

Women's Equality and Empowerment through Curriculum

*A Handbook for Teachers at
Primary Stage*



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

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Usha Nayar
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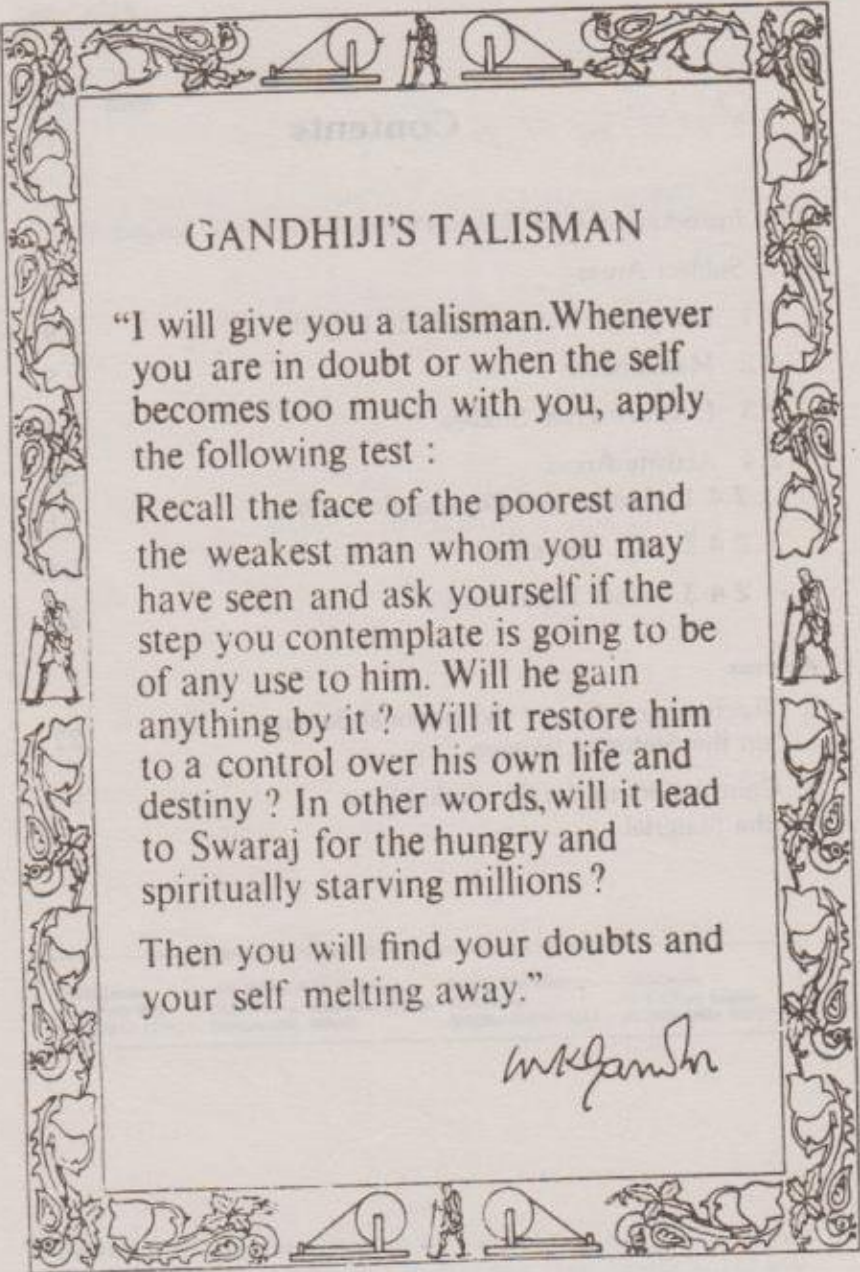
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Contents

1. Introduction	1
2. Subject Areas	4
2.1 Language Teaching (Hindi, English)	4
2.2 Mathematics	8
2.3 Environmental Studies	17
2.4 Activity Areas	21
2.4.1 Health and Physical Education	21
2.4.2 Art Education	24
2.4.3 Work Experience	25
APPENDIX	
I. Recommendation of the National Seminar on the Status of Women	27
II. Contributors to the Development of the Material	31



GANDHIJI'S TALISMAN

“I will give you a talisman. Whenever you are in doubt or when the self becomes too much with you, apply the following test :

Recall the face of the poorest and the weakest man whom you may have seen and ask yourself if the step you contemplate is going to be of any use to him. Will he gain anything by it ? Will it restore him to a control over his own life and destiny ? In other words, will it lead to Swaraj for the hungry and spiritually starving millions ?

Then you will find your doubts and your self melting away.”

M.K. Gandhi

1. Introduction

1. Rationale for Developing the Handbook

Various research studies reveal that girls in general are not treated at par with the boys of their age groups. This phenomenon pervades in the overall social set-up where they are born, grow, study, work and live their lives. This type of discriminating behaviour, specifically on the social and educational fronts puts a lot of hindrances in the proper development of their potentialities. In the circumstances the girls are not able to contribute to the national development to a desired extent. As such, this phenomenon results in a huge wastage of human resource.

Education has always been considered an important instrument for bringing change in any social set-up. The teachers who impart education are the key persons in grooming the personality and the life-style of the younger generation. They can invariably set the ball rolling in the positive direction of change. Realising the importance of this aspect NPE (1986) has emphasised that 'Education will be used as an agent of basic change in the status of women. In order to neutralise the accumulated distortions of the past, there will be a wellconceived edge in favour of women. 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 curricula, textbooks, training and orientation of teachers, decision-makers, administrators and the active involvement of educational institutions.'¹

For operationalising this recommendation of NPE (1986) the following parameters of women's empowerment have been laid down in POA (1992)² :

Empowerment of Women

Education can be an effective tool for women's empowerment the parameters of this are :

- enhance self esteem and self confidence of women;
- building a positive image of women by recognising their contribution to the society, polity and the economy;
- developing ability to think critically;
- fostering decision making and action through collective processes;
- enable women to make informed choices in areas like education, employment and health (especially reproductive health);
- ensuring equal participation in developmental processes;

1. *Education for Equality*, Chapter IV, NPE (1986) MHRD, New Delhi, 1992 (pp. 9-10).

2. POA (1992) : *Education for Women's Equality*: p.3

- providing information, knowledge and skill for economic independence;
- enhancing access to legal literacy and information relating to their rights and entitlements in society with a view to enhance their participation on an equal footing in all areas.

