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MINISTRY OF EDUCATION

GOVERNMENT OF INDIA

BASIC AND SOCIAL EDUCATION

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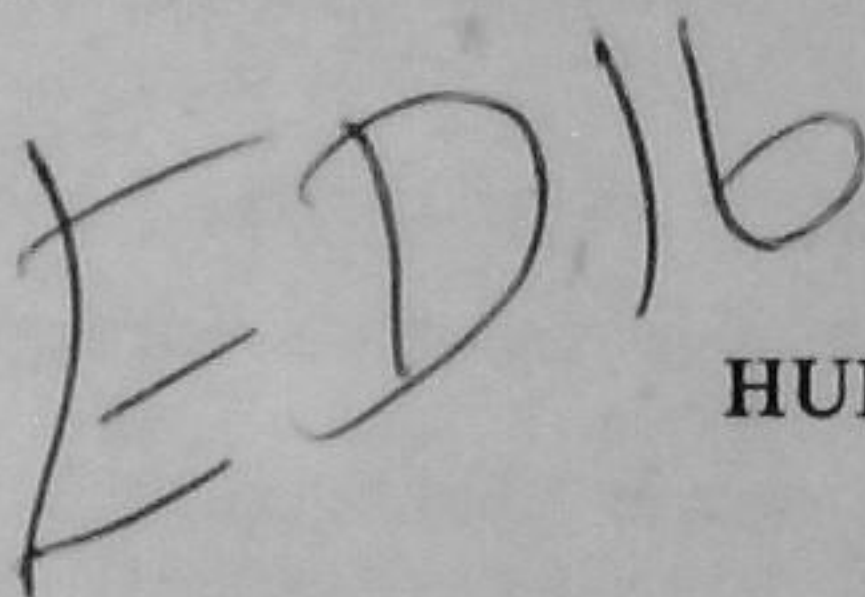
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FOREWORD

Enquiries are often received about the Government of India's programmes of Basic and Social Education. Interest in them has further increased since the Hon'ble Minister for Education announced that an immediate start with these programmes would be made in the Delhi Province. The public also want to know in what respects, if any, the Government schemes differ from the Wardha Scheme of Basic Education. Designed to answer some of these questions, the present pamphlet also seeks to provide a short account of what has been and is proposed to be **done** in the immediate future. The appendices contain the syllabuses prepared for the guidance of teachers in Basic schools, and a short note submitted by this Ministry to the Conference of Provincial and States Premiers.

New Delhi,
October 28, 1948.



HUMAYUN KABIR

BASIC EDUCATION

All eminent educationists of the world have recognised the value and efficacy of the principle of "learning through activity". In India the idea of applying this principle on a large scale for the education of children between 6-14 occurred to Gandhiji. In July, 1937, he wrote, "By education I mean an all-round drawing out of the best in child and man—body, mind and spirit... Literacy in itself is no education. I would, therefore, begin the child's education by teaching it a useful handicraft and enabling it to produce from the moment it begins its training. Thus, every school can be made self-supporting.

"I hold that the child's development of the mind and the soul is possible in such a system of education. Only every handicraft has to be taught not merely mechanically, as is done today, but scientifically; the child should know the why and wherefore of every process"¹.

"The principal means of stimulating the intellect should be manual training"².

A conference of National workers in the field of education was convened at Wardha in October, 1937 under the Presidentship of Gandhiji. It considered Gandhiji's idea of imparting education through handicrafts and passed the following resolutions:—

- (i) "That in the opinion of this Conference free and compulsory education be provided for seven years on a nation-wide scale.
- (ii) That the medium of instruction be the mother-tongue.
- (iii) That the Conference endorses the proposal made by Mahatma Gandhi that the process of education throughout this period should centre round some form of manual productive work, and that all the other abilities to be developed or training to be given should, as far as possible, be integrally related to the central handicraft chosen with due regard to the environment of the child.
- (iv) That the Conference expects that this system of education will be gradually able to cover the remuneration of the teachers"³.

A Committee was also appointed under the chairmanship of Dr. Zakir Husain to prepare a detailed syllabus on the lines of the above resolutions.

