

ENVIRONMENTAL STUDIES

CLASS - IV

EDITORS

Dr. N.Upender Reddy, Prof. & Head, Curriculum & Textbook Department, S.C.E.R.T., AP, Hyderabad.

Sri S.Vijaya Kumar, Prof. & Head, Science Department, S.C.E.R.T., AP, Hyderabad.

Sri B.R.Jagadiswar Goud, Principal, D.I.E.T., Adilabad.

Sri K.Chitti Babu, Senior Lecturer, D.I.E.T., Karveti Nagaram, Chittoor.

SUBJECT EXPERTS

Sri Suvarna Vinayak

Co-ordinator, Curriculum & Text Books
Dept., S.C.E.R.T., Hyderabad.

Smt. Jyotsna Vijaya Purkar

Homi Bhabha Science Centre,
Mumbai.

Sri Alex M.George

Ekalavya,
Madhya Pradesh.

CO-ORDINATORS

Smt. D.Vijaya Lakshmi

Lecturer,
S.C.E.R.T., Hyderabad

Dr. T.V.S.Ramesh

Co-ordinator,
S.C.E.R.T., Hyderabad

Sri P.Rathangapani Reddy

School Assistant, Z.P.H.S.,
Polkampalli, Addakal Mdl.,
Mahaboobnagar

TEXT BOOK DEVELOPMENT & PUBLISHING COMMITTEE

Sri A.Satya Narayana Reddy

Director,
S.C.E.R.T.,
A.P., Hyderabad

Dr. N.Upender Reddy

Prof.&Head, C&T Department,
S.C.E.R.T.,
A.P., Hyderabad

Sri B.Sudhakar

Director,
A.P. Govt. Text Book Press,
Hyderabad



PUBLISHED BY GOVERNMENT OF ANDHRA PRADESH, HYDERABAD

*ALL FOR ONE
AND ONE FOR ALL*

*LESS POLLUTION
IS THE BEST SOLUTION*

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New Edition
First Published 2013

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This Book has been printed on 70 G.S.M. SS Maplitho
Title Page 200 G.S.M. White Art Card

FREE DISTRIBUTION BY A.P. GOVERNMENT

Printed in India
at the Andhra Pradesh Govt. Text Book Press,
Mint Compound, Hyderabad,
Andhra Pradesh.

FOREWORD

All children should have an understanding of their society and environment. For this, they have to critically examine the surroundings. They should be able to understand and question the incidents that happen in their society. They should be able to mould themselves by understanding their near and distant surroundings. This would become possible by learning from the environment for the environment. Nowadays the most important thing is to develop an attitude to protect and give equal importance to plants, birds, animals etc, with Human beings. The aim of Environmental studies is to achieve these required skills, abilities and attitudes. The State Council for Educational Research and Training is developing Text Books on Environmental Studies by the title "We-Our Environment" at Primary level. The Class-III text book has been implemented from the academic year 2012-13. As an extension to this, the class 4 and 5 text books will come into practice from the Academic year 2013-14.

According to the needs of our state, the syllabus and text books are prepared by considering the syllabus and textual themes of National Council for Educational Research and Training (N.C.E.R.T.). The new textbooks are prepared according to the academic standards that have to be achieved as prescribed by the Right to Compulsory and free Education Act, 2009. (R.T.E.-2009). The lessons are written on the themes - family, games, animals, plants, society, shelters, food, travel and history. Each lesson is written with interesting situations, incidents of daily life, thought provoking and reflecting activities and explorations. Without giving direct information in the lessons to the children, more importance is given to make children collect information, do the things by themselves, observe pictures and understand different issues. To extend the knowledge of certain things, additional information is given under the caption. 'Do you know?' For children's better learning, individual, group and whole class activities projects and Experiments are incorporated. For the children, to estimate their learning, Exercises are included at the end of each lesson under the heading 'What have we learnt?' These are given according to the academic standards. The exercise 'Can I do this?' is given at the end of each lesson for the self-evaluation of children. All lessons contain photos and pictures which make the children to feel the real experiences of the concepts.

Instead of providing direct knowledge to the children, the text book has given emphasis to construction of knowledge. Keeping in view this the teachers have to construct knowledge by conducting activities. The exercises in the text book make the children interact with the peer group, society and material. So, conducting exercises is a must. To meet this, teachers have to prepare the required Teaching - Learning material and strategies. The text book has to be considered as a helping guide. Teachers have to make the teaching meaningful by adding modern technology to the experiences of the children and use the local environment as an important resource. Great effort has to be done to develop processing skills and positive attitude towards the nature among the children.