For the achievement of the above mentioned parameters at the school level, it has been stated in the POA (1992) that :

"All Teachers and Instructors will be trained as agents of Women's Empowerment" (POA—1992, p.3)

As a step to achieve this objective, Department of Women's Studies in the NCERT has prepared a handbook for primary school teachers which could help them in the empowerment of the girls through curriculum transaction. It is presumed that empowerment of girls as well as projection of the values commensurate with the status of women as depicted in the Indian Constitution in the teaching-learning process in the schools will go a long way in promoting equality between the sexes. These values (Appendix I) were developed in a series of workshops and were ultimately finalised in a national seminar held in the year 1975-76 under the joint auspices of the NCERT, New Delhi and the A.N.S. Institute of Social Studies, Patna.

II. Guidelines for Developing the Handbook

In the year 1981 Women's Education Unit of the NCERT developed a handbook viz. Status of Women Through Curriculum : This Handbook was meant for elementary school teachers. It was developed keeping in view the prescribed NCERT curriculum and the identified values which commensurate with the status of women (Appendix I).

The NCERT curriculum has since been revised and Minimum Level of Learning (MLL) components for primary stage (Classes IV) have been developed. The following ten common core components have also been identified. It is expected that every teacher will keep these components of curriculum in view and make conscious efforts to teach and evaluate the attainment of children in the same.

The Common Core Components which should be reflected in the curriculum transaction :

- The history of India's freedom movement
- The constitutional obligations
- Other contents essential to nurture national identity
- India's common heritage
- Egalitarianism, democracy and secularism
- Equality of the sexes
- Protection of environment
- Removal of social barriers

- Observance of small family norm
- Inculcation of scientific temper.

III. Development of the Handbook

The common core components, MLL, parameters of empowerment of women and identified values which are commensurate with the status of women have been kept in view while developing this handbook. Efforts are made to link the values and the parameters of empowerment with the relevant units of knowledge/skills mentioned in the MLL and the Common Core Components referred to in the 'Curriculum for the Ten-year School—A Framework (NCERT-1975)'

The school-based activities which can help in realising the parameters of empowerment and the identified values are noted down against each of the prescribed unit of knowledge. Only those activities are suggested which could ultimately lead to gender equality among the students and also motivate the teachers to formulate their own strategies in varied school situations. The areas and the activities wherein involvement of the local community is required for accelerating the process of promoting gender equality are also noted down for the guidance of primary school teachers. Such activities which could motivate the community to reinforce the gender equality among the children are also suggested in the handbook. Views of selected experienced teachers and the subject experts have been incorporated in the handbook before its finalisation.

IV. Components of the Handbook

The areas covered in the handbook are language learning, mathematics; environmental studies; health and physical education, art education and work experience.

2. Subject Areas

2.1 Language Teaching (Classes I-V)

Introduction

At the primary level, language occupies a pivotal place in the curriculum. The basic skills acquired through language learning, facilitate learning of concepts in other areas. Moreover, in shaping the personality of the child and for effective transactions in day-to-day life situations, language use and vocabulary control play significant roles.

Objectives of Language learning

- At the primary stage, the main objectives of language learning are:
- to be able to listen with understanding;
 - to be able to speak effectively in both informal and formal transactions;
 - to be able to read with comprehension and enjoy reading various kinds of instructional materials;
 - to be able to write neatly, with logical sequence and creativity;
 - to be able to comprehend ideas through listening and reading;
 - to be able to use grammar functionally in various contexts.

The first four objectives (listening, speaking, reading and writing) relate to the four language skills that are well known. These are basic and are required to be achieved in any effective language learning context. All the objectives are interlinked.

Language (Classes I and II)

<i>Competencies</i>	<i>Activity in the School</i>
Listening with comprehension and oral expression (Listens with understanding the familiar and popular rhymes and tales)	Rhymes and tales should have equal representation of the characters of males and females. Presentation of the male characters in a dominant role should be avoided. While giving oral description of the various activities in the rhymes and tales etc. boys and girls should be described doing non-traditional roles. For example, they should be depicted sharing household chores as well as participating in various professions outside home. The pupils should internalise the concept that all activities in life

<i>Competencies</i>	<i>Activity in the School</i>
Conversation and dialogues in familiar situation	Teacher should make conscious attempt to have similar expectations from boys and girls when a conversation goes on in a class. Shyness in the girls should be discouraged by the teacher. On the other hand, the teacher should encourage boys and girls to converse freely with each other. From early childhood they should develop healthy outlook towards each other.
Recall and associate the words with reference to the context	Teacher should encourage boys and girls to talk politely and softly with each other. Pupil should be helped to develop patience to listen to each others' views. It may be emphasised that these qualities are equally desirable in boys. Teacher should encourage students to make sentences without reflecting any gender stereotypes. Students and teachers should make intentional efforts to avoid use of positive adjectives for men and negative for women. For example men should not always be depicted as bold, courageous, strong, balanced individuals and women as weak, emotional, illogical persons. Gender bias in the use of adjectives should be avoided. At the time of providing content or text for reading, teacher should ensure that content is drawn from the experience of both boys and girls depicted in non-traditional role models. Girls should be given equal opportunity of reading the text in the class. If need be the teacher should make extra efforts to encourage them for active participation.

Language (Class III)

<i>Competencies</i>	<i>Activity in the School</i>
Listening Skill	Use of gender specific stereotyped adjectives should be avoided by the teacher in the class room/school situation. At the time of narrating any situation or incident girls should be

