



**Content Analysis of
NCERT Text Book from
Population Education
Point of View**

A Report



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Population Education Evolution of the Concept

Introduction:

Population Education has emerged as an educational innovation in response to population problems about four decades ago. The idea that education can play a potential role in addressing population problems was first mooted in Sweden in 1935. The Population Commission of Sweden, which expressed its concern on the declining rates of birth in Sweden, recommended a comprehensive and truly vigorous educational campaign to clarify population related issues aimed at influencing the fertility behaviour of individuals (Jacobson, 1979). However, nothing noteworthy happened during the next two decades. In 1960s the matter was seriously reconsidered in the United States. Warren S. Thompson and Philip M. Hauser has published papers in March 1962 on issue of Teachers College Record in Columbia University reiterating the inclusion of population content in the school curriculum (Sharma, 1988).

The Workshop on Population and Family Education sponsored by the UNESCO Regional Office for Education in Asia held in September 1970 at Bangkok, was a landmark in the history of Population Education. It facilitated the identification of objectives of population education, selection of suitable contents and consideration of strategies for introduction of Population Education into formal and non-formal education systems it also resulted in the launching of National population education programmes by many countries in Asia (Hutabarat, 1979). Similar activities were initiated by UNESCO Regional Offices in Santiago (Latin America and Caribbean) and Dakar (Africa South of the Sahara). The United Nations Population Fund (UNFPA), previously known as United Nations Fund for Population Activities, played a vital role in appreciating the potential of population education and providing funds for national programmes from late sixties onwards. Population education emerged as an educational innovation during 1970s and various countries initiated activities to introduce it into their ongoing education systems. The recommendations of the World Population Plan of Action, adopted at the 1974 World Population Conference held in Bucharest, also encouraged nations to adopt the strategy of Population Education.

The first national endeavour to evolve and concretize the concept of population education in India was made in the National Seminar on Population

Education organised in Bombay in August 1969 and then in the Philippines and the Republic of Korea in 1970.

Although the changes that have occurred in the conceptual framework of population education in different countries over the years have reflected the context-specific variations, there has been overarching commonness in them. In India, the first attempt to conceptualize population education was made in the National Seminar on Population Education organized in Bombay in August 1969 (NCERT, 1969). The seminar made an attempt to define population in the context of Indian situation, but more importantly, expressed the national consensus for introducing this educational innovation in the education system of the country. The concept of population education was initially defined on the basis of the following recommendations of the National Seminar on Population Education held in August 1969:

- “The objective of population education should be to enable the students to understand that family size is controllable, that population limitation can facilitate the development of a higher quality of life.”
- “Students at all levels have a right to accurate information about the effect of changes in family size and national population on individual, family and nation...”
- “Population should not be treated merely as a quantitative phenomenon. It is the quality of the population that is most relevant both as a factor of growth and an end product of growth....”

In pursuance of the recommendations of the National Seminar, a Population Education Syllabus was developed by National Council of Educational Research and Training (NCERT) in 1971. It defined population education as an educational intervention to make the target groups aware of the multi-faceted population phenomenon so that it leads them eventually to take rational decisions concerning population matters (NCERT, 1971). The syllabus contained a scheme of content which was developed by drawing contents from the six major areas- population growth, population and economic development, population and social development, population health and nutrition, population, biological factors and family life and ecological considerations and population. Population education was treated by it as a demography- laden concept, predominantly as education in demography and population studies. The National Population Education Project launched in India in 1980 made an attempt to integrate the elements of these content areas in the school curriculum.

Reconceptualisation of Population Education:

Need to reconceptualise population education was felt for the first time during

early part of 1980s because of certain specific reasons. Evaluation studies on various facts of implementation of the National Population Education Project identified significant gaps in integration of the elements of population education in content and process of school education. It was realized that demography-laden conceptual framework, with excessive and not-so-essential elements of population dynamics, had hindered the process of effective integration of its elements into the school curriculum. Need for modification in conceptual framework was also felt in background of the recommendations adopted by the International Conference on Population held in Mexico City in 1984, which unfolded new dimensions of population phenomenon.

Initial step in reconceptualising population education was taken at the UNESCO Regional Seminar held in 1984, in which five major themes were identified as the core components of the conceptual framework. Those were: Family Size and Family Welfare, Delayed Marriage, Responsible Parenthood, Population Change and Resource Development, and Population Related Beliefs and Values. During same period, Indian Parliament adopted the National Policy on Education, 1986 which reflected the magnitude of the major causes and consequences of rapid population growth. Nearly half of the ten core curricular areas identified in the policy document such as Equality of Sexes, Protection of Environment, Removal of Social Barriers, Observance of Small Family Norm, and Inculcation of Scientific Temper, all of them being critical concerns of population education, provided an appropriate context for its Reconceptualisation. (NCERT)

While revising the conceptual framework of population education in India, six major themes namely Family Size and Family Welfare, Delayed Marriage, Responsible Parenthood, Population Change and Resource Development, Population Related Values and Beliefs, and Status of Women were identified. The scheme of content was prepared by drawing contents relating to these major themes from the following six areas: Economic Development, Social Development, Environment and Resources, Family Life, Health & Nutrition, and Demographic Implications. The reconceptualised framework changed the demography-laden concept of population education into a value-laden concept and defined it as education in interrelationships among population, development, resources, environment and quality of life (NCERT, 1987).

Why Reconceptualisation Again:

The Programme of Action adopted by the historic International Conference on Population and Development (ICPD) held in Cairo in 1994, necessitated a basic change in the conceptual framework of population education although this need was reflected in the Istanbul Declaration and the Plan of Action adopted by the International Conference on Population Education and Development, 1993,

which had brought forth the limitations of existing concept and recommended inclusion of number of emerging concerns in it. In the course of Population Debate since Malthus initiated it, population phenomenon has been analyzed in view of perceptions of its interrelationships with other variables of development and social environment.

Present perceptions of patterns of these interrelationships reflected in the ICPD Programme of Action are based on the latest development of a global consensus on population and development. It is, therefore, an imperative requirement for all planned interventions addressed to the population phenomenon to reorient, revitalize and rejuvenate them to realize the vision of the new paradigm of population and development. The ICPD Programme of Action has effected what has been described as a “Paradigm Shift” from number to conditions for population stabilization. It is considered essential to focus on individual needs instead of demographic targets and to integrate population concerns into development strategies rather than pursuing and providing sustenance to population control approach. Moreover, the ICPD for the first time has explicated two distinct roles of education: (a) education as a key factor in population stabilization; and (b) education as a means to promote greater responsibility and awareness of interrelationships between population and sustainable development (UNFPA, 1996).

Experiences gained during implementation of the National Population Education Project in India also favoured the reconceptualisation of population education. The Population Education Framework even after the first reconceptualisation during mid-1980s did not include elements relating to process of growing up and reproductive behavior, as these elements had been regarded very sensitive, although education in these elements was considered essential for influencing the fertility behaviour of individuals (Srivastava, 1999). In view of the problems that adolescents have been confronting for lack of authentic knowledge about the process of growing up from childhood to adulthood and recently realized urgency to impart HIV/AIDS education, it was felt that the Population Education Framework must be revised to incorporate all these elements (NCERT, 1998).

Another significant factor that necessitated the reconceptualisation of population education was realization that the Framework of Population Education being primarily influenced by the IEC approach had not been in consonance with the nature of existing school curriculum framework. Population education tended to adopt a didactic approach to convey messages. But the existing school framework is open-ended and is considered a process during which messages are caught. Population education, therefore, needed to be reconceptualised as a

truly educational endeavour that would make the learners aware of all possible dimensions of population - development interrelationships, promoting a general approach of supporting and empowering learners to take rational decisions regarding population and development issues; and also making them aware of the social consequences of their individual decisions.

Post – ICPD Reconceptualised Framework of Population Education:

The reconceptualised framework of population education mirrors all the critical concerns reflected in the ICPD Programme of Action. It provides a broader definition to the concept of population education as an educational process which develops among learners an understanding of interrelationships between population and development, causes and consequences of population change, and the criticality of the essential conditions for population stabilization. It inculcates in them rational attitude and responsible behavior, so that they may make informed decisions in respect of population and development issues (NCERT, 1998).

The objectives of population education are:

- Making learners aware of the interrelationships between population and sustainable development;
- Developing in them an understanding of the criticality of essential conditions of population stabilization for better quality of life of present and future generations;
- Inculcating in them rational attitude and responsible behaviour towards population and development issues;
- Making them understand the crucial aspects of population education, focusing on adolescence education (Process of growing up, and implications of HIV/AIDS and drug abuse).
- Inculcating in them rational attitude towards sex and drugs and promoting respect for the opposite sex; and
- Empowering them to take informed decisions on issues of population and development including those of reproductive health.

Broad Content Outline:

With a view to attaining these objectives, the Reconceptualised Framework focuses on six major themes and selected contents relating to these themes. These contents belong to the existing subjects being taught at the school stage, such as, Environmental Studies, Hindi, English, Social Science, Economics, Geography, Science, Biology, Psychology, and Sociology. The contents have been placed under the six basic themes in the following manner.

Theme I : Population and Sustainable Development

- A. Population Growth and Structure :** Implications for Population Stabilization : Population Growth, Fertility, Mortality, Age and Sex Structure – Implications in terms of the interrelationships between population change and the pace and quality of economic and social development; Infants, Children, Youth Elderly People and Persons with disabilities - health, educational and special needs and well-being in the context of population stabilization.
- B. Population, Sustained Economic Growth and Poverty :** Integration of population issues in the development strategies- Interrelationship between eradication of poverty and population stabilization; sustainable patterns and levels of resource utilization, production and consumption
- C. Population and Environment :** Interrelationship between population, development, natural resources, use of technology and quality of life, socio-economic dimensions of sustainable development; sustainable management of resources– Unsustainable pattern of consumption and production and their impact on environment; Environmental Pollution Impact on health and quality of life; Use of technology in agriculture, industry and other aspects of life styles- impact on the sustainability of resources and environmental degradation; women and environmental issues- Interrelationships.

Theme II : Gender Equality and Equity for Empowerment of Women

- A. Gender Equality and Equity :** Fulfillment of women’s potential through health care, education, skill development, ability to earn beyond traditional occupations, employment opportunities outside the household, and making them self-reliant; the role-stereotypes and the social worth of women; discrimination/violence against women.
- B. The Girl Child :** Need for change in the perception of the social worth of the girl child; health care, education; role-stereotypes and discrimination within the family and society.
- C. Male Responsibilities :** Appreciation of the key role of males in bringing about gender equality; Shared parental responsibilities.

Theme III : Adolescent Reproductive Health (Adolescence Education)

- A. Process of Growing up :** This component covers contents on the process of growth and development of children into adulthood such as physical growth and development including development of secondary sexual characteristics, psychological developments underscoring self identity, self concept, self esteem, sex drive and attraction towards opposite sex, socio-cultural development including relationships of adolescents with parents, peer group and the opposite sex, gender roles and myths and misconceptions.

Critical issues like adolescent pregnancy, nutritional needs of adolescents in general and adolescent girls in particular, major sexually transmitted infections (STIs), reproductive tract infections (RTIs) and adolescent friendly health services (AFHS) are also included in this component.

- B. Prevention of HIV and AIDS :** This component includes contents on causes and consequences of HIV and AIDS, preventive measures, anti-retroviral therapy (ART), individual and social responsibilities towards HIV and AIDS patients and the services available for prevention of spread of HIV and also for HIV infected persons.
- C. Prevention of Substance (Drug) Abuse :** Under this component are covered the situations in which adolescents are driven to substance (drug) abuse, commonly abused substances (drugs), consequences of substance abuse, preventive measures, treatment, rehabilitation of drug addicts and individual and social responsibilities.

Theme IV : Family: Socio-cultural Factors and Quality of Life

- A. Family as Basic Unit of Society :** Importance of institutions of marriage and family; Impact of rapid demographic change and socio-economic development on patterns of family composition and family life.
- B. Socio-Economic Support to the Family :** Basic needs: housing, food, clothes, health, education, social security and works; Need to promote social environment against domestic and sexual violence; Problems of old and handicapped members.

Theme V : Health & Education: Key Determinants of Population Change

- A. Health, Morbidity and Mortality :** Interrelationship between health, morbidity and mortality, population change and quality of life.
- B. Child Survival :** Linkages between child survival and timing, spacing, number of births and reproductive health of mothers.
- C. Health of Women and Safe Motherhood :** Health of women as a key factor for the quality of life in family and society.

Theme VI : Population Distribution, Urbanization and Migration

- A. Population Distribution :** Interrelationship among patterns of population distribution, socio-economic development, environment and quality of life.
- B. Population Growth in Urban Agglomerations :** Continued concentration of population in primate cities/mega-cities and economic, social, civic and environmental challenges.
- C. Migration :** Causes of migration, especially related to poverty; impact of migration on socio-economic development of rural areas

Strategies of Institutionalization

The overarching objective of concerted efforts being made under the National Population Education Project in India has been institutionalization of population education in the content and process of the education system. Although in some other countries this new educational area was introduced as a separate subject area, strategy of integrating population education elements in the on-going subject areas of the school curriculum was considered desirable here.

Integration Strategy

In India population education has been accepted as a critical curricular area in the national policy document, and its elements have been integrated in selected subjects being taught at different school stages. It has not been treated as a separate subject in the school curriculum. Moreover, attempts have also been made to include a separate paper on population education, over and above integrating its elements in existing papers in courses prescribed for pre-service elementary and secondary teacher education.

Although the strategy of integration of population education contents in syllabi and textbooks of different subjects has been considered successful to a large extent, evaluation studies have brought forth the limitations of this approach. It has been found that there are number of critical contents of population education that are yet to be included in school syllabi and textbooks (NCERT, 1999). Even the contents which are incorporated, lack the treatment that may ensure the attainment of population education objectives. There may be a number of reasons for the ineffective integration of population education elements in the content and process of school education. The most important in these reasons is the reluctance on the part of authors of textbooks to provide the desired treatment to the population education contents as it requires them to look beyond the traditional structures of the concerned subjects. It is evident from the above mentioned contents of population education that almost all of them belong to one or the other subjects being taught in schools. A lesson on reproduction system in Biology textbook is expected to incorporate most of the elements of adolescent reproductive health, but the author of the textbook invariably would not include the socio-cultural implications of reproductive behaviour. The same is true about most of the textbooks of other subjects.

It is generally observed that problems and issues that are included in researches conducted in a particular discipline are not immediately accepted in the content structure of that discipline. Many inter-disciplinary and trans-disciplinary problems are probed into by researchers of a particular discipline but the authors of textbooks of that discipline hesitate to incorporate insights emanating from such researches into the treatment of the concerned content

area. This is why population education contents, though included in different textbooks, do not receive the kind of treatment which the conceptual framework of population education recommends. Moreover, the traditional strategy of curriculum transaction in classrooms also has not changed. Teaching-learning process of subject textbooks has not been able to promote innovative participatory and interactive methods that are essential for inculcating rational attitudes and behaviour among the learners.

Because of these reasons, it has been felt for quite some time that school curriculum needs to be reorganized in a way that may provide an independent place to significant educational areas like population education, adolescence education, environmental education, health education and human rights education. A separate subject area such as Contemporary India: Emerging Concerns may be carved out from the time and space available in the existing school curriculum and the above mentioned areas may be included with the unit approach. A reorganization of this kind can conveniently take place at upper primary and secondary stages of school education, where there is an undifferentiated curriculum. It is also not advisable to develop a strictly discipline based curriculum for those school stages that are expected to provide general education. In view of the present education system of the country, the integration has been the best strategy to ensure that new curricular area occupies a permanent place in the content and process of the education system. Once the new education concern is integrated, it is owned by the existing system and is ipso facto taken care of continuously by all its processes such as curriculum renewal, revision or development of materials, teaching evaluation and teacher preparation. This is why population education programme has also adopted this strategy.

Need For Content Analysis

With a view to ensuring effective integration, it is necessary to content analyze the textbooks prepared by NCERT. These textbooks have been used in 15 states and UTs. In order to review the adequacy of integration of various components of Population Education such as “sustainable development, gender equality and equity, family and quality of life, urbanization and migration, health and education, adolescence education (process of growing up, HIV/AIDS, and drug abuse)” in school textbooks from classes I-XII a need was felt to analyze the books.

Objectives of Content Analysis

- (i) To analyze the content of School Textbooks developed by NCERT from Classes I-XII from the point of view of integration of Population Education Components.

- (ii) To identify gaps in the existing textbooks with reference to the above components; and
- (iii) To make recommendations for adequate and effective integration of population education including adolescence education components such as process of growing up, HIV / AIDS and substance abuse into school textbooks;

Modality of Content Analysis

The following process for conducting content analysis was adopted:

1. The Department adapted (a) the Contents of Population Education and (b) Core Ideas based on the Scheme of Contents of Population Education evolved under National Population Education project and finalized the (c) Criteria for Content Analysis.
2. The content analysis was conducted in workshop situation. To begin with the textbooks were short-listed based on the above stated tools. The potential textbooks were then subjected to detailed content analysis.
3. All the current textbooks brought out by NCERT as a follow up of NCF 2005 were content analyzed in a workshop held from 17-19 March 2010 at National Council of Educational Research and Training, New Delhi-110016.

This Workshop was attended by project personnel of Population Education Cells, subject experts and professionals (list of Participants Appended).

In all 77 Textbooks were analyzed. Textbooks in use from Primary to senior secondary stages were content analyzed. The analysis of textbooks was directed to find out whether:

- The contents related to the six components of population education, sustainable development, gender equality and equity, family and quality of life, urbanization and migration, health and education, and adolescence education (process of growing up, HIV/AIDS and drug abuse) are adequately integrated in the textbooks of relevant subjects at all the stages of school education.
- The integrated contents are adequate enough to enable students of each of the school stages to acquire knowledge about sustainable development, gender equality and equity, family and quality of life, urbanization and migration, health and education, and adolescence education (process of growing up, HIV/AIDS and drug abuse).
- The treatment of content in the textbooks may promote interactive experiential learning and provide opportunities to students for participating in activities focused on life skills development.

Stage wise analysis is presented in the next chapters.

2

Status of Integration of Population Education at Primary Stage

In this chapter, efforts have been made to present the status of integration of Population Education concerns including Adolescence Education in the text of the lessons and the exercises given at the end of those lessons in different subject areas. This chapter has been divided into two sections. The first section deals with the analysis of texts from the point of view of Population Education, whereas the second section presents the analysis of exercises included in different lessons after the texts.

Section I : Integration of Population Education in the Text of the Lessons

At primary level, total number of 15 textbooks from Classes I-V were content analyzed. Four books were found to contain lessons having Population Education contents. The total number of such lessons are 13. Out of these, 5 lessons have contents related to the theme on sustainable development where as other 5 incorporated contents related to gender equality and equity, and one lesson has contents related to health and education. There are 2 combined lessons focusing on content related to sustainable development, gender equality and equity, urbanization and migration as well as health and education. This has been shown in the table 2.1 below:

Table 2.1 : Population Education Contents In The NCERT Textbooks At Primary Level (I-V) At A Glance

Textbooks and Lessons Analyzed	Total Number
Total No. of Books from Classes (I-V)	15
Number of Books Analyzed	15
Books with contents on Population Education	04
Lessons having contents on Population Education	13
Lessons having contents on Sustainable Development	05
Lessons having contents on Gender Equality and Equity	05
Lessons having contents on Health and Education	01
Lessons having contents on SD+GE+UM+HE	02
SD= Sustainable Development; GE= Gender Equality and Equity; UM= Urbanization and Migration; HE= Health and Education	

Table 2.2 : Subject-wise Status of PE in NCERT Textbooks at the Primary Stage

Subject	Class	Title of Lesson	Themes							Types of Lesson/No. of Pages/Para/Sentences
			SD	GE	FM	UM	HE	PGU	HIV	
EVS	III	i) Water O' Water	✓							1 Page
		ii) Work We Do		✓						One Page
		iii) The Story of Food		✓						1 Page
		iv) Drop By Drop	✓							4 Pages Full Lesson
EVS	IV	i) Anita and the Honeybees		✓						8 Pages Full Lesson
		ii) Hu Tu Tu, Hu Tu Tu		✓						1 Page
		iii) A River's Tale	✓							6 Pages Full Lesson
		iv) Nandita in Mumbai				✓	✓			8 Pages Full Lesson
		v) Too Much Water, Too Little Water	✓							5 Pages Full Lesson
EVS	V	i) From Testing to Digesting					✓			3 Pages
		ii) Across the Wall		✓						8 Pages Full Lesson
		iii) Whose Forests?	✓	✓						5 Pages Full Lesson
English	V	i) Wonderful Waste	✓							2 Pages Full Lesson

Table 2.3 : Population Education in NCERT Text Books : Detailed Analysis at Primary Level

Subject, Title of the Books, Year of Publication	Class	Title, Name of the Lesson and Page Number	Population Education Content with Page Number	Pages/ Para
Environmental studies, Looking Around, Feb-2006.	III	Lesson-3 Water O' Water! (Page 19)	<ul style="list-style-type: none"> Importance of Water (I'll wash my face with water, Said Munna to his Nani. We all quench our thirst with water; 	1 Page

		Lesson -12 Work We Do (Pages78-86)	<ul style="list-style-type: none"> We are all alive because of water.Water has been with us for ages) (Page-19) Deepali is such a girl who does not go to school. She had to stay back home to take care of her brother and could not study more although reading books helps her to relax. She even today likes to go back to school. (Page 83) 	1 Page
		Lesson-14 The Story of Food (Page 92)	<ul style="list-style-type: none"> Comparison of two families in terms of equity and non-equity has been shown through illustration, in one family there is no discrimination between male and female. There is a sharing of household work; whereas other family shows stereotyped and no sharing in household work by male. (Page 92) 	1 Page
		Lesson -20 Drop By Drop (Pages132-136)	<ul style="list-style-type: none"> Need for conservation and use of water judicially. (Pages 132-135) 	4 Pages Full Lesson
Environmental Studies, Looking Around, Feb-2007.	IV	Lesson -5 Anita and the Honeybees (Pages-38-46)	<ul style="list-style-type: none"> Anita Khushwaha is a 'Girl Star'. This is a project which tells extraordinary tales of ordinary girls who have changed their lives by going to school. (Pages38-45) 	8 Pages Full Lesson
		Lesson -10 Hu Tu Tu, Hu Tu Tu (Pages-77-83)	<ul style="list-style-type: none"> Many times girls do not get equal opportunities in games. 	1 Pages

		<p>Lesson -13 A River's Tale (Pages 106-112)</p>	<ul style="list-style-type: none"> • Girls were not allowed to play Kabaddi because people thought if girls played such rough games, nobody would marry them. • Focused on gender stereotyped. (Page 81) • In this chapter students have been asked to prepare a story on the questions focusing on the impact of oil, big ships, factories, washing clothes, animals in terms of water pollution and also on human beings and fisheries. Illustration have also been included focusing on the above aspects. (Pages 107-110) 	6 Pages Full Lesson
		<p>Lesson -17 Nandita in Mumbai (Pages137-145)</p>	<ul style="list-style-type: none"> • Problems of over crowded city like Mumbai; lack of space, scarcity of water and other basic amenities due to unplanned migration. (Pages 137-144) 	8 Pages Full lesson
		<p>Lesson -18 Too Much Water, Too Little Water (Page146-157)</p>	<ul style="list-style-type: none"> • This lesson throws light on the problems of dirty and unclean water and its impact on health. People got sick with diarrhoea, loose motion, and vomiting. Need for making water clean and drinkable. (Pages 146-150) 	5 Pages Full Lesson
Environmental Studies, Looking Around, March 2008	V	<p>Lesson-3 From Testing To Digesting (Pages-22-34)</p>	<ul style="list-style-type: none"> • This story introduces children to the importance of balanced diet and impacts of non-nutrients foods and snacks like pizzas, burgers, chips and 	3 Pages

		Lesson-17 Across The Wall (Pages 154- 164)	soft drinks and their effects on health including illustration also in text questions on hunger and food storage. (Pages 31-33) • Need for making the gender stereotyped wall, need for empowerment from the system. This lesson describes that opportunities should be given to share their experiences about games for boys and girls while playing games.	8 Pages Full Lesson
		Lesson No. 20 Whose Forests? (Page-182-191)	• Try to develop an understanding in girls that players are recognized by their ability to play rather than by their gender, caste and economic status. (Pages 154-161) • This story throws light on the lives of forest dwellers and their relationship with forest. • It draws upon the true story of Suryamani, daughter of the jungle, whose organization works for saving the forests. (Pages 182-186)	5 Pages Full story
English, Marigold, February- 2008.	V	Unit- 1 Wonderful Waste (Pages- 10-15)	• Reuse of Waste. (Pages 10-11)	2 Pages, Full Story

Subject-wise Analysis:

The subject-wise analysis of textbooks as reflected in table 1.2 presents the status of population education elements as follows:

- The contents related to sustainable development have been integrated mainly in the textbooks of Environmental Studies for classes III, IV and V.

One lesson has content related to sustainable development in textbook of English for class V. the focus is only on water and forests.

- The contents related to gender equality and equity is discussed in the textbooks of EVS for classes III, IV and V. The analysis shows that efforts have been made to promote sharing of household work by males in the lesson “Anita and the Honeybees”. The need for making girls economically independent has been discussed. The story of “Across the Wall” shows the true story of how girls were empowered focused on experiential learning.
- Health and education contents are discussed in the lesson of EVS for class IV and V.
- Urbanization and migration is discussed in the lesson of EVS for class IV along with the content of health and education.

