

# **ENVIRONMENTAL STUDIES**

# TEXTBOOK FOR CLASS III





राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद् NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

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#### **FOREWORD**

The National Curriculum Framework (NCF) 2005, recommends that children's life at school must be linked to their life outside the school. This principle marks a departure from the legacy of bookish learning which continues to shape our system and causes a gap between the school, home and community. The syllabi and textbooks developed on the basis of NCF signify an attempt to implement this basic idea. They also attempt to discourage rote learning and the maintenance of sharp boundaries between different subject areas. We hope these measures will take us significantly further in the direction of a child-centred system of education outlined in the National Policy on Education (1986).

The success of this effort depends on the steps that school principals and teachers will take to encourage children to reflect on their own learning and to pursue imaginative activities and questions. We must recognise that, given space, time and freedom, children generate new knowledge by engaging with the information passed on to them by adults. Treating the prescribed textbook as the sole basis of examination is one of the key reasons why other resources and sites of learning are ignored. Inculcating creativity and initiative is possible if we perceive and treat children as participants in learning, not as receivers of a fixed body of knowledge.

These aims imply considerable change in school routines and mode of functioning. Flexibility in the daily time-table is as necessary as rigour in implementing the annual calendar so that the required number of teaching days are actually devoted to teaching. The methods used for teaching and evaluation will also determine how effective this textbook proves for making children's life at school a happy experience, rather than a source of stress or boredom. Syllabus designers have tried to address the problem of curricular burden by restructuring and reorienting knowledge at different stages with greater consideration for child psychology and the time available for teaching. The textbook attempts to enhance this endeavour by giving higher priority and space to opportunities for contemplation and wondering, discussion in small groups, and activities requiring hands-on experience.

The National Council of Educational Research and Training (NCERT) appreciates the hard work done by the textbook development committee

responsible for this book. We wish to thank the Chairperson of the advisory group at the primary level, Professor Anita Rampal and the Chief Advisor for this book, Savithri Singh, *Principal*, Acharya Narendra Dev College, New Delhi, formerly *Fellow*, Centre for Science Education and Communication, University of Delhi, Delhi for guiding the work of this committee. Several teachers contributed to the development of this textbook. We are grateful to their principals for making this possible. We are indebted to the institutions and organisations which have generously permitted us to draw upon their resources, material and personnel. We are especially grateful to the members of the National Monitoring Committee, appointed by the Department of Secondary and Higher Education, Ministry of Human Resource Development under the Chairpersonship of Professor Mrinal Miri and Professor G.P. Deshpande, for their valuable time and contribution.

As an organisation committed to systemic reform and continuous improvement in the quality of its products, NCERT welcomes comments and suggestions which will enable us to undertake further revision and refinement.

New Delhi 20 December 2005 Director National Council of Educational Research and Training

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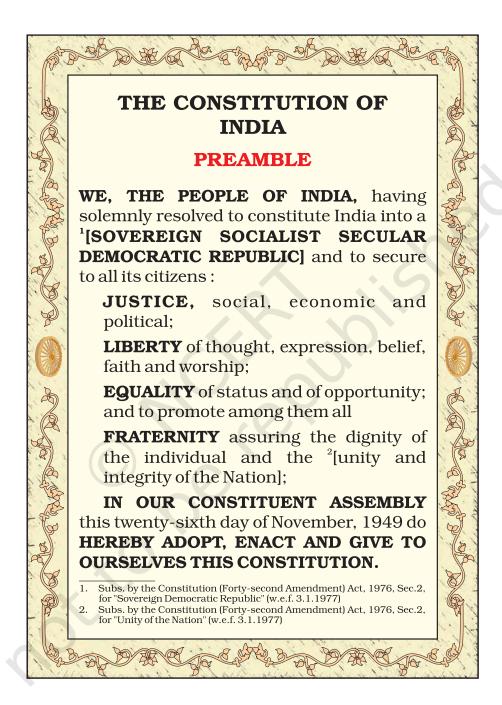
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### A Note for the Teachers and Parents

The team for the development of this book found it a challenging task to translate the objectives as defined in the National Curriculum Framework (NCF) 2005 while preparing this national-level textbook. The writing team would like to share some of the issues that were discussed during the process.

The child looks at the environment around her/his in a holistic manner and does not compartmentalise any topic into 'science' and 'social science', hence it was thought essential that we too aim for this integration within the book, instead of having two disparate sections. Instead of proceeding with lists of 'topics' the syllabus itself has proposed themes that allowed a connected and inter-related understanding to develop. An attempt has been made in the book to locate every theme in physical, social and cultural contexts critically so that the child can make informed choices.

The challenge, when writing at a national level, was to reflect the multicultural dimensions of diverse classrooms. It was felt necessary that all children feel important: everyone's community, culture and way of life should be given equal importance. While writing the book, Who is the child we are addressing was the big question. Is she/he the child in big schools of the metro, or the school in the slums, a small-town child, one in a village shala or the one in the remote mountainous areas? How do we address such diverse groups? One also needed to tackle the differences of gender, class, culture, religion, language, geographical location, etc. These are some of the issues addressed in the book, which the teacher will also have to handle sensitively in her own ways.

