

ENVIRONMENTAL STUDIES

(Part One)

STANDARD FOUR



The Constitution of India

Chapter IV A

Fundamental Duties

ARTICLE 51A

Fundamental Duties- It shall be the duty of every citizen of India—

- (a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities, to renounce practices derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers and wild life and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;
- (k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.

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STANDARD FOUR



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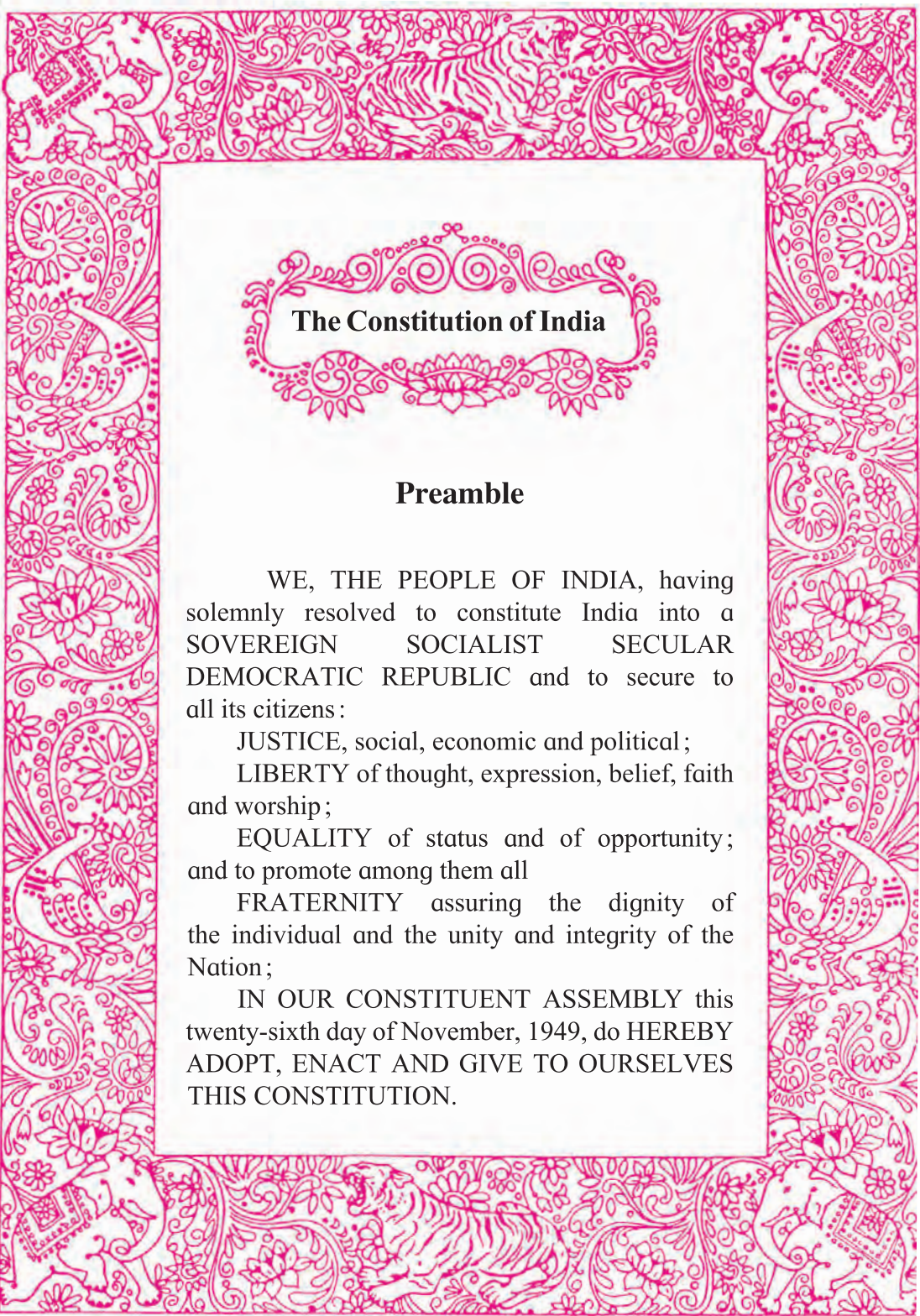
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The Constitution of India

Preamble

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

NATIONAL ANTHEM

Jana-gana-mana-adhināyaka jaya hē
Bhārata-bhāgya-vidhātā,

Panjāba-Sindhu-Gujarāta-Marāthā
Drāvida-Utkala-Banga

Vindhya-Himāchala-Yamunā-Gangā
uchchala-jaladhi-taranga

Tava subha nāmē jāgē, tava subha āsisa māgē,
gāhē tava jaya-gāthā,

Jana-gana-mangala-dāyaka jaya hē
Bhārata-bhāgya-vidhātā,

Jaya hē, Jaya hē, Jaya hē,
Jaya jaya jaya, jaya hē.