Gaps:

- Contents on Sustainable development focused only on Environmental issues that too only water, forest and of general nature. No where the relationship between number of people and the way they consume or use has been focused

Section 2 : Integration of Population Education in the Exercises of the Lessons

In this section, the exercises at the end of those lessons which were found having Population Education contents were analyzed. All the lessons were found having exercises. The details of exercises / questions are given below in the tables :

Table 2.4 : Exercises related to Population Education contents in different lessons at Primary Level

Title of the Lesson and Number	Exercises / Question	Core Area	Life skills
Class III Subject and title of the text book : Environmental Studies/ Looking Around			
Lesson- 3 Water O' Water!	• Why do we need to store water? (P-21)	SD	Critical Thinking
Lesson- 5 Chhotu's House	• Where do you throw the garbage of your house? Is the area around your house clean? (P-34)	SD	Self awareness
Lesson- 14 The Story of Food	• Do all people in your family eat together? If not why?	Family	Self and Social awareness
	• Who does not help in cooking food in the family and why? (P-93)	Family and Gender	Self awareness

Lesson 20 Drop By drop	<ul style="list-style-type: none"> • Have you seen water flowing unnecessarily in your home, school or any other place? Where? (P-135) 	SD	Self awareness
Class IV Subject and title of the text book : Environmental Studies/ Looking Around			
Lesson 5 Anita and the Honeybees	<ul style="list-style-type: none"> • Do you know someone who wanted to study, but could not do so? Talk about them in the class. (P-40) 	Gender	Critical Thinking
Lesson 7 From the Window	<ul style="list-style-type: none"> • Why was there so smoke and noise from the vehicles at the level crossing? (P-55) 	SD	Critical Thinking
Lesson 13 A River's Tale	<ul style="list-style-type: none"> • At some places, there are many fishes in the river, at others there are only a few and at some places there are dead fish. What could be the reason for this? 	SD	Critical Thinking
	<ul style="list-style-type: none"> • Have you seen dirty water in a river or pond? (P-107) 	SD	Critical Thinking
Lesson 17 Nandita in Mumbai	<ul style="list-style-type: none"> • Nandita used to feel like vomiting when at first she had to use the toilet where Mama lived. Why? (P-139) 	HE	Critical Thinking
	<ul style="list-style-type: none"> • Have you ever moved from your house? If yes, why did you have to move? (P-145) 	UM	Critical Thinking
Lesson 18 Too Much Water, Too Little Water	<ul style="list-style-type: none"> • How can unclean or dirty water harm our body? 	HE	Critical Thinking
	<ul style="list-style-type: none"> • Do you know anyone who has fallen sick because of such water? (P-147) 	SD & HE	Critical Thinking
Class V Subject and title of the text book : Environmental Studies/ Looking Around			
Lesson3 From Testing to Digesting	<ul style="list-style-type: none"> • What do you understand by 'proper' food? • Do you know any child who does not get enough to eat in the whole day? What are the reasons for this? (P-33) 	HE	Critical Thinking

Lesson 17 Across the Wall	<ul style="list-style-type: none"> • Do girls and boys play different types of games in your school or neighbourhood? If yes, then which games do the boys play and which do the girls play? • Should the games for boys and the girls be different? What do you think? • What would happen if girls are not allowed to play games, to study nor does some other work of their choice? (P-158 & 162) 	GE	Self Awareness and Social Awareness
Lesson 18 No Place For Us	<ul style="list-style-type: none"> • Imagine how it feels to leave one's own place and go far away to live in a new place? • Have you ever read or heard of a city slum being removed? How do you feel about this? • People also shift from one place to another when they get transferred in their jobs How do they feel then? (P-166 -173) 	UM	Self Awareness and Social Awareness
Lesson 20 Whose Forests	<ul style="list-style-type: none"> • Collect reports about forests from newspapers. Did you find any news about how the cutting down of forests affects the weather? How? (P-187) 	SD	Critical Thinking
SD: Sustainable Development, HE: Health and Education, GE: Gender Equity and Equality, UM: Urbanization and Migration			

The exercises given in different lessons are related to Environmental Studies for Classes III-V and English for Class -V. The exercises covered all the areas of Population Education except Adolescence Reproductive and Sexual Health issues. The exercises also focused on self-awareness and critical thinking. Most of the exercises try to put the learner in finding out an understanding the issue. However, the opportunities for experiential learning were seen only in two lessons in Class IV namely "No Place for Us" and "Whose Forest".

3

Status of Integration of Population Education at Upper Primary Stage

In this chapter, efforts have been made to present the status of integration of Population Education concerns including Adolescence Education in the text of the lessons and the exercises given at the end of those lessons in different subject areas at Upper Primary Stage. This chapter has also been divided into two sections. The first section deals with the analysis of texts from the point of view of Population Education, whereas the second section presents the analysis of exercises included in different lessons after the texts.

Section I : Integration of Population Education (PE) in the Text of the Lessons

A total number of 15 textbooks from Classes VI-VIII were content analyzed. Twelve books were found to contain lessons with Population Education contents. The total number of such lessons are 30. Out of these, 20 lessons have contents related to the theme on sustainable development. Three lessons incorporate contents related to gender equality and equity. One lesson has contents related to health and education. One lesson has contents related to process of growing up. There are 5 combined lessons focusing on sustainable development, gender equality and equity, health and education, process of growing up as well as drug abuse. This has been shown in the table 3.1 below:

Table 3.1 : Population Education Contents In The NCERT Textbooks At Upper Primary Level (VI-VIII) At A Glance

Textbooks and Lessons Analyzed	Total Number
Total No. of Books from Classes (VI-VIII)	15
Number of Books Analyzed	15
Books with contents on Population Education	12
Lessons having contents on Population Education	30
Lessons having contents on Sustainable Development	20
Lessons having contents on Gender Equality and Equity	03
Lessons having contents on Health and Education	01
Lessons having contents on Process of Growing Up	01
Lessons having contents on SD+GE+UM+HE	05
SD= Sustainable Development; GE= Gender Equality and Equity; UM= Urbanization and Migration; HE= Health and Education	

Table 3.2 : Subject-wise Status of PE in NCERT Text Books at Upper Primary Level

Subject	Class	Title of Lesson	Themes								Types of Lesson/No. of Pages/Para/Sentences
			SD	GE	FM	UM	HE	PGU	HIV	DA	
हिन्दी	VII	खानपान की बदलती तस्वीर					✓				4 Pages Full Lesson
English	VI	An Indian- American women in Space: Kalpana Chawala	✓								Para 1 and 4
English	VII	The Bear Story	✓	✓							One Para
Science	VI	Water	✓								2 Pages
Science	VII	i) Acids, Bases and Salts.	✓								1 Page
		ii) Water : A Precious Resource	✓								4 Pages
		iii) Forests : Our Life Line	✓								11 Pages Full Lesson
		iv) Waste Water Story	✓								8 Pages Full Lesson
Science	VIII	i) Conservation of Plants and Animals	✓								9 Pages Full Lesson
		ii) Reproduction in Animals						✓			2 Pages
		iii) Reaching the Age of Adolescence.						✓		✓	10 Pages Full Lesson
		iv) Pollution of Air and Water	✓								11 Pages Full Lesson
Geography	VI	i) Major Domain of the Earth	✓								2 Pages
		ii) Our Country India	✓								Two Lines
		iii) India : Climate, Vegetation and wild life	✓								One Page
Geography	VII	i) Environment	✓				✓				One Page
		ii) Air	✓								6 Lines
		iii) Water	✓								One Para
		iv) Natural Vegetation and Wild Life	✓								One Para
Geography	VIII	i) Resources	✓								6 Pages Full Lesson
		ii) Land, Soil, Water Natural Vegetation and wild life Resources	✓								13 Pages Full Lesson
		iii) Mineral and Power Resources	✓								One Page
		iv) Human Resources	✓								8 Pages Full Lesson

Social and Political Life-I	VI	i) Diversity and Discrimination		✓							Box
Social and Political Life-II	VII	i) Role of the Government in Health	✓				✓				11 Pages Full Lesson
		ii) How the State Government works.	✓				✓				Two Pages
		iii) Growing up As Boys and Girls.		✓							8 Pages Full Lesson
		iv) Women Change the World		✓							12 Pages Full Lesson
Social and Political Life-III	VIII	i) Public Facilities	✓								5 Lines
		ii) Law And Social Justice	✓								5 Lines
Total No. of Lessons = 30 ; Total No. of Full Lessons =12											

Table 3.3 : Population Education in NCERT Text Books : Detailed Analysis at Primary Level

Subject, Title of the Books, Year of Publication	Class	Title, Name of the Lesson and Page Number	Population Education Content with Page Number	Pages/ Para
Science, March 2006	IV	Lesson-14 Water (Pages 136-146)	<ul style="list-style-type: none"> How can we conserve water? Increasing population results in increased water consumption. More people need more water for food production and industries.(Pages 143-144) 	1 Page
Science, January 2007	VII	Lesson-5 Acids, Bases and Salts (Pages 49-57)	<ul style="list-style-type: none"> Soil Treatment is explained 'Excessive use of chemical fertilizers makes the soil acidic. (Page-55) 	1 Page
		Lesson-16 Water: A Precious Resource (Pages 193-205)	<ul style="list-style-type: none"> Depletion of water table: "This may happen due to many reasons. Increase in population, industrial and agricultural activities are some common factor affecting water table. 	4 Pages

			<ul style="list-style-type: none"> • Increasing population: Increasing population creates demand for construction of houses, shops, offices, roads and pavements. This decreases the open areas like parks, and playgrounds. This in turn, decreases the seepage of rainwater into the grounds what could be consequence? • Increasing industries: • Water is used by all the industries. The number of industries is increasing continuously. The growing industrial activity is responsible for the depletion of water table. • Agricultural activities: Population pressure on agricultural forces increasing use of ground water day by day. These results in depletion of water table. • Water management : <ul style="list-style-type: none"> - Rain water harvesting. - A case study: one example of rain water harvesting in Gujarat. • What role you can play <ul style="list-style-type: none"> - Water wise habits:- <ol style="list-style-type: none"> 1. Turn off tapes while brushing. 2. Mop the floor instead of washing. (Pages 199-202)
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		<p>Lesson- 17 Forests: Our life line (Pages- 206-219)</p>	<ul style="list-style-type: none"> • Forests provide food and shelter for animals, birds and insects • Importance of forests. • Deforestation increases the earth temperature. • In the absence of trees, the animals will not get food and shelter and soil will not hold water, which will cause floods. • It will endanger our life and environment. • Illustration showing the impact of pollution and deforestation. • Forests can regenerate. • Forests protect the soil from erosion. • Forests influence climate, water cycle and air quality. (Pages 206-216) 	<p>11 Pages Full Lesson</p>
		<p>Lesson- 18 Waste Water Story (Pages- 220-230)</p>	<ul style="list-style-type: none"> • Water as our life line. • Waste water treatment. • Better house keeping practices • Sanitation and disease. • Alternative arrangements for sewage disposal. • Sanitation of Public places. (Pages 220-227) 	<p>8 Pages Full Lesson.</p>
<p>Science, January 2008.</p>	<p>VIII</p>	<p>Lesson-7 Conservation of Plants and Animals (Pages 77-89)</p>	<ul style="list-style-type: none"> • Deforestation & its causes: • Consequences of deforestation • Conservation of forest and wild life. • Biosphere reserve • Endangered species, e.g. tiger. • Migration. • Recycling of papers: saving the trees by recycling the paper. • Reforestation.(Pages 77-85) 	<p>9 Pages Full Lesson.</p>

	<p>Lesson-9 Reproduction In Animals (Pages 100-112)</p> <p>Lesson-10 Reaching The Age of Adolescence (Pages 113-126)</p>	<ul style="list-style-type: none"> • Male reproductive organs. • Female reproductive organs. • Fertilization (Pages 101-102) • Concept of Adolescence, changes at puberty: Increase in height, changes in body shape, voice change, increased activity of sweat and sebaceous glands, development of sex organs, reaching mental intellectual and emotional change. • Development of secondary sexual character changes controlled by hormones: testosterone in males and estrogens in females. • Reproductive phase of life in humans: menstruation in girls (once in 28-30 days), Menarche, menopause. • Sex of baby: whether boy or girl- determined by pair of sex chromosomes of father • Other hormones secreted by endocrine glands pancreas, thyroid adrenal • Role of balanced diet for adolescents, personal hygiene, physical exercise. • Myths and taboos related to adolescent pregnancy 'Say No to Drugs (Pages 113-122) 	<p>2 Pages</p> <p>10 Pages Full lesson</p>
	<p>Lesson- 18 Pollution of Air and Water (Pages 239- 252)</p>	<ul style="list-style-type: none"> • Air pollution • How does air get polluted? • Case study: TajMahal at Agra- National heritage matter of concern due to acid rain. Cause of acid rain gases like sulphur dioxide and nitrogen dioxide given out by factories and refineries. 	<p>11 Pages Full Lesson</p>

			<ul style="list-style-type: none"> • Greenhouse effect • Case Study of: Consequences- box showing global warming- A serious threat. • What can be done: Activities have been mentioned in water pollution, how does water get polluted? • Case study – Case study of river Ganga. Activities and illustration regarding pollution and action at individual and societal levels. (Pages 239-251) 	
Social and Political Life-I, Feb-2008.	VI	Lesson -2 Diversity and Discrimination (Pages 13-24)	<ul style="list-style-type: none"> • A common stereotype about Muslims is that they are not interested in educating girls and therefore do not send girls to school. However studies have shown that poverty among families hinders education particularly of girls. (Page 18) 	One Box
Social and Political Life-II, Feb-2008.	VII	Lesson-2 Role of the Government in Health (Pages 18-29)	<ul style="list-style-type: none"> • Meaning of health care. • Health care in India. • Cost of cure shown through cartoon and picture. • Public & private health care services. • According to UNICEF, more than two million children die every year in India from preventable infection. • Health care & equality: adequate facility of health care to all. Health care in India. Comparative situation of health facilities and health problems. • What can be done? – It is clear that most people of India could not get quality healthcare services. 	11 Pages Full Lesson

		<p>Lesson-3 How The State Govt. Works. (Pages 30-41)</p>	<ul style="list-style-type: none"> • Role of government providing information of good healthcare services to the poor and the disadvantage. • The kerala experience. • The Costa Rican approach. (Pages 18-28) <p>• Through Cartoon picture story the responsibility regarding problems of the shortage of water, unclean water and its impact on health has been explained? (Pages 30-31)</p>	2 Pages
		<p>Lesson-4 Growing Up As Boys & Girls (Pages- 44-53)</p>	<ul style="list-style-type: none"> • Different roles assigned to boys and girls. • Less value to the work and role of women in society. • Inequality between men and women in the area of work. • Stereotype of valuing household work done by women presented through picture story. • Valuing household work. • Lives of domestic workers. • Women's work & equality. (Pages 44-51) 	8 Pages Full Lesson
		<p>Lesson -5 Women Change The World. (Page- 54-67)</p>	<ul style="list-style-type: none"> • Some occupations are seen to be more suitable for men than for women. • Women struggle for equality. • Women's movement to challenge discrimination in more recent years. • Fewer opportunities and rigid expectations for women. 	10 Pages Full Lesson

			<ul style="list-style-type: none"> Boys are pressurized to think about getting a job that will pay a good salary. They are teased or bullied if they do not behave like other boys. Learning for change. Rokeya sakhawat Hossain and her dreams about 'lady land' ie opportunities to grow their level of education. (Box) Schooling and education today. Women's movement, campaigning to fight discrimination & violence against women, sexual harassment, raising awareness of women's right by pictures.(Pages 54-66) 	
Social and Political Life-III, March -2008	VIII	Lesson-9 Public Facilities (Pages 106-118)	<ul style="list-style-type: none"> Public Facilities: - Like water, healthcare and sanitation are necessary for human beings with illustration.(Page-109) 	3 Lines
		Lesson-10 Law And Social Justice (Pages 120-132)	<ul style="list-style-type: none"> Before Bhopal gas tragedy the environment was treated as a 'Free' entity and any industry could pollute the air and water without any restrictions. Whether it was our rivers, air, groundwater- the environment was being polluted and the health of people disregarded. New laws for protecting the environment. Need for awareness.(Page-128) 	5 Lines
Geography, The Earth Our Habitat, Nov. -2007.	VI	Lesson -5 Major Domain of The Earth (Pages- 30-38)	<ul style="list-style-type: none"> Three domain of the earth – hydrosphere, atmosphere, and biosphere interact with each other. All the living organisms including humans are linked to each other and to the biosphere for survival. 	Two Pages

		<p>Lesson -7 Our Country India (Pages 47-55)</p> <p>Lesson -8 India: Climate, Vegetation and Wildlife (Pages- 56-65)</p>	<ul style="list-style-type: none"> • For example cutting of forests, clearing land for agriculture may lead to fast removal of soil. • Discharge of waste material into lakes and rivers makes the water unsuitable for human use. • Industries thermal power plants and vehicles lead to air pollution • Need to limit the use of resources of the earth to maintain the balance in nature. (Pages 36-37) • Population of India.(Page 47) • Why are forests necessary? (Page 51) • Importance of forests in terms of furniture, fuel, wild life, fresh air and shelter. • The importance of forest has been shown through illustration. (Page—61) 	<p>Two Lines</p> <p>One Page</p>
Geography, Our Environment, February -2008,	VII	Lesson- 1 Environment (Pages-1-6)	<ul style="list-style-type: none"> • Concept of environment and its modification by human beings • Components of environment- Natural, human and human made(shown through illustration) • Meaning of Ecosystem • Human environment • Need for balance between nature and human environment. (Page-5) 	One Page

		<p>Lesson -4 Air (Pages 20-29)</p> <p>Lesson -5 Water (Pages 30-38)</p> <p>Lesson -6 Natural Vegetation And Wildlife (Pages 39-46)</p>	<ul style="list-style-type: none"> • Cutting of trees can disturb the balance. • Burning of fossil fuels such as coal and oil add billions of tons of carbon dioxide, its effects on weather and climate. (Pages 20-21) • Distribution of water bodies shown by a simple activity. • Need of water for human being. • Collage showing polluted condition of rivers. (Page -32) • Causes of deforestation and its impact on wildlife and other consequences. It is being illustrated with the help of an example where a father describes this to his daughter with the help of photographs of thick forest. (Page 44) 	<p>6 Lines</p> <p>One Para</p> <p>One Para</p>
<p>Geography, Resources And Development, February- 2008.</p>	VIII	<p>Lesson-1 Resources (Pages 1-8)</p>	<ul style="list-style-type: none"> • Types of resources: Natural resources- renewable and non-renewable resources, human made resources, people as human resources. • Conservation of resources for Sustainable development • Concept of sustainable development; • Principles of sustainable development shown in box. • Concept of sustainable development explained with illustration and examples. (Page- 1-6) 	<p>6 Pages Full Lesson</p>

		<p>Lesson-2 Land, Soil, Water, Natural Vegetation and Wildlife Resources (Pages 9-23)</p> <p>Lesson- 3 Mineral and Power Resources (Pages 24-39)</p> <p>Lesson- 6 Human Resources (Pages 66-74)</p>	<ul style="list-style-type: none"> • The uneven distribution of population in different parts of the world is mainly due to varied characteristics of land and climate. • Human factors such as population and technology determine the land use pattern. • Growing people and limited land, encroachment of land for commercial purpose and for expansion of agriculture • Land degradation, landslides, soil erosion, desertification are the major threats to the environment due to growing number of people and their demands. • Picture shown depicts the changes in land use over time due to human activities. • Conservation of land resources: some natural hazards like landslide occurs due to intense blasting for mining or consumption purposes; Mitigation mechanism to deal with such hazards. • Degradation of soil and conservation: Factors leading to soil degradation like deforestation, overgrazing, overuse of chemical fertilizers or pesticides, rain wash, landslides and floods. 	<p>13 Pages Full Lesson</p>
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		<p>Lesson- 3 Mineral and Power Resources (Pages 24-39)</p> <p>Lesson- 6 Human Resources (Pages 66-74)</p>	<ul style="list-style-type: none"> • Increases in population require much water for different uses, which leads to shortage in fresh water supply and water pollution. • Picture depicting polluted Yamuna River due to sewage, industrial waste and garbage. • Steps to conserve water resources. • Need to water harvesting. • Conservation of natural vegetation and wildlife. • Awareness programmes and logos for conservation of natural vegetation and wildlife.(Pages 9-21) • Unchecked burning of fossil fuel has caused the pollution. • Minerals are non-renewal resources; the rate of formation is much smaller than the rate of human consuming these minerals. • Need for recycling of metals of conserving minerals. • Reduce wastage. (Page 29) • Understanding human resources; • Distribution of population globally. • Density of population • Factors affecting distribution of population. • Pictures trying to explain the population figure from family level to world level. 	<p>One Page</p> <p>8 Page Full Lesson</p>
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			<ul style="list-style-type: none"> • Reasons of population change decades. • Birth, death and migration are important source of population increase. • Graph showing world population growth. • Pattern of population change in some selected countries. • Understanding population pyramid • Population pyramids of India, Kenya and Japan. (Pages 66-73) 	
हिन्दी वसंत भाग-2 मार्च-2007	VII	अध्याय-14 “खानपान की बदलती तस्वीर” (निबन्ध) (पृष्ठ 102-107)	<ul style="list-style-type: none"> • हमारी खान-पान की संस्कृति विषय में अद्वितीय रही है क्योंकि उसके मापदण्ड न केवल शारीरिक स्वास्थ्य के लिये लाभकारी है अपितु मानसिक स्वास्थ्य में भी उनका प्रचुर योगदान है। (पृष्ठ 102-105) 	4 Page Full Lesson
English, Honey Suckle, February – 2006	VI	Lesson- 4 An Indian- American Woman in Space: Kalpana Chawala (Pages46-53)	<ul style="list-style-type: none"> • Stress upon equality of opportunities for girls in education and employment. (Pages 46-48) 	Para 1 and 4
English, An Alien Hand, April-2007.	VII	Lesson- 8 The Bear Story (Page- 52-57)	<ul style="list-style-type: none"> • Sustainable effort of young girl for the preservation of flora and fauna. (Page-54) 	One Para

Subject-wise Analysis:

The Subject-wise analysis of textbooks at Upper Primary level as reflected in table 3.2 presents the status of Population Education elements as follows:

- Population Education contents are integrated in the text of Hindi for class VII, English for Classes VI and VII, Science, Geography for Class VI, VII and VIII and Social and Political Life for Classes VI, VII and VIII.
- The contents related to sustainable development have been integrated mainly in the textbooks of Science, Geography, Social and Political Life for

classes VI, VII and VIII, whereas in the textbooks of English for classes VI and VII.

- Contents related to process of growing up and drug abuse is covered in one full lesson in the textbook of Science for class VIII. Process of growing up has also been covered in two pages in another lesson titled “Reproduction in Animals” in the text book of Science for class VIII.
- Gender equality and equity is discussed in the textbook of English and Social and Political Life for classes VI and VII.
- Contents related to health and education discussed in the textbook of Hindi, and in Social and Political Life-II for class VII.
- Various life skills that need to be developed among students have been covered through some activities in the lessons on sustainable development in Science for class VI and Geography for class VII. Contents on process of growing up are discussed in the textbook on Science for class VIII.
- Experiential learning has been shown in the textbooks of Science, Geography and Social and Political Life.
- Activities delineating the process have been involved in many chapters.

Gaps:

- Contents on sustainable development focused on physical environmental issues and covered the maximum space than the other contents of population education like health and education, gender equality and equity, process of growing up and drug abuse.
- Contents of family, its roles and responsibilities and quality of life, urbanization and migration and HIV& AIDS do not find any place in the textbooks at this stage.