<i>Competencies</i>	<i>Activity in the School</i>
Reading Skill	<p>presented as bold, wise, confident and self reliant persons in day-to-day life. They should be depicted as high achievers in various examinations conducted by different boards.</p> <p>Text content should depict various activities performed by man and woman in a gender inclusive manner. If required teacher should supplement the content of the textbook to remove gender bias from the minds of the pupils.</p>
Speaking Skill (Narration of simple stories with proper modulation and actions)	<p>The teacher should ensure that while narrating stories in the classroom. The students should present a positive image of the girls. The students should not be allowed to mock at the female characters in the story.</p> <p>Teacher should motivate girls as well as boys to narrate stories of their day-to-day incidents with modulation and actions. Girls should get equal opportunity to develop communication skill.</p> <p>Teacher should avoid thinking that only boys can attempt to answer complex questions in the class. Girls should also be encouraged to answer complex questions. It will help in enhancing the self esteem of the girls. Girls should be encouraged to ask questions. All possible efforts may be made to enable them to get rid of shyness and hesitation to argue in the presence of teacher and students in a class.</p>
Writing Skill	<p>Creative writings by boys and girls should be encouraged. They should be motivated to write compositions on the achievements of women in different fields. It will help pupils to appreciate contribution of women in development process of the nation.</p>
Language Use	<p>Teachers should initiate a topic for discussion and motivate the girls to participate in the discussion alongwith the boys. The efforts of those girls who participate in the discussion at their own initiative should be appreciated by the teacher.</p> <p>Boys and girls should take turns while speaking in a group. The teacher should ensure that girls are not left behind and are equal participants in the teaching-learning process.</p>

Language (Classes IV and V)

Competencies	Activity in the School
Listening	<p>Girls and boys should be encouraged to listen critically and form their own opinion.</p> <p>Instructional programme in the school should not reflect any gender bias. Preference may be given to those narrations wherein an equal participation of boys and girls is shown and which has resulted in positive achievements of the girls</p> <p>Narrations should be such which may depict mutual co-operation of boys and girls in all life situations</p>
Speaking	As in Class III
Reading	<p>Teacher should ensure that children read those stories, comic etc. which do not show any discrimination between girls and boys. The poems, stories and narrations should project girls/women in non-traditional roles e.g. police officers, army personnel, judge etc. which can provide good role models to girls and also acclimatize the boys to see girls in those role models.</p>
Writing	<p>The themes selected and guidelines given by the teacher for writing composition, paragraphs, stories etc. should not reflect gender bias and project girls in positive and non-traditional roles.</p>
Comprehension of Ideas (Recognise simple cause and effect relationship between ideas and events in a spoken or written text)	<p>Passages to be given for comprehension to children should be such which may help boys and girls to internalise the value of gender equality.</p> <p>Creative drama, discussions, role play conducted for children should provide opportunities of equal participation to girls and boys. The themes selected for these activities should be instrumental in rooting out sex bias from the tender minds of the children.</p>
	<p>Girls and boys should be encouraged and given equal facility of reading newspapers. They should be encouraged to discuss news items in mixed groups. The teachers should supervise and guide their discussions.</p>

Activities with the Community

Parent-Teacher Associations should be in the schools and teachers should discuss with the parents/community members the question of empowerment of girls to motivate them to adopt following lines of action with the children to achieve the desired outcomes.

- * Parents should provide equal facilities to their daughters and sons for their educational growth.
- * Parents should encourage their girls to participate in activities which develop their communication skill.
- * Community should organise national festivals and highlight the roles played by women in national development. Males and females should have equal participation in these festivals.
- * Teachers should discuss with the parents about the achievement of various women social reformers and emphasize the need for empowerment of girls in the present social context.
- * Teachers should mobilize the parents to encourage boys and girls to value and respect the views of each other at home and at the school.
- * Parents should encourage girls and boys for reading such supplementary materials, which promote the feelings of gender equality in them.
- * Folk tales which show women in positive roles may be narrated to the children by the parents.
- * Parents should encourage girls and boys to express their views freely in the home situation. The actions and expressions of the parents should exhibit that they have all intentions to provide equal opportunities to the children to unfold their hidden potentials.

2.2 Mathematics (Classes I-VI)

Introduction

One of the major objectives of teaching mathematics at primary stage is to enable children to solve speedily and accurately the numerical and spatial problems which they encounter at home, in the school and in the community. Primary mathematics should help children develop understanding of key mathematical concepts at each level through appropriate experiences with things from the physical world and the immediate environment. It should help children develop an understanding from the concrete to the abstract, from the specific to the general. The mathematics curriculum at the primary stage should, therefore, be directed to develop the ability to perform computations with speed and

accuracy; translate verbal statements (a) in mathematical form using appropriate symbols, and (b) diagrammatically; make reasonably good approximation and estimate measurements; apply mathematical concepts and skills to solve simple problems of day-to-day life; think logically and recognise order and pattern.

Specific objectives of teaching mathematics at the primary level are stated below. These have been identified with a focus on promoting gender equality between boys and girls.

Objectives

1. To project work at the domestic level as a joint responsibility to be shared by all members of the family ;
2. To reflect dignity of work in all walks of life through sums on computation of time, labour and energy consumed at each job;
3. To acquaint students about the growing participatory role of women in all walks of life;
4. To knit the indicators of social, economic and cultural changes in mathematical exercises so as to raise the aspiration level of girls;
5. To emphasise logical thinking so as to bring out the importance of small family norm from the point of view of family welfare;
6. To develop decision making competence in boys and girls through mathematical problems;
7. To highlight through mathematical data, that, women can shoulder responsibilities equally, provided they are given equal opportunities to grow;
8. To minimise the allurements for gold and silver in girls and to cultivate an attitude to increase national resources by depositing the savings in banks. Mathematical exercises should reinforce these ideas;
9. To highlight the contribution of women mathematicians in the field of knowledge.

Mathematics (Class II)**Addition, Subtraction, Multiplication and Division**

<i>Problems</i>	<i>Activities</i>
1. Muktha Rani works for eight hours in the bank as a Manager and spends two hours in the house for cooking. How many hours does she work in a day?	Explain how a person is overworked if all the family members do not share the responsibility
2. Ragavan's parents spend one hour in household work in the morning. They work for eight hours in the office. How many hours do they work in a day?	Explain that sharing the household chores equally saves the time and energy which can be utilised in other productive works
3. The total income of Aruna and her husband is Rs.1500/- p.m. If they spend Rs. 1000/- p.m. how much do they save?	Discuss the role of women in increasing resources
4. Rashida wants to buy a cycle worth Rs.850/-. She has Rs.800/-. How much more does she need to buy the cycle?	Emphasize on the decision-making role of women
5. On Sunday Ramprakash and Rohini took forty minutes to clear the book shelf. How many minutes does each work?	Sharing responsibilities should be highlighted
6. By cutting on domestic extravagance Raman's mother saved Rs.75/-p.m. How much did she save in 10 months?	Explain the need to cut down domestic extravagance
7. Neelam's mother cut down the expenditure on chocolate for children and cigarettes for the father and she saved Rs.100/- p.m. How much she will save in a year?	-do-
8. Rani's mother gave her Rs.200/- and her father gave her Rs.100/- to buy a silver chain. Rani decided to deposit the amount in the bank. How much did she deposit in her bank account?	Discuss the value of small savings
9. Karim and his sister Razia planted 35 tomato plants in 7 rows in the	Explain the role of both sexes in environmental issues

