selection aims to provide a broad understanding of the diverse contributions made by India's leaders. This lesson aims to provide a holistic understanding of the diverse spheres in which these leaders have influenced the nation and the world.

LEARNING OUTCOMES

Major Learning Outcome

 Develops respect towards the contributions of India's Great Leaders

Specific Learning Outcomes

Conceptual

- Understands the role of Mahatma Gandhi in leading India's independence struggle through non-violence and epitomizing peaceful resistance.
- Identifies the role of Jawaharlal Nehru, the first Prime Minister of independent India, in shaping the country's early political landscape and development.
- Develops understanding of Dr. B.R. Ambedkar who championed social justice and equality and was the chief architect of the Indian Constitution,
- Recognizes the importance of Sarojini Naidu, as a freedom fighter ,poet, highlighting the role of women in India's freedom movement.
- Understands the profile and contribution of Dr. A.P.J. Abdul Kalam, a visionary

scientist and the 11th President of India, who exemplified the power of education and innovation.

- ♦ Skill
 - Develops skill for illustrating the concepts in different forms(Such as developing an Album in this lesson)
 - Cultivates the ability to create appropriate titles and captions for texts and develop descriptions on the basis of picture and captions
 - Enhances the skill to extract pertinent information from diverse sources

Attitudinal

- Inculcates respect for the contributions of Great Leaders
- Fosters pride in the traditions of the Nation

Activities

• The entire unit unfolds through an engaging activity: creating an album of India's Great Leaders through group work. You are encouraged to replicate this activity in your class as the unit progresses. Biographical details



of the leaders have to be added in the Album but our focus should be on the contribution of the leaders and their ideals.

Classroom Activity:

- Creating an Album on Great Leaders of India(11 Periods)
- How can we proceed? A suggested process
- Begin with a discussion about the importance of leaders and their impact on society.
 - Highlight a few notable Indian leaders to spark students' interest.
- Research:
 - Assign each student or group a specific leader or allow them to choose from a provided list.
 - Guide students on how to gather information from books, reliable websites, and other educational resources.
- Content Requirements:
 - Each student or group should create some dedicated pages in the album for their chosen leader.
 - The page should include:
 - A photograph or drawing of the leader.
 - A brief biography, including birth and death dates, major achievements, and contributions to India.
 - Interesting facts or anecdotes about the leader.
 - Ideals and contributions of the leader
 - Quotes by or about the leader.
- Presentation:
 - Encourage creativity in the presentation. Students can use drawings, decorations, and different fonts to make their pages visually appealing.
 - Ensure that the content is well-organized and focussed on the ideals of the leader.
- Compilation:
 - Collect all the individual pages and compile them into a single album.
 - Create a cover page with the title "Great Leaders of India" and decorate it to make it attractive.

- Display:
 - Display the album in the classroom or school library.
 - Consider arranging a presentation day where students can share their work with classmates and teachers.
- Evaluation:
 - Assess students based on their research quality, creativity, and presentation skills.
 - Provide constructive feedback to help them improve.

By following these steps, you will help your students create a meaningful and educational album that honors the great leaders of India. Let them Enjoy the activity

Mahatma Gandhi

The following barcode links will help the children to gain biographical and other details of Mahatma Gandhi.



The video link in the third barcode may help you to provide more insights to the life and ideal of the Mahatma.



Jawahar Lal Nehru

Next few pages are to be dedicated to Jawaharlal Nehru, the first prime minister of independent India. Dream of a boy – Balu- is narrated in the box just for remembering the intense relationship Nehru had with the children. The questions below the box can be utilized for leading a discussion to this aspect. The video link given in page number 248 is converted in to Bar code and is given below.

The group assigned with the task of preparing some album pages dedicated to Nehru can gather information for preparing the Album. In the title page a specimen





title is given in the Text book. However the group may be encouraged to create their own title. Let the group develop other pages as per the directions. In some pages titles are given and the group has to insert the content. One page is dedicated to the intellectual relationship between the father and the daughter. Information to this respect have to be gathered from the video link

As mentioned in the T B let the children develop some more pages reflecting Nehru's role as the architect of the nation

Sarojini Naidu

Video links for gathering information for developing pages about Sarojini Naidu are converted in to Bar codes







Ambedkar

Some information about Amedkar is given in

the text book. More details are in the video link which is converted here in to a Barcode for your convenience. While preparing Album pages on Ambedkar, focus should be on his ideals of social justice, democracy and equality.