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.

To my country and my people,
I pledge my devotion. In their
well-being and prosperity alone lies
my happiness.

Preface

The 'Primary Education Curriculum - 2012' was prepared in the State of Maharashtra following the 'Right of Children to Free and Compulsory Education Act, 2009' and the 'National Curriculum Framework 2005'. The Textbook Bureau has launched a new series of textbooks based on this syllabus approved by the State Government from the academic year 2013-2014 in stages. We are happy to place this textbook 'Environmental Studies Part One' of Standard Four in this series in your hands.

Our approach while designing this textbook was that the entire teaching-learning process should be child-centred, emphasis should be given on active learning and constructivism and at the end of Primary Education the students should have attained the desired competencies and that the process of education should become enjoyable and interesting. Also, the present textbook has been written following 'Ten Core Elements' which have been indicated in the syllabus.

There are many colourful illustrations in this textbook. It is an attempt to make comprehension and construction of knowledge more effective through the language of pictures. Some activities have been included in this textbook under the titles 'Can you tell?', 'Try this', 'Use your brain power!' They will help the students to understand the concepts introduced in the lessons and will also reinforce them. The textbook will motivate the children to observe their environment. Conscious efforts have been made to impart values which are relevant today in the context of the textbook.

Variety in the exercises will help the children to revise and retain the concepts in the lessons and will motivate them to study on their own. Children will find the exercises interesting. They will also help the teacher with continuous comprehensive evaluation.

This textbook introduces the children to their natural, social and cultural environment. It attempts to develop the students' skills of problem solving and application and a healthy attitude towards the environment.

The language of presentation used in this book is simple. The topics have been presented in an inter-disciplinary manner without forming compartments of science, geography and civics. It may lead to an approach that looks at several dimensions of an issue or topic simultaneously. We have tried to keep in mind the diverse experiences of all the children in Maharashtra while writing the book.

This book was scrutinized by teachers from all parts of the State, by educationists, experts and members of syllabus committee to make it as flawless and useful as possible. Their comments and suggestions have been duly considered by the Subject Committees while finalising the book.

The members of Science, Geography and Civics Subject Committees, Panel members, quality reviewers and the artists have taken great pains to prepare this book. The Bureau is thankful to all of them. We hope that this book will receive a warm welcome from students, teachers and parents.



(C.R. Borkar)

Director

Pune

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Environmental Studies-Part 1-Standard IV-Learning Outcomes

Suggested Pedagogical Processes	Learning Outcomes
The learner may be provided opportunities in pairs / groups / individually and encouraged to : - observe and explore the immediate surroundings, for example home, school and neighbourhood for different objects/flowers/plants/animals/birds for their different general observable physical features (diversity, appearance, movement, places of living, food habits, needs, nesting, group behaviour, etc.) - ask questions and discuss with family members/elders as to why some family members stay together and others are away, interact with relatives, friends etc. and understand who stay at far off places, about the houses/ transport and life in their place of residence. - visit community/ home kitchen/kitchenette/ market place / museum/ wildlife sanctuaries/ farms/ natural sources of water/ bridges/ construction sites/ local industries/ distant relatives, friends/places famous for making special things such as paintings, carpets, handicrafts, etc. - interact with people (vegetable sellers, florists (flower sellers), beekeepers, gardeners, farmers, drivers, health and defense officer etc.) and share experiences about their work, their skills and tools used by them. - understand and views the experiences of elders about the situations about changes in family with time, roles of different family members, share their experiences and views on stereotypes/discrimination /unfair treatment to people/ animals/birds/plants in their home/school / neighbourhood. - frame the questions on the basis of experience and reflect it without any fear or hesitation. - share their experiences and observations through drawing/ symbols/tracing/ gestures / verbally and writing in some sentences and paragraphs in simple language. - compare objects and entities based on differences or similarities in the observable features and sort/classify them into different categories.	The learner- 04.95A.01 identifies simple features (for example, shape, colour, aroma, where they grow and any other) of flowers, roots and fruits in immediate surroundings. 04.95A.02 identifies relationship with and among family members in extended family. 04.95A.03 explains the herd/ group behaviour in animals (ants, bees, elephants) behaviour of birds (building nests) changes in family (for example, due to birth, marriage, transfer etc.) 04.95A.04 describes different skilled work (farming, construction, art/ craft etc.) their inheritance (from elders) and training (role of institutions) in day-to-day life. 04.95A.05 explains the process of producing and procuring daily needs (for example, food, water, clothes) i.e. from source to home. 04.95A.06 differentiates between objects and activities of past and present (for example, transport, currency, houses, materials, tools, skills, farming etc.) 04.95A.07 makes groups of animals, birds, plants, objects, waste materials stuff for observable features (for example, on appearance and uses etc.) 04.95A.08 guesses the features in standard and local units (for example, kilo, <i>gaz</i>, <i>pav</i> etc.) verifies the truth and predicts about the estimates spatial quantities (length, weight, time, duration).