Problems	Activities
kitchen garden. If the number of plants in each row is the same, how many plants are there in a row?	
10. Ragav's parents saved Rs.10/- on sugar, Rs.4/- on oil and Rs.8/- on ghee p.m. by cutting the domestic extravagance. In all, how much did they save per month?	Highlight the need to cut down domestic extravagance
11. Rani's mother is a doctor. She goes to villages every Sunday and spends 4 hours with the villagers attending to their health problems. If there are four Sundays in a month, how many hours does she spend in the village?	Women's changing role outside home should be highlighted. They are not only beneficiaries but also contribute to the welfare programmes of the state
12. Ramela's father brought home 5 apples. If Ramela had two brothers. How many apples will each member of the family get? If each member should be given 2 apples. How many apples do they need?	Emphasize on small family norms
13. Draw a table showing the type of work and number of hours each member of your family does in a day. Find out who does more work and for how many hours?	Ask the children to observe the work pattern at home. Tell them to note down the time spent by each family member on various tasks. Discuss the disparities in work load at home and sensitize the children towards the need to share the household work
14. Sharmila is an Environment Scientist. She found that planting one plant will increase the annual rainfall of the place by 1 mm. If she made the school NSS group plant, 100 plants then what will be the increase in the annual rainfall of the place?	Women's changing role, decision making role and their place in protecting the environment can be emphasized
15. When Vishali was sick, her mother took leave from her office for 3 days and there after her father took leave from his office for 4 days. How many days of leave did the parents take to take care of Vishali?	Rearing and caring of the children is a joint responsibility of the parents

Mathematics (Class III)

Addition, Subtraction, Multiplication, Division, Metric Measures, Fraction. Use of Non-standard units to measure capacity like cup, bowl, bucket etc., areas, time, money.

Problems	Activities
1. Rani's Mother spends half of her work and leisure time in helping the villagers. She has four hrs. of leisure on Saturdays and Sundays each. In a month with 4 Saturdays and 4 Sundays, how many hours can she spend for the villagers?	Focus on spending the leisure time in a useful way
2. Reena's parents save one sixth of the family income. If the monthly savings is Rs.100/-. Find out the monthly income.	Discuss the need to save for ensuring a safe future
3. Manju needs one bucket of water to water 5 plants. How many plants can she water with three buckets of water?	Highlight the participation of girls in protecting the environment
4. Margaret is in the Indian Forest Service. In her area of jurisdiction, she made one fifth of the forest into renewable forest. If the total forest area in her area of jurisdiction is 500 sq. km., find out the area of the renewable forest.	Emphasize the changing role of women in work outside home, their decision-making capabilities and their participatory role in national development
5. Father gave Rs.20/- to Renu and her brother Raghav each. Renu bought a note book for Rs.5/- and deposited Rs.10/- in her small savings account. She bought biscuits for Rs.2/- Mohit bought a chocolate bar for Rs.5/- and a toy for Rs.15/- If you are given Rs.20/- whose expenditure will you follow?	Give an opportunity to students to take a decision. Discuss the right choice
6. Your parents agree to spend Rs.80/- to celebrate your birthday. How will you plan the expenditure to celebrate your birthday with your parents, brothers, sister and four of your friends?	Give an opportunity to students to take a decision. Discuss the right choice
7. Catherine and John help their parents in home management for 45	Highlight the need to share responsibilities and also that work at

Problems	Activities
minutes everyday. For how many hours per week do they help their parents?	home is the responsibility of both boys and girls
8. Lalchand left a wealth of Rs.48000/- for his two daughters and one son. They shared it equally. How much money would each get. If Lalchand had only two daughters how much money would each daughter have got?	Stress on the equal rights of women in the property
9. Sushma helped her father in selling things on Monday and total sale was Rs.982/- Sushma's brother helped his father on total sale was Rs.879. What was the total sale on these two days?	The teacher should discuss the growing participatory role of women in different walks of life
10. In an innings of a test match, the runs scored by 11 players of women's cricket team were as follows : 105, 84, 53, 22, 7, 9, 3, 9, 29, 67, 0. What is the total score of the team in the innings?	The teacher should discuss the growing participatory role of women in different walks of life
11. In a factory there are 2425 men workers and 1985 women workers. How many workers are there in all?	Teacher should point out that work participation rate of women is lower than males. More women should participate in the work force to improve their economic status
12. After retirement Lakshman gave equal amount of Rs.12,575/- to his son Rohit and daughter Rashmi from his bank account. He kept Rs.18,976/- for himself. What was the total amount in his bank account?	Emphasize that boys and girls have equal right in the property
13. Kusum purchased 9,500 bricks. She used 6,375 bricks in constructing a room. How many bricks were left with her?	Teacher should emphasize on interchangeability of the roles of men and women, e.g. a women can also take the responsibility of constructing a house
14. In a co-educational school girls collected Rs.7864 and boys collected Rs. 6956 as donation for constructing a reading room in the school. How much more the boys have to collect to equalize the girls contribution?	The teacher should highlight the participation of girls in all spheres of life

Mathematics (Class IV)**Indian Currency, Metric Measure, Whole Numbers, Fractional Numbers, Subtraction, Multiplication**