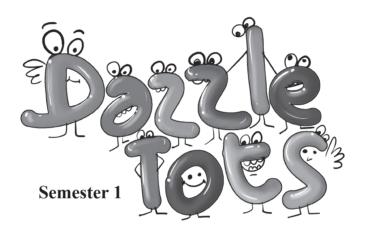
A P J Abdul Kalam

Dr. A.P.J. Abdul Kalam renowned as the Missile Man of India played a pivotal role in advancing India's space and missile technology = contributing significantly to the nation's defence capabilities. As the 11th president of India he inspired millions with his vision for the country's development advocating for education and innovation. These ideals are abbreviated in his quotes. The group is expected to expand it on their own words.

Assessment

 Continuous assessment of individual as well as group performance can be done along with activity. i.e. the development of the Album. Activities in the working gallery can be utilized for unit assessment.





TEACHERS RESOURCE MANUAL

EVS - Social Science Grade 5





Introduction

The unit is a captivating journey through the heart of 'Incredible India.' In this unit, we explore the rich cultural resources of India appreciating the vibrant diversity that defines our nation. From the tapestry of traditional dresses to the symphony of languages echoing across our landscapes and the delicious array of regional cuisines, we invite our students to embark on an enlightening expedition.

Beyond all these colours and flavours, this unit seeks to unravel the underlying thread that binds us together—a profound unity that transcends geographical and cultural boundaries. As we navigate through the pages of this unit, let us guide our young minds to recognize the shared values, traditions, and the spirit of unity that forms the very essence of our incredible Nation. Join us in illuminating the path towards a deeper appreciation for diversity and a sense of collective identity that makes our India truly incredible.

LEARNING OUTCOMES

Major Learning Outcome

• Understanding different aspects of the diverse nature of Indian Culture and appreciating the underlying unity

Specific Out Comes

♦ Conceptual

- To understand the diversity in food habits, dress and languages in India
- To understand the diverse agriculture and crop patterns in India
- To understand the geographical divisions of India and the regions coming under each
- To understand important features of Western Ghats
- To understand some basic features of the Konkan Rail Route

Skills

- Map reading and Interpretation Skills
- Skill related to rail journey, like locating, calculating distance between stations, time covered, etc. using certain applications
- Extracting appropriate information from diverse sources like video clippings, Blogs,

Applications, etc.

- Attitudinal
 - Appreciation and respect towards the diverse culture of India
 - Positive attitude towards others and other cultures
 - Reverence towards the underlying unity of India in spite of all diversities
- Approximate time envisaged for the transaction of the unit
 - Indoor Class room interactions: 16 Periods
 - Outdoor Activities : 2 Hours

ACTIVITIES

Introductory activity

As in the other chapters of Social Science, a deliberate attempt is made in this chapter to provide an interesting and experiential exposure to the children. Most people are fond of travel and this chapter, in the form of a travelogue, has to be presented as a journey throughout India enjoying its natural beauty and diversity. It will be desirable to begin the chapter with discussion about the students' travel experiences, preferably outside the state or abroad Let them explain about the





- Mode of conveyance
- Types of food they ate
- People they met etc. etc.
- Now the children can be invited to join Greeshma and her family in their journey to New Delhi

How to reach by Rail?

• Let the children read the text in groups. The first task Greeshma(and the children) faces is to interpret the Railway Map and find out answers to some questions related to

that. There are two Maps indicating two separate routes for their reference. It is better to use an original Railway Map and project it in the class. You can use the link below



- https://indiarailinfo.com/atlas
- The children may be asked to find out answers to questions in Page Number 257 of Unit Number 1 in groups. Some more questions can also be raised and let them try to find out the answers.
 - How can one reach Kolkata from Chennai. What are the stations in between?
 - Is there any rail route to Patna from Delhi? What are the stations in between?
 - What are the Major City stations in the Central Railway?