Section 2 : Integration of Population Education in the Exercises of the Lessons

In this section, the exercises at the end of those lessons which were found having Population Education contents were analyzed. All the lessons were found having exercises. The details of exercises / questions are given below in tables :

Table 3.4 : Exercises Given in the Textbooks At the Upper Primary Level

Title of the Lesson and Number	Exercises / Question	Core Area	Life skills
Class- VII Subject and Title of the text book: Science			
Lesson 4 An Indian-American women in Space: Kalpana Chawala	Q.3 How did she become an astronaut? What gave her the idea that she could be an astronaut?	GE	Critical Thinking
	Q.6 What does Kalpana Chawla say about pursuing a dream? Do you agree with her that success is possible? (Page50)	GE	Critical Thinking
Lesson 14 Water	Suggested Projects & Activities- 1. List three activities in which you can save water. For each activity describe how you would do it.	SD	Critical Thinking
	3. Prepare a poster on ways of saving water & display it on your school notice board.	SD	Awareness
	4. Write a few slogans of you own the topic 'Save Water'.	SD	Critical Thinking
Science, Lesson 16 Garbage in, Garbage out	Q.2 Discuss (a) Is garbage disposal the responsibility only of government? (b) It is possible to reduce the problems refating to disposal of garbage? Q.5 (C) Write a story on how packaging could have been reduced? (Page164)	SD	Social Awareness
Social and Political Life- Lesson-2 Diversity and Discrimination	Q.2 How can the stereotype that girls are a burden on their parents affect the life of a daughter? Imagine this situation and list at least five different effects that this stereotype can have on the way daughters get treated in the house. (Page 24)	GE	Critical Thinking

Lesson 16 Water: A Precious Resource	Q.5 Explain the factors responsible for the depletion of water table.	SD	Critical Thinking
	Q.7 Which one of the following is not responsible for water shortage? (i) Rapid growth of industries (ii) Increasing population (iii) Heavy rainfall. (iv) Mismanagement of water resources.	SD	Awareness
	Q.4 Activity- conservation of water – carry out a campaign to conserve water at home and in the school. Design posters to remind others of the importance of water resources. (Pages 203-205)	SD	Self and Social Awareness
Lesson 17 Forests: Our Lifeline	Q.4 Explain the role of forest in maintaining the balance between oxygen and carbon dioxide in the atmosphere.	SD	Critical Thinking
	Q.8 Why should we worry about the conditions and issues related to forests far from us? (Pages 217-218)	SD	Critical Thinking
	Q.12. Which of the following statements is not correct? (i) Forests protect the soil from erosion. (ii) Plants & animals in a forest are not dependent of one another (iii) Forests influence the climate & water cycle. (iv) Soil helps forests to grow & regenerate.	SD	Awareness
Lesson 18 Wastewater Story	Q.2 What is sewage? Explain why it is harmful to discharge untreated sewage into rivers or seas.	SD	Critical Thinking
	Q.3 Why should oils and fats be not released in the drain? Explain.	SD	Critical Thinking
	Q.4 Describe the steps involved in getting clarified water from wastewater.	SD	Critical Thinking
	Q.6 Untreated human excreta is a health hazard. Explain.	SD	Critical Thinking

	Q.7 Name two chemicals used to disinfect water.	SD	Awareness
	Q.9 Explain the relationship between sanitation and disease.	HE	Critical Thinking
	Q.10 Outline your role as an active citizen in relation to sanitation. (Pages228-230)	HE	Self Awareness
Geography Lesson-1 Environment	Q.1 Give four examples of Human Mode environment Q.4 Give reasons: (i) Man modifies his environment. (ii) Plants & animals depend on each other.	SD	Critical Thinking
	Q.5 Activity- Imagine an ideal environment where you would love to live. Draw the picture of your ideal environment.	SD	Critical Thinking
Lesson- 4 Air	Q.1 Answer the following questions. (ii) Which two gases make the bulk of the atmosphere?	SD	Knowledge
	Q.2 Tick the correct answer. (i) Which of the following gases protects us from harmful sun rays? (a) Carbon dioxide (b) Nitrogen (c) Ozone	SD	Knowledge
Lesson – 5 Water	Q. 2 Give reasons- (ii) The quality of water is deteriorating.	SD	Knowledge
Social Science Social & Political life-II Lesson 2 Role of the Govt. in Health	Q. 2 What are the different ways through which the government can take steps to provide healthcare for all? Discuss. Q.4 'Improvement in water and sanitation can control many diseases'. Explain with the help of examples. (Page-29)	HE HE	Knowledge Self Awareness
Lesson -4 Growing Up As Boys & Girls	Q.1 Are the statements given alongside true or false? Support your answer with the use of example. - Housework is invisible and unpaid work. - Housework is physical demanding. - Housework is time consuming.	ARSH GE	Critical Thinking

	Write in your own words what is meant by the terms 'invisible', 'physically demanding' and time consuming? Give one example of each based on the household tasks undertaken by women in your home.		
	Q.3 Make list of toys and games that boys typically play and another for girls. If there is a difference between the two lists. Can you think of some reasons why this is so, does this have any relationship to the roles in children have to play as adults. (Page 53)	ARSH GE	Self Awareness
Lesson -5 Women Change the World	Q.1 How do you think stereo types, about what woman, can or cannot do; affect women's right to equality? Glossary: Stereotype, Discrimination, Violation and Sexual harassment (Page 67)	GE	Critical Thinking
	Q.2 List one reason why learning the alphabet was so important to women like so important to women like Roshundari Devi, Ramabai and Rokeya.	GE	Critical Thinking
	Q. 3. "Poor girls drop out of school because they are not interested in getting an education". Re-read the last paragraph on page 62 & explain why this statement is not true.	GE	Critical Thinking
Geography Our Environment Lesson 1 Environment	Q.1 Give four examples of Human made environment? (Page 6)	SD	Critical Thinking
	Q.2 Give reasons how man modifies his environment?	SD	Critical Thinking
Lesson 4 Air	Q.1 (iii) Which gas creates green house effect in the atmosphere? (P-27)	SD	Knowledge
SD: Sustainable Development, HE: Health and Education, GE: Gender Equity and Equality, UM: Urbanization and Migration			

Title of the Lesson and Number	Exercises / Question	Core Area	Life skills
Class-VIII Subject and Title of the book : Science			
Science Lesson 7 Conservation of Plants and Animals	Q.3 Discuss the effects of deforestation on the following. (a) Wild animals (b) Environment (c) Villages (Rural areas) (d) Cities (Urban areas) (e) Earth (f) The next generation.	SD	Critical Thinking
	Q.4 What will happen if? (a) We go on cutting trees. (b) The habitat of an animal is disturbed. (c) The top layer of soil is exposed.	SD	Knowledge
	Q.5 Give answer in brief-- (a) Why should we conserve biodiversity? (b) Protected forests are also not completely safe for wild animals. Why? (c) Some tribes depend on the jungle. How? (d) What are the causes and consequences of deforestation? (f) What do you understand by the term migration?	SD	Critical Thinking
	Q.6 In order to meet the ever-increasing demand in factories and for shelter, trees are being continually cut. Is it justified to cut trees for such projects? Discuss and prepare a brief report?	SD	Critical Thinking
	Q.7 How can you contribute to the maintenance of green wealth of your locality? Make a list of actions to be taken by you?	SD	Social Awareness
	Q.8 Explain how deforestation leads to reduced rainfall?	SD	Critical Thinking
	Q.10 Why should paper be saved? Prepare a list of ways by which you can save paper? (Page 87)	SD	Knowledge

Lesson 9 Reproduction in Animals	Q.2 Describe the process of fertilization in human beings.	ARSH	Critical Thinking
	Q.5 Give two differences between a zygote and a foetus.	ARSH	Knowledge
	Q.6 Define asexual reproduction. Describe two methods of asexual reproduction in animals.	ARSH	Knowledge
	Q.7 In which female reproductive organ does the embryo get embedded? (Page 110)	ARSH	Knowledge
Lesson 10 Reaching The Age of Adolescence	Q1 What is the term used for secretion of endocrine glands responsible for changes taking place in the body?	ARSH	Knowledge
	Q.2 Define adolescence.	ARSH	Knowledge
	Q.3 What is menstruation? Explain.	ARSH	Knowledge
	Q.4 List changes in the body that take place at puberty.	ARSH	Knowledge
	Q.6 What are sex hormones? Why are they named so? State their function.	ARSH	Knowledge
	Q.7 Choose the correct option- (a) Adolescents should be careful about what they eat, because-- (i) Proper diet develops their brain. (ii) Proper diet is needed for the rapid growth taking place in their body. (iii) Adolescents feel hungry all the time. (iv) Taste buds are well developed in teenagers. (b) Reproductive age in women starts when their-- (i) Menstruation starts. (ii) Breasts start developing. (iii) Body weight increases. (iv) Height increases. (c) The right meal for adolescents consists of -- (i) Chips, noodles, coke. (ii) Chapati, dal, vegetables. (iii) Rice, noodles and burger. (iv) Vegetable cutlets, chips and lemon drink.	ARSH	Understanding

	Q.8 Write notes on— (b) Secondary sexual characters. (c) Sex determination in the unborn baby (Page 124)	ARSH	Critical Thinking
	Q.9 Word Game: Use the clues to work out the words. Across 1. Protruding voice box in boys 2. Glands without ducts 7. Endocrine gland attached to brain 8. Secretion of endocrine glands 9. Pancreatic hormones 10. Female hormones Down 1. Male hormones 2. Secretes thyroxin 3. Another term for teenage 5. Hormone reaches here through blood stream 6. Voice box 7. Term for changes at adolescence	ARSH	Critical Thinking
Lesson 18 Pollution of Air and Water	Q.1 What are the different ways in which water gets contaminated	SD	Knowledge
	Q.2 At an individual level, how can you help reduce air pollution?	SD	Self Awareness
	Q.5 Explain the differences between pure air and polluted air.	SD	Critical Thinking
	Q.6 Explain circumstances leading to acid rain. How does acid rain affect us?	SD	Critical Thinking
	Q.7 Which of the following is not a greenhouse gas- (a) Carbon dioxide (b) Sulphur dioxide (c) Methane (d) Nitrogen	SD	Knowledge
	Q.8 Describe the 'Green House Effect' in your own words.	SD	Critical Thinking
Q.9 Prepare a brief speech on global warming. You have to deliver the speech in your class. (Page 250-251)	SD	Communication	

Geography, Lesson 1 Resources	Q.1 (ii) What is resource conservation?	SD	Knowledge
	(iii) Why are human resources important? (Page- 6)	SD	Under- standing
	(iv) What is sustainable development?	SD	Under- standing
	Activity in the form of Poem explaining importance of water along with the implications of scarcity of water. (Page- 7)		Under- standing
Lesson 2 Land Soil Water, Natural Vegetation Wildlife Resources	Q. 1 (ii) Write any two reasons for land degradation today. (iv) Name any two steps that government has taken to conserve plants and animals.	SD	Knowledge
	(v) Suggest three ways to conserve water.	SD	Knowledge
	Activity- Discuss some more reasons which are responsible for changes of land use pattern. Has your place undergone any change in the land use pattern? (Page- 22)	SD	Critical Thinking
Lesson 3 Mineral and Power Resources	Q.1 (i) Name any three common minerals used by you everyday.	SD	Knowledge
	Q.3 (i) Environmental aspects must carefully looked into before building huge dams. Give reasons.	SD	Knowledge
	(iv) Quarrying can become a major environmental concern. Give reason.	SD	Knowledge
	Activity- Design a poster highlighting energy conservation tips you would take for your school. (Page- 37-38)	SD	Critical Thinking
Lesson 6 Human Resources	Q.1 (i) Why are people considered a resource?	SD	Critical Thinking
	(ii) What are the causes for the uneven distribution of population in the world?	SD	Knowledge
	(iii) The world population has grown very rapidly. Why?	SD	Critical Thinking
	(iv) Discuss the role of any two factors influencing population change.	SD	Critical Thinking

	(v) What is meant by population composition?	SD	Knowledge
	(vi) What are population pyramids? How do they help in understanding about the population of a country?	SD	Understanding
	Q.2 Tick the correct answer: i) Which does the term population distribution refer to? (a) How population in a specified area changes over time. (b) The number of people who die in relation to the number of people born in a specified area. (c) The way in which people are spread across a given area.	SD	Critical Thinking
	Q.3 Complete the following sentences below using some of the following words. Sparsely, favourable, fallow, artificial, fertile, natural, extreme, densely When people are attracted to an area it becomes.....populated. Factors that influence this include....climate; good. supplies of.....resources and.....land.	SD	Critical Thinking
	Activity- Discuss the characteristics of a society with too many under 15”s and one with “too few under 15”s. (Page- 75)	SD	Critical Thinking
Social Science Lesson 9 Public Facilities	Q.5 Do you think the distribution of public facilities in our country is adequate and fair? Give an example of your own to explain. (Page- 118)	SD	Critical Thinking
Lesson 10 Law and Social Justice	Q.8 What are the sources of environmental pollution in your area? Discuss with respect to (a) air; (b) water and(c) soil. What are the steps being taken to reduce the pollution? Can you suggest some other measures?	SD	Understanding

	Q.9 How was environment treated earlier? What has been the change in the perception? Discuss. (Page-131)	SD	Critical Thinking
SD: Sustainable Development, HE: Health and Education, GE: Gender Equity and Equality, UM: Urbanization and Migration			

The analysis of exercises shows that the number of questions/exercises increases with the level of class. Majority of exercises focused on critical thinking. There are certain exercises which put the learner into the situation for experiential learning. In most of lessons the exercises are related to sustainable development. The coverage related to Adolescence reproductive and sexual health have also been focussed in few exercises in class VII but more in class VIII where there is a full chapter on reaching the age of adolescence.



Status of Integration of Population Education at Secondary Stage

In this chapter, efforts have been made to present the status of integration of Population Education concerns including Adolescence Education in the text of the lessons and the exercises are given at the end of those lessons in different subject areas at Secondary Stage. This chapter has also been divided into two sections. The first section deals with the analysis of texts from the point of view of Population Education, whereas the second section presents the analysis of exercises included in different lessons after the texts.

Section I : Integration of Population Education (PE) in the Text of the Lessons

A total number of 15 textbooks from Classes IX-X were content analyzed. Nine books were found which contain lessons with Population Education Contents. The total numbers of such lessons are 23. Out of these, 14 lessons have contents related to the theme on sustainable development. Three lessons incorporate contents related to gender equality and equity. One lesson has contents related to the process of growing up. One lesson has contents related to HIV/AIDS. There are 4 combined lessons focusing on sustainable development, health and education, gender equality and equity, process of growing up as well as HIV and AIDS. This has been shown in the table 4.1 below:

Table 4.1 : Population Education Contents In The NCERT Textbook At Secondary Level (IX-X) At A Glance

Textbooks and Lessons Analyzed	Total Number
Total No. of Books from Classes (IX-X)	15
Number of Books Analyzed	15
Books with contents on Population Education	09
Lessons having contents on Population Education	23
Lessons having contents on Sustainable Development	14
Lessons having contents on Gender Equality and Equity	03
Lessons having contents on Process of Growing Up	01
Lessons having contents on HIV/AIDS	01
Lessons having contents on SD+GE+HE+PGU+HIV	04
SD= Sustainable Development; GE= Gender Equality and Equity; HE= Health and Education; PGU= Process of Growing Up, HIV/AIDS.	

Table 4.2 : Subject-wise Status Of PE in NCERT Text Books at Secondary Level

Subject	Class	Title of Lesson	Themes								Types of Lesson/No. of Pages/Para/Sentences
			SD	GE	FM	UM	HE	PGU	HIV	DA	
हिन्दी	IX	रीढ़ की हड्डी		✓							1 Page
हिन्दी	X	स्त्री शिक्षा के विरोधी कुतर्कों का खण्डन		✓							5 Pages Full Lesson
Science	IX	i) Why do we fall ill?							✓		One Para & 1 Line
		ii) Natural Resources	✓								Four Para
		iii) Improvement in food Resources	✓								12 Lines
Science	X	i) How do Organism Reproduce?							✓	✓	5 Pages
		ii) Heredity and Evolution							✓		1 Page
		iii) Sources of Energy	✓								3 Para
		iv) Our Environment	✓								2 Para
		v) Management of Natural Resources	✓								10 Pages Full Lesson
Eco-nomics	IX	i) Story of Palampur Village	✓								One Para
		ii) People as Resources	✓	✓							12 Pages Full Lesson
		iii) Poverty as a challenge	✓								11 Pages Full Lesson
		iv) Food security in India	✓					✓			12 Pages Full Lesson
Eco-nomics	X	Development	✓								13 Pages Full Lesson
Geog-raphy	IX	i) Natural Vegetation and wild life	✓								1 Page
		ii) Population	✓	✓				✓	✓		6 Pages Full Lesson
Geo-graphy	X	i) Resources and Development	✓								11 Pages
		ii) Forest and Wild Life Resources	✓								11 Pages Full Lesson
		iii) Water Resources	✓								10 Pages Full Lesson
		iv) Minerals and Energy Resources	✓								Two Para
		v) Manufacturing Industries	✓								3 Pages
Social Science Democ-ractic Pol.-II	X	i) Gender Religion and Caste		✓							6 Pages
Total No. of Lessons = 23 ; Total No. of Full Lessons = 09											

Table 3.3 : Population Education in NCERT Text Books : Detailed Analysis at Primary Level

Subject, Title of the Books, Year of Publication	Class	Title, Name of the Lesson and Page Number	Population Education Content with Page Number	Pages/ Para
Science, Feb. 2006	IX	Lesson- 13 Why Do We Fall ill? (Pages176-188)	<ul style="list-style-type: none"> • The sexual act is one of the closest physical contacts two people can have with each other. There are microbial diseases such as syphilis or AIDS that are transmitted by sexual contact from one partner to the other. However such sexually transmitted diseases are not spread by casual physical contact. Casual physical contacts include handshakes or hugs or sports, like wrestling, or by any of the other ways in which we touch each other socially other than the sexual contact. AIDS virus can also be spread through blood to blood contact with infected people or from an infected mother to her baby during pregnancy or through breast feeding. • HIV and its effects on immune system and result in disease. • Drugs that keep HIV infection under control. Other preventive need to be mentioned. (Pages 183 & 184)	One Para & One Line
		Lesson- 14 Natural Resources (Pages189-202)	<p>Air Pollution:-</p> <ul style="list-style-type: none"> • Factors causing air pollution. • Gases causing air pollution. • Diseases caused by air pollution-Preventive measures need to be mentioned. <p>Water Pollution:-</p> <ul style="list-style-type: none"> • Reasons causing water pollution. 	One Para

			<ul style="list-style-type: none"> • Effects of water pollution on life term • The Green house effect: Some gases prevent the escape of heat from the Earth. An increase in the percentage of such gases in the atmosphere would cause the average temperature to increase world-wide and this is called the greenhouse effect. Carbon dioxide is one of the greenhouse gases. An increase in the carbon dioxide content in the atmosphere would cause more heat to be retained by the atmosphere and lead to global warming. • Formula of ozone discussed. • Absorbs home rays from the sun. • Reason for depleting of ozone layer by manmade compounds C.F.C. • Stable compounds (CFC) and not degraded by any biological process • C.F.C reacts with ozone layer above Antarctica. (Pages 192,194 &199-200). 	
		Lesson- 15 Improvement in Food Resources (Pages 203-213)	<ul style="list-style-type: none"> • Our population is more than one billion people, and is still growing. • We should increase food production without degrading our environment and disturbing the ecological balance. • There is need for sustainable practices in agriculture and animal husbandry. • Scientific management practices should be undertaken to obtain high yields from farms. For sustained livelihood, one should undertake mixed farming practices for example, 	12 Lines

			combine agriculture with livestock/poultry /fisheries/ bee keeping. (Page 203)	
Science, Dec. 2006	X	Lesson- 8 How Do Organisms Reproduce? (Pages 127-141)	<ul style="list-style-type: none"> • Reproduction in human beings. • Male reproductive system • Female reproductive system • If egg is not fertilized the thick and spongy layer of uterus breaks as blood and mucous which is called menstruation. • Reproductive Health- Educating the children about sex organs and sexual acts, awareness about STDs, HIV-AIDS, precautions to be taken, use of condom, copper-T, contraceptives, surgical method, female- male sex ratio must be maintained because of reckless in female foeticides, child sex ratio is declining at an alarming rate in some sections of our society, although prenatal sex determination has been prohibited by law. • Reproduction is the process by which organisms increase their population. The rates of birth and death in a given population will determine its size. The size of the human population is a cause for concern for many people. This is because an expanding population makes it harder to improve everybody's standard of living. However, if inequality in society is the main reason for poor standards of living for many people, the size of the population is relatively unimportant. If we look around, what can we identify as the most important reasons for poor living standards? (Pages 135-139) 	5 Pages

		Lesson- 9 Heredity and Evolution (Pages142-159)	<p>Sex Determination:</p> <ul style="list-style-type: none"> • Role of male and female gametes. • Role of chromosomes which determine Sex. • Only the male have the chromosome which can determine the male. i.e. 'Y'. It has been shown with illustration. (Page- 146) 	1 Page
		Lesson- 14 Sources of Energy (Pages 242-255)	<ul style="list-style-type: none"> • “The Pollution caused by burning fossil fuels can be somewhat reduced by increasing the efficiency of the combustion process.” • Improvement in the technology for using conventional source of energy biomass, wind energy. • Alternative or non conventional sources of energy. <ul style="list-style-type: none"> – Solar energy. – Energy from the sea – Geothermal energy – Nuclear energy – Environmental consequences • “ Renewable energy is available in our natural environment , in the form of some continuation or repetitive element of energy or is studying such large underground reservations that the rate of repetitive of the reserves because of the extraction of amiable energy is practically negligible” (Pages 244,253 &254) 	3 Para One Para One Para
		Lesson- 15 Our Environment (Pages256-265)	<ul style="list-style-type: none"> • Effect of adding waste to environment through activity. • Through food chain harmful chemicals enter in human body. • Effects of our activities upon environment. 	Two Para

			<ul style="list-style-type: none"> • Depletion of ozone layer effect of UV rays on living organs particularly man. • Management of Garbage explained through activity. • Disposable material to be used. • Ban on plastic material. • (Pages 256-264) 	
		Lesson- 16 Management of Natural Resource (Pages 266-279)	<ul style="list-style-type: none"> • Management of natural resources. • Activity related to water pollution. • Three R- Reduce, Recycle & Reuse to save environment. • Need to manage our resources. • Forests and wild life & their stake holders. • Sustainable Dvelopment: <ul style="list-style-type: none"> – Government of India instituted on “Amrita Devi Bisnoi National Award for Wildlife Conservation”. – Sustainable management Chipko Andolan. – Participation of the local people can indeed lead to the efficient management of forests. – Example of people participation in forest for surveillance, naxalites problem. – Water for all. – Indigenous methods of water saving and conservation. • Sustainable management of natural resources. (Pages 266-278) 	10 Pages Full Lesson
Economics, Mar. 2006	IX	Lesson -1 The Story of Village Palampur (Pages 1-15)	<ul style="list-style-type: none"> • Will the land sustain? Modern farming methods and overuse of natural resource base. (Page.5) • Activity: Write a letter to the Agriculture minister in your own words telling him how the use of chemical fertilizers can be harmful. (Page.5) 	One Para

		<p>Lesson -2 People As Resource (Pages 275-287)</p>	<ul style="list-style-type: none"> • People as resource for the economy and not as a liability. • Two stories, story of Sakal and story of Vilas, illustrate how people can become a more productive resource with education, training and medical care. • Activity: Illustration of the life of children in a nearby village or a slum area. • Depiction of stereotype role of women, need for education and skill formation for empowerment through activity. • Large population can turn into assets by investment in human capital like education. • Quality of population depends upon the literacy rate, health of a person indicated by life expectancy and skill formation acquired by the people. • Role of education: A graph showing literacy rates of men and women in India from 1951 to 2001. Discussion on why women are less educated than men in India? Tables showing number of institutions of higher education, enrolment and faculty, health infrastructure, numbers of doctors and nurses and reasons for the shortage. • Role of health: Infant mortality rate (IMR) has come down from 147 in 1951 to 75 in 2000; crude birth rates have dropped to 6.1 and death rates to 8.7 within the same duration of time. Activity regarding visiting nearby hospitals to make them 	<p>12 Pages Full Lesson</p>
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			<p>aware of the inadequate health services.</p> <ul style="list-style-type: none"> • Role of unemployment: Story of a village showing the impact of rising level of human capital enabling a place to evolve into a rich complex with modern economic activities. <p>(Pages 16-27)</p>	
		<p>Lesson -3 Poverty As A Challenge (Pages 29-41)</p>	<ul style="list-style-type: none"> • Poverty as a challenge. • Illustration of poverty • Poverty in rural and urban areas. • Poverty line. • Poverty estimates. • Showing poverty in India through table and chart. • Inter states disparity in poverty. • Global poverty scenario. • Poverty ratio in selected and Indian states, 1999-2000. • Poverty: Comparison among some selected country through table and graphs. • Causes of poverty. • Anti poverty measures. • The challenges ahead. <p>(Pages 29-40)</p>	<p>11 Pages Full Lesson</p>
		<p>Lesson -4 Food Security in India (Pages 42-54)</p>	<ul style="list-style-type: none"> • Meaning of Food Security, availability, accessibility, and affordability. • Need of food security. • Large sections of people suffer from food and nutrition insecurity in India. • A large proportion of pregnant & nursing mother and children under the age of 5 years constitute an important segment of the food insecure population. • According to the National Health & Family Survey 1998-99, the number of such women 	<p>12 Pages Full Lesson</p>

			<p>& children is approximately 11 crore.</p> <ul style="list-style-type: none"> • National food for work programme. • Boxes, tables and graphs showing poverty, typical hunger, production of food grains, features of PDS and central food grains stock and minimum buffer norm. • (Pages- 42-53) 	
Economics, Dec. 2006	IX	Lesson-1 Development (Pages 3-17)	<ul style="list-style-type: none"> • Developmental goals and aspiration. • Indicators of national development like IMR MMR, literacy rate, and net attendance ratio. • Public facilities, educational achievement of population and human development report, some data regarding India, and its neighbours on various indicators- per capita income, life expectancy, literacy rate, gross enrolment ratio and income ratio, sustainability of development like use of ground water, use of nature resources. • Table showing comparison of the per capita income among Punjab, Kerala, Bihar. • Table shows the comparison of infant mortality rate, literacy rate and net attendance ratio among Punjab, Kerala and Bihar. • Different countries showing comparison in per capita income, life expectancy and birth, literacy rate for 15+ years population, gross enrolment ratio for three levels and HDI ratio in the world through table. (Pages- 3-16) 	13 Pages Full Lesson

Geography, Contem- porary India-I March 2006	IX	Lesson- 5 Natural Vegetation and Wildlife (Pages 42- 52)	<ul style="list-style-type: none"> • Excessive exploitation of the plants and animal resources by human beings disturbed the ecosystem. • Causes of disturbances of ecosystem hunting, reckless cutting of forests for inhabitation and cultivation. Pollution due to chemical, Industrial wastes and acid deposits etc are responsible for imbalance. • Steps taken by Government to protect the environment. • Setting up of biosphere reserves have been set up. • Financial & technical assistance for various projects. • Introduction of Eco-Developmental projects. (Page- 50) 	1 Page
		Lesson -6 Population (Pages 53-60)	<ul style="list-style-type: none"> • Population size and distribution: <ul style="list-style-type: none"> - India's population size and distribution by numbers. - India's population distribution by density. • Population growth and processes of population change: <ul style="list-style-type: none"> - Population growth, processes of population change/ growth, birth rate, death rate, age composition, sex ratio, literacy rates, occupational structure, health, adolescent population, National Population Policy, NPP 2000 and adolescents. • Numerical presentation of all facts through pie diagram, maps, charts and tables. (Pages 53-59) 	6 Pages Full Lesson
Geography, Contem- porary India-II Dec. 2006	X	Lesson- 1 Resources And Development (Pages 1-13)	<ul style="list-style-type: none"> • Interdependent relationship between physical environment, technology, institutions and human beings shown by triangle. 	11 Pages

		<ul style="list-style-type: none"> • Classification of resources through flow chart. • Types of resources: basis of origin, ownership, exhaustibility and development. • Development of resources: Indiscrimination use of resources by human beings resulting in depletion of resources, accumulation of resources in few hands, and indiscriminate exploitation of resources. • Sustainable development. • Conference Rio de Janeiro Summit, 1992-Agenda 21. • Resource planning in India. • Conservation of resources. • Soil erosion and soil conservation. <p>(Pages 1-11)</p>	
	Lesson- 2 Forest And Wild life Resources (Pages 14-22)	<ul style="list-style-type: none"> • Vanishing forests. • Factors causing depletion with flora and fauna. • Conservation of forest and wildlife in India. • Community and conservation – Chipko Movement, Beej Bachao Andolan. <p>(Pages 14-21)</p>	11 Pages Full Lesson
	Lesson- 3 Water resources (Pages 23-33)	<ul style="list-style-type: none"> • Need and importance of water for human beings (explained by story). • Water is a renewable resource still globe suffers from water scarcity. • Some facts and figures about water. • Water scarcity and the need for water conservation and management. • Rain water harvesting. <p>(Pages 23-32)</p>	10 Pages Full Lesson

		Lesson- 5 Minerals And Energy Resources (Pages 50-64)	<ul style="list-style-type: none"> • Hazards of mining- air pollution. • Importance of minerals for human beings. • Conservation of minerals. (Page 56 & 57) 	Two Para
		Lesson- 6 Manufacturing Industries (Pages 65-80)	<ul style="list-style-type: none"> • Industrial pollution and environmental degradation: Air pollution, water pollution, thermal pollution and noise pollution. • Control of environmental degradation: Reusing or recycling of water, harvesting of rain water, and treatment of industrial effluents. (Pages 76-79) 	3 Pages
Democratic Politics-II	X	Lesson-4 Gender Religion and Caste (Pages39-56)	<ul style="list-style-type: none"> • Despite some improvement since independence, ours is still a male dominated society. Women face disadvantage, discrimination and oppression in various ways. • The literacy rate among women is only 54 percent compared with 74 percent among men. • A smaller proportion of girl student go for higher studies. • Map showing sex ratio in different States and UTs • The proportion of women among the highly paid and valued job is still very small. • In many parts of India parents prefer to have sons and find ways to have the girl child aborted before she is born. • There are various kinds of harassment, exploitation and violence against women. • Women's political representation. (Pages 40-45) 	6 Pages

हिन्दी कृतिका भाग-1 मई 2066	IX	अध्याय-3 रीढ़ की हड्डी (पृष्ठ 27-41)	<ul style="list-style-type: none"> • प्रस्तुत एकांकी में स्त्री उच्च शिक्षा दिलाने पर माता-पिता गौरवान्वित होने की अपेक्षा विवाह के लिए उसे छिपा लेते हैं, समाज में महिलाओं को उचित गरिमा नहीं है। • “राम स्वरूप, आपने मेरे साथ दगा किया। आपकी लड़की बी.ए. पास है और आपने मुझसे कहा था कि सिर्फ मैट्रिक तक पढ़ी है। लाइए... .. मेरी छड़ी कहाँ है? मैं चलता हूँ बी.ए. पास? उफ़फोह गज़ब हो जाता! झूठका भी कुछ ठिकाना है। आओ बेटे चलो • (पृष्ठ-40) 	1 Page
हिन्दी कृतिका भाग-1 मई 2066	XI	अध्याय-15 स्त्री शिक्षा के विरोधी कृतकों का खण्डन (पृष्ठ 103-113)	<ul style="list-style-type: none"> • स्त्री शिक्षा के विरोध में लेखक का खंडन- • आज हमारे समाज में लड़कियाँ शिक्षा पाने एवं कार्य क्षेत्र में क्षमता दर्शाने में लड़कों से बिल्कुल पीछे नहीं हैं। किन्तु यहाँ तक पहुँचने के लिए अनेक स्त्री पुरुषों ने लंबा संघर्ष किया। नव जागरण काल के चिंतकों ने मात्र स्त्री शिक्षा ही नहीं बल्कि समाज में जन तान्त्रिक एवं वैज्ञानिक चेतना के सम्पूर्ण विकास के लिए अलख जगाया। द्विवेदी जी का यह लेख उन सभी पुरातन पंथी विचारों से लोहा लेता है जो स्त्री शिक्षा को व्यर्थ अथवा समाज के विघटन का कारण मानते हैं। इस लेख की दूसरी विशेषता यह है कि इसमें परम्परा को ज्यों की त्यों नहीं स्वीकारा गया, बल्कि विवेक से फैसला लेकर ग्रहण करने योग्य को लेने की बात कही गई है। और परम्परा का जो हिस्सा सड़ गल चुका है उसे रूढ़ि मानकर छोड़ देने पर बल दिया गया है कि यह विवेकपूर्ण दृष्टि संपूर्ण नवजागरण काल की विशेषता है। (पृष्ठ 105-109) 	2 Pages Full Lesson

Subject-wise Analysis:

The Subject-wise analysis of textbooks as reflected in table 4.1 presents the status of Population Education elements as follows:

- Population Education contents are integrated in the textbooks of Science, Economics, Geography, Hindi and Democratic Politics for classes IX-X.
- Contents related to the theme on sustainable development have been integrated mainly in the textbooks of Science, Economics and Geography for class IX and X.
- The contents are related to the process of growing up in the chapter of “Heredity and evolution” of Science for class X. It is also discussed in the textbooks of Geography for class IX.

