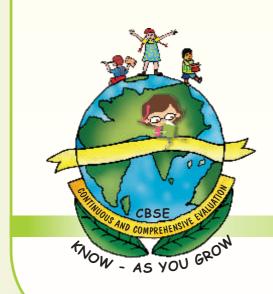
जया आगज

आज समय की माँग पर आगाज़ नया इक होगा निरंतर योग्यता के निर्णय से परिणाम आकलन होगा।

परिवर्तन नियम जीवन का नियम अब नया बनेगा अब परिणामों के भय से नहीं बालक कोई डरेगा

निरंतर योग्यता के निर्णय से परिणाम आकलन होगा। बदले शिक्षा का स्वरूप नई खिले आशा की धूप अब किसी कोमल-से मन पर कोई बोझ न होगा

निरंतर योग्यता के निर्णय से परिणाम आकलन होगा। नई राह पर चलकर मंज़िल को हमें पाना है इस नए प्रयास को हमने सफल बनाना है बेहतर शिक्षा से बदले देश, ऐसे इसे अपनाए शिक्षक, शिक्षा और शिक्षित बस आगे बढते जाएँ बस आगे बढते जाएँ





Environmental Education

Teachers' Manual

Classes I - V





CENTRAL BOARD OF SECONDARY EDUCATION

Shiksha Kendra, 2, Community Centre, Preet Vihar, Delhi-110 301 India





Price: ₹

March, 2015 ©CBSE, India

> www.kiiesiRanker.com Academics & Training Wing, Central Board of Secondary

Education, Shiksha Sadan, 17, Rouse Avenue, New Delhi-110002

Design & Layout: Multi Graphics, 8A/101, W.E.A. Karol Bagh,

New Delhi - 110005 • Phone: 011-25783846, 47503846

Printed By

Published By

भारत का संविधान

उद्देशिका

हम, भारत के लोग, भारत को एक सम्पूर्ण [प्रभुत्व-संपन्न समाजवादी पंथनिरपेक्ष लोकतंत्रात्मक गणराज्य] बनाने के लिए, तथा उसके समस्त नागरिकों को:

> सामाजिक, आर्थिक और राजनैतिक न्याय, विचार, अभिव्यक्ति, विश्वास, धर्म

> > और उपासना की स्वतंत्रता, प्रतिष्ठा और अवसर की समता

प्राप्त कराने के लिए तथा उन सब में व्यक्ति की गरिमा

> और ²[राष्ट्र की एकता और अखंडता] सुनिश्चित करने वाली बंधुता बढ़ाने के लिए

दृढ़संकल्प होकर अपनी इस संविधान सभा में आज तारीख 26 नवम्बर, 1949 ई॰ को एतद् द्वारा इस संविधान को अंगीकृत, अधिनियमित और आत्मार्पित करते हैं।

- 1. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3,1.1977) से "प्रभुत्व-संपन्न लोकतंत्रात्मक गणराज्य" के स्थान पर प्रतिस्थापित।
- 2. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977) से "राष्ट्र की एकता" के स्थान पर प्रतिस्थापित।