Before discussing the concerns/issues related with this area, you go through the syllabus of this area, which is broadly divided into six themes, namely, family and friends, food, water, shelter, travel and things we make and do. It is available on the NCERT website (www.ncert.nic.in). It will help you understand the subject better and plan your teaching-learning more effectively.

The content in the book is centred on the child, providing her/him a lot of space to explore. There is a conscious effort to discourage rote learning and hence descriptions and definitions were totally avoided. It is always easy to give information; the real challenge was to provide opportunities to a child where she/he can vocalise, build upon her/his curiosity, learn by doing, ask questions, experiment, etc. In order that the child is happy to engage with the book, a variety of formats have been used – narratives, poems, stories, puzzles, jigsaw, comic strips, etc. Stories and narratives have been used as a tool for sensitising the child since a child can probably more easily empathise with

characters in a story/narrative. The language used in the book is not 'formal' but is in the 'commonly spoken' form.

Active participation of children is very important in constructing knowledge. Activities in the book that demand that children be taken for observations to the parks, fields, water bodies, into the community, etc., reiterates that EVS learning primarily occurs outside the walls of the classrooms. An effort has been made to relate the child's local knowledge to the school knowledge. It is important to state here that the activities given in the book are only suggestive, and that both the activities and the materials can and should be modified by the teacher according to the local contexts. Activities and Exercises have been inbuilt into the chapters instead of being pushed to the end. The nature of activities in the book are of various kinds so that the children get opportunities to explore, observe, draw, categorise, speak, question, write, list, etc. Several activities allow their to manipulate things with their hands so that their psychomotor skills are developed. Some of them explore their creativity and design skills as well as hone their aesthetic sense. All activities need to be followed by discussions to facilitate children in consolidating what they have observed and learnt. With an appropriate question or suggestion, the child's understanding can be extended far beyond the point which she/he could have reached alone.

Children are encouraged to tap sources other than the textbook and teachers, such as family members, members of the community, newspapers, books, etc. This stresses the fact that textbooks are not the only sources of information. To develop a sense of history the children are encouraged to question the elderly about the past. These activities also promote the parents' and community's involvement in the school and the teacher gets an opportunity to know a child's background.

Illustrations form an important component of children's books. The writing team has kept in mind that the illustrations in this book reflect the ethos of the written material. Content development through illustrations was a major consideration. The illustrations have been used such that they complement the writing style fully. The illustrations should provide joy, and also a challenge, to the child. Icons have been used to differentiate activities. A list of these has been included in the book.

The book provides varied kind of opportunities for the child to work – individually, in small groups or even in larger groups. Group learning promotes peer learning and improves social interactions. Children particularly enjoy learning crafts and arts while working in groups. Children are very happy and respond with enthusiasm when their creative ventures are appreciated rather than being rejected or left unnoticed by the elders, as unimportant.

The objective of the activities and questions in the book is not only to evaluate the child's knowledge but also to provide an opportunity to the children

to express themselves. The children should be given enough time to work on these activities and questions; they should not be rushed since each child learns at her/his own pace. It is envisaged that each teacher will develop her/his own evaluation tools suitable for her/his students based on her/his own method of teaching and local contexts. For better understanding on assessment practices and evaluation procedures in EVS, NCERT has developed a source book in this area for the primary stage. It will be useful if you go through this document as well. The child should be evaluated primarily on the competencies/skills she/he has acquired while working in class or outside. Evaluation, of course, should be a continuous and comprehensive process and the child should be assessed as she/he observes, asks, draws, discusses, write in groups, etc. In order to follow continuous and comprehensive evaluation in the classroom, teaching-learning activities and questions have been inbuilt into the text. You need to follow the same manner.

One of the major concerns while developing textual materials was to find suitable ways to sensitise the child to the wide differences that exist within our society – in our physical abilities, economic backgrounds, behavioural patterns etc. – things which get reflected in the way and where we live, what kind of school we go to, the way we talk, the way we think, what we eat, what we wear, our access to basic amenities, etc. We would like every child to recognise that in any society there are differences; we need to learn to appreciate and respect these differences. Teachers have to be extra-careful that such social issues are handled in a sensitive manner, especially when there are children with special needs or in difficult circumstances, in the class.

The writing team looks not only at the children, but at the teachers also, as individuals who construct knowledge and build on their own experiences. The textbook is only one of the many teaching-learning materials used by teachers. Thus, this textbook should only be viewed as an aid to the teacher, around which the teacher could organise her teaching to provide learning opportunities to children.

As per NCF-05, Environmental Studies is not accepted as a curricular area at Classes I and II. However, it recognises the need of transacting the necessary skills and concerns related to it in an integrated manner through language and mathematics. In this direction, NCERT has published a teacher's handbook entitled 'EVS skills through Language and Mathematics in Early grades' which includes a number of activities that will help you integrate the environmental components with language and mathematics at these levels. If you go through it before initiating the teaching-learning process in Class III, it will help enrich your understanding of this subject area.

# Symbols and Icons used in the Textbook







Discuss

Narrate/Tell

Write







Think

Do/Make

Find out



A Note for the Teacher

(xii)



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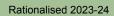
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