- Contents of HIV/AIDS denoting 2 pages in science textbook in the chapter of “Why Do we Fall ill” for class IX, and also covering 5 pages in the lesson of “How Do Organism Reproduce” of Science for class X.
- The contents of gender equality and equity are discussed in one full lesson of “स्त्री शिक्षा के विरोधी कृतकों का खण्डन” in Hindi textbook for class IX. It is also discussed in the textbooks of Economics in the chapter of “People As a resources” and in Geography in the chapter of “Population” for classes IX-X. It is also discussed in the textbook of Democratic Politics in the chapter of “Gender Religion and Caste” for class X.
- Contents on health and education are discussed in the textbooks of Economics in the chapter “Food Security in India” and in Geography in the chapter of “Population” for class IX.
- Various life skills that need to be developed among students have been delineated in the lessons on the theme of sustainable development that is present in the textbooks of Science, Economics and Geography for classes IX-X.
- Activity methods have been used in the textbooks of Science, whereas maps, graphs and tables have been used in Geography and Social Sciences.

Gaps:

- Contents on sustainable development cover more space than the other components of population education.
- Contents related to HIV and AIDS find space in the Science textbooks.
- Contents related to family and quality of life, urbanization and migration and drug abuse do not find any space in the textbooks at this stage.
- Life skills development activities need to be made more focused, delineating the processes of conducting those activities appropriately.

Section 2 : Integration Of Population Education In The Exercises Of The Lessons

In this section, the exercises at the end of those lessons which were found having Population Education contents were analyzed. All the lessons were found having exercises. The details of exercises / questions are given below in the tables :

Table 4.4 : Exercises Given in the Textbooks At the Upper Primary Level

Class - IX Subject and Title of the Text Book			
Title of the Lesson and Number	Exercises / Question	Core Area	Life skills
Science Lesson 14 Natural Resources	Q.5 We know that many human activities lead to the increasing levels of pollution of the air, water-bodies, and soil. Do you think that isolating these activities to specific and limited areas would help in reducing pollution?	SD	Under- standing
	Q.6 Write a note on how forests influence the quality of our air, soil and water resources. (P-202)	SD	Under- standing
Geography Lesson 5 Natural Vegetation & Wildlife.	Q.5 Quite a few species of plants & animals are endangered in India. Why?	SD	Under- standing
	Activity – (iv) Write the script of street play giving the importance of tree plantation and try to enact it in your locality.	SD	Commun- ication Empathy
	(v) Plant trees on your birthday or one of your family member's birthday. (Page52)	SD	Application
Lesson 6 Population	Q.1 (i) Migrations change the number, distribution & composition of the population in (a) the area of departure (b) the area of arrival (c) both the area of departure and arrival (d) none of the above	SD	Critical Thinking
	(ii) A large proportion of children in a population is a result of (a) high birth rates (b) high life expectancies (c) high death rates (d) more married couples	SD	Critical Thinking
	(iii) The magnitude of population growth refers to: (a) the total population of an area (b) the number of persons added each year (c) the rate at which the population increases (d) the number of females per thousand males	SD	Critical Thinking

	(iv) According to the Census 2001, a “literate” person is one who (a) can read and write his/her name (b) can read and write any language (c) is 7 years old and can read and write any language with understanding (d) knows the 3 ‘R’s (reading, writing, arithmetic)	SD	Critical Thinking
	Q.2 (i) Why is the rate of population growth in India declining since 1981?	SD	Understanding
	(ii) Discuss the major components of population growth.	SD	Critical Thinking
	(iii) Define the age structure, death rate and birth rate.	SD	Critical Thinking
	(iv) How is migration a determinant factor of population change?	SD	Critical Thinking
	Q.3 Distinguishes between population growth and population change.	SD	Critical Thinking
	Q.4 what is the relation between occupational structure and development?	SD	Critical Thinking
	Q.5 What are the advantages of having a healthy population?	SD	Knowledge
	Q.6 What are the significant features of the NPP 2000? (Page 60)	SD	Understanding
Economics Lesson 2 People As Resources	Q.1 What do you understand by ‘people as a resource’?	SD	Understanding
	Q.3 What is the role of education in Human Capital Formation?	SD	Understanding
	Q.4 What is the role of health in human capital formation?	SD	Understanding
	Q.5 What part does health play in the individuals working life?	SD	Understanding
	Q.8 Why are women employed in low paid work?	SD	Critical Thinking
	Q.14 Can you imagine some village, which initially had no job opportunities but later came up with many? (Page 28)	SD	Understanding

Class - X Subject and Title of the Text Book			
Title of the Lesson and Number	Exercises / Question	Core Area	Life skills
Science Lesson 8 How do organisms Reproduce	Q.5 What are the functions performed by the testis in human body?	ARSH	Knowledge
	Q.6 Why does menstruation occur?	ARSH	Knowledge
	Q.7 What are the different methods of contraception?	ARSH	Knowledge
	Q.8 What could be the reasons for adopting contraceptive methods?	ARSH	Knowledge
	Q.9 How is the modes for reproduction different in unicellular and multicellular organisms?	ARSH	Understanding
	Q.10 How does reproduction help in providing stability to populations of species?	ARSH	Understanding
	Q.11 What could be the reasons for adopting contraceptive methods? (P-141)	ARSH	Knowledge
Lesson 9 Heredity And Evolution	Q.10 Explain how sexual reproduction gives rise to more viable variations than asexual reproduction. How does this affect the evolution of those organisms that reproduce sexually?	ARSH	Understanding
	Q.11 How is the equal genetic contribution of male and female parents ensured in the progeny?	ARSH	Understanding
	Q12 Only variations that confer an advantage to an individual organism will survive in a population. Do you agree with this statement? Why or why not? (Page159)	ARSH	Knowledge
Lesson 14 Source of Energy	Q.10 What are the environmental consequences of the increasing demand for energy? What steps would you suggest to reduce energy consumption? (P- 255)	ARSH	Knowledge
Lesson 15 Our Environment	Q.3 Which of the following are environmental friendly practices? (i) Carrying cloth-bags to put purchases in while shopping.	SD	Knowledge

	Q.7 What are the problems caused by the Non-biodegradable wastes that we generate?	SD	Knowledge
	Q.8 If all the waste we generate is biodegradable, will this have no impact on the environment? Discuss.	SD	Understanding
	Q.9 Why is damage to the ozone layer a cause for concern? What steps are being taken to limit this damage? (Page 265)	SD	Critical Thinking
Lesson 16 Management of Natural Resources	Q.1 What changes would you suggest-in your home in order to be environment friendly?	SD	Knowledge
	Q.2 Can you suggest some changes in your school which would make it environmental friendly?	SD	Self awareness
	Q.4 How can you as an individual contribute or make difference to the management of (a) forest and wildlife, (b) water resources, (c) coal and petroleum?	SD	Self awareness
	Q.5 What can you as an individual do to reduce your consumption of the various natural resources?	SD	Self awareness
	Q.6 List five things you have done over the last one week to – (a) Conserve our natural resources. (b) Increase the pressure on our natural resources.	SD	Self awareness
Geography Lesson 1 Resources and Development	Q.3 (i) Explain the land use pattern in India and why has the land under forest not increased much since 1960-61?	SD	Critical Thinking
	(ii) How have the technical and the economic development led to more consumption of resources? (Page13)	SD	Knowledge
	Q.4 (ii) How have human activities affected the depletion of flora and fauna? Explain.	SD	Understanding
	Q.5 (i) Describe how communities have conserved and protected forests and wildlife in India?	SD	Social awareness

	(ii) Write a note on good practices towards conserving forest and wildlife. (Page 22)		
Lesson 3 Water Resources	Q1 Multiple choice questions. (i) Based on the information given below classify each of the situations as 'suffering from water scarcity' or 'not suffering from water scarcity'.	SD	Knowledge
	Q.2 (ii) What is water scarcity and what are its main causes? (Page 33)	SD	Knowledge
Lesson 6 Manufacturing Industries	Q.3 (ii) How do industries pollute the environment?	SD	Under- standing
	(iii) Discuss the steps to be taken to minimize environmental degradation by industry.	SD	Knowledge
	Project work: (iii) Are these factories following environmental norms? (Page-79-80)	SD	Knowledge
Economics Lesson 1 Development	Q.9 Why is the issue of sustainability important for development?	SD	Knowledge
	Q.10 "The earth has enough resources to meet the needs of all but not enough to satisfy the greed of even one person". How is this statement relevant to the discussion of development? Explain.	SD	Critical Thinking
	Q.11 List a few examples of environmental degradation that you may have observed around you.	SD	Knowledge
	Q.12 For each of the items given in table 1.6, find out which country is at the top and which is at the bottom.	SD	Critical Thinking
	Q.13 The following table shows the proportion of undernourished adults in India. It is based on a survey of various states for the year 2001. Look at the table and answer the following questions.	SD	Critical Thinking

	States	Male (%)	Female (%)			
	Kerala	22	19			
	Karnataka	36	38			
	MP	43	42			
	All States	37	36			
	(i) Compare the nutritional level of people in Kerala and Madhya Pradesh. (ii) Can you guess why around 40 percent of people in the country are undernourished even though it is argued that there is enough food in the country?					
Social Science Democratic Politics-II Lesson-4 Gender, Religion and Caste	Q.1 Mention different aspects of life in which women are discriminated or disadvantaged in India? Q.5 What is the status of women's representation in India's legislative bodies?			Gender	Knowledge	
	Q.7 When we speak of gender divisions, we usually refer to: (a) Biological difference between men and women. (b) Unequal roles assigned by the society to men and women. (c) Unequal child sex ratio. (d) Absence of voting rights for women in democracies. (Page 55)			Gender	Knowledge	

As shown in the exercises given for class IX & X, the exercises mostly focussed on knowledge, understanding and critical thinking. Subject wise analysis shows all the lessons included in Science, Geography and Economics in Class IX exercises/questions related to sustainable development only. It is only in class X in Science lessons; exercises are / have focussed on adolescence reproductive and sexual health issues besides sustainable development. In Geography and Economics, all the exercises have again focussed on sustainable development. Gender related questions have been discussed only in one lesson, in social science textbook named Democratic Politics - II in class X. The other areas namely health & education, urbanization and migration, family roles and responsibilities have not been covered.



Status of Integration of Population Education at Higher Secondary Stage

In this chapter, efforts have been made to present the status of integration of Population Education concerns including Adolescence Education in the text of the lessons and the exercises given at the end of those lessons in different subject areas at Higher Secondary Stage. This chapter has also been divided into two sections. The first section deals with the analysis of texts from the point of view of Population Education, whereas the second section presents the analysis of exercises included in different lessons after the texts.

Section I : Integration of Population Education (PE) in the Text of the Lessons

A total number of 32 textbooks from Classes XI- XII were Content analyzed. Twenty one textbooks were found to contain lessons with population education contents. The total numbers of such lessons are 61. Out of these, 27 lessons incorporate content related to the theme on sustainable development. Gender equality and equity are integrated in 6 lessons. Contents on process of growing up are related in 3 lessons, and drug abuse is covered in one lesson. There are 24 combined lessons focusing on sustainable development, gender equality and equity, health and education, process of growing up and HIV and AIDS. This has been shown in the table 4.1 below:

Table 5.1 : Population Education Contents In The NCERT Textbook At Higher Secondary Level (XI-XII) At A Glance

Textbooks and Lessons Analyzed	Total Number
Total No. of Books from Classes (XI-XII)	32
Number of Books Analyzed	32
Books with contents on Population Education	21
Lessons having contents on Population Education	61
Lessons having contents on Sustainable Development	27
Lessons having contents on Gender Equality and Equity	06
Lessons having contents on Process of Growing Up	03
Lessons having contents on Drug Abuse	01
Lessons having contents on SD+GE+HE+PGU+HIV	24
SD= Sustainable Development; GE= Gender Equality and Equity; HE= Health and Education; PGU= Process of Growing Up, HIV/AIDS.	

Table 5.2 : Subject-wise Status Of PE in NCERT Text Books at Higher Secondary Level

Subject	Class	Title of Lesson	Themes									Types of Lesson/No. of Pages/Para/Sentences
			SD	GE	FM	UM	HE	PGU	HIV	DA		
हिन्दी	XI	ज्योतिबा फुले		✓								1 Page
हिन्दी	XII	‘जहाँ कोई वापसी नहीं’	✓									6 Pages Full Lesson
English	XI	i) Ranga’s Marriage	✓									3 Para
		ii) Mother’s Day		✓								21 Pages Full Lesson
English	XII	Lost Spring	✓	✓	✓							8 Pages Full Lesson
Biology	XI	Chemical coordination and Integration							✓			1 Page
Biology	XII	i) Human Reproduction							✓	✓		13 Pages Full Lesson
		ii) Reproductive Health							✓	✓		8 Pages Full Lesson
		iii) Principles of Inheritance & variation							✓			2 Pages
		iv) Human Health and Disease					✓	✓	✓	✓		9 Pages
		v) Organisms and Population	✓									6 Pages
		vi) Biodiversity and conservation	✓									2 Para
		vii) Environmental Issues	✓									16 Pages Full Lesson
Psychology	XI	i) The Basis of Human Behavior							✓			9 Pages
		ii) Human Development	✓						✓	✓	✓	6 Pages
Psychology	XII	i) Psychological Disorders									✓	3 Pages
		ii) Meeting Life challenges							✓	✓		17 Pages Full Lesson
		iii) Psychology and Life	✓	✓					✓	✓		21 Pages Full Lesson
Indian Economic Development	XI	i) Indian Economy on the Eve of Independence	✓					✓				2 Para
		ii) Liberalization, Privatization and Globalization : An Appraisal	✓									6 Lines
		iii) Poverty	✓									9 Pages Full Lesson
		iv) Human capital formation in India	✓	✓				✓				13 Pages Full Lesson

Under- standing Society	XI	i) Social change and Social order in Rural and Urban Areas.	✓	✓							7 Pages
		ii) Environment and Society	✓								15 Pages Full Lesson
Indian Society	XII	i) The Demographic structure of the Indian Society	✓				✓				21 Pages Full Lesson
		ii) Family Institutions Continuity & Change		✓	✓						3 Pages
Social Change & Develop- ment in India	XII	i) Globalisation and Social Change		✓							One Para
		ii) Social Movements	✓	✓							5 Pages
Political Theory	XI	i) Equality		✓							3 Pages
		ii) Development	✓								3 Pages
Indian Constitu- tion	XI	Local Government		✓							2 Para
Political Science Contem- porary World Politics	XII	Environment and natural Resources	✓								17 Pages Full Lesson
Total No. of Lessons = 27 ; Total No. of Full Lessons = 23											

Table 3.3 : Population Education in NCERT Text Books : Detailed Analysis at Primary Level

Subject, Title of the Books, Year of Publication	Class	Title, Name of the Lesson and Page Number	Population Education Content with Page Number
Biology, February 2006.	XI	Lesson -22 Chemical Coordination And Integration (Page- 330-342)	<ul style="list-style-type: none"> • Population Education Content with • Page Number <ul style="list-style-type: none"> • Sex organs testis and ovary: The testis secretes androgens-maturates of male sex organs. It influences the male sexual behavior and appearance in secondary sex characteristics. • Estrogens produce wide ranging actions such as stimulation of growth and activities of female secondary sex organs, development of growing ovarian follicles, appearance of female secondary sex characters (e.g.,

			<ul style="list-style-type: none"> • high pitch of voice, etc.), and mammary gland development. Estrogens also regulate female sexual behaviour. • Progesterone supports pregnancy. Progesterone also acts on the mammary glands and stimulates the formation of alveoli (sac-like structures which store milk) and milk secretion (Page-337) 	
Biology, Dec. 2006	XII	Lesson -3 Human Reproduction (Pages- 42- 56)	<ul style="list-style-type: none"> • Basic knowledge of male & female reproductive system is also shown with illustration. • Menstrual cycle and its details and role of hormones. • Fertilization, Implantation & Pregnancy. • Misconception: - Role of Hymen (Virginity), cause of disruption of hymen not only in Ist sexual activity but also during active participation in sports, horse riding etc. • Scientifically it is correct to say that the sex of the baby is determined by the father and not by the mother. • First Milk Colostrums: - Antibodies “Breast feeding during initial periods is recommended by doctors to bring up a healthy baby. • (Pages 42-54) 	13 Pages Full Lesson
		Lesson 4 Reproductive Health (Pages 57-66)	<ul style="list-style-type: none"> • Concept of reproductive health, problems and strategy. • Proper information about sex education in schools should also be encouraged to provide to the young so as to discourage children from believing in myths and having misconception about sex related aspects, and 	8 Pages Full Lesson

			<ul style="list-style-type: none"> • reproductive organs, adolescence & related changes, safe & hygienic sexual practices, sexually transmitted diseases (STD), AIDS, etc., would help people, especially those in the adolescent age group to lead a reproductively healthy life. • Counselling and creating awareness among people, especially fertile couple and those in marriageable age group, about available birth control option, care of pregnant mothers, post- natal care of the mother and child, importance of breast feeding, equal opportunities for the male and the female child, etc., families of desired size, awareness of problems due to uncontrolled population growth, & social evils like sex abuse and sex related crimes. • Diseases or infections through sexual intercourse are called Sexually Transmitted Diseases (STDs). Pelvic Inflammatory Diseases (PIDs), still birth, infertility are some of the complications in them. Avoiding sexual intercourse with unknown / multiple partners, use of condoms during coitus are some of the simple precautions to avoid contracting STDs. • Population explosion and birth control, IMR /MMR, Contraceptive measures (all types), Infertility, • * Slogan, “Hum Do Humare Do” 	
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		Lesson -5 Principles of Inheritance and Variation (Pages69-94)	<ul style="list-style-type: none"> • Sex determination concept with illustration depicting determination of sex by chromosomes. • Sex determination in humans. • (Page 85-86) 	2 Pages
		Lesson -8 Human Health and Disease (Pages 145-164)	<ul style="list-style-type: none"> • AIDS, details cause, transmission, prevention, high risk group, stigma associated with AIDS (“Don’t Die of ignorance”) • Prevention of AIDS. • Role of NGO & NACO to create awareness about AIDS. • Role of WHO to prevent HIV infection. • Making blood safe from HIV, need for disposable syringes in public / private hospitals and clinics, free distribution of condoms, controlling drug abuse, advocating safe sex, regular health checkups. • (Pages 154-156) • Drugs and Alcohol abuse and their effects • Adolescence and drug / Alcohol abuse- reason of more adolescents attracted towards it. • Addiction and dependence. • Effect of drug / alcohol abuse. • Prevention and control of drug abuse- How to avoid peer pressure, education & counselling, parental help and medical help. • (Pages 158-163) 	9 Pages

	Lesson -13 Organisms and Populations (Pages 219-240)	<ul style="list-style-type: none"> Population attributes, birth rate, death rate, population – (stable) / decreasing / expanding), population age distribution (pre-reproductive, reproductive, post reproductive years), sex ratio, ecological aspects of population, competition, population growth- population density, natality, mortality, immigration and emigration has been shown through flow chart..(Pages 226-231) 	6 Pages
	Lesson -15 Biodiversity and Conservation (Pages 258-269)	<ul style="list-style-type: none"> Humans have always depended on nature for food, shelter but when ‘Needs’ turn out to ‘Greeds’, it leads to exploitation. – Concept of resource utilization & conservation of biodiversity. (Pages 264-265) 	2 Pages
	Lesson -16 Environmental Issues (Pages 270-286)	<ul style="list-style-type: none"> Human population size has grown enormously means increase in demands for food, water, home, roads, automobiles and numerous other commodities exerting tremendous pressure on resources contributing to pollution of air, water and soil. Air pollution and its control. Controlling vehicular Air pollution: A case study of Delhi. Water pollution and its control. Domestic sewage and industrial effluents. A case study of integrated waste water treatment. Solid waste. Case study of remedy for plastic waste. Agro-chemicals & their effects. Radio active wastes. Greenhouse effect and global warming. 	16 Pages Full Lesson

			<ul style="list-style-type: none"> • Ozone depletion in the stratosphere. • Degradation by improper resource utilisation and maintenance:- • Soil erosion, desertification and salinity • Deforestation • Reforestation. • Case study of people's participation in conservation of forests- • Amrita Devi Bishnoi Wildlife Protection. • Chipko movement • (Pages 270-285) 	
Psychology, Feb. 2006	XI	Lesson – 3 The Bases of Human Behavior (Pages 43-63)	<ul style="list-style-type: none"> • Role of Pituitary Gland and hormones secretion during adolescence. • Gonadotrophic hormones are secreted at the age of puberty, which stimulates the secretion of appropriate sex hormones among boys and girls, primary and secondary sexual changes take place. • Role of gonads: hormones secreted by gonads refer to testes in males and ovaries in females control and regulate sexual behaviors. • Role of estrogens and progesterone: • Estrogens guide the sexual development of the female body, primary sexual characteristic related with reproduction as the development of ovum or egg cell, appear on every 28 days. • Secondary sexual characteristics related breast development, rounded body contours, widened pelvis, etc. 	9 Pages

			<ul style="list-style-type: none"> • Testes in males produce sperm continuously and secrete male sex hormones called androgens. • Growth of facial and body hairs, deepening of voice, and increase in sexually oriented behavior. • Role of heredity: - Genes and behavior: A child at birth possesses a unique combination of genes received from both parents. • Chromosomes: - Organism inherits 46 chromosomes from parents, 23 from the mother and 23 from the father. • The sperm cell differs from the egg cell in one important respect. The 23rd chromosome of the sperm cell can be either the capital X or Y type of the English alphabet. If the X type fertilizes the egg cell, the fertilized egg will have an XX and the child will be female, and if Y type sperm fertilizes the egg, the 23rd chromosome pair will be XY, and the child will be a male. • Chromosomes are composed mainly of a substance called Deoxyribonucleic Acid (DNA). • Determination of sex. • Role of genes: - Genes contain instructions for the production of specific proteins, which regulate the body's physiological process and the expression of phenotypic traits. • Change of a gene from one form to another is called mutation. • Cultural basis: Socio cultural shaping of behavior - Human 	
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			<ul style="list-style-type: none"> • sexual behavior is also governed by many rules, standards, values and laws. These rules and standard also remain in a continuous process of change. • Socialization Agents: - Parents, media, peer group of schools. (Pages 52-60) 	
		<p>Lesson –4 Human Development (Pages 64-83)</p>	<ul style="list-style-type: none"> • Box item gendered and sex roles: research shows that males have been consistently found to be more aggressive than females. Women born with certain ‘famine’ traits, and men with certain ‘masculine’ traits. The most powerful roles into which people are socialized are gender roles. Parents are important influences on gender socialization, especially in the early years of development. Parents restrict school-aged girls more than they restrict school-aged boys. In everyday interactions, parents give their daughters a kind of ‘dependence training’ and their sons a kind of ‘independence training’. Media, including cartoons and commercials are known to perpetuate gender stereotypes. Once children learn the role of male or female they organize their world on the basis of gender also. • Challenges of adolescence. • Definition of adolescence. • Various developments of adolescence Physical development: • Primary and Secondary sexual characteristics. 	6 Pages