Congratulations to the teachers, lecturers, subject experts, artists, D.T.P. designers and members of text book development committee on preparing this text book. Special thanks to the subject experts and editorial board for their guidance in bringing out the book beautiful and attractive. We hope that this text book will definitely inculcate values, scientific temper, required attitudes, awareness towards Biodiversity and interest among the children.

Date : 30-11-2012
Place : Hyderabad

Director,
S.C.E.R.T,
A.P., Hyderabad

OUR NATIONAL ANTHEM

- Rabindranath Tagore

Jana gana mana adhinayaka Jaya he
Bharatha bhagya-vidhata
Punjab Sindhu Gujaratha Maratha
Dravida Utkala Banga.
Vindhya Himachala Jamuna Ganga
Uchchala Jaladhi taranga,
Tava shubha name jage
Tava shubha asisha mage
Gahe tava jaya gatha
Jana gana mangala-dayaka jaya he,
Bharatha bhagya –vidhatha,
Jaya he, jaya he, jaya he,
Jaya jaya jaya jaya he

PLEDGE

“India is my country; all Indians are my brothers and sisters.
I love my country, and I am proud of its rich and varied heritage.

I shall always strive to be worthy of it.

I shall give my parents, teachers and all elders respect,
and treat everyone with courtesy. I shall be kind to animals.

To my country and my people, I pledge my devotion.

In their well-being and prosperity alone lies my happiness.”

Suggestions to the Teachers

- ◆ Read the expected academic standards, foreword and index compulsorily before using the text book.
- ◆ 6 periods a week and 220 periods in an year will be allotted to the teaching of environmental studies.
- ◆ There are 12 lessons on the Whole. Lessons are framed in such a way that, they can be taught in 165 periods conveniently.
- ◆ Each lesson requires 14 periods on an average. Divide the periods into 10 to 18 periods per lesson.
- ◆ As activities, project works, collections are part of the lessons, allot more time to these activities when compared to the explanation of concepts. Giving suggestions to children, involving them in the group activities, making them to exhibit their preparations, correcting the mistakes should be done during the class hours. Suggest the children to take up the project works, collection, explorations after the school hours.
- ◆ Children should be given a clear understanding of exercises. They should be encouraged to write the answers on their own. Do not allow the students to write the answers from the guides.
- ◆ Put thought provoking questions to the children on situations, real life experiences and pictures. Additional questions related to the concepts also should be asked. This activity should be conducted whole class involving
- ◆ The activity 'Discuss in Groups' is given in between the lessons. Suggestions should be given to the children before the commencement of activity. Teachers should see that the children discuss the questions among themselves and write the answers. The required reference books should be supplied to the children. Make the children exhibit their answers in groups. Mistakes should be corrected.
- ◆ The activity 'Do This' is included in the lessons. These are experiments. Inform them, how to carry out the experiment and what material is required. Supervise the children and ask them to explain their experiment.
- ◆ The activity 'Collect' is given in the lessons. Children have to go to the society and their surroundings and collect the information. Teacher has to guide them in what questions to be asked and how to collect the information. Make them to prepare the required information tables in the class itself. Ask them to exhibit the information collected in the class.
- ◆ 'Key words' are given after every lesson. Allot a separate period and test the understanding of each word by all students.
- ◆ At the end of each lesson Exercises are given under the title 'What have we learnt?' See that, the children do all the competency based activities and questions on their own. Allot 6 periods for the 6 academic standards at an average of 1 period for one standard.
- ◆ The exercise 'Can I do this?' at the end of each lesson is meant for self evaluation. Try to know whether all the children are able to do each and every item. Go to the next lesson after 80% of the children are able to do these items.