Problem	Activities
1. Sharmila purchased a day-to-day problem textbook for Rs.13.75, for herself, a woolen cap for Rs.15.50 for her father, a chappal for Rs.19.75 for her mother and a toy for Rs.1.80 for her brother. How much in all did she spend on these?	Highlight the role of women's participation of family management and ability to solve day-to-day problems
2. Meenakshi deposited Rs.60.50, 40.50 and Rs.30.50 respectively as tuition fee for her three children. Find the total amount deposited for tuition fees.	Highlight the role of women's participation of family management and ability to solve day-to-day problems
3. According to the 1991 census the total population of India was 406518417 in which only 131767519 were found to be literates. Find the number of illiterates?	Bring out the disparity in the literacy level
4. Everyday I spend 15 minutes on watering the plants. How many hours do I spend on watering the plants in a month of 30 days?	Highlight the role of boys and girls in protecting the environment
5. Kiran purchased 2 kg. 500 gm. of ghee at the beginning of a month. At the end of the month she was left with 150 gm. of ghee. How much ghee did she use during the month?	Impart the idea of leadership of women in home management
6. Ranjita purchased 2 kg. 150 gm. wool. She used 400 gm. to prepare a pullover for her husband, 200 gm. for her daughter's midi and 175 gm. for her son's sweater. She also used 350 gm. for her own midi. How much wool is still left with her?	Impart the idea of leadership of women and also emphasize that Ranjita did not neglect herself too and took care of her needs in winter
7. In a NSS camp on group lead Zahira built 36 m. by 175 cm. of link road, while the other group headed by Kumar built 32 m. by 175 cm. Find the total length of the road built by	Draw attention towards changing roles of women in society. Given an opportunity they do not lag behind men

<i>Problem</i>	<i>Activities</i>
the two groups? Which group did more work and by how much?	
8. If Rashmi devotes 1 $\frac{1}{4}$ hours for doing home work in the evening and $\frac{3}{4}$ hours in the morning, how much time does she devote to complete her home work?	The girls also need time at home to complete home assignments given in the school
9. The school is at a distance of 2 $\frac{1}{2}$ km. from Khalida's home, while the distance from Sarita's home is 3 km. They go to school on foot. Who covers more distance and by how much to reach the school?	Education is important for girls too. They should not feel hesitant to face difficulties in attending the school.
10. In the class picnic there were 10 girls and 12 boys and each was served 50 gm. of sweets. What was the total quantity of sweets served?	Boys and girls should participate in the school activities as a mixed group and learn to co-operate with each other.

Mathematics (Class V)

Number and Numeration System, Decimal, LCM, Ratio, Measurement, Unitary Method

<i>Problem</i>	<i>Activities</i>															
1. The following table gives the number of literate males and females in India in the year 1981 and 1991.	Bring out the disparity in the literacy level and sex ratio and develop consciousness for literacy among women in the country.															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><i>Sex</i></th> <th colspan="2" style="text-align: center;"><i>No. of Literates</i></th> </tr> <tr> <td></td> <th style="text-align: center;"><i>1981</i></th> <th style="text-align: center;"><i>1991</i></th> </tr> </thead> <tbody> <tr> <td>Male</td> <td style="text-align: center;">158837215</td> <td style="text-align: center;">230406841</td> </tr> <tr> <td>Female</td> <td style="text-align: center;">79154717</td> <td style="text-align: center;">131767519</td> </tr> <tr> <td>Total</td> <td style="text-align: center;">237991932</td> <td style="text-align: center;">362174360</td> </tr> </tbody> </table>	<i>Sex</i>	<i>No. of Literates</i>			<i>1981</i>	<i>1991</i>	Male	158837215	230406841	Female	79154717	131767519	Total	237991932	362174360	
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Problem	Activities
iii. Find the total literates of males in 1991 iv. Find the total literates of India in 1981 v. Find the total literates in India in 1991 vi. Find the total literates of females in 1991 vii. How many more literate men than women were there in 1981? viii. How many more literate men than women were there in 1991? ix. How many more literate men and women were there in 1991 than in 1981?	Inculcate in students the habit of saving through earn while learn scheme and thus be self dependent
2. Dolly receives Rs.50/- per month from the school under 'Earn while learn' scheme and saves $\frac{2}{5}$ th of the total amount. How much will she save in one year?	Highlight participatory role of women in all walks of life
3. Reshma's parents earn Rs.2500/- per month. The expenditure on different items is as follows: Education 10% Clothing 15% Food 30% House rent 12% Miscellaneous 16%	
i. Find what percentage of the earning of the family is saved per month?	
ii. How much amount is spent on each item? How much is saved?	
4. Kalindi wishes to purchase a sewing machine costing Rs.750/- Her monthly earning is Rs.500/- She decides to purchase the machine after 10 months. What percentage of her earning will she have to save per month?	Inculcate the habit of saving regularly to safeguard the future of the family

Problem	Activities
5. Krishan purchased 4 kg. of wool for Rs.320/- and knitted 20 sweaters. He sells each sweater for Rs.28/-. Find the percentage of profit he gets?	Develop proper attitudes for socially useful productive works among boys
6. Sarita took a loan of Rs.50000/- from a bank in order to set up a factory. Compute the annual interest at the rate of Rs.9% per annum. What amount will she pay, if the loan is to be repaid after 5 years.	The teacher should highlight the participation of women in different spheres
7. On sports day every girl needed a ribbon of 0.75 metres. How many metres of ribbon will be required for 45 girls?	Emphasise on the participation of girls in sports and games
8. Under small saving scheme each boy and girl deposits Rs.11.50 p.m. If there are 45 students in the class, what amount will be deposited by the class in 8 months?	The habit of saving should be inculcated by giving positive examples
9. The principal wants to develop a lawn in the school. If he engages 24 school girls for 3 hours daily, the work is finished within 16 days. If the girls want to work for 4 hours daily, how many days will be required to complete the work?	The importance of manual work and the value of dignity of labour can be highlighted. Changing roles of girls in the present social context should be emphasised.

2.3 Environmental Studies (Classes I-V)

Introduction

The environment is generally taken to consist of two main aspects viz. natural and human. This division is reflected in the curriculum of Environmental Studies (EVS) in the form of social studies and Science presented in an integrated manner.

Objectives

Specific objectives of teaching EVS are that children may be oriented to view the total environment in an integrated manner. They should understand it as a product of interaction among men, the natural environment and social phenomena.