			<ul style="list-style-type: none"> - Menarche, the onset of menstruation. The growth appears spurt generally begins at the age of 12 or 13 for boys and at the age of 10 or 11 for girls. - Physical development during adolescence is also accompanied by a number of psychological changes-interests in opposite sex, role of parents, peers, and society, lack of adequate knowledge about sex and sexuality, about the risk of AIDS, and other sexually transmitted diseases. - Sexual identity defines the sexual orientation and guides sexual behavior. • Cognitive Developmental Changes - • Piaget believed that formal operational thought appears between the age of 11 and 15. • Hypothetical deductive reasoning. • According to David Elkind, imaginary & personal fables are two components of adolescents' egocentrism. • Forming an identity. • Some inboxes on gender of sex notes. • Some Major concerns: - • Sexual concerns: Risk of STD and AIDS • Delinquency: forming of identity, sexual identity, sexual orientation and sexual behavior body image, cognitive and physical changes along with physical changes. 	
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			<ul style="list-style-type: none"> • Substance abuse and its effects. • Eating disorder: Anorexia nervosa. • (Pages 75-80) 	
Psychology, Jan. 2007	XII	Lesson -3 Meeting Life Challenges (Pages 50-68)	<ul style="list-style-type: none"> • Effects of Stress on psychological functioning and health: Emotional, psychological cognitive and behavioral effects, • Stress and health • Stress and immune system: - HIV, the virus causing AIDS. • Coping with stress. • Life Style: - Stress can lead to unhealthy lifestyle or health damaging behavior. Lifestyle is the overall pattern of decision and behavior that determine a person's health and quality of life. • Promoting positive health and well- being: • People have constructive attitudes and also have lots of emotional & social support of various kinds available to them. • Life skills: - Assertiveness, time management, rational thinking, improving relationship, self care, overcoming unhelpful habits, diet, exercise, positive health, positive attitude / thinking, social support (tangible, informational and emotional support) • Boxes and graphs show the meaning, general meaning of stress, mode of the stress process, sign of stress, measures of stressful life events, the general adaptation syndromes and its reaction(Pages 51-67) 	17 Pages Full Lesson

		Lesson –4 Psychological Disorders (Pages 69-87)	<p>Substance use disorders:</p> <ul style="list-style-type: none"> • Substance abuse:- – Alcohol abuse and dependence – Effects of Alcohol:-some facts in box 4.3. – Commonly abused substances shown in box 4.4 – Heroin abuse and dependence, cocaine abuse and dependence. (Pages 84-86) 	3 Pages
		Lesson –8 Psychology and Life (Page152- 175)	<ul style="list-style-type: none"> • Human environment relationship - Environment refers to all that is around us, natural environment and built environment. • Different views of the human environment : - Box 8.1 shows the Bishnois and the Chipko Movement. • Environmental effects on human behavior: - environmental influence on perception, emotions, occupation, life style and attitudes. • Human influence on the environment, noise pollution, crowding and natural disaster. • Promoting pro-environmental behaviour-Psychology and social concerns, poverty and discrimination, psychological characteristics and effects of poverty and deprivation, major causes of poverty, measures of poverty alleviation: - Measures for mental health. • Health: - Health outcomes are not only a function of disease but the way we think and behave. WHO includes biological, psychological and social aspects of health. It focuses also on mental and spiritual aspects of health. Health and illness are a matter of degree. 	21 Pages Full Lesson

			<ul style="list-style-type: none"> • There are traditional cultures like Chinese, Indian and American, which hold that good health results from the harmonious balance of various elements in the body and ill health results when such a balance is lost. WHO report shows that in developing countries such as Asia, Africa and Latin America, more people die due to communicable diseases like HIV/ AIDS, TB, Malaria, respiratory infections, and nutritional deficiencies. • Behavior: Behaviors we engage in and our lifestyles greatly influence health. • People differ greatly in terms of such behavioral risk factors as smoking or tobacco use, alcohol and drug abuse, and unsafe sexual behavior, diet and physical exercise. - It is well accepted now that such behaviors are associated with incidence of coronary heart disease (CHD), cancer, and HIV / AIDS. (Pages 153-173) • Social and cultural factors affecting health: Social and cultural norms associated with roles, and gender, etc. greatly influence our health behaviour. In Indian society, medical advice by or for a female is often delayed because of various reasons - they are less valued, or the shame associated with the disease. 	
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Introducing Sociology, Mar. 2006	XI	Lesson- 1 Sociology and Society (Page 1-23)	<ul style="list-style-type: none"> • The Industrial cities gave birth to a completely new kind of urban world. • It was marked by the root and grime of factories by overcrowded slums of the new industrial working class, bad sanitation and general squalor shown through illustration related to the scheme.(Page- 10) 	One Para
		Lesson- 3 Understanding Social Institutions (Page- 40-62)	<ul style="list-style-type: none"> • Family and marriage. • Variation in family forms. • Female headed household (box item). • Families are linked to other social sphere and families change shown with photos of two family of different residence. • Gendered of the family. • Sex ratio has shown by table. • The institution of marriage. • Forms of marriage.(P- 41-44) 	4 Pages
		Lesson -4 Culture and Socialization (Pages 63-81)	<ul style="list-style-type: none"> • Socialization: agencies of socialization- peer groups, schools and mass media. • How gendered is socialization a box item- • “We boys used the streets for so many different things- as a place to stand around watching, to run around and play, try out the manoeuvrability of our bikes. Not so for girls. As we noticed all the time, for girls the street was simply a means to get straight home from school. And even for this limited use of the street they always went in clusters, perhaps because behind their purposeful demeanour they carried the worst fears of being assaulted” (Kumar 1986) (Pages- 73-78) 	4 Pages

Under- standing Society, Aug. 2006	XI	Lesson -2 Social Change & Social Order in Rural And Urban Society (Pages 22-49)	<ul style="list-style-type: none"> • Environment -The Earth caves in after heavy floods. (P- 26-27) • Contestation, crime & violence. • Social order & change in village in urban and rural density & slum- shortage of housing, and lack of other basic amenities – like transportation, sanitation etc. • A slum is a congested, overcrowded neighboured with no proper civic facilities, sanitation, lack of water supply and electricity • Illustration showing that a girl child is looking after the sibling. • Pollution - Car pollution & vehicle pollution. (Page-36-43) 	7 Pages
		Lesson- 3 Environment And Society (Page- 50-65)	<ul style="list-style-type: none"> • Social environments, social organisation, social values and norms, different perspective on the environment. • Bhopal industrial disaster: Who was to blame? • Major environmental problems and risks. • Resource depletion. • Pollution: Air pollution, its cause & effects on human beings. • Industrial pollution, deforestation & global warming, • Water pollution: its cause and effects on human beings. • Spraying pesticide in a brinjal field. • Natural and manmade environmental disasters. • Environmental problems are also social problems: - Social inequality, social ecology. • No rain, but snow and water parks. • The urban environment: A tale of two cities.(Pages 50-64) 	15 Pages Full Lesson

Sociology Indian Society, Jan. 2007	XII	Lesson- 2 The Demographic Structure of the Indian Society (Page- 9 -39)	<ul style="list-style-type: none"> • Concept of demography and its importance • Demography is the systematic study of population. . • General public welfare. • Theories and concept in demography: - • The Malthusian theory of population:- <ul style="list-style-type: none"> - Population rises in geometric progression. - Agricultural production can only grow in arithmetic progression. - Preventive checks, positive checks. • The theory of demographic transition. <ul style="list-style-type: none"> - Population explosion. - The birth rate, death rate, fertility rate, infant mortality rate, material mortality rate, sex ratio age structure of the population and dependency ratio. • Size and growth of India's population. <ul style="list-style-type: none"> - Table and graph showing population of India and its growth during the 20th century. - The global influenza pandemic of 1918-1919 shown in a box 2.2. - Improvements in medical cures for these diseases. Programmes for mass vaccination. - Efforts to improve sanitation helped to control epidemics. - Improved means of communication : more vigorous relief and preventive measures by the state have all helped to 	21 Pages Full Lesson
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			<p>drastically reduce death from famine.</p> <ul style="list-style-type: none"> • Relative contribution to population growth from different regional grouping of states. • Map and pie diagram shows the state –wise birth rate in India, 2004 and regional shares of projected population Growth up to 2026. 	
			<ul style="list-style-type: none"> • The declining sex ratio in India shown by table. • Map shows the child sex ratios across states. • Beti Bachao Andolan shown with illustration. 	3 Pages
			<ul style="list-style-type: none"> • Literacy rate in India shown by table. • Rural- urban differences shown by table. • Population policy in India shown through illustration. • India’s demographic achievements (a box item 2.4) • National socio demographic goals for 2010 (a box item 2.5). • Illustration shows the impact of increasing population. (Pages 10-38) 	One Para
		Lesson- 3 Social Institutions Continuity & Change (Page- 41-60)	<ul style="list-style-type: none"> • Family and kinship: All sacrifice did by women only in our family. • Nuclear and extended family. • The diverse forms of the family. (Pages 56- 58) 	One Para
Sociology Social Change & Development in India, April 2007	XII	Lesson – 6 Globalization and Social Change (Page- 91-111)	<ul style="list-style-type: none"> • Gender and culture: very often defenders of a fixed traditional idea of cultural identity defend undemocratic and discriminating practices against women in the name of cultural identity. These could range from a defence of sati to defence of women’s exclusion 	One Para

			<p>from education and participation in public matters. Globalization can then be taken as a bogey to defend unjust practices against women. Fortunately for us in India we have been able to retain and develop a democratic tradition and culture that allows us to define culture in a more inclusive and democratic fashion. (Page 108)</p>	
		<p>Lesson - 8 Social Movements (Page- 135-160)</p>	<ul style="list-style-type: none"> • Ecological movements - role of women in Chipko movement and this movement raised the issue of ecological sustainability. – Chipko Movement(Box 8.5) (Pages 146-147) • The women's movements- the 19th century social reform movements and early women's organizations. • Agrarian struggles and revolt- • It is often assumed that only Middle class educated women are involved in social movements. Part of the struggle has been to remember the forgotten history of women's participation. Women participated along with men in struggles and revolts originating in tribal and rural areas. • Post 1947- illustration shows the struggle of women against dowry. – During the early 70s, in crisis-ridden Bihar, a massive upsurge of students..... supported Jayapraksh Narayan's call for a 'Total Revolution'..... a large number of question about power structures was raised, 	5 Pages

			<p>which included many about women-question about family, work, distribution, and family violence, unequal access to resources enjoyed by men and women, issues of male-female relationship, and women's sexuality. (Box 8.13)</p> <p>- An analysis of the practices of violence against women by caste would reveal that while the incidence of dowry deaths and violent controls and regulations on the mobility and sexuality by the family are frequent among the dominant upper caste-dalit women are more likely to face the collective and public threat of rape, sexual assault and physical violence at the work place and in public. (box 8.14) (Pages 157-159)</p>	
Fundamentals of Physical Geograpy, March 2006	XI	Lesson- 12 World Climate And Climate Change (Pages 103-110)	<ul style="list-style-type: none"> • Global warming. • Green house gases. • Depletion of ozone layer concentration. • International efforts Kyoto protocol. • Concern towards emission to greenhouse gases and consequences has been illustrated with the help of a collage. (Pages 108-109) 	2 Pages
		Lesson- 15 Life On The Earth (Pages 127-134)	<ul style="list-style-type: none"> • Ecological balance. • Changes in ecological balance due to process of competition and succession. • Disturbance of ecological balance is due to cleaning of forest shifting cultivation and natural hazards or human causes etc. 	3 Para

			<ul style="list-style-type: none"> • Consequences of ecological imbalance. • Natural calamities like floods, landslides, diseases, and erratic climate occurrences. • Proper knowledge and understanding for conserving and protecting the eco system. (Pages 132-133) 	
		Lesson- 16 Biodiversity And Conservation (Pages 135-140)	<ul style="list-style-type: none"> • Loss of biodiversity due to growth in human population, rate of consumption, over exploitation of resources, deforestation, large population and natural calamities. • Pesticides & natural calamities. • Introduction of exotic species, hunting and poaching. • Classification of threatened species of plants and animals. • Conservation of biodiversity by educating people to adopt environment friendly practices. • Increasing consciousness and involvement of local communities. • Steps taken for biodiversity conservation. • Earth Summit, 1992. • Enactment of Wildlife Protection Act. • Identification of ecological hotspots of the world. • Illustration showing endangered species. (Pages 137-138) 	2 Pages
India : Physical Environ- ment, Mar 2006	XI	Lesson- 3 Drainage System (Pages 21-31)	<ul style="list-style-type: none"> • Causes of river pollution especially human activities like discharge of industrial effluents, cremation round etc. • Steps taken to make the rivers pollution free. • An activity related to collection of materials or schemes for making rivers pollution free has been suggested. (Page-30) 	One Para

		Lesson- 4 Climate (Pages 33-56)	<ul style="list-style-type: none"> • Global warming- besides the natural causes, human activities such as large scale industrialization and presence of polluting gas in the atmosphere are also important factors responsible for global warming. • Green house gases- carbon dioxide produced by human activities is a major source of concern. This gas, released to the atmosphere in large quantities by burning fossil fuels, is increasing gradually. • Effects of global warming in terms of promote insect- borne diseases like malaria. (Page 53) 	3 Para
		Lesson- 5 Natural Vegetation (Pages 57-67)	<ul style="list-style-type: none"> • Forest conservation- forest policy of 1988 and its major objectives like maintaining environmental sustainability, promoting social forestry and creating massive people movement involving women to encourage planting of trees. • Initiation of steps like urban, rural, Agro and farm forestry. • Enactment of wildlife protection act 1972, setting up of National Parks, wildlife sanctuaries and biosphere reserves. Launching special project like Project Tiger, Project Elephant etc. Pages- 61-64) 	4 Pages
		Lesson- 6 Soils (Page 68-75)	<ul style="list-style-type: none"> • Soil erosion and degradation and role of human factors like deforestation, application of chemical fertilizers and consequences. • Concept of soil conservation initiating measures like contour terracing. Controlling overgrazing, role of CAZRI 	2 Pages

			(Central Arid Zone Research Institute) Plans of central soil conservation board, Govt. of India, role of people in land conservation. (Pages- 73-74)	
Fundamentals of Human Geography, Feb. 2007	XII	Lesson- 2 The World Population Distribution, Density and Growth (Pages- 8-16)	<ul style="list-style-type: none"> • Patterns of Population distribution in the world. • Density of population. • Factors influencing distribution of population. • Population growth. • Some basic concepts of population geography shown in box. • Component of population change. • Migration - permanent, temporary, or seasonal. • A trend in population growth shown through graphs. • Doubling time of world population shown by table. • Role of science and technology in helping population growth. • Table shows the population growth rates(%) since 1995-2000. • Spatial pattern of population change. • Impact of population change. • Demographic transition. • Population control measures with focus on family planning. • Maps, box, tables and graphs have been used to show population. (Pages-8-15) 	8 Pages Full Lesson
		Lesson- 3 Population Composition (17-21)	<ul style="list-style-type: none"> • Sex composition: In region where gender discrimination is rampant, the sex ratio is bound to be unfavourable to women. Such areas are those where the practices of female foeticide, female infanticide and domestic violence against women are prevalent. One of the reasons 	4 Pages Full Lesson

			<p>could be lower socio-economic status of women in these areas. More women in the population does not mean they have a better status.</p> <ul style="list-style-type: none"> • Concept of sex ratio, reasons of unfavorable sex ratio towards women, age structure, and age-sex pyramid, expanding populations, constant population and declining population shown by graphs. • Rural expanding population • Rural urban composition: Female participation in rural and urban activity in developed and developing countries. • Factors discouraging women to migrate from rural to urban areas. • Literacy: Proportion of literate population of a country is an indicator of its socio-economic development as it reveals the standard of living, social status of females, availability of educational facilities and policies of government. • Occupational structure is also shown by bar chart. • Graphs showing the rural urban sex composition of selected countries. (Pages- 17-20) 	
		<p>Lesson -4 Human Development (Pages 22-30)</p>	<ul style="list-style-type: none"> • Concept of growth and development explained by giving examples of population of a city. Story depicting meaningful life. • The four pillars of Human development - equity, sustainability, productivity and empowerment. 	<p>8 Pages</p>

		<ul style="list-style-type: none"> • A good example is about the importance of sending girl to school. If a community does not stress the importance of sending its girl children to school, many opportunities will be lost to these young women when they grow up. Their career choices will be severely curtailed and this would affect other aspects of their lives. • The concept of sustainability has been explained by giving example of the importance of sending girls to school. • Approaches of human development. • Measuring human development. • International comparisons of human development-categories, criteria shown in box. • Countries with high, medium and low index value. • Collage on India's place in human development index. (Pages 22-29) 	
	Lesson - 10 Human Settlements (Pages 91-102)	<ul style="list-style-type: none"> • Classification of settlements, rural urban dichotomy. (Page 91) • Problems of rural settlements especially of water and water-borne diseases, absence of toilet and garbage facilities, design and use of building materials of houses. Unmetalled roads and lack of modern communication network. • Urban settlements <ul style="list-style-type: none"> – Percentage of world's population living in urban areas shown by table. – Population size. 	8 Pages

			<ul style="list-style-type: none"> • Problems of human settlements in developing countries. • Mega cities of the world shown by table. • Problems of urban settlements especially shortage of housing and development of slums and squatter settlements, Economic, socio-cultural and environmental problems of urban areas. • Priorities of urban strategy outlined by UNDP (United Nation Development Programme). • (Pages 95-101) 	
India People and Economy, Feb. 2007	XII	Lesson -1 Population : Distribution, Density, Growth and Composition (Pages 1-14)	<ul style="list-style-type: none"> • Distribution of population in India describing the physical, socioeconomic and historical factors responsible for uneven spatial population distribution. • Density of population as a measure of human and land relationship. • Growth of population in time and space framework. • Regional variation in population growth. • Population composition – Rural urban, linguistic, religious, and working composition. • Maps, graphs, boxes depicting the distribution, density, growth of population in India. • Tables classifying modern Indian languages and religious communities. • Bar chart showing occupational structure. • Gender issue through collage. (Pages 1-13) 	10 Pages Full Lesson
		Lesson -2 Migration- Types, Causes, and	<ul style="list-style-type: none"> • Migration. • Streams of migration. • Spatial variation in migration. • Causes of migration. 	6 Pages Full Lesson

	Consequences (Pages 15-22)	<ul style="list-style-type: none"> • Consequences of migration.- Economic consequences, demographic consequences, social consequences, and environmental consequences. • Showing intra and inter state migration by graphs. • Newspaper cutting showing concern of migrants. • Story depicting the different situations of migrants. • Showing reasons for male and female migration through piechart. (Pages 16-21) 	
	Lesson -3 Human development (Pages 23-31)	<ul style="list-style-type: none"> • Concept of Human Development discussed taking social, economic, and environmental and quality of life aspect. • Human development in India. • Indicators of healthy life, and social empowerment. • Human development index in India. • Tables showing poverty, literacy rates, and human development in India. • Newspaper cutting showing different problems. • Population, environment and development. (Pages 23-30) 	8 Pages Full Lesson
	Lesson -4 Human Settlements (Pages 32-39)	<ul style="list-style-type: none"> • Human settlements are defined. • Types of rural settlements. • Urban settlements and evaluation of towns in India. • Urbanization in India. • Classification of towns on the basis of population size. • Functional classification of towns. • Map, tables, diagram and pie chart showing Indian metropolitan cities, the trends of urbanization, distribution of 	6 Pages Full Lesson

			urban population, class wise town and cities and their population and population of million plus cities/ urban agglomeration. (Pages 32-38)	
		Lesson -5 Land Resources And Agriculture (Pages 40-59)	<ul style="list-style-type: none"> In 2001 about 53 percent population of the country was dependent on agriculture. Land- human ratio in the country is only 0.31 ha which is almost half of that of the world as a whole. (0.59 ha) (Pages 53) 	2 Lines
		Lesson -6 Water Resources (Pages 60-71)	<ul style="list-style-type: none"> Major change in the societies will witness demographic transition, geographical shift of population, technological advancement, degradation of environment and water scarcity. Water scarcity is possible to pose the greatest challenge on account of its increased demand coupled with shrinking supplies due to over utilization and pollution. 71 percent of the earth's surface is covered with it but fresh water constitutes only about 3 percent of the total water. A very small proportion is effectively available for human use. Water resources of India- India counts for about 2.45 percent of world's surface area, 4 percent of the world's water resources and about 16 percent of world's population. The total water available from precipitation in the country in a year is about 4,000 cubic. Water demands and utilization. Emerging water problems. Deterioration of water quality. Water conservation and management. 	10 Pages Full Lesson

			<ul style="list-style-type: none"> • Prevention of water pollution. • Recycle and reuse of water. • Watershed management. • Rainwater harvesting. • Watershed development in Ralegan Siddhi, Ahmadnagar, Maharashtra: A case study. • Highlight of India's National Water Policy, 2002. • Tables, maps, pie- diagram, and newspaper cutting showing the water resources, utilization, demand and problems. (Pages 60-70) 	
		Lesson -7 Mineral And Energy Resources (Pages 72-84)	<ul style="list-style-type: none"> • Conservation of mineral resources. • Newspaper cutting, maps showing mineral and energy resources. (Pages 83) 	One Para
		Lesson -9 Planning And Sustainable Development in Indian Context (Pages 104-112)	<ul style="list-style-type: none"> • Sustainable development and case study. • Measures for promotion of sustainable development. (Pages 108-111) 	3 Pages
		Lesson -12 Geographical Perspective On Selected Issues And Problems (Pages 135-145)	<ul style="list-style-type: none"> • Environmental pollution: causes and effects. <ul style="list-style-type: none"> – Water pollution. – Air pollution. – Noise pollution. – Urban waste disposal. • Rural urban migration – A case study. • Problems of slums. • Dharavi- Asia's largest slum. • Land degradation – A case study. • Tables showing types, and sources of pollution. • Newspaper cutting showing slums and top 10 pollution cities. (Pages 135-144) 	10 Pages Full Lesson

Economic, Indian Economic Develop- ment, Feb. 2006	XI	Lesson-1 Indian Economy on the Eve of Independence. (Page-4-15)	<ul style="list-style-type: none"> • Stage of demographic transition. – Stages of various social developments. – Indicators- literacy both male and female. – Public health factors- IMR, Life expectancy etc. (Page-9-10) 	Two Para
		Lesson-3 Liberalization Privatization and Globalization: An Appraisal (Page-38-56)	<ul style="list-style-type: none"> • Development policies required to meet problems like unemployment • Poverty and population explosion. (Page-39) 	6 Lines
		Lesson-4 Poverty (Page- 59-81)	<ul style="list-style-type: none"> • Definition of poverty. • Majority of agricultural labourers are poor. • People living below poverty line. • The number of poor people in India • Graphs showing the trends in poverty in India, 1973-2000 • Population below poverty line in some large states shown through graph. • Causes of poverty • Policies and programmes towards poverty alleviation. • Poverty alleviation programmes – A critical assessment (Page 60-78) 	19 Pages Full Lesson
		Lesson-5 Human Capital Formation in India (Page- 82-98)	<ul style="list-style-type: none"> • Meaning of human capital • Sources of human capital :- education health is also considered as an important input for the development. • Relationship of human capital and economic growth. • Selected indicators of development in education and health sectors through tables. • Human capital and human development 	13 Pages Full Lesson

			<ul style="list-style-type: none"> • Human capital formation in India: great prospects. • Table shows- Educational attainment in India. • Gender equity. • Higher education in India. (Pages- 83-95) 	
		Lesson-8 Infrastructure (Pages 140-161)	<ul style="list-style-type: none"> • Definition of health. • State of health Infrastructure. • Indicators of health and health infrastructure. • Dividence of urban- rural and poor-rich. • Indicators of health in India in comparison with other countries shown through table. • Illustration showing that despite availing of various healthcare measures, maternal health is cause for concern. • Women's health: Women constitute about half the total population in India. They suffer many disadvantages as compared to men in the areas of education, participation in economic activities and health care. The deterioration in the child sex ratio in the country from 945 in 1991 to 927, as revealed by the census of 2001, points to the growing incidence of female foeticide in the country. • More than 50 percent of married women between the age group 15 and 49 have anaemia and nutritional anaemia caused by iron deficiency which has contributed to 19 percent of maternal deaths. • Abortions are also a major cause of maternal morbidity and mortality in India. 	8 Pages

		<ul style="list-style-type: none"> • Deterioration in the child sex ratio. • Growing incidence of female foeticide. • In order to provide basic healthcare to all, accessibility and affordability need to be integrated in our basic health infrastructure. (Pages- 149-157)	
	Lesson-9 Environments and Sustainable Development (Pages 162-178)	<ul style="list-style-type: none"> • Definition and functions of environments • Rising population of the developing countries. • Global warming and ozone depletion in box. • Population explosion with the advent of industrial revolution. • State of India's environment. • Chipko movement in box. • Air pollution is wide spread in urban areas where vehicles are the major contributors. • Sustainable development: - What is needed is sustainable development. • Brundtland commission. • Strategies for sustainable development. • CNG in urban areas • LPG, Gobar Gas in rural areas. • Wind power. • Solar power through photo voltaic cells. • Mini-Hydel Plants. • Traditional knowledge and practices: bio composting, Bio pest Control. (Pages 163-175)	13 Pages Full Lesson
	Comparative Development Experiences of India And Its Neighbours	<ul style="list-style-type: none"> • Demographic indicators. - Table showing estimated population, annual growth of population, density. Sex ratio, fertility and urbanization. 	6 Pages

		(Pages 182-196)	<ul style="list-style-type: none"> • Gross domestic product and sectors also shown by table. – Sectoral share of employment and GDP (%) shown by table. – Trends in output growth in different sectors, 1980-2003 shown by table. • Indicators of human development shown by table. • Development strategies- an appraisal. (Pages 185-190) 	
Political Theory	XI	Lesson -3 Equality (Pages 31-52)	<ul style="list-style-type: none"> • Women were for long described as the 'weaker sex', considered timid as and of lesser intelligence than men, needing special protection. Therefore, it was felt that denying women equal rights could be justified. (Page-37) • Women for instance, may not enjoy equal rights of inheritance in groups, or there may be social prohibitions regarding their taking part in certain kinds of activities, or they may even be & topped to offer equal legal rights to make policies to prevent discrimination or harassment of women in public places or employment, to provide incentives to open up education or certain professions to women, and other such measures. But social groups and individuals also have a role to play in raising awareness and supporting those who want to exercise their rights. • Feminism. (Box) (Pages 37,40 & 42) 	3 Pages
		Lesson 10 Development (Pages 143-157)	<ul style="list-style-type: none"> • Environmental costs of development. • Ken Saro- Wiwa (Box) • Environmentalism. (Pages.148-150) 	3 Pages