Some Home Assignments can be given so as to be more familiar with Rail Maps

Purpose of this activity is to make them capable of interpreting Maps especially route maps

 Ask them to share their findings in the class. Now Let us rejoin the journey.

App and Map

 This is an era of technology. Railway Time Table and Rail Maps which once helped travellers a lot, have been replaced by cleverly designed applications. Running Status of trains, late running, expected arrival, departure, expected time of reaching the destination, stations covered etc. can be now easily managed by applications. An attempt is made in the chapter to make the children familiar with one of such application now in common use. With 'Where is My Train' Application children easily find out answers for the questions regarding the distance between Kozhikkode and Kasargode, the approximate time for travelling between these stations etc. Some other applications like 'IRCTC Rail Connect' used for booking and cancelling of tickets can also be familiarized. If you are not already familiar with the Applications it is easy to download them from the play store and learn it.

• The children have to complete two tasks with the help of the *'Where is My Train'* App and

from the '*Railway Map*'. Another task is to find out the Major Stations of Karnataka in the Konkan route. If the children face difficulty to find it out, the following map can also be made use of.



- https://www.mapsofindia.com/maps/india/ konkanrailway.html
- Along with the accuracy of the information gathered from Maps and Apps, following skills also should be focused.
 - Map Reading and interpreting skills
 - Using simple applications effectively

Crops of Karnataka

• The other activity is to fill the table related to the crops of Karnataka with the help of video clip in the QR code. As you can see in the video, there is a big variety



in the crops cultivated in different regions of Karnataka. Only major crops are to be written in the table. Here the focus should be on the variety prevailing even in a particular State. Skill for extracting appropriate information from a digital source also has to be acquired.



- Other sources can also be made use of. Here also the students need to be trained to collect suitable information from diverse digital sources which will be helpful in their future studies.
- Let the children read the text in groups. While reading about the 'Supper with a difference' let them have a discussion about their own food habits

Variety of Languages in India

 Even though there are only 22 official languages India has hundreds of languages and thousands of dialects. Detailed information is available in the following QR code.



- It is to be highlighted that there are no other countries in the world which has such diversity in language.
- Under the title 'Wonderful Menu', along with the discussion about breakfast there is task regarding Railway Stations and distances between them. After that there is another activity, in which the children have to enter the list of some food items they might have eaten during their travel and their ingredients.

(This can be given as an Home Assignment to be completed with the help of parents).

• Don't insist upon the accuracy of the ingredients, but let the children be aware of the diversity in food existing in different places of India.

Dissolving in to unity

- Let the children say more examples for migrants in our menu (Eg. Many Arabian and Chinese food) Culture is not a static thing but is always under transformation accepting many things from others.
- There is a photo of the cotton fields of Maharashtra in the text book. The following video can also be used.



• Along with the description

of the Western Ghats and Konkan route the following video can be shown to the children for enjoying the geographical diversity and beauty of India.



Identifying the traditional dresses

• The activity related to the identification of the traditional dresses in page number 264 can be easily completed by the help of the two video clips given above it.

(This can be given as a Home Assignment)

 Here also experiencing the diversity is rather important than accuracy in identification. The states are Rajasthan, Gujarat, Manipur, Kashmir and Punjab respectively)

Amalgamation in dress code

 As in the food the focus of the fact 'many of these dresses are worn by all Indians alike' is the kind of cultural amalgamation through which a country progresses.

Diversity in Agriculture

Descriptions under titles 'Sweetest Maharashtra'. 'Lands Feeding India' and 'Through the Golden field' are for understanding the diversity in agriculture and crop patterns in India. Don't forget to compare these facts with agriculture of Karnataka, we discussed earlier and that of Kerala we have been experiencing. More pictures and videos can be used to feel the diversity in agriculture in India.