Environmental Studies (Class I-V)

Knowledge	Activities in the school
Pupil acquire awareness about one's well-being in the context of social and natural environment	The teacher should encourage all children to learn habits of cleanliness irrespective of their sex and economic status. Teachers should ensure timely distribution of free uniforms to the girls provided by the authorities under welfare schemes. Boys and girls should be helped to internalise the point that preventive and curative health care is equally important for girls. Girls too should take initiative to keep themselves healthy. They also need nutritious diet, regular medical check up and timely medical care if they are unwell.
Well-being of boys and girls is equally necessary for the well-being of a nation.	Students may be motivated to despise gender disparity. They should learn to respect each other as individual.
Physical attributes and differences do not reflect superiority or inferiority.	Teachers should discuss the need of proper nutrition for all irrespective of the sex. The girls may be motivated to assert their right in this respect.
The concept of need based food for all members of the family should be internalised by all member of the family.	Importance of clean water, food hygiene should be explained to boys and girls. Males and females in a family are equally responsible that family members should get clean water and fresh food.
Clean water and fresh food are basic requirements of good health	Teachers should highlight the rationale of keeping the surrounding clean and advocate equal participation of boys and girls in sweeping, mopping, cleaning and decorating the homes and the school. Both boys and girls should be encouraged to keep their classrooms clean. Boys and girls should be made to understand that no work is gender based.
Various functions performed by different members of the family are of equal importance.	The teachers should inform boys and girls about the hazards of careless use of electrical gadgets, stoves, gas etc. used in the household. Safety measures may be discussed in the class and it may be emphasised that boys as well as girls should acquire the knowledge.
All the individuals are jointly responsible for the maintenance of safety in the surroundings.	Teachers may encourage girls to take
All jobs in the world of work are	

Knowledge	Activities in the school
exchangeable between males and females depending on the basic of capabilities rather than on sexual division of labour	interest in emerging technology.
Knowledge about common crimes in the locality e.g. theft, decoity, violence and trespassing.	Teachers should highlight the importance of women's participation in safeguarding family's interests. Importance of learning skills for self defence by girls as well as boys may be emphasised. The teacher may explain that whenever peace is disturbed in a family, locality, city and country, it affects all the inhabitants irrespective of sex. Hence violence should be avoided by all.
Importance of voting in a democratic set up	Teachers should explain the importance of judicious voting by boys as well as girls. Children may be explained the need to exercise individual judgement while voting.
Importance of adopting small family norms in the present social context.	Teachers should highlight that women and men play equal role in adopting small family norms. Hazards of population explosion may be explained.
Happy home requires the cooperation of all the members of the family.	Negative consequences of declining sex ratio may be explained to boys and girls.
Knowledge about food chain and balanced diet	Boys and girls should participate in the household chores. While teaching about the birds, the examples of the combined efforts put in by them in nesting process may be given.
Requirement of fresh air and light for healthy living	Food requirements often depend on the nature of work and the health status of a person. As such these have nothing to do with the sex of a person.
	The teacher should help girls to understand the damage that can be caused by fumes and smokes and back of sunshine and light in their day to day life.
	Benefits of smokeless chulhas; gober gas plants may be explained to boys and girls.

Activities which can be helpful in generating gender equality

- * Boys and girls can be taken to panchayat meetings where members of Panchayat (men and women) take decisions for the entire village.
- * Awareness should be created among students and community about the negative effects of social evils on the growth of a society in general, and women and girls, in particular.
- * Intentional efforts to be made by the teachers to undo the damage caused by myths and misconceptions regarding female physiology especially that a woman is responsible for the sex of the child. Efforts should be made to create a positive thinking about widows. Children should be told that widows are not unlucky, nor are they responsible for the death of their husbands.
- * Teachers should discuss the emerging vocations with boys and girls and also keep talking about the achievements of girls who went for new vocations. Parents and the girls should be convinced that no vocation is exclusively for boys or girls.

Activities with the Community

- * Parents should be made aware of the need of healthy living practices so that they should send their children neatly dressed to schools irrespective of the sex of the child.
- * Parents should be enlightened about the necessity of providing nutritious diet to all the children irrespective of their sex.
- * In the PTA meetings the parents should be sensitized to the issues related to food hygiene.
- * Men and women in the community should make special efforts to keep their surroundings clean.
- * Awareness about the hazards in careless handling of electrical gadgets, stove etc. may be created in the community, so that boys and girls may be careful while handling such equipments and attending to household chores.
- * Need of girls participation in emerging technologies must be brought to the notice of the community.
- * Community should be told about the achievements of the successful women. It will encourage girls to come out of the stereotypes and join new courses and professions.
- * Community should be made aware that respect must be given to all members in family irrespective of their being males or females. They should be encouraged to realise that no occupation should be associated to any caste or sex and every occupation is important and essential for the all round growth of a society.
- * Village panchayats, Mahila Mandals and motivated members of the

village to be made aware of the significance of delayed marriages and small family norm so that they may facilitate the implementation of these ideas.

- * Community to be apprised of the negative consequence of declining sex ratio.
- * Efforts may be made to convince the community members that nutritious food is necessary for the development of the children irrespective of their sex.

2.4 Activity Areas

Introduction

Children by nature are curious, and creative. They love to express themselves in myriad forms. But the type of interaction often meted out to them in early years of mental, emotional and physical development makes them passive recipient of instructions. Their spontaneous enthusiasm dies out rather early in life due to regimentation and stereotyped role modelling expected of them. In this process, the worst sufferer is the girl child. From early childhood, she is admonished for many of her natural creative expressions. Often she is not allowed to actualize her latent potentials and is compelled to pay a predetermined role laid down by the society. Revised National Policy on Education (1986) has emphasized on the development of the total personality of the children and empowerment of girls, hence due weightage should be given to work experience, Art Education, Health and Physical Education in the school curriculum. Some specific suggestions are given in the following pages which relate to activities in Health and Physical Education, Art Education and work experience. Focus of discussion is the empowerment of girl child and promotion of gender equality in the school environment.

2.4.1 Health and Physical Education

Introduction

Health is the basic asset of every human being. Every child has a right to sound health. Health does not only mean absence from disease but it encompasses physical, mental and emotional well being. Through this area a child is made aware of his/her body, its function, need for food, rest, exercise, sleep, proper posture, personal and environmental hygiene and consequences of lack of proper nutrition etc.

While organizing activities in health and physical education, it is necessary to make the children aware of the fact that males and females

are complementary to each other and there is no superiority or inferiority in this regard. Each human being has specific qualities so every individual should strive to make full use of his/her potentials. This knowledge can go a long way in improving mental health of boys as well as girls. Specific objectives of imparting health and physical education are mentioned below.

Objectives

1. To make students aware of the importance of health education for girls as well as boys;
2. To make them aware of the necessity of personal cleanliness;
3. To develop in them a habit of keeping surroundings clean and beautiful;
4. To develop in them a need for having proper and nutritious diet;
5. To educate them to provide first aid at the time of need;
6. To develop in them an attitude towards healthy recreations;
7. To inculcate the spirit of sportpersonship in the students;
8. To develop in them the need and importance of having sound mental health.