Indian Constitution at Work	XI	Lesson-8 Local Governments (Pages 176-195)	<ul style="list-style-type: none"> • Reservation of one –third of the seats for women is not merely in the general category of seats but also within the seats reserved for the scheduled tribes and backward castes. This means that a seat may be served simultaneously for a woman candidates and one belonging to SC or ST. Thus, a surpanch would have to be a Dalit Woman or an Adivasi Woman. • The provision for reservation for women at one Panchayati and Nagarpalika has ensured the process of a significant number of a woman in local bodies. A large number of women elected representative here come to occupy these positions. (Pages 184 & 188) 	2 Para
Contemporary World Politics	XII	Lesson -8 Environment and Natural Resources (Pages 117-134)	<ul style="list-style-type: none"> • Environmental concerns in global politics. • According to Human Development Report 2006 of the United Nation Development Programme, 1.2 billion people in developing countries have no access to safe water and 2.6 billion have no access to sanitation resulting in the death of more than three million children every year. • Natural forests which helping stabilize the climate, moderate water supplying, and harbour a majority of the planet's biodiversity continues due to the destruction of habitat in areas which are rich in species. • The steady decline in the total amount of ozone in the Earth's stratosphere poses a real danger to ecosystems and human health. 	17 Pages Full Lesson

			<ul style="list-style-type: none"> • Coastal pollution too is increasing globally. The water is becoming increasingly polluted largely due to land-based activities. • The protection of Global Commons. • Common but differentiated responsibilities. • Common properly resources. • India's stand on environmental issues. • Environmental movements one or many. • Are forests "wilderness". • Resources geopolitics. • The indigenous people and their rights. <p>(Pages 118-134)</p>	
हिन्दी अंतरा भाग-1 मार्च-2006	XI	ज्योतिबा फुले (पृष्ठ 54-61)	<ul style="list-style-type: none"> • स्त्री शिक्षा का पुनरोत्थान । • अपेक्षित नारी शिक्षा की ओर लेखक यान आकर्षित किया है- • स्त्री शिक्षा के दरवाजे पुरुषों ने इस लिए बंद कर रखे हैं कि वह मानवीय अधिकारों को समझ न पाए। जैसे स्वतंत्रता पुरुष लेता वैसी स्त्री लेले तो पुरुषों के लिये अलग नियम और स्त्री के लिए अलग नियम। पक्षपात होगा। • (पृष्ठ 57) 	1 Page
हिन्दी अंतरा भाग-2 जनवरी 2007, अध्याय 07	XII	“जहाँ कोई वापसी नहीं” यात्रा वृत्तान्त (पृष्ठ 135-139)	<ul style="list-style-type: none"> • लेखक का कहना है विकास की अंधी दौड़ में गाँव उजड़ रहे हैं। पलायन, विस्थापन के साथ मनुष्य का परिवेष्टा आवास आदि उखड़ जाता है। जमीन उर्वरा व समृद्ध जंगल नष्ट हो जाते हैं, पर्यावरण संबंधी समस्याओं के अलावा मनुष्य संस्कृति, परिवेष्टा से विस्थापित होकर जीवन जीने के लिए मजबूर हो जाता है।(पृष्ठ135से 138) 	4 Pages Full Lesson
English, Snapshots, April 2006	XI	Lesson -3 Ranga's Marriage (Pages 16-24)	<ul style="list-style-type: none"> • Backwardness of Ranga's village is highlighted. People are poor and lack of literacy makes them behave in strange ways. (Page -18) 	3 Para
		Lesson -5 Mother's Day (Pages 32-53)	<ul style="list-style-type: none"> • Equality between men and women. 	3 Lines

English, Hamingo, Nov. 2007	XII	Lesson -2 Lost Spring (Pages-13-22)	<ul style="list-style-type: none"> • It is a story showing the reasons for migration of people from village to cities. • Poverty and child lab our. • Population sustained economic growth and poverty, gender equality. (Pages 13-20) 	8 Pages Full Lesson
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Subject-wise Analysis:

The subject-wise analysis of textbooks as reflected in table 4.1 below present the status of population education elements as follows:

- The Contents on sustainable development are focused in the textbooks of biology and psychology for Class XII, Geography and Political Science for Classes XI and XII, in Sociology and Economic for Classes XI and XII, in the textbook of Hindi for Class XI and in English for classes XI and XII.
- The Contents on Gender equality and equity have been integrated in the textbook of Hindi for Class XI, in English for Classes XI and XII, in economics for class XI, in geography for classes XI and XII, in sociology for classes XI and XII and in Political Science for classes XI and XII.
- The contents on family and quality of life are integrated in the textbooks of sociology for classes XI and XII
- The Contents of urbanization and migration are integrated in the textbook of English for class XII, and in Geography for Class XII.
- The Contents on health and education are discussed in the textbook of biology for Class XII, in the textbook of Economics for Class XI, and in the textbooks of psychology, geography and sociology for Class XII.
- The contents on process of growing up are discussed in biology for class XI, in the textbook of biology For Class XII, and in the textbook of psychology for class XI.
- The Contents related to HIV/AIDS are discussed in the textbooks of biology for Class XII and in the textbooks of psychology for Classes XI and XII.
- The Contents on Drug Abuse are discussed in one lesson in the textbook of biology for Class XII, in the textbooks of psychology for Classes XI and XII.

Gaps:

- These elements are less integrated in the language textbooks for classes XI and XII.
- Although apparently these are a large coverage of process of growing up and drug abuse contents, these may not reach to all students. Because mostly these are incorporated in the subjects that one either optioned or not

treated equal to core subjects like biology sociology and languages.

- Contents on HIV/AIDS need to be integrated adequately even in biology subject. The other potential subjects like sociology, economic and languages.
- Life Skills development activities need to be made more focused, delineating the process of conducting these activities appropriately.

Section 2 : Integration of Population Education in the Exercises of the Lessons at Higher Secondary Stage

In this section, the exercises at the end of those lessons which were found having Population Education contents were analyzed. All the lessons were found having exercises. The details of exercises / questions are given below in tables:

Table 5.4 : Exercises Given in the Textbooks At the Higher Secondary Level

Class - XI Subject and Title of the Text Book			
Title of the Lesson and Number	Exercises / Question		Life skills
Indian Economic Development Lesson No-1 Indian Economy on the Eve of Independence Development	Q.11 Give a Quantitative appraisal of Indian's demographic profile during colonial period? (P 14)		Knowledge
Lesson No-4 Poverty	Q.1 Define Poverty.		Thinking & Analysis
	Q.4 How can creation of income earning assets address the problem of poverty?		Thinking & Analysis
	Q.6 What programmes has the government adopted to help the elderly people, poor and destitute women? (Page- 79)		Knowledge
Lesson-5 Human Capital Formation in India	Q.9. Discuss the following as a source of human capital formation- (i) Health infrastructure (ii) Expenditure on migration.		Critical Thinking
	Q.10. Establish the need for acquiring information relating to health and education expenditure for the effective utilization of human resources.		Critical Thinking

	Q.12. 'There is a downward trend in inequality world-wide with a rise in the average education levels'. Comment.	SD	Critical Thinking															
	Q.13. Examine the role of education in the economic development of a nation.	Edu.	Critical Thinking															
	Q.14. Explain how investment in education stimulates economic growth.	Edu.	Critical Thinking															
	Q.17. Discuss the need for promoting women's education in India.	GE & Edu.	Critical Thinking															
	Q.18. Argue in favour of the need for different forms of government intervention in education and health sectors.	GE & Edu.	Critical Thinking															
	Q.19. What are the main problems of human capital formation in India?	Edu. & Health	Knowledge															
Lesson No- 6 Rural Development	Q.14 'Information technology plays a very significant role in achieving sustainable development and food security'- comment.	SD	Critical Thinking															
	Q.15 What is organic farming? How it promotes sustainable development & limitations?	SD	Critical Thinking															
Lesson No- 7 Employment- Growth, Normali- sation And Other Issues	Q.11 Table showing distribution of work force in 1972-73 :	SD	Critical Thinking															
	<table border="1"> <thead> <tr> <th rowspan="2">Place of Residence</th> <th colspan="3">Workforce (in millions)</th> </tr> <tr> <th>Male</th> <th>Female</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Rural</td> <td>125</td> <td>69</td> <td>194</td> </tr> <tr> <td>Urban</td> <td>32</td> <td>7</td> <td>39</td> </tr> </tbody> </table>			Place of Residence	Workforce (in millions)			Male	Female	Total	Rural	125	69	194	Urban	32	7	39
	Place of Residence				Workforce (in millions)													
				Male	Female	Total												
Rural	125	69	194															
Urban	32	7	39															
(Page 135)																		
Lesson-8 Infrastructure	Q.15. What are the main characteristics of health of the people of our country?	Health	Knowledge															
	Q.17. Discuss the main drawbacks of our health care system.	Health & Edu.	Critical Thinking															
	Q.18. How has women's health become a matter of great concern? Explain.	Gender Health	Critical Thinking															

	Q.19. Describe the meaning of public health. Discuss the major public health measures undertaken by the state in recent years to control diseases.	Health	Critical Thinking
	Q.21. How can we increase the effectiveness of health care programmes? (P.159)	HE	Critical Thinking
Lesson-9 Environment and Sustainable Development	Q.1. What is meant by environment?	SD	Knowledge
	Q.4. Two major environmental issues facing the world today are Q.2 What happens when the rate of resource extraction exceeds that of their regeneration? (p-176)	SD	Knowledge and Understanding
	Q.5 How do the following factors contribute to the environmental crisis in India? What problems do they pose for the government- (i) Rising population (ii) Air pollution (iii) Water contamination (iv) Affluent consumption standards (v) Illiteracy (vi) Industrialisation (vii) Urbanisation (viii) Reduction of forest coverage (ix) Poaching (x) Global warming.	SD	Critical Thinking
	Q.7. Identify six factors contributing to land degradation in India.	SD	Knowledge
	Q.8 Explain how the opportunity costs of negative environmental impact are high.	SD	Critical Thinking
	Q.9 Outline the steps involved in attaining sustainable development in India.	SD	Knowledge
	Q.11 Is environmental crisis a recent phenomenon? If so why?	SD	Critical Thinking
	Q.12 Give two instances of – (a) Overuse of environmental resources. (b) Misuse of environmental resources.	SD	Knowledge

	Q.13 Classification into renewable resources.	SD	Knowledge
	Q.14 Explain the supply-demand reversal of environmental resources.	SD	Critical Thinking
	Q.16 Highlight any two serious adverse environmental consequences of development in India. India's environmental problems pose a dichotomy – living standards – is this true?		
	Q.17 What is sustainable development?	SD	Understanding
	Q.18 Keeping in view your locality describes four strategies of sustainable development. (Page- 176-177)	SD	Awareness
	Q.19 Explain the relevance of intergenerational equity in the definition of sustainable development.		
Lesson No- 10 Comparative Development of India, Pakistan & China	Q.13. Group the following features pertaining to the economies of India, China and Pakistan under three heads: <ul style="list-style-type: none"> • One-child norm, Low and High fertility rate, • High degree of urbanization • Mixed economy • High density of population 		Knowledge
	Q.15 Compare and Contrast in development of India, Pakistan & China with respect to human development indicators. (Page 196)	SD	Analysis
Understanding Society Lesson No- 2 Social Change Social Order in Rural And Urban Society	Q.4 Describe some kinds of environment-related social changes.	SD	Knowledge
	Q.10 What are some of the challenges to social order in urban areas?	UM	
Lesson 3 Environment and Society	Q.4 Why and how does social organization shape the relationship between the environment and society?	SD	Critical Thinking
	Q.5 Why is environmental management a complex and huge task for society?	SD	Critical Thinking

	Q.6 What are some of the important forms of pollution related to environment hazards?	SD	Knowledge
	Q.7 What are the major environmental issues associated with resource depletion?	SD	Knowledge
	Q.8 Explain why environmental problems are simultaneously social problems?	SD	Critical Thinking
	Q.9 What is meant by social ecology?	SD	Knowledge
	Q.10 Describe some environment related conflicts that you know of or have read about. (P -65)	SD	Knowledge
Political Theory Lesson -3 Equality	Q.5 Which one of the following violates the principles of equality and why? (d) Access to some forest areas is reserved for certain tribal communities.	GN	Knowledge
	Q.6 Here are some arguments in favour of the right to vote for women. Which of these are consistent with the idea of equality? Give reasons. (a) Women are our mothers. We shall not disrespect our mothers by denying them the right to vote. (b) Decisions of the government affect women as well as men, therefore they also should have a say in choosing the rulers. (c) Not granting women the right to vote will cause disharmony in the family. (d) Women constitute half of humanity. You cannot subjugate them for long by denying them the right to vote.(P- 52)	GN	Critical Thinking
Geography Fundamental of Physical Geography Lesson 12 World climate and climate change	Q.1 What do you understand by the term “greenhouse gases”? Make a list of greenhouse gases.	SD	Knowledge

	Q.2 Collect information about Kyoto declaration related to global climate changes. (Page-110)	SD	Critical Thinking
Lesson 15 Life on the Earth	Q.2 (ii) What is an ecological balance? Discuss the important measures needed to prevent ecological balance. (Page 133)	SD	Knowledge
Lesson 16 Biodiversity And Conservation	Q.1 What are the major factors that are responsible for the loss of biodiversity? What steps are needed to prevent them?(P- 140)	SD	Knowledge
Geography India: Physical Environment Lesson 3 Drainage System	Q.1 What are the Socio-economic advantages to Inter-linking of rivers in India? (P-31)	SD	Knowledge
Lesson 5 Natural Vegetation	Q.1. (ii) What do you understand by Social Forestry?	SD	Knowledge
	(iii) Define biosphere reserves.	SD	Knowledge
	Q.3 (i) What steps have been taken up to conserve forests?	SD	Knowledge
	(ii) How can people's participation be effective in conserving forests and wildlife?(Page- 67)	SD	Understanding & Reasoning
Lesson 6 Soils	Q.2 (iv) What is Soil degradation?	SD	Knowledge
	Q.3 (ii) What is soil conservation? Suggest some measures to conserve soil? (P-75)	SD	Knowledge
Lesson 7 Natural Hazards And Disasters	Q.2 (i) When can a hazard become a disaster?	SD	Critical Thinking
	Q.3 (v) When can developmental activities become the cause of disasters?	SD	Critical Thinking
Political Science Contemporary World Politics	Q.9 Rapid environmental degradation is causing a serious threat to security. Do you agree with the statement? Substantiate your arguments.	SD	Critical Thinking
Lesson-7 Security in the Contemporary World	Q.10 Nuclear weapons as deterrence or defence have limited usage against contemporary security threats to states. Explain the statement. (Pages. 115-116)	SD	Critical Thinking

Lesson-8 Environment and Natural Resources	Q.5 What is meant by the global commons? How are they exploited and polluted?	SD	Knowledge
	Q.6 What is meant by common but differentiated responsibilities? How could we implement the idea?	SD	Knowledge + Critical Thinking
	Q.7 Why have issues related to global environmental protection become the priority concern of states since the 1990s?	SD	Critical Thinking
	Q.8 Compromise & accommodation are the two essential policies required by states to save planet Earth. Substantiate the statement in the light of the ongoing negotiations between the North and South on environmental issues.	SD	Critical Thinking
	Q.9 The most serious challenge before the states is pursuing economic development without causing further damage to the global environment. How could we achieve this? Explain with a few examples. (p 134)	SD	Critical Thinking
Psychology Lesson 4 Human Development (Pages.83)	Q.8 What is adolescence? Explain the concept of egocentrism.	PGU	Knowledge
	Q.9 What are the factors influencing the formation of identity during adolescence? Support your answer with examples.	PGU	Knowledge
	Q.10 What are the challenges faced by individuals on entry to adulthood?(P.83)	PGU	Knowledge

Class - XII Subject and Title of the Text Book			
Title of the Lesson and Number	Exercises / Question	Core Area	Life skills
Sociology Indian Society Lesson- 2 The Demographic Structure of the Indian Society	Q.1 Explain the basic argument of the theory of demographic transition. Why is the transition period associated with a 'population explosion'?	SD	Critical Thinking & Analysis
	Q.2 Why did Malthus believe the catastrophic events famines and epidemics that cause mass deaths were inevitable?	SD	Critical Thinking
	Q.3 What is meant by 'birth rate' & 'death rate'? Explain why the birth rate is relatively slow to fall while the death rate declines much faster?	SD	Knowledge
	Q.4 What is meant by the 'age structure' of the population? Why is it relevant for economic development and growth?	SD	Knowledge
	Q.5. What is meant by the 'age structure' of the population? Why is it relevant for economic development and growth?	SD	Knowledge & Analysis
	Q.6 What is meant by the 'Sex ratio'? What are some of the implications of a declining sex ratio? Do you feel that parents still prefer to have sons rather than daughter? What in your opinion could be some of the reasons for this preference? (Page-39)	SD GN	Knowledge & Critical Thinking
Lesson -8 Social Movements	Q.4 Environmental movements often also contain economic and identity issues? (Pages-160)	SD	Knowledge
Social Change and Development in India Lesson 4 Change and Development in Rural Society	Q.8 Collect information and write a report on the environmental situation in rural India. Examples of topics; pesticides; declining water table; impact of prawn farming in coastal areas; salination of soil and water logging in canal irrigated areas; loss of biodiversity. Possible	SD	Analysis and Interpretation

	source; State of India's Environment Reports; Reports from Centre for Science and Development Down to Earth. (P-71)		
Geography Fundamentals of Human Geography (XII) Lesson 1 Human Geography (Nature- Scope)	Q.1 Choose the right answer from the four alternatives given below. (i) Which one of the following continents has the highest growth of population? (a) Africa (b) South America (c) Asia (d) North America (ii) Which one of the following is not an area of sparse population? (a) The Atacama (b) South –east Asia (c) Equatorial region (d) Polar regions	SD	Knowledge
Lesson 2 The World Population (Distribution Density and Growth)	(iii) Which one of the following is not a push factor? (a) Water shortage (b) Medical/educational facilities (c) Unemployment (d) Epidemics (iv) Which one of the following is not a fact? (a) Human population increased more than ten times during the past 500 years. (b) Nearly 80 million people are added to the world population each year. (c) It took 100 years for the population to rise from 5 billion to 6 billion. (d) Population growth is high in the first stage of demographic transition?	SD	Knowledge

	<p>Q.2 Answer the following question in about 30 words.</p> <p>(i) Name three geographical factors that influence the distribution of population.</p> <p>(ii) There are a number of areas with high population density in the world. Why does this happen?</p> <p>(iii) What are the three components of population changes?</p>	UM	Knowledg
	<p>Q.3 Distinguish between:</p> <p>(i) Birth rate and death rate.</p> <p>(ii) Push factors and pull factors of migration.</p>	SD	Knowledg
	<p>Q.4 Answer the following influencing the distribution and density of population in the world.</p> <p>(i) Discuss the factors influencing the distribution and density of population in the world</p> <p>(ii) Discuss the three stages of demographic transition.</p>	SD	Critical Thinking
Lesson 3 Population Composition	<p>Q. 1 Choose the right answer from the four alternatives given below.</p> <p>(i) Which one of the following has caused the sex ratio of the United Arab Emirates to be low?</p> <p>(a) Selective migration of male working population</p> <p>(b) high birth rate of males</p> <p>(c) Low birth rate of females</p> <p>(d) High out migration females</p> <p>(ii) Which one of the following figures represents the working age group of the populatin?</p> <p>(a) 15 to 65 years</p> <p>(b) 15 to 64 years</p> <p>(c) 15 to 66 years</p> <p>(d) 15 to 59 years</p>	SD	Knowledg

	(iii) Which one of the following countries has the highest sex ration in the world? (a) Latvia (b) United Arab Emirates (c) Japan (d) France		
	Q.2 Answer the following question in about 30 words (i) What do you understand by population composition? (ii) What is the significance of age-structure? (iii) How is sex-ration measured?	SD	Knowledge
	Q.3. Answer the following questions in not more than 150 words. (i) Describe the rural-urban composition of the population (ii) Discuss the factors responsible for imbalances in the sex-age found in different parts of the world and occupational structure.	SD UM	Knowledge
Lesson 4 Human Development	Q. 1 Choose the right answer from the four alternatives given below. (i) Which one of the following best describes development? (a) an increase in size (c) a positive change in quality (b) a constant in size(d) a simple change in the quality (ii) Which one of the following scholars introduced the concept of Human Development? (a) Prof. Amartya Sen (c) Dr Mahabub-ul-Haq (b) Ellen C. Semple (d) Ratzel (iii) Which one of the following is not a country with high human development? (a) Norway (c) Argentina (b) Japan (d) Egypt	SD	Knowledge

	<p>Q.2 Answer the following questions in about 30 words.</p> <p>(i) What are the three basic areas of human development?</p> <p>(ii) Name the four main components of human development?</p> <p>(iii) How are countries classified on the basis of human development index?</p>	SD	Knowledge
	<p>Q.3 Answer the following questions in not more than 150 words.</p> <p>(i) What do you understand by the term human development?</p> <p>(ii) What do equity and sustainability refer to within the concept of human development?</p>	SD	Knowledge
Lesson 10 Human Settlements	<p>Q.1 Choose the right answer from the four alternatives given below.</p> <p>(i) Which one of the flowing forms of settlements develop along either side of roads, rivers or canals? (a) circular (c) cross-shaped (b) Linear (d) square</p> <p>(ii) Which one of the following types of economic activities dominates in all rural settlement? (a) primary (c) secondary (b) tertiary (d) quaternary</p> <p>(iii) In which of the following regions has the oldest well-documented urban settlement found? (a) Huang He Valley (b) Indus Valley (d) Mesopotamia (c) Nile Valley</p> <p>(iv) How many of the following cities in India have attained the million status at the beginning of 2006? (a) 40 (c) 41 (b) 42 (d) 43</p>	SD	Knowledge
		SD	Knowledge
		SD	Knowledge
		SD	Knowledge

	(v) Sufficiency of which type of resources can help to create adequate social infrastructure catering to the needs of the large population in the developing countries? (a) financial (c) natural (b) human (d) social	SD	Knowledge
	Q.2 Answer the following questions in about 30 words. (i) How would you define a settlement? (ii) Distinguish between site and situation. (iii) What are the bases of classifying settlements? (iv) How would you justify the study of human settlements in human geography?	UM	Knowledge
	Q.3 Answer the following questions in not more than 150 words. (i) What are rural and urban settlements? Mention their characters. (ii) Discuss the problems associated with urban settlements in developing countries.	UM	Knowledge
Geography India, People and Economy Lesson 1 Population: Distribution, Density Growth and Composition	Q.1 Choose the right answers of the following from the given options. (i) India's population as per 2001 census is (a) 1028 million (c) 3287 million (b) 3182 million (d) 20 million	SD	Knowledge
	(ii) Which one of the following states has the highest density of population in India? (a) West Bengal (c) UP (b) Kerala (d) Punjab	SD	Knowledge
	(iii) Which one of the following states has the highest proportion of urban population in India according to 2001 Census? (a) Tamil Nadu (c) Kerala (b) Maharashtra (d) Gujarat	SD	Knowledge

	<p>Q.2 Answer the following questions in about 30 words.</p> <p>(i) Very hot and dry and very cold and wet regions of India have low density of population. In this light, explain the role of climate on the distribution of population.</p> <p>(ii) Which states have large-rural population in India? Give one reason for such large rural population</p> <p>(iii) Why do some states of India have higher rates of work participation than others?</p> <p>(iv) The agricultural sector has the largest share of India: Explain</p>	SD	Knowledge
	<p>Q.3 Answer the following questions in about 150 words?</p> <p>(i) Discuss the spatial pattern of density of population in India?</p> <p>(ii) Give an account of the occupational structure of India's population</p>	SD	Knowledge
Lesson 2 Migration Types, Causes and Consequences	<p>Q.1 Choose the right answers of the following from the given options.</p> <p>(i) Which one of the following is the main reason for male migration in India?</p> <p>(a) Education (b) Business (c) Work and employments (d) Marriage</p> <p>(ii) Which one of the following states receives maximum number of immigrants?</p> <p>(a) UP (b) Delhi (c) Maharashtra (d) Bihar</p> <p>(iii) Which one of the following streams is dominated by male migrants in India?</p> <p>(a) Rural-rural (b) Urban-rural (c) Rural-urban (d) Urban-Urban</p>	UM	Knowledge

	<p>(iii) Which one of the following states of India has the lowest female literacy? (a) Jammu and Kashmir (b) Arunachal Pradesh (c) Jharkhand (d) Bihar</p> <p>(iv) Which one of the following states of India has the lowest female child sex ratio 0-6 years? (a) Gujarat (c) Punjab (b) Haryana (d) HP</p> <p>(v) Which one of the following Union Territories of India has the highest literacy rate? (a) Lakshadweep (b) Chandigarh (d) Andman and Nicobar Islands (c) Daman and Diu</p>		
	<p>Q.2 Answer the following questions in about 30 words. (i) Define Human Development (ii) Give two reasons for low levels of Human Development in most of the Northern States of India. (iii) Give two reasons for declining child sex ratio in India.</p>	SD	Knowledge
	<p>Q.3 Answer the following questions in about 150 words. (i) Discuss the spatial patterns of female literacy in India in 2001 and bring out the reasons responsible for it. (ii) Which factors have caused spatial variations in the levels of Human Development among the 15 major states in India? (iii) Which one of the following group of cities have been arranged in the sequence of their ranks i.e. 1,2,3 and 4 in size?</p>	SD	Knowledge

	(a) Greater Mumbai, Bangalore, Kolkata, Chennai (b) Delhi, Greater Mumbai Chennai, Kolkata (c) Kolkata, Greater Mumbai, Chennai, Kolkata (d) Greater Mumbai, Kolkata, Delhi, Chennai		
Lesson 4 Human Settlements	Q.2 Answer the following question in about 30 words. (ii) How can one identify the urban agglomeration? (iii) What are the main factors for the location of villages in desert regions? (iv) What are metropolitan cities? How are they different from urban agglomeration?	UM	Knowledge
Lesson 5 Land Resources and Agriculture	Q.3 (i) What is the different types of environmental problems of land resources in India? (Page- 59)	SD	Knowledge
Lesson 6 Water Resources	Q.2 (i) It is said that the water resources in India have been depleting very fast. Discuss the factors responsible for depletion of water resources? (ii) What factors are responsible for the highest ground water development in the states of Punjab, Haryana and Tamilnadu?	SD	Critical Thinking
	(iv) What can be the possible impacts of consumption of contaminated / unclean water on the people?	SD	Critical Thinking
	Q.3 (i) Discuss the availability of water resources in the country and factors that determine its spatial distribution?		Knowledge
	(ii) The depleting water resources may lead to social conflicts and disputes. Elaborate it with suitable examples.		Knowledge
	(iii) What is watershed management? Do you think it can play an important role in suitable development?		Knowledge

