

A REFLECTIVE STUDY OF THE GRADE IV NCERT TEXTBOOK ‘OUR WONDROUS WORLD- THE WORLD AROUND US’ IN LIGHT OF NEP-2020 & NCFSE-2023

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ABSTRACT:

This research paper presents a reflective study of the Grade IV NCERT textbook *Our Wondrous World – The World Around Us* (TWAU), focusing on its content, pedagogical approach, and alignment with the goals of the National Education Policy (NEP-2020) and National Curriculum Framework for School Education (NCFSE-2023). The study examines how effectively the textbook integrates interdisciplinary themes, promotes experiential learning, and fosters environmental awareness, critical thinking, and value-based education among young learners. Through qualitative content analysis, the textbook is evaluated for inclusivity, contextual relevance, gender sensitivity, and the presence of formative assessment tools. The analysis reveals that the textbook adopts a learner-centred and inquiry-driven approach, with emphasis on real-life contexts, hands-on activities, and continuous evaluation. The paper aims to offer constructive insights and suggestions for effective implementation and future curriculum reforms, ensuring that the textbook contributes effectively to the overarching vision of the policy. It seeks to encourage a deeper understanding of how curricular materials can be reimagined to align with progressive educational reforms in India.

Key Words: Textbook analysis, NEP-2020, NCFSE-2023, 21st Century skills, Experiential learning, Holistic assessment

Introduction

The NEP-2020 has given a vision for the overhauling of the entire education system in the country and the new textbook development process for the preparatory stage in light of NCFSE-2023 is a crucial step for implementation of this vision. Recently the prime institution for the school textbook publication in the country, National Council of Educational Research and Training (NCERT) has published the grade IV textbook, *Our Wondrous World – The World Around Us*. The aim of the book is to establish a foundation across curricular areas and promote holistic learning with self-exploration through reading, writing, speaking, thinking, drawing, singing, and playing. It strives to enhance students’ sensitivity towards their environment, develop skills to work with the community, and foster a positive attitude towards various professions. It aims to foster holistic development by integrating science, social science and environment education concepts through child centred, experiential learning and interdisciplinary approaches.

Interlinkages with grade III TWAU Textbook

The preparatory stage acts as a bridge between the foundational and the middle stages, spanning three years from Grade III to Grade V. The education provided during this stage builds upon the pedagogical approaches of the foundational stage; with gradual unfolding of concepts as the child progresses from Grade III to Grade V. Analysis of Grade IV textbook reflects interlinkage with Grade III in various themes such as family and relationships, food and nutrition, shelter, water, travel and transport, plants and animals. The grade IV book explores changes in family structure across generations, building on the personal family history explored in Grade III. It goes deeper into sources of food and farming practices, expanding from personal food experiences in Grade III. The idea of shelter is also expanded to historical and regional variations in housing along with the exploration of the water cycle, distribution systems, and scarcity issues. Broader perspectives on modes of transport and infrastructure have also gradually been developed along with a deeper look into habitats, adaptations, and the ecosystems.

Grade IV NCERT Textbook ‘Our Wondrous World- The World Around Us’:

The context

I. General features

1. **Title of the book:** Our Wondrous World- The World Around Us
2. **Class:** IV
3. **School curricular stage (foundational/preparatory/middle/secondary):** Preparatory
4. **Name of the publisher/organisation:** National Council of Educational Research and Training (NCERT)
5. **Year of publication:** March 2025
6. **Total no. of pages:** 163
7. **Front and back cover page:** The front cover page of the book represents the role of modern technology in our lives by showing the bullet train, solar panels, computers, internet, wind mills, ATMs, UPIs and drones. It also shows a child enjoying the natural surroundings in a park to reflect the importance of spending time in nature. The front inner cover page of the book gives the name of NCERT, its logo and represents children enjoying themselves in natural surroundings of mountains and sea beaches under sun by playing around, flying kites and making sand art forms. A QR code has also been given to explore the App of Rashtriya e-Pustakalaya by National Book Trust. The back cover page of the book shows the water life, mountains, eco-friendly houses, water drinking habits and good practices such as meditation.
8. **Price:** Rs. 65/-
9. **Quality of paper:** 80 GSM paper
10. **Quality of binding:** soft bound
11. **Text font size and its appropriateness for the learners:** Appropriate for the age of learners
12. **Layout and display of the book:** The book is organized in five thematic units, each comprising two chapters. The layout is designed to help young learners explore their health and well-being, community, environment; and the life and things around them. The book supports a deeper understanding of interrelationships and facilitates an inherent sense of responsibility towards nature and society. The book is child friendly, age appropriate and visually attractive.