The Report of the Committee is the authoritative Wardha Scheme of Education. It was approved by Gandhiji and placed before the

1 Harijan, July 31, 1937.

2 Harijan, September 11, 1937.

3 Page 3, Report of the Zakir Husain Committee and the detailed syllabus published by Hindustani Talimi Sangh, 1938.

Indian National Congress. The Congress approved of the scheme and passed the following resolution at its Haripura session, held in March, 1938.

“..... — The Congress is of opinion that for the Primary and Secondary stages a Basic education should be imparted in accordance with the following principles:—

- (i) Free and compulsory education should be provided for seven years on a nation-wide scale.
- (ii) The medium of instruction must be the mother-tongue.
- (iii) Throughout this period, education should centre round some form of manual and productive work and all other activities to be developed or training to be given should, as far as possible, be integrally related to the central handicraft with due regard to the environment of the child”⁴.

These are the main characteristics of what is now known as Basic education.

In accordance with the desire of the Congress, a Board called Hindustani Talimi Sangh with its headquarters at Sevagram was also established in April, 1938. Since then it has been doing valuable work by organising Basic schools and training teachers for them.

This new scheme fired the imagination of the people and several Provinces appointed Committees to examine it. Special mention may be made of the Committee set up by the U. P. Government under the chairmanship of Acharya Narendra Dev.

These Committees advocated introduction of Universal Free Compulsory Primary Education for a period of 7 or 8 years and recommended that throughout this period, as far as possible, education should be carried on through crafts and productive work and should have a close relation with the social and physical environment of the child

The Central Advisory Board of Education Committees

The Central Advisory Board of Education, set up by the Government of India to advise them on all educational matters, appointed a Committee in January, 1938 under the chairmanship of the Hon'ble Mr. B. G. Kher, Premier and Education Minister, Government of Bombay. This Committee known as Kher Committee was directed to examine the Wardha Scheme in the light of the Wood-Abbot Report on general and vocational education.

Dr. Zakir Husain who was one of the members of the Committee, cleared at the outset some of the misconceptions about the Wardha Scheme. He emphasised that "the Scheme was one of education, and not of production"⁵. The main object of the Scheme was to utilise the resources implicit in craft work for education purposes and not merely to produce craftsmen at the age of 14. "The craft or productive work chosen should be rich in educative possibilities. It should find natural points of correlation with important human activities and interests"⁶.

The Kher Committee accepted the principle of educating children through purposeful creative activities which should gradually develop into productive work. It pointed out that not one but several basic crafts should be prescribed, specially in the lower classes, so that children may choose whatever activity appealed to them. On their freedom of choice depended the success of the scheme. These activities in the lower classes might later on lead to a basic craft whose produce would be saleable and thus assist in the upkeep of the school. Some of the other recommendations of this Committee were : —

- (1) "The scheme of 'Basic' education should first be introduced in rural areas.
- (2) The age range for compulsion should be six to 14 years, but children can be admitted to the 'basic' school at the age of 5.
- (3) Diversion of students from the 'basic' school to other kinds of school should be allowed after the 5th class or about the age of 11 plus.
- (4) The medium of instruction should be the vernacular of the pupils.
- (5) A common language for India is desirable. This should be Hindustani with both the Urdu and the Hindi scripts. Option should be given to children to choose the scripts and provision should be made for teaching them in that script. Every teacher should know both scripts, viz., Urdu and Hindi"⁷.

In January, 1939, the Central Advisory Board of Education appointed another Committee under the same chairman to report on the co-ordination of the Basic system with Higher education.

The Committee, *inter-alia*, recommended that Basic education should comprise a course of eight years from the age of six to 14. This course, while preserving its essential unity, should consist of two stages. The first stage, the 'junior' stage, should cover a period of five years. The second stage, the 'senior', would extend over the remaining three years⁸.

5 Page 2. Reports of the Committees appointed by the Central Advisory Board of Education in India (1938-43).

6 Page 2. Reports of the Committees appointed by the Central Advisory Board of Education in India (1938-43).

7 Page 9. Reports of the Committees appointed by the Central Advisory Board of Education in India (1938-43).

8 Page 6. Reports of the Committees appointed by the Central Advisory Board of Education in India (1938-43).

The reports of both the Committees were approved by the Central Advisory Board of Education and their main conclusions were incorporated in the Board's Report on Post-War Educational Development in India (1944).