Lesson 9 Planning and Sustainable and Development in India context	Q.1 (iii) Which one of the following is the most crucial factor for sustainable. (b) Eco-development	SD	Knowledge
	Q.2 (ii) Define the concept of sustainable development.	SD	Knowledge
Lesson 12 Geographical Perspective on selected issues and Problems	<p>Q. 1. (i) Which one of the following river is highly polluted? (a) Brahmaputa (c) Yamuna (b) Satluj (d) Godavari</p> <p>(ii) Which one of the following diseases is caused by water pollution? (a) Conjunctivitis (b) Diarrhoea (c) Respiratory infections (d) Bronchitis</p> <p>(iii) Which one of the following is the cause of acid rain? (a) Water pollution (b) Land pollution (c) Noise pollution (d) Air pollution</p> <p>(iv) Push and pull factors are responsible for- (a) Migration (b) Land degradation (c) Slums (d) Air pollution</p>	SD	Knowledge
	<p>Q.2. Answer the following questions in 30 words</p> <p>(i) What is the difference between pollution and pollutants? (ii) Describe the major source of air pollution. (iii) Mention major problems associated with urban waste disposal in India. (iv) What are the effects of air pollution on human health?</p>	SD	Knowledge

	Q.3 Answer the following questions in 150 words (i) Describe the nature of water pollution in India. (ii) Describe the problem of slums in India. (iii) Suggest measures for reduction of land degradation. (Page- 145).	UM	Knowledge
Psychology Lesson 3 Meeting Life Challenges	Q. 4. Enumerate the different ways of coping with system? Q.6 Describe how life skills can help meet life challenges?	PGU	Critical Thinking
	Q.7 Discuss the factors that lead to positive health and well-being.	Health	Critical Thinking
	Q.8 How does stress affect the immune system? (P. 67)	Health	Critical Thinking
Lesson 4 Psychological Disorders	Q.3 What do you understand by substance abuse and dependence?	Drug Abuse	Knowledge Awareness
	Q.4 Can a distorted body image lead to eating disorders? Classify the various forms of it.(P. 87)	PGU	Critical Thinking
Lesson 8 Psychology and Life	Q.1 What do you understand by the term 'environment'? Explain the different perspectives to understand the human - environment relationship.	SD	Knowledge
	Q.2 "Human beings affect and are affected by the environment". Explain this statement with the help of examples.	SD	Critical Thinking
	Q.3 What is noise? Discuss the effect of noise on human behaviour.	SD	Knowledge
	Q.4 What are the salient features of crowding? Explain the major psychological consequences of crowding.	SD	Knowledge
	Q.7 What is pro-environmental behaviour? How can the environment be protected from pollution? Suggest some strategies.	SD	Critical Thinking

	Q.8 How is 'poverty' related to 'discrimination'? explain the major psychological effects of poverty and deprivation.(Pages 175)	SD	Critical Thinking
Biology, XII Lesson No.3 Human Reproduction	Q.17. What is menstrual cycle? Which hormones regulate menstrual cycle?	PGU	Knowledge
	Q.19 In our society the women are often blamed for giving birth to daughters. Can you explain why this is not correct?	Gender	Critical Thinking
Lesson-4 Reproductive Health	Q.1. What do you think is the significance of reproductive health in a society?	PGU	Critical Thinking
	Q.2.Suggest the aspects of reproductive health which need to be given special attention in the present scenario.	PGU	Critical Thinking
	Q.3. Is sex education necessary in schools? Why?	PGU	Critical Thinking
	Q.4. Do you think that reproductive health in our country has improved in the past 50 years? If yes, mention some such areas of improvement.	SD	Knowledge
	Q.5. What are the suggested reasons for population explosion?	PGU	Knowledge
	Q.6. Is the use of contraceptives justified? Give reasons.	PGU	Knowledge
	Q.8. Amniocentesis for sex determination is banned in our country. Is this ban necessary? Comment.	PGU	Knowledge
	Q.10. What are the measures one has to take to prevent from contracting STDs?	PGU	Knowledge
	(c) Complete lactation could help as a natural method of contraception. (True/False)	PGU	Knowledge
	(d) Creating awareness about sex related aspects is an effective method to improve reproductive health of the people. (True/False)		

	Q.12. Correct the following statement: (Pages.66) All Sexually transmitted diseases are completely curable.	HIV and AIDS	Knowledge
Lesson-5 Principles of Inheritance and Variation	Q.11. How is sex determined in human beings?	PGU	Knowledge
Lesson-8 Human Health and Diseases	Q.7. The following are some well-know abbreviations, which have used in this chapter. Expand each one to its full form: (a) AIDS (b) NACO (c) HIV	HIV and AIDS	Knowledge
	Q.10. What are the various routes by which transmission of HIV takes place?	HIV and AIDS	Knowledge
	Q.11. What is the mechanism by which the AIDS virus causes deficiency of immune system of the infected person?	HIV and AIDS	Knowledge
	Q.14. List the harmful effects caused by alcohol/drug abuse.	DA	Knowledge
	Q.15. Do you think that friends can influence one to take alcohol/drugs? If yes, how may one protect himself/herself from such an influence?	DA	Critical Thinking
	Q.16. Why is that once a person starts taking alcohol or drugs, it is difficult to get rid of this habit? Discuss it with your teacher.	DA	Critical Thinking
	Q.17. In your view what motivates youngsters to take to alcohol or drugs and how can this be avoided? (Pages.164)	DA	Critical Thinking
Lesson-13 Organisms and Populations	Q.5. List the attributes that populations but not individuals posses.	SD	Knowledge
	Q.6. If a population growing exponentially double in size in 3 years, what is the intrinsic rate of increase (r) of the population?	SD	Knowledge
	Q.18. List any three important characteristic of a population and explain. (Pages.139-140)	SD	Knowledge

Lesson – 16 Environmental Issues	Q.2. List all the wastes that you generate, at home, school or during your trips to other places could you very easily reduce? Which would be difficult or rather impossible to reduce?	SD	Knowledge
	Q.3. Discuss the causes and effects of global warming. What measures need to be taken to control global warming?	SD	Critical Thinking
	Q.7. Discuss the role of women and communities in protection and conservation of forests.	SD	Critical Thinking
	Q.8. What measures, as an individual, you would take to reduce environmental pollution?	SD	Knowledge
	Q.10. What initiatives were taken for reducing vehicular air pollution in Delhi? Has air quality improved in Delhi?	SD	Knowledge
	Q.11. Discuss briefly the following? (a) Greenhouse gases.(Pages.286)	SD	Knowledge

The number of exercises increases as a number of subjects increased at the higher secondary stage. Most of the exercises included in different lessons of different subject areas are related to sustainable development. In Class XI, Economics covered exercises related to sustainable development, urbanization and migration, education and health only. In the textbook of Sociology for Class XI and XII, area related to sustainable development has been covered. There is only one exercise related to challenges of urban area. The other areas are conspicuous by absence. In Political Science for Class XI, the focus in three exercises has been on gender equity and equality and sustainable development only. The textbooks of Geography both in Class XI and XII have large number of exercises, but the focus is on two major areas i.e. on demographic profile and urbanization and migration. The subject of Psychology do focus on exercises related to general health, drug abuse, process of growing up, reproductive health, HIV and AIDS. In the subject of Biology, the areas covered are related to adolescents' reproductive and sexual health including HIV and AIDS and Drug Abuse. The overall analysis shows that at the higher secondary stage, areas like family, its roles and responsibilities, health and education could not find much space. Even the coverage given to general issues is also minimum. Most of the exercises focus on critical thinking only.



Policy Perspective In School Education

Population Education has attained a notable acceptability in the Indian school system. The most significant achievements in this context have been its inclusion in the “National Policy on Education 1986 modified in 1992” and “National Curriculum Frameworks of Education”. Below are given the excerpts from both the documents related to Population Education.

6.1 National Policy on Education 1986, (With Modification Undertaken In 1992)

“The National System of Education will be based on a national curricular framework which contains a common core along with other components that are flexible. The common core will include the history of India’s freedom movement, the constitutional obligations and other content essential to nurture national identity. These elements will cut across subject areas and will be designed to promote values such as India’s common cultural heritage, egalitarianism, democracy and secularism, equality of the sexes, protection of the environment, removal of social barriers, observance of the small family norm and inculcation of the scientific temper. All educational programmes will be carried on in strict conformity with secular values.” (Para 3.4, pages.6.)

6.2 Education For Women’s Equality

Education will be used as an agent of basic change in the status of woman. In order to neutralize the accumulated distortions of the past, there will be a well-conceived edge in favour of women. The formal approach, of equality of treatment, in terms of equal access or equal representation for girls, is inadequate. Today, there is a need to adopt a substantive approach, towards equality of outcome, where diversity, difference and disadvantage are taken into account.

We need to recognize that rights and choices in themselves cannot be exercised until central human capabilities are fulfilled. Thus, in order to make it possible for marginalized learners, and especially girls, to claim their rights as well as play an active role in shaping collective life, education must empower them to overcome the disadvantages of unequal socialization and enable them to develop their capabilities of becoming autonomous and equal citizens. (Para 1.4, page 6)

Thus, girls belonging to SC and ST communities among the rural and urban poor and the disadvantaged sections of religious and other ethnic minorities are educationally most vulnerable. In urban locations and many villages, the school system itself is stratified and provides children with strikingly different educational experience. Unequal gender relations not only perpetuate domination but also create anxieties and stunt the freedom of both boys and girls to develop their human capacities to their fullest. It is in the interest of all to liberate human being from existing inequalities of gender. (1.6 Para, page 9)

The National Education System will play a positive, interventionist role in the empowerment of women. It will foster the development of new values through redesigned curricular, textbooks, the training and orientation of teachers, decision-makers and administrators, and the active involvement of educational institutions. This will be an act of faith and social engineering. Women's studies will be promoted as a part of various courses and educational institutions encouraged to take up active programmes to further women's development (Para 4.2, page 10).

The removal of women's illiteracy and obstacles inhibiting their access to, and retention in, elementary education will receive overriding priority, through provision of special support services, setting of time targets, and effective monitoring. Major emphasis will be laid on women's participation in vocational, technical and professional education at different levels. The policy of non-discrimination will be pursued vigorously to eliminate sex stereo-typing in vocational and professional courses and to promote women's participation in non-traditional occupations, as well as in existing and emergent technologies (Para 4.3 page 10).

This is all the more critical for children from underprivileged backgrounds, especially girls, as the worlds they inhabit and their realities are underrepresented in school knowledge. There is similar stereotype regarding girls, which encourages the belief that they are not interested in playing games, or in mathematics and science. These perceptions are grounded in the notion that inferiority and inequality are inherent in gender, caste and physical and intellectual disability. (Para 2.4.5, page 23) Gender concerns need to be addressed in terms of making the perspectives of women integral to the discussion of any historical event and contemporary concerns. This requires an epistemic shift from the patriarchal preconceptions that inform much of the social studies at present (Para 3.4.1, page 51)

Since involvement of the participants of the literacy campaigns in the development programmes is of crucial importance, the National Literacy Mission will be geared to the national goals such as alleviation of poverty, national

integration, environmental conservation, observance of the small family norm, promotion of women's equality, universalization of primary education, basic health-care, etc. It will also facilitate energization of the cultural creativity of the people and their active participation in development processes (Para 4.12 page 15).

6.3 National Population Policy, 2000

Goal – Population stabilization at a level consistent with the requirements of sustainable economic growth, social development and environmental protection.

- Mention of adolescents in information, nutrition, contraceptive use, STDs and other population related issues.
- Adolescents recognized as an under-served population group with special sexual and reproductive health needs. Critical role of adolescents in population stabilization recognized.
- Health package for adolescents recommended as operational strategy but bit spelt out.
- Problem of early marriage, teenage pregnancy and spacing addressed. Recommendations for enforcing the Child Marriage Restraint Act in order to reduce teenage pregnancies. Promotional and motivational measures considered for couples below the poverty line which marry after the legal age of marriage.
- Problem of social injustice and gender discrimination recognized. Need for higher retention of girls in schools emphasized.
- Marginalized adolescent groups prioritized in terms of geographical location and reach of service.

6.4 National Aids Prevention And Control Policy, 2000

Goal – Prevent the epidemic from spreading and reduce the impact of the epidemic not only upon the infected persons but also upon the health and socio-economic status of the general population at all levels.

- Covers a wide range of 18-40 years. Street children and sex workers identified as vulnerable groups.
- Risks to adolescents identified and harm minimization approach involving education and services recommended.
- Peer education as a strategy advocated. Specially packaged programmes for students, out-of schools youth and sexual partners of migrant workers recommended. HIV/AIDS to be included in Population Education.

- Widespread abuse of human rights and discrimination against people living with HIV/AIDS recognized. Measures for adopting a rights-based approach recommended.
- 6.5 National Health Policy, 2002
- Goal – Provision for an acceptable standard of good health amongst the general population of the country through equitable access to health services.
- Female adolescents are not identified separately but grouped with children and pregnant women within Maternal and Child Health services.
- Nutritional needs of adolescent girls recognized.
- Need for health and population education recognized.
- Priority to school health programmes aimed at preventive health education, health check-ups and promotion of health seeking behavior.
- Efforts of bringing about behavioral changes to prevent HIV/AIDS and other life-style diseases.

6.6 National Youth Policy, 2003

The National Youth Policy has identified five areas of focus related to health: (i) general health; (ii) mental health; (iii) spiritual health; (iv) HIV/AIDS, sexually transmitted diseases, substance abuse; and (v) population education. General health focuses on nutrition, iron deficiency, anaemia, hygiene and sanitation, and physical exercises. For mental health, the policy advocates a system of education enabling young people to face the challenges of life and establishment of state-sponsored and free counseling services. Spiritual health through yoga and meditation has been recommended. Recognizing the vulnerability of adolescents to high-risk behavior affecting their reproductive and sexual health, education and health services have been stressed. The need of delaying age of marriage and understanding responsibility in checking the high rate population growth through responsible sexual behavior emphasized in population education.

Goal – Galvanize the youth to rise up to the new challenges, keeping in view the global scenario and motivating them to be active and committed participants in the exciting task of national development.

- Youth in the age group of 13-35 years covered with sub-groups 13-19 years (adolescents) and 20-35 years.
- Active participation of youth, including adolescents, visualized at all levels.
- Youth empowerment recommended through education, nutrition, leadership development and equality of opportunity.

- Iner-sectoral approach considered pre-requisite for dealing with youth-related issues.
- Gender justice recommended through education, access to services including reproductive health and decision-making process to productive resources and economic opportunities.
- State-sponsored and free counseling services for youth, particularly adolescents, recommended. Establishment of adolescent clinics in large hospitals, proposed.
- For HIV/AIDS, two pronged approach of education and awareness for prevention and proper treatment and counseling for cure and rehabilitation.
- Peer education strategy proposed for promoting health services. Role of young people as “Health Promoters” has been envisioned.
- National and State Youth Centre proposed to prove young people a common platform to express their opinions.

MINISTRY OF HUMAN RESOURCE DEVELOPMENT

7.1 National Policy On Education, 1986 (As Modified In 1992)

Goal – Equalizing education opportunities in the age group of 15-35 years, free and compulsory elementary education for all children up to 14 years of age, and functional literacy to adult illiterates.

- Supportive services to ensure girls receive elementary education and adolescents receive non-formal education are proposed.
- Visualizing education as a tool in promoting women’s empowerment.
- Role of adolescents in population stabilization and parenthood are recognized.

7.2 National Policy For The Empowerment Of Women, 2001

Goal – Advancement, Development and Empowerment of Women.

- Adolescent girls identified as a vulnerable group.
- Inequities recognized at the macro and micro level. Gender discrimination acknowledged.
- Including the adolescent girls within the ambit of ICDS proposed for a safe motherhood status.
- Mechanism for Nutritional Surveillance through National Nutrition Monitoring Bureau (NNMB) advocated.
- Need for tackling cycle of poverty recognized for education and improved

health status.

- Importance of education for social empowerment recognized.
- Gender-based violence recognized as a contributing cause requiring legal action.
- Early marriage recognized as a problem of infant and maternal mortality.
- Removal of gender stereotypes encouraged through media.

PROGRAMMES IMPLEMENTED BY THE GOVERNMENT

MINISTRY OF YOUTH AFFAIRS AND SPORTS

8.1 Youth Affairs Schemes

Scheme for Promoting National Integration seeks to provide a common platform to the youth from different parts of the country and from diverse religious and cultural background to interact with each other and become aware of the underlying unity amidst diversity. Other schemes are for promoting youth activities and training; promotion of adventure; Scouts and Guides; Youth hostels; National Service Volunteer Scheme; Assistance to Rural Youth and Sports clubs; awards to outstanding clubs, Indira Gandhi NSS awards And Youth Development Centers.

8.2 Sports Schemes

There are about twenty-one schemes under Sports schemes. Some of the schemes are designed to select physically fit children and adolescents and groom them to excel in sports.

8.3 National Service Scheme

Popularly known as NSS, National Service Scheme has over 3.2 million student volunteers spread over 200 universities and 41 (+2) senior secondary schools. NSS has two types of programmes: Regular Activities and Special Camping Programmes undertaken by its volunteers. Under Regular Activities, students are expected to work as volunteers for a continuous period of two years, rendering community service for a minimum of 120 hours per annum. The activities include improvement of campuses, tree plantation, constructive work in adopted villages and slums; work in welfare institutions, blood donation, adult and non-formal education, health, nutrition, family welfare, and AIDS awareness campaigns. Under Special Camping Programme, a 10-day camp is conducted every year in the adopted villages/areas on specific themes like Youth for Forestation and Tree Plantation, Youth for Mass Literacy, and Youth for Rural Reconstruction.

8.4 Nehru Yuva Kendra Sangathan

Nehru Yuva Kendra Sangathan (NYKS) is an autonomous organization of the Department of Sports and Youth Affairs, with its offices in nearly all the districts of India. NYKS is the largest grassroots level apolitical organization in the world, catering to the needs of more than 8 million non-student rural youth from nearly 500 districts from across the country. NYKS works in the areas of community mobilization of adolescents and youth for the overall development and active participation in nation building. Social messages are imparted using local folk art and culture of rural India through nukkad natak, skits, one-act plays, folk dances, folk songs and puppetry. Projects and programmes are taken up in collaboration with other ministries, international agencies in the field of self employment, HIV/AIDS, reproductive health, volunteerism, disaster management with active participation of youth people through youth clubs and Mahila Mandals.

8.5 Scheme Of Financial Assistance For Development And Empowerment Of Adolescents

Started in 2004, the scheme aims at providing financial assistance to organizations for the development and empowerment of adolescents. It hopes to stimulate action for adolescents from the economically and socially neglected sections of society. The objectives of the scheme are: to build and develop an environment which recognizes the special needs of adolescents and provides for adolescent –friendly services; and to sensitize stakeholders – parents, teachers, government functionaries, media, community, youth – about the needs and problems of adolescents through sustained awareness building and advocacy. Main elements of the scheme comprise of – environment building, life skills education, counseling, career guidance and meals, research and technical resource development.

MINISTRY OF HEALTH AND FAMILY WELFARE

9.1 Reproductive and Child Health (RCH) Programme

This programme in its second phase (2005-2010), is an integrated programme that combines family welfare, women and child health services. A two-pronged strategy will be supported for adolescents under the RCH 2. Strategy one falls within the overall scope of the RCH 2 programme in all the states. The Department of family Welfare will incorporate adolescents issues in all the RCH training programmes and all RCH materials developed for communication and behavioral change.

Strategy Two will be implemented in selected districts. The aim would be to reorganize existing services in order to increase friendliness of services towards young people to improve access and utilization. This strategy will require the Department of Family welfare to undertake special efforts to reorganize services at the primary health centre on dedicated days and dedicated timings for adolescents.

9.2 National AIDS Control programme

A number of initiatives have been taken up by the National AIDS Control Organization (NACO) to provide information on HIV/AIDS transmission and prevention to in- school and out-of-school adolescents:

- A toll free National AIDS Telephone Helpline has been set up to provide access to information and counseling on HIV/AIDS related issues.
- Schools AIDS Education programme focuses on raising awareness levels, helping students resist peer pressure and developing a safe and responsible lifestyle.
- Through Media also awareness have been created about HIV/AIDS transmission & prevention ex-through, advertisement in Television, radio, newspapers, posters etc.

MINISTRY OF HUMAN RESOURCE DEVELOPMENT

10.1 Department Of Women And Child Development (DWCD)

- **Kishori Shakti Yojana** – This Scheme for development of the adolescent girls is implemented as a part of the Integrated Child Development Services extends the coverage of the existing Adolescents Girl’s Scheme by enriching the content and strengthening the training content, especially in skill development aspects. Convergence with sectoral programmes is envisaged.
- **Swashakti** – This rural women’ development and empowerment project of the DWCD works through Self-Help Groups. The target group also covers adolescent girls in the age group of 15-19 years.
- **Swadhar Scheme** – This Scheme addresses specific vulnerability of women in difficult circumstances through a home-based and integrated approach that helps trafficked girls to find alternative sources of livelihood.
- **Swayamsidha** – Aims at holistic empowerment of women through awareness generation, economic empowerment & convergence of various schemes.

- **Ujjawala** – A comprehensive scheme for prevention of trafficking & rescue, Rehabilitation & Reintegration of victims of trafficking & commercial sexual exploitation.
- **Laadli** – The Ministry of Women & Child Development, Government. of NCT of Delhi launched in Delhi Laadli scheme in 2008. It deals with sensitive yet crucial issue of protection of girl child, incentives were provided for the girl child whose parents income didn't exceed Rs. 1, 00,000 per annum.

10.2 Department Of Elementary Education And Literacy

- **Sarva Shiksha Abhiyan** – This movement aims to provide useful and relevant elementary education to all children in the 6 to 14 years age group by 2010. Another goal is to bridge social, regional and gender gaps, with the active participation of the community in the management of schools.
- **National Programme for the Education of Girls at the Elementary Level (NPEGEL) and Kasturba Gandhi Swatantra Vidyalaya (KGSV)** builds special schools for girls in areas with low female literacy.
- **Mahila Samakhya programme** – This is a women's and girl's empowerment project in ten states which helps to create an environment to seek knowledge and information in order to make informed choices and create circumstances in which they learn at their own pace and rhythm.
- **National Population Education Project (NPEP)** – In the Xth five Year Plan, Population Education is being supported under the Quality Improvement Scheme (QIS) of the government. ARSH project using life skills approach – on a pilot basis, six agencies namely, Council of Board of School Education (COBSE), National Council of Educational Research and Training (NCERT), Central Board of Secondary Education (CBSE), Navodalaya Vidyalaya Samiti (NVS), Kendriya Vidyalaya Samiti (KVS) and National Institute of Open Learning (NIOS) are implementing a project supported by UNFPA, to increase students access to Adolescent Reproductive and Sexual Health (ARSH) related knowledge using life skills approach.
- **National Adolescence Education Programme** – The Department of Education and the National AIDS Control Organization (NACO) will be implementing a programme for preventing HIV infections among young people and reducing social vulnerability to the infection. Focus is also on sexual and reproductive health and life skills, UNICEF and UNFPA are partners in this programme.

NCERT MATERIALS ON POPULATION EDUCATION

Whereas the textbooks were content analyzed, it could not be done in respect of textbooks published by NCERT. It is pertinent to note that altogether a new generation of textbooks as a follow up of the National Curriculum Framework (NCF) 2005 is being developed by NCERT. It would be appropriate, therefore to content analyze the textbooks only when all of those are brought out by NCERT. However, the NCF 2005 and syllabi of all subjects, developed by NCERT were content analyzed.

NATIONAL CURRICULUM FOR ELEMENTARY AND SECONDARY EDUCATION 1988 - A FRAMEWORK

12.1 Protection of the Environment and Conservation of Natural Resources

The emergence of new technological choices and living styles witnessed during the last century has led to environmental degradation and vast imbalances between the advantaged and the disadvantaged. It has become imperative now more than ever before to nurture and preserve the environment. Education can provide the necessary perspective on how human life can be reconciled with the crisis of the environment so that survival, growth and development remain possible. The National Policy on Education, 1986, emphasized the need to create awareness of environmental concerns by integrating it in the educational process at all stages of education and for all sections of society. (Para 1.4, page 6)

The indiscriminate destruction of the environment and the use of the environmental resources, especially the non-renewable resources in nature by man have been upsetting the earth's ecological balance. Unfortunately, even some ambitious national developmental programmes, when not based on careful consideration of their consequences in terms of the ecology in the long run, may become sources of serious hazards for the ecological balance. There is urgent need of tapping new alternative sources of energy and development of new technology aimed at the protection of environment. This brings into focus the paramount need to create consciousness of the environment among all sections of the society. The school curriculum, therefore, should attempt to create a commitment on the part of pupils to protect the environment and conserve nature and its resources so that the ecological balances, especially the balance between man and nature, could be maintained and preserved. It should also promote an awareness of the need of counter pollution, whether caused by affluence or poverty, and of the impending energy crisis due to the ever increasing consumption of fuels available in nature and the exhaustion of these fuels at an alarming rapid rate. The school curriculum should highlight

the measures for protection and care of the environment, prevention of pollution and conservation of energy. It should also highlight the inter-dependence between the material environment and the plant and animal (including human) life for survival, growth and development. The significance of renewable and non-conventional energy resources should also form an important component of the curriculum (Para 1.2.16).

As human beings' control over the environment has increased, and as people has begun to mould the world more and more to suit their needs, this component of knowledge has diminished so much that today formal education has become largely alienated from the habitat of the students. But as environmental degradation proceeds at an unprecedented pace, we are beginning to realize the importance of taking good care of our habitat. Humankind must, therefore, make an attempt to comprehend its roots, to re-establish links with its habitat, and to understand and take good care of it. In substance and spirit, then the theme 'Habitat and Learning' is equivalent to environmental education.