II. Organisation of the book

The textbook has three broad aspects including (i) the selection of content and skills for expected learning (ii) the presentation of content in an interactive manner assisting teachers in transacting concepts and skills with age-appropriate, play-based, theme based, toy-based and inquiry-based pedagogical approaches to make the transactional processes child-centric and enjoyable; and (iii) the selection of assessment processes and tracking the progress of children’s learning. Class-wise learning outcomes and competencies have been identified in each subject and the learning assessment instructions have been given keeping learning through picture reading, discussion, experimentation, solving puzzles and riddles, sharing experiences, expressing thoughts and ideas through drawing and writing.

III. Details of Units and Chapters

There are five thematic units in the book with two chapters each exploring the subtopics progressively. Each unit begins with a brief *About the Unit* section summarizing learning goals and context. A concept scheme along with a note for the teacher is given with a clear list of key concepts covered in each chapter. This gives focus to the teacher by giving insights on key concepts, pedagogical intent, and suggestions for class activities or discussions. It facilitates lesson planning and teaching targeted to the development of

desired competencies and expected learning outcomes among the students. The details of units and chapters are given below:

1. Our community
 - i. Living together
 - ii. Exploring our neighbourhood
2. Life Around Us
 - iii. Nature Trail
 - iv. Growing up with nature
3. Health and Well-being
 - v. Food for Health
 - vi. Happy and Healthy Living
4. Things Around Us
 - vii. How Things Work
 - viii. How Things are Made
5. Our Environment
 - ix. Different Lands, Different Lives
 - x. Our Sky

Each chapter is designed to engage students with real-life scenarios, interactive activities, and thought-provoking questions, fostering a deeper understanding of their surroundings and encouraging active participation in learning.

Key themes of analysis

The book emphasises conceptual understanding, critical thinking, creativity, values and dispositions essential for this developmental stage. It incorporates cross-cutting themes such as inclusion, multilingualism, gender equality, cultural rootedness, awareness on digital literacy and school-based assessments. Some crucial themes have been discussed with examples in the below section:

1. Content, Approach and Pedagogy

i. *Content*: The principles of content selection given in NCFSE-2023 for the preparatory stage advocate for the choice of content based on cultural, geographical, and social context of child development and growth along with the targeted stage specific capacities and values. It also alerts to avoid the promotion of any types of stereotypes. Following the principles, the book has built up the concepts logically from the child's immediate surroundings to broader societal and environmental contexts. The constructivist approach followed, builds on the learner's prior knowledge and experiences with storytelling and Real-Life examples like those involving festivals or events (e.g., chapter-01, pg. 05, Van Mahotsav). Activity-Based and Inquiry-Oriented learning include drawing, map-making, observation tasks, group discussions, role plays, and field visits which encourages students to ask questions, explore answers, and reflect critically. The book instils a sense of responsibility towards the environment, encouraging sustainable practices from an early age through providing engaging and accessible learning experiences. The content is thoughtfully structured to align with the cognitive level and curiosity of grade IV students, integrating key themes from environmental studies, social science, and basic science in a manner that fosters holistic understanding.

ii. *Approach*: The textbook adopts an inquiry-based and experiential learning approach. Lessons are rooted in everyday experiences and encourage observation, questioning, and exploration. The integration of stories, case studies, and real-life scenarios help students relate abstract concepts to their surroundings, promoting deeper comprehension.

iii. *Pedagogy*: The NCFSE-2023 calls for scaffolding through differentiated instructions and pedagogy providing opportunities for independent and collaborative work. It calls for using varied Teaching-learning material (TLM) and helping students develop appropriate work habits and responsibilities. Following this, the book has a pedagogical design which emphasizes active learning through interactive activities, projects, group discussions, and hands-on experiments. Visual aids such as illustrations, maps, and infographics have been used to enhance retention and grasp. Each chapter is structured to promote critical thinking and environmental sensitivity, encouraging students to become thoughtful and responsible citizens. They feature a variety of stories, poems, and activities, carefully curated to develop reading, writing, comprehension and exploration skills in children along with various life skills, values, and cultures. One such example is given in chapter-01, Living together, where students explore community institutes around them and understand the role of different people, institutions, and their contribution for the development of a more inclusive and sustainable society. Overall, the book balances conceptual depth with child-centric pedagogy, making it a valuable resource for preparatory stage learning and development.