This Report was generally approved by the Government of India and the Provincial Governments. The Government of India and the Provincial Governments have prepared their five year Educational Plans in the light of the recommendations of this Report and have already started implementing them since 1946-47.

The Board's Report envisaged a period of 40 years for the introduction of Compulsory Basic education for children between six and 14. Many competent persons held that the pace prescribed was too slow, and in his speech at the All-India Education Conference in Delhi on 16th January, 1948, the Hon'ble Maulana Abul Kalam Azad, Minister of Education, in the first National Government of India, said that programmes which were considered adequate for the old regime would no longer satisfy a free and independent nation. He urged that means should be found to achieve the objective of universal compulsory education in a much shorter period. He was aware of the inadequacy of both, trained teachers and school buildings, and above all of inadequacy of funds. These difficulties must, however, be overcome. He suggested that while teachers were being trained, the shortage could be met by voluntary service on the part of every educated man and woman of the country or even by conscription, if necessary. He held that the problem of capital cost could be solved by modifying our ideas of school buildings and erecting *kacha* or semi-permanent houses instead of permanent structures. The immediately available resources should be utilised for purposes of education of the people and not for buildings. These could be built gradually as the finances of the country improved. He also stressed the need of providing facilities for the Social education of adults in addition to measures for the instruction of children of school-going age.

The Government of India have since appointed Committees to draw up programmes of Basic and Social education, to fix targets to be achieved in the course of the next two or three quinquenniums and devise ways and means for financing such schemes. The reports of these Committees are now being examined by the Government.

The Government of India have also undertaken to prepare a syllabus for the Basic schools--both Junior and Senior and also a handbook for Basic teachers. The Committee set up for this purpose held its first meeting in June, 1947. Its interim report was approved by the Central Advisory Board of Education in January, 1948.

The Committee reviewed the "Main outlines of the seven years' course of Basic education" laid down by Zakir Husain Committee and suggested some modifications. It recommended that the curriculum of Basic schools should consist of :

- (a) Craft-Work.
- (b) Mother-tongue.
- (c) Mathematics.
- (d) Social Studies.
- (e) General Science.
- (f) Art, including Drawing, Music and Aesthetics generally.
- (g) Games and Physical Activities.
- (h) Hindustani.

The crafts recommended for Senior schools are :—

- (i) Spinning and Weaving.
- (ii) Agriculture, including Gardening.
- (iii) Fruit and Vegetable Gardening.
- (iv) Carpentry.
- (v) Clay-work and Pottery.
- (vi) Metal-work.
- (vii) Book-craft, including Paper and Cardboard work.
- (viii) Leather-work.
- (ix) Home Craft—Domestic Science including Cooking, Sewing, Home Management, Laundry work, etc.

All these crafts are meant for both boys and girls, though Home Craft would be specially suitable for girls.

According to the recommendations of the Committee, all Junior schools will have appropriate “activities” leading to the craft or crafts in the Senior schools. There will be Gardening leading to the Craft of Agriculture, Spinning leading to the craft of Spinning and Weaving. Paper-work and Card-board modelling leading to the same craft and Clay modelling leading to Pottery and Wood-work.

With regard to Social Studies, the Committee recommended the use of the Project Method.

The Committee was of the opinion that approximately half the school-time should be devoted to craft-work, which includes not only practical work but also the teaching of other subjects through the craft. A school-day of say $5\frac{1}{2}$ hours could roughly be divided on the following basis :—

Physical Activities	... 20 minutes.
Mother Tongue	... 40 minutes.
Social Studies and General Science	... 60 minutes.
Art	... 40 minutes.
Arithmetic	... 20 minutes.
Craft Work including study of correlated subjects	... $2\frac{1}{2}$ hours.

The above time-table represents averages which should be aimed at during the week as a whole.

The preparation of a Handbook for Teachers in Basic Schools has also been undertaken by this Committee. This book will mainly deal with the subject of correlation. The Committee is now preparing syllabuses for various crafts.