These significant concerns are best realized by infusing the components of environmental education as part of different disciplines while ensuring that adequate time is earmarked for pertinent activities. This approach can be meaningfully employed in the treatment of content in Physics, Mathematics Chemistry, Biology, Geography, History, Political Science, Health and Physical education. Art, Music etc. (Para 3.9 page 64)

12.2 Observance of Small Family Norm

The nation is deeply concerned about the disquieting rate of population growth and its consequences for the individual, society and its economy. Though the complexity of the problem needs a multi-pronged strategy, the school curriculum in particular has an important role to play in making the pupils aware of the problems caused by the rapid increase of population and of the various measures, such as observance of small family norm required for tackling them. In the context of the increasing emphasis on human resource development, population education components appropriate to the pupils of different age-groups need to be reflected in the curriculum at different stages of school education. These components could be integrated with topics and units in all subject areas. Environmental education, energy management and population education are to be seen as complementary to one another and they should be adequately reflected in the curriculum (Para 1.2.18).

- Knowledge, attitudes and habits are necessary for keeping physically fit and strong in conformity with normal developmental pattern.
- A proper understanding about the role and importance of sex in human

life, and healthy attitude towards sex and members of opposite sex.

- Qualities that make a man socially effective and happy in various social settings such as friendliness, cooperativeness, compassion, self-discipline, self-criticism, self-control, humour, courage, love for social justice, self-control, etc.
- Ability to appreciate & discover beauty in various life situations and integrate into one's own personality. Understanding of the environment and its limited resources and the need for conservation of natural resources and energy.
- Appreciation of various consequences of large families and over population and need of checking population growth.

Scientific temper characterized by spirit of inquiry, courage of question and objectivity, leading to elimination of obscurantism, superstition and fatalism. (para 2.4.1).

With regard to the common core components in the school curriculum and the related values, the most valuable contribution that mathematics should make directly is towards the inculcation of the scientific temper through the development of analytical thinking and reasoning. It would be necessary that the content and language of problems and questions included in mathematics books are so carefully designed as to highlight or at least not to contradict other core components like equality of sexes, protection of environment, removal of social barriers, observance of small family norms, etc. (para 2.6.2, page 24).

In the study of the natural environment, emphasis will be on its preservation and the urgency of saving it from degradation. (Para 3.4.2, page 52)

12.3 The National Curriculum Framework for School Education, 2000

It Reflects Population education still more comprehensibly. It incorporates various components of Population Education, Adolescence Education, AIDS education, Life Skills Education, Environment Education and Gender Equality in different sections. This document also stipulates two specific population education objectives in its component on General Objectives of Education: "... Appreciation of various consequences of large families and over population and need of checking population growth." "Cultivating proper understanding of and attitude toward healthy sex related issues and respectful attitude toward members of the opposite sex."

NATIONAL CURRICULUM FRAMEWORK - 2005

The National Curriculum Framework (NCF) 2005 developed by the National Council of Educational Research and Training, approved by the Central Advisory Board on Education (CABE) is a policy document that influences all aspects of school education. The institutionalization of any educational innovation is facilitated if it is reflected in the National Framework. Elements of Population Education have been reflected in the earlier National Curriculum Framework developed in 1988 and again in 2000. However the present National Curriculum Framework, 2005, provides a considerably comprehensive coverage to various elements of Population Education in its different sections.

It is pertinent to note that the National Curriculum Framework (NCF) 2005 registers a paradigm shift in school curriculum that facilitates the integration of Population Education elements in the content and process of school education. The main objectives of Population Education is to empower an understanding of the criticality of essential conditions of population stabilization for better quality of life of present and future generations, to empower adolescents especially in respect of their reproductive and sexually health concerns and to develop the abilities to apply life skills to manage these concerns and avoid risk situations completely. This objective can be realized more effectively by adopting the approach advocated in the NCF, 2005, rather than making separate modular interventions. The specific stipulations made in the National Curriculum Framework (NCF) 2005, therefore, will facilitate the integration of Adolescence Education elements in the school curriculum, these under the following sections of NCF, 2005, are worth noting:

13.1 Period of Adolescence

Under the sub-heading Development and Learning the Framework states the following :

“The period from infancy to adolescence is one of the rapid growth and change. The curriculum must have a holistic approach to learning the development that is able to see the interconnections and transcend divisions between physical and mental development, and between individual development and interaction with others.” (page.14)

“Adolescence is a critical period for the development of self-identity. The process of acquiring a sense of self is linked to physiological changes, and also learning to negotiate the social and psychological demands of being young adults. Responsible handling of issues like independence, intimacy and peer group dependence are concerns that need to be recognized, and appropriate support be given to cope with them. The physical space of the outside world, one's access

to it, and free movement influence the construction of the self. This is of special significance in case of girls who are often constrained by social conventions to stay indoors. These very conventions promote the opposite stereotype for boys, which associates them with the out doors and physical process. These stereotypes get especially heightened as a result of biological maturational changes during adolescence. These physiological changes have ramifications in the psychological and social aspects of and adolescent's life. Most adolescents deal with these changes without full knowledge and understanding, which could make them vulnerable to risky situations like sexually transmitted diseases, sexual abuse, HIV/AIDS and drug and substance abuse”.

“It is the time when the given and internalized norms and ideas are questioned, while at the same time the opinions of the peer group become very important. It is important to recognize that adolescents need social and emotional support that may require reinforcement of norms of positive behavior, acquisition of skills essential to cope with the risky situations that they encounter in their lives, manage peer pressure and deal with gender stereotypes. The absence of such support can lead to confusion and misunderstanding about these changes, and affect their academic and extracurricular activities.” (Para 2.3.3, page16)

The document further mentions the concerns “related to social aspects of changes and developments occurring in them during adolescence like changing relationships with parents, peer group, the opposite sex and the adult world in general, need to be addressed appropriately. The responses to the health needs of children and adolescents/youth through policies and programmes at different levels are closely related elements of these concerns.” (page. 51)

During adolescence like changing relationships with parents, peer group, the opposite sex and the adult world in general, need to be addressed appropriately. The responses to the health needs of children and adolescents/youth through policies and programmes at different levels are closely related elements of these concerns (Para 3.4.1, page 51)

There is growing realization that the health needs of adolescents, particularly their reproductive and sexual health needs, require to be addressed. Since these needs predominantly relate to sex and sexuality, which is culturally a very sensitive area, they are deprived of opportunities to get the appropriate information. As such, their understanding of reproductive and sexual health and their behavior in this regard are guided predominantly by myths and misconceptions, making them vulnerable to risky situations, such as drug/substance abuse and HIV/AIDS transmission. Age-appropriate context-specific interventions focused on adolescent reproductive and sexual health concerns, including HIV/AIDS and drug/substance abuse, therefore, are needed to

provide children opportunities to construct knowledge and acquire life skills, so that they cope with concerns related to the process of growing up, health and disease, and the interdependencies between various living organisms and the physical habitat. The social sciences could provide insights into community health as well as an understanding of the spread, control and cure of infectious diseases from a global socio- economic perspective. This subject lends itself to applied learning, and innovative approaches can be adopted for transacting the curriculum. (Para 3.4.2, page 57)

Several national health programmes like Reproductive and Child Health, HIV/AIDS, Tuberculosis and Mental Health have been targeting children as a focus group with prevention in view.

“The ‘needs-based approach’ could guide the dimensions of the physical, psychological and mental aspects that need to be included at different levels of schooling. A basic understanding of the concerns is necessary, but the more important dimension is that of experience and development of health, skills and physical well being through practical engagement with play, exercise, sports, and practices of personal and community hygiene. Collective and individual responsibilities for health and community living need to be emphasized. Several national health programmes like Reproductive and Child Health, HIV/AIDS, Tuberculosis and Mental Health have been targeting children as a focus group with prevention in view. These demands on children need to be integrated into existing curricular activities rather than adding these on.” (Para 3.6.1, page 58)



APPENDIX - I

CORE IDEAS

The content of population education belong to the existing disciplines like Environmental studies, Science, Biology, Psychology, Geography, Social science, Sociology, Economic, Hindi and English. These contents may be treated in a variety of ways, but thwe contents and their treatment are expected to focus on the following core ideas categorised component-wise:

1. SUSTAINABLE DEVELOPMENT

CORE IDEAS

- 1.1 All activities of individuals, communities and countries are interrelated with population change, the pace and quality of social and economic development, patterns and levels of use of natural resources and the state of environment.
- 1.2 Population-related goals and policies are integral parts of social, cultural and economic development, the principal aim of which is to improve the quality of life of the people.
- 1.3 The need has been felt to opt for patterns of development that reflect new understanding of these and other inter-sectoral linkages.
- 1.4 Persistent wide spread poverty as well as serious social and gender inequities have significant influences on, and are in turn influenced by, demographic parameters such as population growth, structure and distribution.
- 1.5 The unsustainable consumption and production patterns are contributing to the unsustainable use of natural resources and environmental degradation as well as to the reinforcement of social inequities and of poverty.
- 1.6 Population concerns need to be integrated into all aspects of development planning, in order to promote social justice and to eradicate poverty through sustained economic growth in the context of sustainable development.
- 1.7 Sustainable development implies long-term sustainability in production and consumption relating to all economic activities including industry, energy, agriculture, forestry, fishery, transport, tourism and infrastructure, in order to optimize ecological sound source and minimize waste.

- 1.8 Sustainable development as a means to ensure human well being, equitably shared by all people today and in the future, requires that the interrelationships between population, resources, environment and development should be fully realized, properly managed and brought into harmonious, dynamic balance.
- 1.9 In order to achieve sustainable development and a higher quality of life for all people, it is essential to reduce and eliminate unsustainable patterns of production and consumption and promote policies in order to meet the needs of current generations without compromising the ability of future generations to meet their own needs.

CONTENT

- A. Population Growth and Structure:** Implications for Population Stabilization : Population Growth, Fertility, Mortality, Age and Sex Structure – Implications in terms of the interrelationships between population change and the pace and quality of economic and social development; Infants, Children, Youth Elderly People and Persons with disabilities - special needs and well-being in the context of population stabilization
- B. Population, Sustained Economic Growth and Poverty:** Integration of population issues in the development strategies- Interrelationship between eradication of poverty and population stabilization;
- C. Sustained Social Development:** Equal opportunities for males and females, gender equity for empowerment of women
- D. Sustained Environment Development:** Interrelationship between population development, natural resources, use of technology and quality of life – Socio- economic dimensions of sustainable development; Sustainable management of resources – Unsustainable pattern of production and consumption and their impact on environment; Environmental Pollution- Impact on health and quality of life; Use of technology in agriculture, industry and different aspects of life styles- Impact on the sustainability of resources and environmental degradation; Women and environmental issues- Interrelationships
- E. Sustained Individual Development:** Human resource development; access to opportunities of education, livelihood, health and reproductive health.

2. GENDER EQUALITY AND EQUITY FOR EMPOWERMENT OF WOMEN

CORE IDEAS

- 2.1 Gender equality and equity to empower women is a highly important end in itself. In addition it is an essential condition for the achievement of the goal of population stabilization and sustainable development.
- 2.2 Gender discrimination is socially and culturally constructed and influences all aspects of human life - the way individuals grow in the family, the schooling they receive, the health care services they use, the social, economic and political roles they play and the power and authority they command in different contexts.
- 2.3 Stereotyped gender roles created by society, nurtured by the social learning process, even by schools and transmitted from generation to generation result in perpetuation of the discrimination against women.
- 2.4 Females are considered to have less social worth, and their knowledge, their contributions to socio-economic development and their abilities and copying skills often go unrecognized.
- 2.5 Women are denied equal participation in the decision-making process at all levels including in respect of their own reproductive health and reproductive rights.
- 2.6 There is a need to ensure equality and equity based on harmonious partnership between men and women to enable women to realize their potential.
- 2.7 Involvement of women in decision-making processes at all stages and their participation in all aspects of development and human life will enhance their contributions to attaining the goals of population stabilization and sustainable development.
- 2.8 Empowerment of women depends on ensuring them adequate opportunities for education, health care, employment, income generation, improvement in quality of life and attainment of healthy and fulfilling lives – both personal and public.
- 2.9 It is essential to eliminate all forms of discrimination against the girl child and the root cause of son preference, which results in harmful and unethical practices, such as female infanticide and prenatal sex selection. Equally important is to realize the value of the girl child, strengthen its self-image, self-esteem and status and improve its welfare, especially in regard to health, nutrition and education.

- 2.10 Men have to play key role in bringing about gender equality, as they exercise preponderant power in nearly every sphere of life. They should realize the significance of equal partnership between men and women, shared responsibilities, responsible parenthood and their sexual and reproductive behavior, including mother and child care.

CONTENT

- A. Gender Equality and Equity:** Fulfillment of women's potential through health care, education, skill development, and ability to earn beyond traditional occupations, employment opportunities outside the household, and making them self-reliant; role-stereotypes and the social worth of women; discrimination / violence against women, participation of women in decision-making process.
- B. The Girl Child:** Need for change in the perception of the social worth of the girl child; health care, education; role-stereotypes and discrimination within the family and society.
- C. Male Responsibilities:** Appreciation of the key role of males in bringing about gender equality; Shared parental responsibilities.

3. ADOLESCENT REPRODUCTIVE AND SEXUAL HEALTH

CORE IDEAS

- 3.1 Adolescence is a period of maturation from childhood to adulthood, the stage extending from puberty to attainment of reproductive maturity.
- 3.2 Adolescence is characterized by physical changes: development of secondary sexual characteristics; psychological changes: sex drive and attraction towards opposite sex, self-assertion and independence, reasoning; and social development: changing relationships with parents, opposite sex and peer group.
- 3.3 A sudden increase in the activity of pituitary glands leads to the production of sex hormones, progesterone and estrogen in females and testosterone in males at the threshold of the onset of puberty. These hormonal changes result in the growth and development during adolescence.
- 3.4 For managing the concerns of this stage of life, adolescents need education and counselling in the areas of reproductive health, gender relations and roles, responsible sexual behaviour, adolescent pregnancy, and pre-natal and post-natal care.
- 3.5 Health and nutritional needs, particularly reproductive health needs of adolescents are different from those of adults and the fulfillment of these needs of adolescents and especially those of adolescent girls are crucial.

- 3.6 Spread of HIV/AIDS is a critical concern. Since adolescents and youth constitute the most vulnerable group, they are to be well informed about the routes of HIV transmission, medical, economic and social implications, measures for prevention, Oral Retroviral Therapy, and individual and social responsibility.
- 3.7 Drug abuse is a fast growing menace among adolescents and youth. Generally they are pushed into it without giving proper thought to its consequences. Many of them experiment with it for various reasons including peer pressure. There are myths and misconceptions about drug abuse and there is general apathy towards drug users and addicts.

CONTENT

Adolescent Reproductive Health (Adolescence Education)

- A. Process of Growing Up:** Physical Development during adolescence: development of secondary sexual characteristics,; Psychological Development; Sex drive, Self image, Self assertion, Self concept and Self esteem; Socio-cultural development: Changing social relationships with parents, peer group and opposite sex, Gender Roles; Adolescent girls: Specific issues.
- B. HIV/AIDS:** Major routes of HIV transmission and its consequences, AIDS: medical, social, economic and interpersonal implications; Prevention and control; Social and individual responsibilities, care for the affected.
- C. Drug Abuse:** Types, factors for drug abuse, Drug dependence; Consequences of drug abuse: Personal and social; Prevention/Cure: medical de-addiction, rehabilitation, Personal and social responsibility.

4. FAMILY: CHANGING STRUCTURE AND ROLES

CORE IDEAS

- 4.1 Family is the basic unit of society but it has various forms in different social, cultural, economic and legal systems.
- 4.2 Marriage a very important social institution has been one of the key bases of family formation.
- 4.3 The process of rapid demographic and socio-economic change throughout the world has influenced patterns of family formation and family life, generating considerable change in family composition and structure.
- 4.4 Increasing decline in the extended family support and the changing family size have influenced the parental roles.
- 4.5 There is a change in the traditional roles of the family and also in the gender based division of parental and domestic functions and participation in labour

- force as rapidly increasing number of women are taking up employment outside home.
- 4.6 There is a need to promote social environment against domestic and sexual violence, dowry, child abuse and reinforce the role of the family for the care of old and handicapped members.
 - 4.7 There should be greater focus on shared roles and responsibilities of members of the family, equal opportunity for all the members, especially promoting participation of women in the decision-making in the family.

CONTENT

- A. Family as Basic Unit of Society:** Importance of institutions of marriage and family; Impact of rapid demographic change and socio-economic development on patterns of family composition and structure and family life.
- B. Socio-Economic Support to the Family:** Basic needs: housing, food, clothes, health, education, social security and work; Need to promote the needed changes in the traditional gender based division of domestic functions and social environment against domestic and sexual violence; Care of old and handicapped members.

5. HEALTH AND NUTRITION

CORE IDEAS

- 5.1 In spite of notable achievements in life expectancy, there are nations and sizeable population groups within many countries that are still subject to very high rates of morbidity and mortality.
- 5.2 Large segments of many populations continue to lack access to clean water and sanitation facilities and lack adequate nutrition.
- 5.3 Whereas large numbers of people remain at continued risk of infectious, parasitic and water-borne diseases, the health effects of environmental degradation and exposure to hazardous substances in the work place have increasingly been a cause of concern in many countries.
- 5.4 The mortality of children under age 5 exhibits significant variations between and within regions and countries.
- 5.5 Poverty, mal-nutrition, a decline in breast-feeding, and inadequacy or lack of sanitation and of health facilities are factors associated with high infant and child mortality.
- 5.6 Complications related to pregnancy and child birth are among the leading causes of mortality for women of reproductive age.

- 5.7 The age at which women begin or stop child bearing, the interval between each birth, the total number of life time pregnancies and the socio-cultural and economic circumstances in which women live, influence maternal morbidity and mortality.
- 5.8 AIDS pandemic has grave demographic and developmental (socio-cultural and economic) implications.
- 5.9 There is a need to increase the accessibility, availability, acceptability and affordability of health care services to all people.
- 5.10 The health and nutritional status of infants, children and adolescents requires serious attention, with particular attention to eliminating the preventable mortality among girl infants and children.
- 5.11 There is a need to promote women's health, safe motherhood and nutritional status of women with a view to achieving rapid and substantial reduction in maternal morbidity and mortality.
- 5.12 The spread and impact of HIV infection need to be minimized by increasing the awareness of the ways of HIV transmission and its disastrous consequences and by ensuring adequate medical and social care of HIV infected persons.

CONTENT

- A. Health, Morbidity and Mortality:** Interrelationship between health, morbidity and mortality, population change and quality of life.
- B. Child Survival:** Linkages between child survival and timing, spacing, number of births and reproductive health of mothers.
- C. Health of Women and Safe Motherhood:** Health of women as a key factor for the quality of life in family and society.

6. EDUCATION – A KEY DETERMINANT OF POPULATION CHANGE

CORE IDEAS

- 6.1 Education is a key to sustainable development. It has three specific roles: it is a factor in the development of well-being through its links with demographic as well as socio-economic factors; it is an effective means to create awareness and to build an enabling social ambience; and it is an instrument to inculcate positive attitude and develop needed coping skills and responsible behavior in individuals.
- 6.2 The relationship between education and demographic and social change is of interdependence. The reduction of fertility, morbidity and mortality rates, the empowerment of women, the improvement in the quality of working population are largely assisted by progress in education.

- 6.3 The increase in the education of women and girls in particular contribute to greater empowerment of women, postponement of the age of marriage reduction in infant and child mortality and smaller size of families.
- 6.4 Education is an indispensable tool for the improvement of quality of life of people. However, it is more difficult to meet educational needs when there is rapid population growth.
- 6.5 Lack of basic education and low level of literacy of adults continue to inhibit the development process in every area. Steps are needed to ensure universal access to elementary education to both girls and boys.
- 6.6 Universal access to quality education, with particular priority to primary education and job training, removal of illiteracy and elimination of gender disparities in access to, retention in and support for education are critical for the attaining the goal of population stabilization.
- 6.7 There is a need to introduce and improve the curriculum to promote greater awareness on and positive attitude and responsibility in respect of the interrelationships between population and sustainable development, gender equity and health issues including reproductive health.

CONTENT

- A. Education, Population and Development:** Education as a factor influencing fertility, morbidity, mortality, migration and family size; Relationship between education of women and girls, age of marriage, mobility of women, infant and child mortality, maternal mortality, reproductive health.
- B. Universal Access to Education:** Eradication of illiteracy – a prerequisite for human development, efforts for achieving the goal of education for all and equal access to education for men and women.

7. POPULATION DISTRIBUTION: URBANIZATION AND MIGRATION

CORE IDEAS

- 7.1 Population distribution has been a key issue for many developing nations. Besides the regional variations in regional distribution of population, the rapid growth of urban areas has been a matter of great concern.
- 7.2 The patterns of population distribution are considered unsatisfactory by most of the developing countries and they want to modify them.
- 7.3 Steps are needed to foster a more balanced spatial distribution of population by promoting equitable and ecologically sustainable development of all regions and also of urban and rural areas.

- 7.4 The process of urbanization is an intrinsic dimension of economic and social development and, in consequence, countries are going through the process of shifting from predominantly rural to predominantly urban societies.
- 7.5 Rural to urban migration have been paid most attention although rural to rural and urban to urban migration are in fact the dominant forms of spatial mobility in many countries including India.
- 7.6 The alarming consequences of urbanization visible are related to its rapid pace to which governments have been unable to respond with their current management capacities and practices.
- 7.7 For individual, migration is promoted both by pull and push factors. At the same time, it has economic, social and environmental implications, both positive and negative, for the place of origin and destination.
- 7.8 There is need to reduce the role of push and pull factors and emphasis on the promotion of economic and social development, to increase the capacity and competence of managing urban development, safeguarding the environment and responding to the needs of all citizens including urban squatters.
- 7.9 Given the forced nature of movement of internally displaced persons, there is a need to offer adequate protection and assistance to them, particularly women, children and elderly, and also to address the root cause of their displacement.

CONTENT

- A. Population Distribution:** Population distribution & implications of regional variations; Interrelationship among patterns of population distribution, socio-economic development, environment and quality of life.
- B. Population Growth in Urban Agglomerations:** Continued concentration of population in primate cities/mega-cities and economic, social, civic and environmental challenges; Problems of urban slums
- C. Migration:** Causes of migration, especially related to poverty; Impact of migration on socio-economic development of rural areas
- D. Displaced Persons:** Major reasons for the phenomenon of internally displaced persons; Protection and assistance to them, particularly women, children, elderly and disabled.

**APPENDIX - II****Tools For Textbooks Analysis (Content)**

Subject _____

Class, Title of the Book & Year of Publication, Lesson No. (s)	Population Education/ Adolescence Education Content	Core Idea (Number)	Gaps	Life Skills Reflected

Tools For Textbooks Analysis (Question & Exercises)

Subject _____

Class, Title of the Book & Year of Publication, Lesson No. (s)	Questions/Exercises reflecting Population Education/ Adolescence Education Content	Exercises related to K/U/A	Gaps	Life Skills Reflected

APPENDIX - III

LIST OF PARTICIPANTS IN WORKSHOP ON CONTENT ANALYSIS OF SCHOOL TEXTBOOKS

WORKSHOP

Venue: Conference Room, 3rd Floor
Science Block, NCERT, New Delhi-16

S.No.	Name & Address	S.No.	Name & Address
1.	Smt. Savita Rani T.G.T (Hindi) K.V.J.N.U Campus NEW DELHI	14.	Shri S. B. Singh Coordinator S.I.E. Gangtok SIKKIM
2.	Ms. Kamta Prasad T.G.T. (Social Science) K.V.J.N.U Campus NEW DELHI	15.	Shri Sanjeev Kumar Sinha P.G.T (Geography) Kendriya Vidyalaya -1 Delhi Canntt.
3.	Mrs. Shraddha Dhewal DEPFE, NCERT NEW DELHI	16.	Ms Usha Dutta Department of Languages NCERT, New Delhi
4.	Shri Tripurari Prasad Singh P.G.T. (Geography) Jawahar Navodaya Vidhalaya Mungehspur, Bawana	17.	Shri N. Kohli Department of Languages NCERT, New Delhi
5.	Mrs. Indu Mehta T.G.T.(Science) K.V.J.N.U Campus NEW DELHI	18.	Shri Rakesh Kumar Meena Lecturer, DESSH NCERT, New Delhi

6.	Shri S. P. Singh P.G.T. (Biology) Kendriya Vidyalaya C-2 Area, Jankpuri New Delhi-58	19.	Mrs. Seema S. Ojha Sr. Lecturer DESSH, NCERT New Delhi
7.	Dr. Prem Saral Population Education Cell Karbala Market, B.K Dutt colony Delhi-110003	20.	Mrs. Tannu Malik Lecturer, DESSH NCERT, New Delhi
8.	Shri Darendra Kumar T.G.T. (Natural Science) JMSV, Sector-12 R.K. Puram, New Delhi	21.	Mrs. Ashita Raveendran Lecturer, DESSH NCERT, New Delhi
9.	Shri Narender Kumar T.G.T.(Economics) G.B.S.S School Sector-2, R.K. Puram New Delhi-110022	22.	Mrs. Manju Bhatt Reader, DESSH NCERT, New Delhi
10.	Shri M. P. Singh P.G.T (Hindi) G.B.S.S School Sector-II, R.K. Puram New Delhi	23.	Dr. Anjni Koul Reader, DESM, NCERT New Delhi
11.	Shri Ravi Yadav P.G.T (English) SBV Delhi Cantt New Delhi-110010	24.	Mrs. C. V. Shimray Lecturer, DESM NCERT, New Delhi
12.	Shri Dharmendra Singh P.G.T History K.V. Masjid Moth Sadiq Nagar, New Delhi-49	25.	Shri Suresh Chand P.G.T Biology GSV SBV No1 Sarojini Nagar NEW DELHI

13.	Dr. A. K. Sharma P.G.T (English) K.V.J.N.U Campus NEW DELHI	26.	Shri D. K. Aggarwal Ex. Project Officer PEC SIERT, 135 Indraprastha-B Sector 14, Udaipur RAJASTHAN
NCERT Faculty			
27.	Dr. (Mrs.) Saroj Yadav Professor & Coordinator NPEP, DESS NCERT, NEW DELHI	29.	Shri Harish Kumar Meena Lecturer NPEP, DESS NCERT, NEW DELHI
28.	Shri Bijaya Kumar Malik Lecturer NPEP, DESS NCERT, NEW DELHI		Ms. Shobha Saxena Project Fellow NPEP, DESS NCERT, NEW DELHI