2. Experiential Learning: The policy suggests a deeply rooted curriculum and pedagogy, since beginning. It should be deeply rooted in the Indian and local context with the approach of experiential learning, art integration, sports integration, and hands-on activities. This ensures an education that is relatable, relevant, interesting, and effective for students; and incorporates culture, traditions, heritage, customs, language, philosophy, geography, societal and scientific needs along with ancient and contemporary knowledge. This promotes indigenous and traditional ways of learning. These policy principles have been thoughtfully integrated in the present textbook through content, dialogues, pictures, games and various activities. For example, in chapter-02, pg. 31, the activity 'Let Us Reflect' asks students to plan the process of utilizing, spending, and saving ₹100 in a month. This activity promotes skills like budgeting, planning, saving, and responsible spending among the students. Similarly in chapter-03, pg. 52, activity-06, the activity "Let Us Play the Game: Web of Life" encourages students to imagine and understand how all living beings are interconnected, thereby fostering ecological sensitivity and awareness. On pg. 55, in "Let Us Reflect", question no. 4 presents a puzzle to find the "treasures of the forest," encouraging students to think critically and engage with environmental concepts and chapter-04, activity-02, pg. 60, the activity "Let Us Prepare a Natural Dye" teaches students 'how to make the natural dye'. These hands-on activities encourage self-exploration and learning by doing, a key tenet of experiential learning. Experiential learning is also promoted through the activity given in chapter-07 'How Things Work' where students' natural curiosity is nurtured through observations of everyday phenomena such as spinning, floating, and sinking. By using various games, toys, paper, and materials from daily life, the activities cultivate observation skills, analytical thinking, scientific temperament, and critical thinking among students. The examples discussed above clearly align with the policy's vision of making education more engaging, contextual, and learner-centric through experiential, art-integrated, and sports-integrated pedagogies.

3. 21st Century Skills: The book not only imparts knowledge but also strives to develop essential 21st-century skills including critical thinking, creativity, collaboration, communication, digital literacy, and global citizenship skills among students. It fosters *communication, collaboration, and a sense of togetherness* among students. For example, in chapter-01, pg. 09, during the celebration of Van Mahotsav, children gather in the park with their families to plant saplings, clean the area, water the plants, cook, engage and work in other activities in groups. On pg. 13, under the 'Discuss' section, students are asked, "How does helping others and working together make our community better?" This encourages students to reflect on teamwork and community-building. The book also promotes *digital literacy* through examples showing the usage of modern technology. Similarly, on pages 19 and 20, a conversation between

Dadaji and Navya highlights how *communication* has evolved to include digital technologies such as mobile phones, internet, messaging, and video calls. Additionally, on pg. 21, the chapter presents the journey of communication from previous times till present, helping students understand technological progress and its impact on our daily lives. *Creativity* is nurtured through various exercises and open-ended questions such as “What do you think?”, “Collect the objects”, “Discuss”, and “Do you know?”. These questions encourage brainstorming, divergent thinking, and imagination across the book. In chapter-08, ‘Different Lands, Different Lives’, students explore how nature connects with daily life. In chapter-09, ‘Our Sky’, students observe and analyse the shapes of shadows during different times of the day. This promotes curiosity and understanding of celestial phenomena. These activities develop observation, analysis, and reasoning skills among learners.

4. Diversity, Equity, and Inclusion: The book promotes diversity, equity, and inclusion through its content, illustrations, and chapter activities. It introduces and celebrates cultural, social, linguistic diversity, gender and Children with Special Needs (CWSN) sensitivity in a thoughtful and engaging manner.

i. *Socio-cultural Diversity:* While the cover page of the book reflects India’s cultural richness, the beginning of the book gives fundamental rights, duties and preamble to instill constitutional values among learners. In Unit One, Chapter-01 ‘Living Together’ and Chapter-02 ‘Exploring Our Neighbourhood’, learners explore their communities as shared spaces where people live independently. The textbook introduces students to various public places such as school, market, playground, hospital, post office and bank. In activity-03 on pg. 08 promotes occupational diversity by discussing different professions, their roles, tools, and their specific skill sets. The book also introduces and fosters appreciation for various regional festivals, such as Uruka in Assam and Khetala in Sikkim, emphasizing India's cultural diversity. Chapter-03 further explores diverse foods and lifestyles, emphasizing cultural inclusion.