Classes I-V

Knowledge/competencies	Activities
Personal cleanliness and appearance	The boys and girls should be motivated to take bath regularly, brush teeth twice a day; keep nails trimmed and clean; hair combed; wear clean clothes; keep articles of personal use in proper order; wash and mend own clothes; polish shoes and help siblings at home in personal cleanliness. The teacher should see that these practices are followed by both boys and girls. Usually the care of the siblings are vested with the girl child, that should be discouraged.
Care of the body	The teacher should ensure that students follow regular habits of sleeping, eating and going to toilet; protect body from injury and infection; observe rules to remain healthy; keep the body fit to work; study and play; follow correct methods of cooking, storing and preserving food; take steps to prevent falls, burns, poisoning, etc.; identify the causes of deficiency diseases; observe safety measures in classroom, playground and on

Knowledge/competencies	Activities
Walking, jogging, running, bending, jumping, skipping etc. Imitation and mimecry such as crawling of monkey, walking of elephant, galloping of horse, train run, duck walk, frog jump, rabbit jump, tea vendor call, cat mew, dog bark etc. Rhythmics; Lead up games; gymnastics; combatives.	roads. The teacher should emphasise that girls are equally required to follow practices of healthy living. Boys and girls have equal responsibility to perform these activities in the family to keep members of the family fit and healthy.
Cleanliness and beautification of surroundings	The teacher should encourage equal participation of students in these activities irrespective of their sex. Extra care may be taken to ensure participation of girls in these activities. Leadership quality should be developed in girl students while organising these activities. Parents may be motivated to encourage girls to take part in all physical activities. Frequent competitions may be organised. As far as possible mixed groups of boys and girls should be formed. Girls students may be provided opportunities to learn devices for self defence. Community may be approached to provide facilities for organising games and sports.
Mental Health	The boys and girls in school should join hands to keep toilets clean and dustbins covered. They should avoid throwing waste material indiscriminately in the school campus. They should protect plants; participate in cleanliness campaigns organised by the school; supervise cleanliness in classrooms, playground and school surroundings. The boys and girls should address each other with respect; be kind hearted and avoid teasing each other; keep balance in daily schedule of work, study, play, recreation, rest, exercise and sleep; accept responsibility of looking after the sick and elders at home; help the sick in the community; make proper use of public facilities; avoid damaging public properties. The idea that all activities are gender inclusive be engrained in the minds of boys and girls.

Note : Difficulty level of the activities should be increased as the students move from lower to higher classes.

2.4.2 Art Education

Introduction

Art has been a medium of communication and expression through the ages. From young age a child tries to recognize and memorize various sounds, movements and colours. The inquisitive mind of the child stores the ideas and thoughts which he/she gathers while looking around and observing the various activities in his/her environment.

Art is a process of demonstrating the various inherent qualities and fulfilling the creative urge to express one's feelings. Hence Art Education should be imparted to all students without any gender discrimination. Art Education is an effective tool to develop creative instinct in the children. It also develops confidence in the students to express themselves. The teachers should encourage and motivate girls to participate in the activities of art without inhibition. The major areas of activity relate to performing arts, drawing, painting and the plastic arts.

Objectives

1. To enable the students to appreciate creative arts;
2. To provide equal opportunities to boys and girls to participate in activities relating to arts;
3. To develop in them the qualities of observation, imagination and self expression through the media of visual and plastic arts;
4. To develop in them the skill of free expression through simple forms of music, dance and drama;
5. To develop in them a love for beauty in nature.

Environmental Studies (Classes I-V)

Knowledge/competencies	Activities in the School
Free movement and rhythm in dance, drama and songs. Free expression of self through vocal and instrumental music.	The school should organize cultural programmes indicating a common cultural heritage of boys and girls. Girls should be encouraged to participate actively in these activities. Their frequent participation in the cultural programmes will give them an opportunity for self expression. It will also make them self confident and enhance their self esteem.
Painting, Drawing	Making drawings and paintings of women in stereotype roles, (e.g. women always with

<i>Knowledge/competencies</i>	<i>Activities in the School</i>
	pitcher or cleaning the house etc.) should be discouraged. Girls should be encouraged to participate in the competitions. Their participation will boost up their morale.
Clay modelling; wood-work; wood and stone carving; ceramics; using natural and waste material for useful and decorative purposes.	Girls and boys should be given equal opportunity to share these activities. Depiction of women as sex symbol should be avoided. Girls and boys should be encouraged to do wood carving, carpentry, making of masks, small murals on the school walls. Equal participation in these activities will help them to understand that no work is gender based.
Painting and drawing	<p>Students may be encouraged to draw such paintings which do not denigrate the status of women, Women may be shown in non-stereotyped roles.</p> <p>Women and men working in a co-operative mode in different life situations, may be depicted through various forms of Art.</p>

2.4.3 Work Experience (Classes I-V)

Introduction

Children in the age group 6-11 years love to participate in various activities at home and school. This natural tendency among children should get its fulfilment through activities organised under work experience.

Some activities which can help in promoting gender equality at the primary stage of education are narrated in the following pages :

Activities in the School

The teacher should help boys and girls to :

- * Identify various work situations in the locality and collect information about the tools, materials and techniques used in performing various tasks in social and economic life.
- * Identify various service centres in the community (health centre, railway station, bus stop, post office, ferry ghat etc.) and observe the role of women in the same.
- * Understand that girls can equally participate in the work situations which are presently being managed exclusively by men.

- * Identify locally available materials (leaves, bamboo, wood, stone, cardboard, paper, cloth, etc. and waste material like used containers, calendars etc.).
- * Identify the scientific principles and processes underlying various steps of various tasks and make students realise that their understanding has no link with the gender of a person.
- * Use simple tools required in various activities such as gardening, cleaning and preparing decorative articles. Boys and girls should learn to share toys/tools with each other. They should also understand that adoption of scientific techniques in daily life saves human energy and all persons should follow the same irrespective of the sex.
- * Teacher should encourage boys and girls for mutual cooperation in the preparation of useful objects with waste/low cost materials.
- * Teacher should create awareness among boys and girls that it is their joint responsibility to keep the school and its surroundings clean.
- * Teacher should make children understand that no work is gender based. Hence each work can be done by either of the sex provided proper training is imparted to the person.
- * Boys and girls should jointly organise exhibition of the material prepared under work experience. Community members may be invited to such exhibitions so that they may appreciate the joint ventures of boys and girls.
- * Boys and girls should be encouraged to jointly plan the school functions and also equally participate in the same.
- * All the activities under work experience should be planned in a way that boys and girls get equal opportunities to participate in the same.