Vast Rivers

Above the soyabean fields of Madhya Pradesh, there is a video clip showing a train crossing the Chambal River. The purpose of this clip is to make the children understand the vastness of the North Indian Rivers. This is due to the topographic characteristic of the region (Vast Plain lands) and is the reason for the fertility of the soil. This fact may be highlighted



Geographical Divisions, States and Crops

- ♦ Again there is a map reading exercise. Here geographical divisions and States of the Country are marked in the map. It will not be difficult to find out States coming under each division and enter in the table. Important crops in these states are marked in the blog. Let the children complete the task in groups.
- Greeshma's thought mentioned in the next paragraph about the amazing diversity existing in our country and the unity prevailing despite of all diversities is the core of this unit. Our children also should have a similar feeling about our incredible nation.
- The last activity for finding out trains running to Jaipur from Delhi, the route and important stations from the Map and the App can be used as an activity for preliminary assessing the skills acquired in Map reading and using of applications.

ASSESSMENT IN THE UNIT

What are to be assessed?

• Acquisition of facts and information

- Details about both railway routes from South to North (Major Stations. Distance, Approximate time of travel etc)
- States from South to North and their location
- Major crops in Indian States
- Diversity in dress and food
- Official Languages of India and diversity in Language
- Geographical divisions and States coming under each division

♦ Skills

- Map Reading Skills
- Extracting appropriate information from digital sources
- Use of simple applications

♦ Attitudes

• Appreciation and respect towards the diverse culture of India and reverence towards its unity

How to assess?

- Assessment has to be started along with the learning activities. After the initial map reading activity, map reading skills can be progressively assessed in later map reading activities. Skills for extracting information and use of digital application can also be assessed along with later activities (After the initial activities)
- As mentioned above, the last activity for finding out trains running to Jaipur from Delhi, the route and important stations from the Map and the App can be used as an activity for assessing the skills acquired in Map reading and using of applications

Working Gallery and Unit Assessment

- Activities in the Gallery are also meant for consolidated assessment of the unit. Please don't forget that the activities in the working gallery are only specimens and have to be adapted and expanded according to requirement. First activity to identify the crops and the States has to be expanded with more crops and can be used for acquisition of facts related to agriculture diversity.
 - In the following activities also there are scope for assessing the acquisition of information related to information regarding States from South to North, Location of Railway Stations, agriculture and languages of India.
 - Last activity is meant for assessing and improving the positive attitude towards the diversity of the country.
 - More activities like elocution debates, seminars etc can also be conducted for assessing and improving pride in the pluralism in India





UNITED LIBERATION

Introduction

The unit titled "United Liberation," reveals the fact that India's journey to independence was not merely a singular narrative but a collective effort, woven together by the threads of courage, determination, and solidarity from all sections of society.

In this unit, we explore how people from diverse backgrounds, cultures, and ideologies came together under the banner of freedom, standing shoulder to shoulder to challenge colonial oppression and paveD the way for a new dawn of sovereignty. From the bustling cities to the remote villages, from the intellectuals to the laborers, from men to women, and from the young to the old, every individual contributed their part in the epic history of India's liberation.

Through the inspiring stories of various movements and leaders, we aim to illuminate the mosaic of unity that defined India's struggle for independence. From Mahatma Gandhi's philosophy of nonviolent resistance to Bhagat Singh's revolutionary fervor, from the satyagrahis to the salt marchers, each section in this unit showcases the resilience of a nation united in its quest for freedom.

As educators, it is essential to impart to our students the invaluable lesson of unity in diversity that resonates throughout India's history. By understanding and appreciating the collaborative efforts of different sections of society, we not only honor the sacrifices of our ancestors, but also cultivate a spirit of inclusivity and solidarity among the future leaders of our nation.

How can the unit be transacted in an interesting way?. A unique strategy is suggested in the text book-. Organizing an exhibition on India's journey to freedom-. You may conduct such an exhibition as suggested or think of more novelties to make the exhibition an enjoyable and informative event.