भाग 4 क

मूल कर्त्तव्य

51 क. मूल कर्त्तव्य - भारत के प्रत्येक नागरिक का यह कर्त्तव्य होगा कि वह -

- (क) संविधान का पालन करे और उसके आदर्शों, संस्थाओं, राष्ट्रध्वज और राष्ट्रगान का आदर करे;
- (ख) स्वतंत्रता के लिए हमारे राष्ट्रीय आंदोलन को प्रेरित करने वाले उच्च आदर्शों को हृदय में संजोए रखे और उनका पालन करे;
- (ग) भारत की प्रभुता, एकता और अखंडता की रक्षा करे और उसे अक्षुण्ण रखे;
- (घ) देश की रक्षा करे और आहवान किए जाने पर राष्ट्र की सेवा करे;
- (ङ) भारत के सभी लोगों में समरसता और समान भ्रातृत्व की भावना का निर्माण करे जो धर्म, भाषा और प्रदेश या वर्ग पर आधारित सभी भेदभाव से परे हों, ऐसी प्रथाओं का त्याग करे जो स्त्रियों के सम्मान के विरुद्ध हैं;
- (च) हमारी सामासिक संस्कृति की गौरवशाली परंपरा का महत्त्व समझे और उसका परिरक्षण करे;
- (छ) प्राकृतिक पर्यावरण की जिसके अंतर्गत वन, झील, नदी, और वन्य जीव हैं, रक्षा करे और उसका संवर्धन करे तथा प्राणिमात्र के प्रति दयाभाव रखे:
- (ज) वैज्ञानिक दृष्टिकोण, मानववाद और ज्ञानार्जन तथा सुधार की भावना का विकास करे;
- (झ) सार्वजनिक संपत्ति को सुरक्षित रखे और हिंसा से दूर रहे;
- (ञ) व्यक्तिगत और सामूहिक गतिविधियों के सभी क्षेत्रों में उत्कर्ष की ओर बढ़ने का सतत प्रयास करे जिससे राष्ट्र निरंतर बढ़ते हुए प्रयत्न और उपलब्धि की नई उंचाइयों को छू ले;
- '(ट) यदि माता-पिता या संरक्षक है, छह वर्ष से चौदह वर्ष तक की आयु वाले अपने, यथास्थिति, बालक या प्रतिपाल्य के लिये शिक्षा के अवसर प्रदान करे।
- 1. संविधान (छयासीवां संशोधन) अधिनियम, 2002 की धारा 4 द्वारा (12.12.2002) सें अंतः स्थापित।

THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a ¹[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.

- 1. Subs, by the Constitution (Forty-Second Amendment) Act. 1976, sec. 2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
- 2. Subs, by the Constitution (Forty-Second Amendment) Act. 1976, sec. 2, for "unity of the Nation" (w.e.f. 3.1.1977)

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, 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;
- ¹(k) who is a parent or guardian to provide opportunities for education to his/her child or, as the case may be, ward between age of six and forteen years.
- 1. Ins. by the constitution (Eighty Sixth Amendment) Act, 2002 S.4 (w.e.f. 12.12.2002)

Preface

With the emergence of core challenges related to the environment each day, there is a great need to increase public awareness about these issues. This can be achieved through Environmental Education that aims to impart sensitivity by developing knowledge, values, positive attitude, actions needed to protect and improve the environment and conserve natural resources through Environmental Education.

Environmental Education is a process, a life-long learning, that will mould environmentally vigilant citizens, who take appropriate decisions affecting their environment. Introducing Environmental Education at the primary level will help nurture the right attitude towards the environment right from childhood. It also raises awareness among young students and prepares them for the various environmental challenges they would face in the future as a result of global warming.

The Teacher's Manual on Environmental Education for Class I to V, comprises of various activities that provide meaningful experience to the students about their environment. The activities are based on themes such as, Soil, Air, Water, Energy, Biodiversity, Waste Management etc., related to the environment. These activities would help cultivate critical-thinking, decision-making and problem-solving skills among the students. The Manual provides an opportunity to the students to further explore and understand the environment they are living in.

I appreciate the Committee for their efforts in bringing out this Manual. I also extend my thanks to Dr. Sadhana Parashar, Professor and Director (Academic, Research, Training and Innovation) for the valuable guidance and inspiration that have helped in making this Manual possible. Any suggestions for further improvement of the Manual are most welcome.

Vineet Joshi Chairman, CBSE





ADVISORY BODY

Shri Vineet Joshi, Chairman, CBSE

Dr. Sadhana Parashar, Professor and Director (Academic, Research, Training and Innovation), CBSE

Prof. C.K. Varshney, Former Dean and Professor of Ecology, School of Environmental Sciences, Jawahar Lal Nehru University, Delhi

MATERIAL PRODUCTION

Ms. Neeta Rastogi, Principal, Sadhu Vaswani International School, New Delhi
Ms. Shipra Sarcar, Principal, Air Force Golden Jubilee Institute, New Delhi
Dr. Meena Jethi, Eco-Club Coordinator, Presentation Convent
Senior Secondary School, Delhi

EDITORS

Ms. P. Rajeswary, Education Officer, CBSE

COORDINATOR

Ms. Archana Thakur, Assistant Professor and Deputy Director, CBSE

SUPPORTING MEMBER

Mr. Nitish Jaiswal, Computer Assistant, CBSE



Introduction

"Earth provides enough to satisfy every man's needs, but not every man's greed."

-Mahatma Gandhi

Environmental Education is a learning process that increases people's knowledge and awareness about their environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action (UNESCO, Tbilisi Declaration, 1978).