- discuss with the parents/guardians/grandparents/elders in the neighbourhood and compare the life style of past and present and daily used items, for example clothes, vessels, nature of work, skills, games; inclusion of children with special skills, needs.
- collect objects and material from their surroundings such as fallen flowers and leaves, roots, spices, seeds, pulses, feathers, newspapers, magazine articles, advertisements, pictures, coins, stamps and arrange them, etc., in an innovative manner.
- perform simple activities and experiments to observe/ smell/taste/feel/hear touch using different senses as per their abilities for example, to test solubility of different substances in water, separate salt and sugar from water, and observe how fast the wet cloth dries up (in sun, in a room, rolled, flattened, with/without fan) blow hot, blow cold air.
- observe and share experiences of the phenomena, happenings, situations in daily life such as how root, flowers grow, lifting of weight with/without a pulley etc., and use ways to check/verify/test the observations through simple experiments and activities.
- read train/ bus tickets and time table, currency notes, directions to locate places on the map, signboards, manipulate local /waste material to create/improvise patterns, drawings, models, motifs, collage, poem/story/ slogans using variety of material.
- using clay to make pots/vessels, animals, birds, vehicles, making train, furniture from empty matchboxes, cardboard, waste material etc.
- participate in different cultural/national/environmental festivals / occasions organised in/at home / school / community, for example, morning or special assembly/ exhibition/ Diwali, Onam, Earth Day, Eid etc. Do creative writing in events of celebrations, dance, drama, theatre, etc. (for example, *diya/rangoli*/kite making/ models of buildings/bridges etc. and sharing experiences through stories, poems, slogans, reports the events narration/ creative writing (poem/story) or any other creative tasks.
- explore/read books, newspaper clippings, audio, stories/ poems / pictures / videos / tactile / raised material / web resources/ library and any other resources besides textbooks.
- enquire from parents, teachers, peers and elders at home/community, discuss, critically think and reflect on experiences of children related to situations at home, school, neighbourhood on reuse and reduction of waste, proper use and care of the public property, care of different animals, water pollution and wastage, health, and hygiene.
- finding out the reasons for diversity in food in our State and the country.
- understanding the difference between the traditional and modern costumes.
- be able to use various signs, symbols and indices in a map.
- collecting information re regarding languages, dialects, festivals and celebrations in the State.

04.95A.09 keeps the different records of information regarding observations and experiences, correlates the reasons and results to predict the pattern of different incidences. (Evaporation, condensation, absorption, dissolution).

04.95A.10 identifies signs, location of objects/ places and guides for the directions with respect to landmark in school/ neighbourhood using maps etc.

04.95A.11 uses the information on signboards, posters, currency (notes/ coins), railway tickets/ time table. Creates collage, designs, models, rangolis, posters, albums and simple maps of school / neighbourhood, flow diagrams etc. using local/ waste material.

04.95A.12 voices opinion on issues observed/ experienced in family/ school/ neighbourhood for example, on stereotypes, discriminatory practices, child rights.

04.95A.13 suggests ways for hygiene, reduce, reuse, recycle and takes care of different living beings, resources (food, water and public property).

04.95A.14 participates actively and undertakes initiatives of care, share empathy, leadership by working together in groups for example, in different indoor/ outdoor/ local/ contemporary activities and games, carries out projects/ role play for taking care of a plant/s, feed birds/ animals, things/ elderly/ handicap.

04.95A.15 shows major cereal crops and famous food items according to the State and districts on a map.

04.95A.16 reads the maps with the help of signs, symbols and indices.

04.95A.17 compares his/her district with State as physical and man-made factors.

04.95A.18 tells the variety of clothings based on geographical and cultural parameters.

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The following foot notes are applicable :-

1. © Government of India, Copyright 2014.
2. The responsibility for the correctness of internal details rests with the publisher.
3. The territorial waters of India extend into sea to a distance of twelve nautical miles measured from the appropriate base line.
4. The administrative headquarters of Chandigarh, Haryana and Punjab are at Chandigarh.
5. The interstate boundaries amongst Arunachal Pradesh, Assam and Meghalaya shown on this map are as interpreted from the "North-Eastern Areas (Reorganisation) Act.1971," but have yet to be verified.
6. The external boundaries and coastlines of India agree with the Record/Master Copy certified by Survey of India.
7. The state boundaries between Uttarakhand & Uttar Pradesh, Bihar & Jharkhand and Chhattisgarh & Madhya Pradesh have not been verified by the Governments concerned.
8. The spellings of names in this map, have been taken from various sources.