LEARNING OUTCOMES

Major Learning Outcome

• Understanding the inclusivity in the Indian Freedom Movement and being proud of the pluralistic tradition of the Nation

Specific Out comes

- Conceptual
 - To understand some of the anti-people policies and exploitation of the British and their impacts on various sections of people of India
 - To understand some major events in the National Freedom movement involving different social sections of the society
 - To understand the role of some important leaders of Indian National Movement and

their representation of different social sections or groups

- To understand the major Gandhian principles like Self Reliance, Equality, Non Violence, Honesty etc.
- To understand important facts about the major events related to Indian freedom movement.
- Skills
 - Extracting appropriate information from diverse sources like books, digital sources etc
 - Processing of information accurately, constructing basic concepts and displaying them through appropriate mediums like presentations, brochures, boards, panels etc



Attitudinal

- A Respect towards the inclusivity in Indian Independence
- Feeling of togetherness in the light of the unity reflected in the freedom movement
- Appreciation and respect towards the inclusive culture of India
- Approximate time envisaged for the transaction of the unit
 - Indoor Class room interactions: 14 Periods
 - Exhibition: One Day (part of day celebrations)
 - Outdoor Activities :

ACTIVITIES

♦ As mentioned above, the whole unit is envisaged to be transacted through a major activity-Organizing an Exhibition-. This exhibition can be conducted on an appropriate occasion like Independence Day celebration, Republic Day celebration or part of Social Science Club activities. As suggested in the text, different groups can be assigned with different tasks. But care should be taken to ensure participation of all children and their individual performances should be assessed through the worksheets in the T B.

Exploitation

The activity suggested here is simply matching the cards by reading the texts. But the fact to be highlighted is the severity of British economic and social policies and how various sections of people were badly affected. An initial discussion on British policies has to be conducted. The following video links may help you to consolidate the discussions





- Let the children prepare charts with cards pasted on it.
- The activities mentioned in the T B are to be accomplished in group. But children may be



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directed to prepare individual notes as home assignment.

Inspiring Unity

- Indian National movement comprises of a large number of events and the participation of various leaders. The purpose of this unit is not to enumerate all these events since the first independence movement of 1857. The unit mentions about only a few events and leaders. The focus here is to indicate that our national movement was involved by various sections of people and leaders from different social groups. However a mention should be made about the major milestones in the journey to freedom and important leaders before entering in to the activity.
- It is anticipated that our children will not face much difficulty in completing the matching exercise and preparing the brochure
- The following books and you tube links will provide more information about the leaders and events.

Books

- Bhimrao Ambedkar: The Boy Who Asked Why by Sowmya Rajendran
- Biography of Maulana AbulKalam Azad: Inspirational Biographies for Children by Meena Manishika.



The Freedom Book

• In the page number 275 there is an interesting activity to make a freedom book as per the illustration in the video link in QR code (1). The pages of the books are allotted to different

significant periods in the freedom movement of India which are illustrated in two different forms. i.e. Timelines and folded papers for different periods with descriptions written for each event inside the folded papers. You may think of creative variations for the book. Information about various important events in our freedom movement is available in the YouTube link in QR Code (2). The book can be one of the exhibits in the exhibition.

Mahatma- Power Point Presentation

- Another group has been assigned with the task of developing a power point presentation on the personal characteristics of Mahatma Gandhi. A simple presentation consisting of slides with a title and a brief one line description only is to be prepared. Title can be selected from the options given in bracket and description also can be selected from the options. The task is very simple Here emphasis is on major principles upheld by Gandhiji.Major movements lead by him like Civil disobedience movement. Ouit India movement etc. are discussed later in this unit and role of Gandhiii in the Indian national movement is discussed in the unit 'Great Leaders' in Class 4. However more points can be added to the presentation.
 - Eg.

Honesty

Gandhi thought that telling the truth was really important

Independent Day Quiz

 This activity is intended to make the children explore more facts about the freedom movement. Only some sample questions have been mentioned in the text book and you have to encourage children to prepare many more questions based on the National movement. After preparing the questions, let us conduct an enthusiastic quiz programme.

Civil disobedience, Salt Satyagraha and Quit India movement

 The information given in the boxes have to be discussed in detail. Other major events related to the freedom movements can also be discussed.

Unforgettable incidents in the journey to freedom

Two of the three video clips in the Q R codes given in page 25 are scenes from two films '1921' and 'JallianWala Bagh Maasacre'. The incidents depicted in the scenes reflect the bravery of those who fought for India's freedom, despite the tragedy and injustice inflicted upon them. Details of these incidents which stand as symbols of sacrifices have to be discussed in the class. Later the video of National Flag Flying at the Red fort for the first time may be played. This will definitely inspire the children especially in the background of the poignant reminders of the brave incidents.