The Government of India have arranged with the authorities of the Jamia Millia, Delhi and the Visva Bharati, Santiniketan for the training of teachers for Basic schools. There is provision for training 30 teachers annually at the Jamia Millia. In 1946-47, only six availed themselves of this opportunity, but there were 21 in the following year. All the thirty seats have been filled this year. At Visva Bharati, arrangements have been made to train teachers not only in Basic education but also in (a) Arts and Crafts and (b) Music and Dancing. Provision has been made for the training of 40 teachers in Basic education, 30 for Arts and Crafts and 30 for Music and Dancing. Some of these teachers are selected by the Centre and some by the Provinces. During the current year, 24 teachers are receiving training in Music and Dancing and 16 in Arts and Crafts. The Basic training is expected to start from next July when the buildings are completed.

BASIC AND SOCIAL EDUCATION IN DELHI

In order to make a beginning with the Government's plan for universal Basic education, it was decided to open 150 Junior Basic schools this year in Delhi Province.

Delhi was chosen, as the province is a small compact area and administered directly by the Centre. There is, however, no intention to confine the programme to Delhi. As soon as experience has been gained here, its results will be available to all other provinces. It is hoped that this experimental measure in Delhi may serve both as an example and a challenge to the other provinces.

Forty-five schools, including 17 for girls, have already started work from the first of July, 1948 in villages having a population of about 1,500. There was the trouble of finding houses for all these schools, but in order to avoid delay, a large number of these have been temporarily housed in village 'chopals'. These 'chopals' may be described as a kind of village guest house *cum* club. The question of school houses is engaging the attention of the Government. It is proposed to take up a building programme in cooperation with the public during this winter. The teachers employed in these schools are mainly drawn from trained refugee teachers. Before being sent to the schools, they are given a short Refresher course in Basic education at the Jamia Millia. The first batch of 50 was given a short course of two months in May and June this year, but the course will be of three months for the subsequent batches. Another 50 are now receiving training, and a third 50 will be given training during the next winter. It is hoped to complete the first stage of the programme by April next year. Compulsion has been introduced for children between six to seven in the areas where schools have been started.

Two post-Matric Training Schools—one for men and the other for women—have also been started. The Men's school had to be started in Ajmer for want of accommodation in Delhi. The existing Training School for Women in Daryaganj, Delhi, has been converted into post Matric Training School for Women.

The programme of Basic education is large and difficult. Besides, Basic education is a complete education which should cover all aspects of life in the community. It was, therefore, felt that other Ministries which deal with important aspects of community life should cooperate in the scheme. A Co-ordinating Committee to expedite Basic education in the Delhi Province, consisting of representatives of the Ministries of Education, Health, Agriculture, Information and Broadcasting, Labour and the Local Administration has, therefore, been set up. The Deputy Secretary of the Constituent Assembly is also a member of this Committee. The various Ministries represented on this Committee have prepared syllabuses for the teacher-training in Basic education which are shown in Appendix II. They have also offered to supervise the actual training classes and occasionally send their men to arrange demonstrations, magic lantern shows and lectures for the teacher trainees.

Delhi Province Educational Development Board has also been set up under the Chairmanship of the Chief Commissioner, Delhi. The Ministries of Education and Finance are represented on this Board. The main function of this Board is to review the schemes from time to time and take necessary measures to expedite them.

The programme of Basic education deals with children of school-going age, but perhaps of even greater immediate importance is the question of the education of the adult illiterate. The achievement of independence and the adoption of democracy as the method of Government have made the task of educating the adults one on which the future safety, welfare and progress of the State depend. Experience has shown that adults are not attracted merely by a literary training. In any case, instruction for them has to be different in nature and scope from that provided for children. This Ministry has, accordingly, drawn up a programme of Social education with a view to impart literacy as well as training in citizenship to all members of the State, who were denied the opportunity of formal instruction in their youth.

Social education may be defined as a course of study directed towards the production of consciousness of citizenship among the people and promotion of social solidarity among them. It has three aspects, namely :—

- (a) The introduction of literacy among grown-up illiterates.
- (b) The production of an educated mind in the masses in the absence of literary education.
- (c) The inculcation of a lively sense of rights and duties of citizenship, both as individuals and as members of a powerful nation.

Social education is synonymous with Adult education, but lays more emphasis upon the two latter aspects mentioned above.