The chapter-04, ‘Growing Up with Nature’, encourages students to think about eco-friendly and sustainable living practices. On pg. 59, 61, and 62 introduce students with Indian culture and sustainable practices, where learners explore differences between the houses built in villages and cities along with the materials used for the same through stories and paintings. Here, a mother explains to her son about the traditional materials such as clay, cow dung, and bamboo which are used in house construction. On pg.-61, cultural diversity is depicted through bamboo baskets, earthen pots, and other traditional artefacts and Chapter-05 highlights the diversity of food across India and emphasizes the concept of a balanced diet. It also introduces students with traditional food items used in various states and communities, fostering appreciation of regional food practices.

ii. *Linguistic diversity:* The textbook promotes linguistic diversity by acknowledging and celebrating the multilingual and multicultural nature of India and cultivates an understanding and appreciation of the country’s diverse languages and regional expressions. It includes terms from various Indian languages and encourages students to name animals, natural features, and cultural elements in their mother tongue or regional language. For example, in chapter-01, pg.-12, ‘Uruka’, a traditional festival of Assam has been discussed and ‘Khetala’, a local word from Sikkim is mentioned in pg.-13. In chapter-03, pg. no-41, ‘The spectacled monkey’, the state animal of Tripura is also mentioned. A notable example is found in Chapter-03 on pg. no - 47, where the activity titled ‘Write your observation in a Bird Diary’ allows students to record their thoughts, observations, and experiences in their own language, thereby fostering linguistic inclusion and expression. The textbook features activities and questions that encourage students to share their personal experiences, often drawing on their first language. This naturally leads to multilingual and inclusive classroom discussions.

iii. *Gender diversity:* Overall, the textbook reflects a progressive approach to gender representation. Equal participation of boys and girls is shown in activities such as school projects, games, exploration, and

household chores. Girls are depicted engaging in science, nature observation, and field visits, challenging traditional gender roles. The language used in the textbook is gender-inclusive, avoiding gender bias. The book includes visual representation of women in various roles, such as Women farmers, scientists, and bankers, women sitting in parks, standing at bus stops, and participating in public life. Thus, the textbook represents gender inclusivity.

iv. *Including children with special needs*: The picture on pg.-69 of Unit- 3 depicts locomotive disability. The effort is to promote the inclusion of children with disabilities in society. This step is an important step toward building a more inclusive and compassionate society where every individual, regardless of their disabilities, feels valued and supported. However, it is also important to understand that the Rights of Persons with Disabilities (RPWD) Act, 2016, enacted by the Government of India, discusses the types and nature of various types of disabilities in detail which include not only the locomotive disabilities but other types of disabilities such as visual impairment, hearing impairment, intellectual disability and leprosy-cured disabilities among others. Raising awareness about the diverse nature of disabilities and educating people about their rights and capabilities is essential to break the barriers like societal attitudes and lack of opportunities. If the textbook includes the representation of diverse disabilities, it would be of immense help to promote inclusion for children with special needs in the society, ultimately reducing prejudice and fostering empathy along with inclusive practices in schools, communities, and workplaces.

5. Assessment: The NCFSE-2023 suggests learning across curricular areas with a robust system of formative assessment to track progress of individual students. The assessment should act as an instructional tool and provide a comprehensive account of student learning. In addition to observation of students and analysis of artefacts created by students, a variety of formative, oral and written assessments should be introduced. These assessments should test conceptual understanding and competencies, and should include questions that encourage creativity. Following these guidelines, the assessment for the preparatory stage is designed to align with the developmental needs of children aged approximately 8 to 11 years. The book incorporates assessment and evaluation activities in a formative and child-friendly manner, aligned with the principles of Continuous and Comprehensive Evaluation (CCE). The activities are designed to assess students' understanding, skills, and attitudes through varied formats in an exploratory manner. Some examples of assessment and evaluation activities found in the textbook have been discussed below:

i. *In-text Questions and Prompts* are embedded within lessons to encourage thinking and reflection. Examples include questions such as given in chapter-09, pg no. 145. It encourages students to look at the picture of mountain scenery and answer, "What type of animals do you see in the picture?", "How are the dresses worn by people living in the mountains different from those worn in your region?", "Describe the trees found in the mountains." Such questions help gauge comprehension and personal connection to students with the content.