Working Gallery

- The activities in the working gallery are meant for a unit recap and assessment.
- Activities in the Working Gallery can be given as home assignments

ASSESSMENT IN THE UNIT

What are to be assessed?

- Acquisition of facts and information
 - Different areas of British exploitation and their impact on different sections of the people of India
 - Contributions of different National leaders to Indian National Movement
 - Participation of different sections of people in Indian freedom movement
 - Details about Major events in the Indian National Movement
 - Important Gandhian Principles
 - Details about Quit India Movement, Civil disobedience, Salt Satyagraha
 - Some important facts about Wagon Tragedy,



Jallianwala bagh massacre etc

- ♦ Skills
 - Extracting appropriate information from text books and digital sources
 - Presentation of information through different media(Brochures, Posters, Power Point Presentation, Video Clips etc)
- Attitudes
 - An awareness that Indian freedom struggle was a united effort with the participation of all and a sense of pride regarding the integrity of the Nation

How to assess?

• As mentioned earlier assessment has to be

started along with the learning activities. Even though the preparation for the exhibition is done through group activities, individual performances have to be assessed through the work sheets in the text book. While Preparing questions for quiz programme and making power point presentations individual efforts should be encouraged. This individual efforts can be consolidated later.

Working Gallery and Unit Assessment

 Activities in the Gallery are also meant for consolidated assessment of unit. The activities given here are only specimens. More activities can be added to this section so as to cover all content areas.



The unit "Falling Ice, Burning Sun" is designed for exploring the fascinating climatic variations found across the globe and within our own country, highlighting the diversity of weather patterns, their causes and impact on life and the environment. Through a combination of interactive narrative, hands-on activities and thought-provoking discussions, students will embark on a journey to understand the factors that drive climate differences, from the icy mountains to the scorching deserts. This unit aims to not only impart scientific knowledge but also to foster a sense of curiosity and appreciation for the incredible diversity of our planet's climates.

LEARNING OUTCOMES

Major Learning Outcome

 Understanding the diversities in the climatic conditions of different regions on the earth, its impact on the, life of plants, animals, geographical features etc.

Specific Out Comes

- ♦ Conceptual
 - To understand the difference between weather and climate.
 - To understand the characteristics of different weather conditions
 - To differentiate between the features related to different climatic conditions i.e. Summer, Winter, Monsoon etc.
 - To find out the factors influencing climate.
 - To understand the impact of climatic variations on living things and their adaptations according to climate
 - To understand the strategies undertaken by human beings to overcome the difficulties due to climatic variations.

Skills

• Extracting appropriate information from diverse sources like books, digital sources etc.

• Attitudinal

• We should express fraternity and mutual

cooperation for withstanding natural calamities

- Approximate time envisaged for the transaction of the unit
 - Indoor Class room interactions: 10
 - Outdoor Activities : 2 hours

Activities

- An interesting account of a climatic experience
- The two questions in page number 281 (Have you ever experienced a severe snowfall? and Have you ever been told about such experiences by any of your friends or relatives?) are not meant for just answering Yes or No. Encourage children to narrate the experience beautifully.
- The children narrate their experiences. For example, visiting Kashmir will definitely be an unforgettable experience for a grade 5 student from South India.
- How will he/she narrate the exciting experience?
- As we stepped off the plane, we were greeted by a breathtaking landscape blanketed in pristine white snow, in contrast to the warm climate of our state. The air was chilly, and snowflakes were gently falling from the sky, creating a magical winter wonderland. We marveled at the sight of snow-covered mountains and trees, feeling the crunch of snow under our boots



for the first time. The beauty and serenity of Kashmir's snowy landscape left us in awe and filled our hearts with wonder.....

• Now help the children watch the video in the QR code

Collection of Videos or Pictures

- As mentioned in the Text book, let the children collect some videos and pictures depicting the intensity of climate. Even though children are directed to collect pictures and videos about winter, materials reflecting other climatic variations and their impacts like drought, shedding of leaves etc can also be shared.
- These visuals of severe climatic changes would create an appropriate platform for further discussions.
- The reference about the frozen lakes is just intended to arouse the interest of the children.