For inducing the growth of a sense of citizenship and producing an educated mind among adult illiterates, it is intended that they should be instructed in the following matters :—

1. Meaning of citizenship and the way in which democracy functions.
 Knowledge of the history and geography of the country and the social conditions obtaining therein.
 Acquaintance with the working of the State.
 Meaning and value of vote, that it is not only a valuable right, but also a great obligation.
2. Instruction in the laws of personal and public health.
 Importance of clean and healthy living.
3. Information to enable him to effect improvement in his economic status, so that Adult education may be linked to his economic life.
4. Training and refinement of emotions through Arts, Literature, Music, Dancing and other recreative activities.
5. Instruction in principles of Human Brotherhood and Universal Ethics with special emphasis upon the necessity of toleration of one another's differences in a democracy.

This, in brief, is the outline of the contents of Social education to be given to the masses in the rural areas of the Delhi Province. The village schools are to be centres of community life. The village school teachers are to be the main instruments in making the masses conscious of 'life' in its real sense.

How this Social Education Programme will be implemented has been indicated by the Hon'ble Minister for Education at a Press Conference held on May 31, 1948, in the following terms:—

- (1) The village school will be a centre of instruction, welfare work, sports and recreation for the entire village.
- (2) Separate times will be allotted to children, adolescents and grown-ups.
- (3) Certain days in the week will be reserved exclusively for girls and women.
- (4) A number of motor vans fitted with projectors and loud-speakers are being secured to visit the village schools. Films and magic lanterns will be shown and recording of talks played. It is proposed that each school will be visited at least once a week.
- (5) Schools will be provided with radio sets and arrangements will be made for broadcasting special programmes for school children, adolescents and grown-up people in the light of the scheme of Social education.

sketched above. About 140 sets have already been provided by the Ministry of Information and Broadcasting, and more will be supplied as soon as possible.

- (6) Popular dramas will be organised in the schools and from time to time prizes given for the best plays produced.
- (7) There will be provision for teaching national and community songs.
- (8) Arrangements will be made for giving simple instruction in some craft or industry suited to the locality.
- (9) Lectures will be arranged in cooperation with the Ministries of Health, Agriculture and Labour to instruct villagers in the simple laws of Social Hygiene, methods of Agriculture, Cottage Industries and Co-operative activities.
- (10) In cooperation with the Ministry of Information and Broadcasting, suitable films and slides will be shown from time to time. Arrangements will also be made for visits of public men to speak to the villagers on problems of national importance. The help and assistance of public bodies interested in constructive work will be invited to give effect to the programme of Social education.
- (11) Arrangements will be made for organising group games. Competitions will be held from time to time between different schools and villages.
- (12) Periodic exhibitions, fairs and excursions will be organised.

The above programme shows that instruction will be combined with entertainment. The audio-visual system will be utilised as far as practicable.

APPENDIX I

A Scheme of Works Camps for Social Education

Under the auspices of the Unesco, International Works Camps have been utilised for educational reconstruction of areas devastated during the last Great War. With certain modifications, we can use the same principle in educating our masses in the rural areas. Where refugees have been concentrated in large camps, it would be easier to work the scheme, but even otherwise, the scheme can, with suitable adaptations, be utilised.

The object of such a scheme will be threefold :—

- (1) It will aim at making illiterate men and women literate ;
- (2) it will aim at giving the adult, education in citizenship and community living ; and
- (3) it will aim at educating their emotions through community recreation.

For (1), a simple method, which will take account of the fact that the adult though illiterate is mature and, in many cases, intelligent, will have to be used. It is proposed that he will be taught—

- (a) to read simple printed material and, perhaps, in the later stages, a weekly newspaper or magazine ;
- (b) to write his full name, names of his relatives, villages, tehsils and districts of his relatives as well as simple letters, addresses on letters, filling up money order forms and reading printed receipts etc ;
- (c) to count up to 100 and to do simple sums of addition, subtraction, multiplication and division ; also to have some knowledge of measures and weights and money in common use.