Appendix I

Recommendations of the National Seminar on the Status of Women 1975-1976

"The three-day national seminar on *Identification of Values Commensurate with the Status of Women for Incorporation in School Textbooks* which was held under the joint auspices of the NCERT and the A.N.S. Institute of Social Studies, finalised the following items at the summing up sessions of the seminar."

Objectives

- I. In the educational system areas of home management should be projected as joint responsibility of all the members.
- II. Dignity of labour must find reflection while taking care of the roles performed so that men and women develop respect for the roles performed inside and outside home.
- III. Dependence of girls and women as a traditional value must be rejected, from which it follows that emphasis has to be laid on equal commitment for work at home and outside, by both the sexes.
- IV. Equality of opportunity in all walks of life must lead to the realization of the responsibility to equal participation in the development of the nation.
- V. Women should be able to attain their fulfilment by getting conscious of their rights and abilities.
- VI. Decision-making process at all level from family to society being shared by both the sexes must be emphasised.
- VII. Systematic understanding and campaigns against all practices degrading sexes in matrimony e.g. dowry and bride price must be organised.
- VIII. The concept of consumerism leading to women becoming prosperity symbol must be rejected and need-based consumption must be emphasised.
- IX. Women should not be projected as sex symbols and dignity of persons is to be promoted so that women become self-reliant, self-propelled and self-directed instead of being continuously protected.

In the light of these objectives the literature at the school level must be scanned and new literature must emerge with these values being reflected.

Political Science

1. Awareness of citizenship rights, duties and abilities, that women effectively participate in public life.
2. Adequate projection of women's role in the freedom movement.
3. Awareness of legal rights of women.

Economics

Concept of work be redefined so that domestic work is also considered a productive economic activity, thereby discouraging sex disparity in gainful employment.

Demography

Keeping in view the decline of females in the sex ratio in the country's population which reflects neglect of the female population, it need adequate projection that womenfolk is as important as menfolk.

Geography

Role diversification should be taken care of in area studies in the light of geo-ecological conditions.

History

1. True status of women in historical development must be projected.
2. Women's contribution towards the growth of civilisation is to be highlighted.
3. Distorted versions of facts of history relating to women have to be avoided.

Sociology

1. Family should be treated in such a way as to bring out its functioning as a corporate system with joint responsibility.
2. Family as an institution should not be underplayed in respect of the changing status of women.
3. As marriage is the foundation of a healthy family life, variety of different marriage systems should be understood so that the mutual understanding and spirit of partnership is developed between the couple.
4. All rituals including dowry and bride price degrading the status of women should be avoided.

Science

1. Science education should be environment-based.
2. Science and technology do not

degrade status of women as it has been proved that genetically or ability-wise women are not the weaker sex.

3. The teaching of science be made imperative for girls.
4. Scientific knowledge of human physiology is a must for boys and girls.
5. Age of marriage must be carefully planned.
6. Science education should be supported by parent education so that the incongruence between school teaching and its application at home is reduced.
7. Obscurantism with regard to sex, food, etc., should be removed.
8. Those women who take professional training should see that their talents are not wasted.

Mathematics

1. Work at the domestic level is equally productive and should be projected as a responsibility to be shared by all members of the family.
2. Dignity of work in any walk of life should be reflected through exercises projecting computation of time, labour and energy consumed at each job.
3. Growing participatory role of women in all walks of life must be reinforced and failure in participation must reflect on loss of labour force.
4. Indications of social, economic and cultural changes to be knit in mathematical exercises so as to imprint change indicators for raising aspiration level.
5. Mathematics teaching must emphasise logical thinking so as to discover evils of dowry system and bride price and bring out the importance of small family norm

from the point of view of family welfare.

6. Decision-making competence in both boys and girls should be equally developed through mathematics teaching.
7. In the context of equality of opportunities, to highlight through mathematical data that women can shoulder responsibilities equally.
8. To help in the eradication of social evils such as dowry, death ceremonies, etc., by highlighting their arithmetical aspects.
9. To minimise the allurements for gold, silver and other valuables and to increase the national resources by depositing in the saving banks.
10. The biographies of women mathematicians and their contributions should be highlighted.

Humanities

1. Textbooks and supplementary readers in English, Hindi and regional languages at the school stage should be scrutinised from the point of view of the status of women so as to delete all references that denigrate their status.
2. In the supplementary readers as well as in language readers biographies of women in different walks of life, such as freedom fighters, sports women, explorers, statesmen and scientists should be included.
3. The various myths about the subordination of Indian women drawn from images of middle class should be exploded. The reality about the bulk of the women about the Indian countryside should be brought

to light.

4. The legal rights of women in different spheres should be emphasised.
5. The contributions of women writers, poets and novelists should be highlighted.
6. All corporate efforts made for raising women status suffrage movements and the work of the AISC should be highlighted.
7. Care must be taken to see that the main objective of the new status of women is to generate a spirit of cooperation with the other sex and not of confrontation. While co-operation, competition and conflict occur in all societies the conflict between sexes or between the generations should not be highlighted. These books should also contain a corrective description of all broken homes resulting from hasty divorce, if it has to take place.
8. Women should be viewed not in isolation but as part of the total situation.

Fine Arts

1. Any disabilities suffered by women in the domain of music either in learning or practising it should be done away with. In painting, sculpture and dance women should not be projected as sex symbols. The purpose of these arts should be to enable women to realise themselves.
2. The fact that men also have a share in performing arts like dance (both folk and classical) should be highlighted.
3. A better image of an artist should be projected as, nowadays, many unviable stereotypes are associated with artists such as

painters, dancers, poets or film stars.

- 4. Efforts should be made to inculcate love for fine arts among both men and women. Such children's literature as magazines for boys and girls should also be scanned after eliminating references denigrating

the status of women. Though this falls outside the sphere of the tasks set for the seminar, it was felt that children are influenced in a big way by such literature and efforts must be made at whatever level possible to influence the mass-media and children's journals in this direction.

Appendix II

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