Watching the weather on the TV: Interpreting the icons

• This activity is intended to make the children understand, different icons used for different climatic conditions

Extension of the activity

- Ask children to watch the climate forecast at the end of the news, draw the picture in their notebook and identify the icons.
 - Next activity in page number 283 has to be completed individually and can be adapted as an evaluation activity.

Class room activities and the narration

♦ As you have noticed, the unit began with a narration in which Aman, Balu and Greeshma are characters. In between the narration some class room activities are embedded. Please take care not to lose the narrative thread.

Seasonal changes and the table

• In the first table, the children are supposed to write the names of the months in which

different seasons occur. Here adding the names of months according to traditional beliefs should not be encouraged. That does not reflect learning. Moreover, actual experience may not suit the conventions. There can be continuous rain during summer due to climatic changes. During some months like, May, there may be hot sunny days during a part of the month, and continuous rain during some days. In such a situation, how can we promote construction of knowledge according to experience, while completing this table?

- Why can't we make a climatic calendar in the class? Let the pupil mark what happens on every day. Let them mark daily temperature also. From the Calendar let the children find out, during which months we experience summer, monsoon and winter actually. You may ask that' if such a process is followed will it take a whole year to complete the table?' Not necessarily be. Let the children complete the table according to conventional experience. But should revisit the table at the end of the year in the light of the growing climatic calendar in the class. If such a process is followed we will be able to cultivate an element of discovery among the children.
- In the second table, children are supposed to enter the visible changes in their premises due to climatic variations. In order to ensure that this activity becomes meaningful, a preliminary discussion can be conducted about the changes they must have experienced during different seasons. Pictures and photos from newspapers, magazines, YouTube and other social media can also be used for the discussion so as to make it interesting. Only after such a discussion, enabling the children to remember their experiences and observation, the completion of the table would become meaningful.

Well and Surroundings

 This activity is to promote observation skills among children .Observation is an essential study skill in future learning. Care should be



taken to see that the table is filled exclusively on the basis of students' observation and not by external help. As discussed earlier there is no need of waiting for all seasons to experience before completing the table, Let them complete the table as per their then assumptions and understandings, but should be re visited later according to actual experience.

Factors affecting Climate

- The activity in page number 286 can be done in the following sequence
 - Listing the factors that might be influencing climate on the basis of previous understanding as done in the table in page 285
 - Watching the video in the QR code.
 - Completing the table also from the data received from the video

Adaptation

 Actually the activity in page number 287 is related to adaptation in animals and plants according to climatic and geographical conditions. The concept of adaptation is not expected to be discussed in this activity in detail. However, they may be able to fill up the three dimensional table on the basis of their previous understandings





 The following videos may help the children to complete the task

ASSESSMENT IN THE UNIT

What is to be assessed

- Acquisition of facts and information
 - Climatic conditions are different in different regions
 - Even in a single country, there may be climatic variations in different places of the same country

- Defining weather and climate
- Difference between climate and weather
- Iconic representation of weather
- Impact of weather and climate on the surroundings
- Factors affecting climate
- Adaptation of plants and animals to withstand climatic conditions
- Skills
 - Reading and interpreting climatic and weather icons
 - Indicating climatic and weather conditions through appropriate icons
 - Extracting appropriate information from diverse sources like books, digital sources etc.
- Attitude
 - We should express fraternity and mutual cooperation for withstanding natural calamities
- Scope of assessment
 - Activities in the TB can be utilised for assessment along with learning
 - Activity for observing the weather calendar and indicating weather conditions through icons (Page number 283)given as extension of activities in TB page number 282(interpreting icons) can be adapted as an evaluation activity
 - Completion of the table in page number 286 after watching the video can be used as an assessment activity both for the skill for extracting information from a given digital source and also the understanding of the concept 'factors affecting Climate'
 - First two activities in the working gallery are meant for assessing the acquisition of facts
 - The third activity is intended to cultivate the attitude of fraternity during disasters and also it can be transformed as an evaluation activity by assessing the involvement of children in the activity