AUTHORS

- Sri P. Rathangapani Reddy**, S.A.,
Z.P.H.S., Polkampally,
Addakal Mandal, Mahaboobnagar District.
- Sri Nallan Chakravarthi Jagannath**, S.G.T.,
G.H.S., Kulsumpura, Hyderabad.
- Sri K.Upender Rao**, S.G.T., M.P.P.S.,
Peeryathanda, Thurkapalli Mandal, Nalgonda District.
- Sri A.Mahendar Reddy**, L.F.L. H.M., M.P.P.S.,
Somangurthi, Puduru Mandal, Ranga Reddy District.
- Sri Gorantla Srinivasa Rao**, S.A., M.P.U.P.S.,
B.K.Palem, Kakumanu Mandal, Guntur District.
- Smt. C.H.Usha Rani**, S.G.T., S.V.G.M.E.School,
Gollapalli, Bobbili Mandal, Vizianagaram District.
- Sri B.Rama Krishna**, S.A., G.G.H.S.,
Nallagutta, Hyderabad.
- Sri E.D.Madhusudan Reddy**, S.A.,
Z.P.H.S., Kosgi, Mahaboobnagar District.
- Sri K.V.Satya Narayana**, S.A., Z.P.H.S.,
Velidanda, Garidepalli Mandal, Nalgonda District.
- Sri C.Nagendra Prasad**, Teacher,
G.C.Palem, Bandi Atmakuru Mandal, Kurnool District.
- Sri C.H.Srinivasa Rao**, H.M., M.P.P.S.,
Pamula Metta, Jegurupadu,
Kadiyam Mandal, East Godavari District.
- Sri Meda Hari Prasad**, S.A., Z.P.H.S.,
Kanala, Kurnool District.

TRANSLATORS

- Sri N.C.Jagannath**, S.G.T., G.H.S., Kulsumpura, Hyderabad.
- Smt. V.Neeraja**, S.G.T., GPS, CPL, Amberpet, Hyderabad.
- Smt. K.Sandhya Devi**, S.G.T., GPS, CPL, Amberpet, Hyderabad.
- Smt. L.Indira**, S.G.T., GPS, CPL, Amberpet, Hyderabad.
- Smt. K.Arundhati**, S.G.T., GPS, CPL, Amberpet, Hyderabad.
- Smt. K.Asha**, S.G.T., GPS, Shankeswar Bazar, Saidabad-II, Hyderabad.

ARTIST

Sri B.Kishore Kumar

H.M., U.P.S., Utkoor, Nidmanur Mandal, Nalgonda District.

LAYOUT & DESIGNING

Smt. Prathima Paturi, Hyderabad.

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Sl.No.	Lesson Name	Periods	Month	Pages
1.	 CHANGING FAMILY STRUCTURE	10	June	1
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Academic Standards that have to be achieved by the children through this text book

1. Conceptual understanding

- Children understand the reasons for the changes in the families, profits and losses using domestic appliances, rules and their necessity, sports man spirit, life styles of animals - their classification, food, healthy habits, construction of house, need for sanitation, construction material, Different Public Institutions and their uses, Right to Information, History of Nation, Culture etc., Children give reasons, examples, Identify the similarities and differences and do the classification.

2. Questioning - hypothesis

- Children will be able to ask questions about collection of information, imagine the process of doing experiments. For Ex: questioning sportsmen, guessing the changes in the games, food wastage, information on animals. They think and identify the facts by reasoning the unknown things and different problems.

3. Experiments - field observations

- Children will be able to do the experiments on plants and food material. Collect the required materials for the experiment. After doing the experiments, children compare their hypothesis and analyses the reasons.
- Children will be able to explain the process of experiment. They understand playing games, about agricultural fields, observing facilities of the houses, food habits of birds etc., by field observations. They tabulate and explain the observed information.

4. Information skills, projects

- Children collect the information about domestic appliances, sports men, details of animals, garbage and trash collected at the houses, government officers and their duties etc.,
- Tabulate the collected information. Analyses and explain the collected information. Come to conclusions.

5. Communication through mapping skills, drawing pictures, making models

- Children will be able to draw the maps of their village, mandal, district and state. Point out the mandals on district map and district on state map.
- Point out the asked region on the maps and tell about the boundaries. Mark out the Routes on the basis of Maps.
- Children will be able to explain their understanding of different concepts by drawing pictures and making models. Ex: Models of house, train, bus etc.,

6. Appreciation - Values, Creating awareness towards Bio-diversity

- Children show kindness towards birds and animals. Develop awareness towards environment and bio-diversity. Understand the preventive measures to protect water, plants and trees. Develop good habits related to bio-diversity.
- Understand and implement the measures to control the pollution. Implement the Rules and Regulations.
- Practise sports man spirit. Develop appreciable attitudes like working together, honouring other's views, questioning freely and helping the needy.
- Identify the goodness of others and appreciate them.