ii. *Let's Do / Find Out / Think and Discuss Activities* encourage observation, exploration, and hands-on learning. The book has many examples of such activities including the one given in chapter-05, pg no. 74, where students are asked to 'Discuss in small groups and identify the food items having at least three different tastes. These are ideal for teacher assessment through anecdotal records, checklists, and peer sharing.

iii. *Group Work and Role Play*: Some chapters suggest group discussions, dramatizations, or collaborative projects. Assessments here focus on teamwork, communication, participation and creativity. One of such examples include a role play activity-06, 'Let us play the game, Web of Life' in chapter-03, Nature Trail, where children have to imagine being a part of nature like a tree, a bird, or sun etc. and the teacher has to facilitate them finding the connections and interdependence with each other in nature.

iv. *Project Work*: Longer-term tasks like preparing charts, models, or posters are used for evaluating application of knowledge, research skills and the organization and presentation. Examples include the one given in chapter-01, pg no. 14, q.no. 02 under the 'let us reflect' activity given in the form of project work within a group of 4-5 students to conduct the step wise process and record the data.

v. *Portfolios and Journals*: Teachers are encouraged to maintain portfolios with drawings, worksheets, student reflections and anecdotal notes. Journals or notebooks may include student thoughts, summaries, and responses.

vi. *Value-based and Attitudinal Assessment*: Many activities promote empathy, environmental responsibility, and cooperation. Teachers observe behavioural indicators such as respect for nature, responsibility in group tasks and sensitivity to social issues (e.g., water scarcity, cleanliness).

vii. *End-of-Chapter Exercises*: include open-ended questions, short answers, and application-based prompts to check conceptual clarity and ability to connect learning to real-life contexts.

Notes for teachers

One of the important features of the book is the teachers' note given in the beginning of all the units. It facilitates, guides and suggests teachers to undertake various activities such as making and arranging the relevant teaching-learning material, organise short field visits, invite local skilled personnel, guide students in mapping routes, making charts, posters, conducting interviews, and the participation in various community tasks. Along with this, the book addresses teachers through teachers' notes inside the chapters such as the one given in chapter-02, page no. 26. Here, it addresses the teachers to arrange a field visit to a bank, prepare students for observation and possible learning; and encourage them to ask questions. Many such notes can be seen throughout the book. Various assessment tools such as rubrics for group work and project assessment, checklists for observation of skills and participation and anecdotal records for noting individual student growth have been suggested to the teachers.

Conclusion

At the end, it can be said that the book is a well-structured, thoughtfully crafted, educational resource with student-centric design and progressive pedagogical ideals. It aims not only to teach content but also to shape responsible, curious, and empathetic and global citizens. Its interdisciplinary nature and strong grounding in real-life contexts make it a valuable resource for foundational environmental and social learning at the elementary level. It is engaging and age-appropriate with frequent opportunities for active participation. It has a visual appeal with colourful layouts, diagrams, and illustrations that help sustain interest and improve comprehension among learners.

The book focuses on formative, process-based, and child-centric evaluation. It moves away from formal tests to continuous observation and feedback and promotes inclusive and holistic learning, considering each child's pace and interests. The comprehensive approach of the book ensures children are well-prepared both at the cognitive-sensitive and physical-emotional levels to effortlessly transition to the middle stage. The book has done value education integration by embedding global citizenship, sustainability, and moral reasoning throughout. It supports teachers by providing clear guidance for classroom facilitation.

Overall Grade IV textbook *the Our Wondrous World – The World Around Us* stands out as a comprehensive and student-friendly textbook that effectively combines academic rigor with engaging content. It has been thoughtfully designed as an educational resource in alignment with NEP-2020 and NCFSE-2023 Goals. It emphasizes holistic development and promotes values like empathy, cooperation, and environmental consciousness. It ensures contextual relevance and focuses on inclusive education, presenting diverse perspectives and cultural practices.

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