India, like other developing nations, depends primarily upon its natural resources for development. This whole process, sometimes, leads to the exploitation of nature and its resources, which may again result in serious environmental problems. Considering the significance of this issue, proper initiatives need to be developed, that may be achieved through making Environmental Education a part of the teaching-learning system.

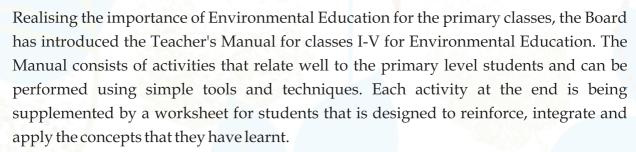
The main goal of Environmental Education is to develop the knowledge, skills, awareness, attitudes and values among individuals and communities towards their environment, so that, they are able to take proper decisions which may affect the environment.

Environmental Education basically aims at:

- Awareness: To make students aware and sensitive about the environment and environmental issues.
- Knowledge: To help students develop an understanding about the environment
- Attitudes and Values: To develop an attitude of concern and values for the environment and a sense of responsibility for maintaining the quality of environment.
- Skills: To help students acquire the skills that may help in solving the environmental problems.
- **Participation:** To develop the ability of youth to be involved and utilize their knowledge for solving environment related problems.

At the primary level, there is a great need to sensitise and motivate the students about the core environmental issues, so that, they are well prepared to counter these challenges.





I sincerely hope the Manual will achieve the purpose of bringing Environmental Education into the larger curriculum of schools.

Dr. Sadhana Parashar
Professor and Director
(Academic, Research, Training and Innovation),
CBSE



MANN FIRSTRANKEY COLL

Contents

CLASS-I	1
◆ Activity-1:Sunlight has Heat Energy	2
◆ Activity-2:Soil has Air	4
Activity-3: Water Cycle in Nature	6
Activity-4: Nature - a water filter	9
Activity-5: Myself and My Family	12
Activity-6 : Animals, plants and objects	19
◆ Activity-7 : Local Fauna	23
◆ Activity-8: A Child's School and Friends	25
◆ Activity-9: Caring for the Environment	28
CLASS-II	31
◆ Activity–1: Nature - a Water Filter	32
◆ Activity-2: Who Lives in the Soil?	35
•• Activity-3: Carbon in Nature	38
Activity-4: Unwanted Foreign Particles in the Air	41
Activity-5: Hygiene for Healthy Living	44
Activity-6: Writing Slogans for Environmental Conservation	47
Activity-7: Plants give us Food	49
Activity-8: Familiarity with objects: natural and human made	51
◆ Activity-9 : Source of our food	54
◆ Activity-10: Importance of Cleanliness	56
CLASS-III	58
◆ Activity-1: Impact of Oil Spill on Water Bodies	59
◆ Activity-2: Water is Essential for Life	63
◆ Activity-3: Air is Essential for Life	65
Activity-4: Watching Bird Behaviour	68
Activity-5: Living and Non-Living Things	72



www.FirstRanker.com

www	FirstRan	ker.com

•	◆ Activity-6: A Child's Needs	74
•	• Activity–7: Functions and Festivals	77
•	◆ Activity–8: Water for Life	79
•	• Activity-9: Life Around Us	81
	• Activity–10: Clothes Tambola	84
CLA	SS-IV	86
	Activity-1: Knowing about Our Soil	87
•	Activity-2: The Best out of Waste	90
•	◆ Activity–3: Water Conservation: Water-efficient Toilets	94
•	Activity-4: Measure Rainfall in your Town	97
•	◆ Activity–5: Functions and Festivals	100
•	◆ Activity-6: The Environment and Child's Needs	103
•	Activity-7: Things Around Us	106
•	Activity-8: Effect of climate on the Pattern of clothing	109
•	Activity-9: Safe drinking water	111
•	Activity–10: How to Handle Waste	113
CLA	SS-V	116
•	Activity-1: Can we "see" air?	117
•	Activity-2: Eco-friendly Practices	119
•	Activity-3: Tree Signature	122
4	Activity-4: Food Relationship in the Living World	126
M	Activity-5: Understanding Living Forms around Us	129
_\-	Activity-6: Celebrating Functions and Festivals	131
•	◆ Activity-7: Child's Needs-Food	133
•	◆ Activity-8: Making and Dyeing Cotton	136
•	◆ Activity-9: Water Cycle in Nature	138