For (2), it will be necessary to give the adult—

- (a) a simple knowledge of history and geography of the country ;
- (b) some knowledge of hygiene and sanitation, including value of proper food, clothing, housing, and how to avoid disease, purification of water, and maternity care and welfare of children ;
- (c) some instructions in agriculture, including the proper use of land, the importance of water, and sun, light, and methods of improving cattle ;
- (d) suggestions for economic improvement, by the introduction of new crafts or better techniques in existing crafts as well as the introduction of dairy, fruit or vegetable gardening ;
- (e) teaching in citizenship, including value of cooperation, necessity of toleration, the importance of the vote, the village panchayats, local boards, district councils, duties of the citizens to the State etc ; and

- (f) some teaching in Universal Ethics, with special emphasis upon the necessity of toleration of one another's differences in a democracy.

The third objective will be realised through—

- (a) sports, *i. e.* play, *akhara*, swimming and other athletic competitions ;
- (b) drama, dance and music by individuals or groups ;
- (c) talks, *kathas* and recitation of poetry and other recreative activities ; and
- (d) use of radio and film, wherever possible.

The above objectives will be realised through Camps established at suitable centres in each district. The Central Provinces have a scheme of opening four camps in each tehsil, with one Director and 10 volunteers. According to the C. P. scheme, the Director will be nominated by the Divisional Superintendent of Education and the volunteers must satisfy prescribed conditions, of which the most important are :—

- (a) a volunteer should have passed the 7th Class Examination ;
and
- (b) he should not be less than 16 years of age.

The Camps in C. P. are located in schools and have a duration of five weeks. Each Camp is required to arrange for its food with the help of a cook and a waterman. The Director is in sole charge of the Camp and has absolute authority over every member. The daily routine is made out from 5-30 A. M. to 10-30 P. M. with a break of $1\frac{1}{2}$ hrs. between 12-30 to 2 P. M. and another of half an hour between 4-30 and 5 P. M.

It is for every Province to decide what the duration and the size of the Camp will be, but it seems that five weeks is not enough for the end in view. The minimum period should be about eight weeks as it would not be possible to impart permanent literacy in a shorter period. Eleven is convenient size but where the population is dense Camps may be larger, though in no case should they be more than 25. The leader of the Camp should be a Professor where the volunteers are College students and a teacher of a school where the volunteers are school students.

The activities of the volunteers in each camp will include—

- (1) Literacy drive,
- (2) Lectures,
- (3) Forums,
- (4) Book talks, and
- (5) Organisation of Recreation.

Such activities will not only help adult illiterates but will be perhaps of even greater value to the volunteers as it will give them training in public speaking, organisation and development of leadership and initiative.

The cost of the scheme will vary from Province to Province. If the Government can find accommodation free of cost and the villagers contribute something in kind towards expenses of food of the camp workers, the cost of the scheme with voluntary workers will be nominal and should not exceed a couple of thousands of rupees. This money will be spent for newspapers, kerosene, books for just-literates, travelling expenses and cost of material etc. A Camp of 25 can educate about 500 people in a period of about eight weeks.

APPENDIX II

Syllabuses for Teacher Trainees

CARPENTRY

I. Theoretical Instruction

1. Names, description and uses of all tools common to the trade. Care and maintenance of tools. Safety precautions and first aid.
2. Different varieties of timber—their classification, description, properties and uses, market forms and trade terms.
3. Seasoning of timber: Diseases and defects of timber—their description, causes, how detected and effects. Preservation of timber and common processes of treatment.
4. Carpentry operations—sawing, cutting, planing etc.
5. Timber joints—their names, properties and uses. Jointing materials—nuts and bolts, screws, nails and hinges. Glue—its preparation and application.
6. Shop calculations and estimation of materials and cost.

II. Practical Training

1. Correct uses of all hand tools. Rule reading.
2. Marking off, sawing, planing, and chiselling.
3. Making simple joints. Uses of jointing materials.
4. Grinding and sharpening of tools.
- *5. Manufacture of such articles as correspondence tray, book ends, stool, arm chair, box with lock, cart wheel, window frames, including polishing and finishing.
6. Simple wood turning.

SHEET METAL-WORK

I. Theoretical Instruction

1. Names, description and uses of all tools common to the trade. Care and maintenance of tools. Safety precaution and first aid.

*Articles should be manufactured from approved sketches.

2. Properties of metals and alloys—block iron, galvanised iron, tin, brass, copper, lead and aluminium sheets. Commercial sizes of sheets of different metals. Sheet and wiregauges
3. Sheet metal joints and their uses. Wire and wiring allowances.
4. Heating appliances—Forge and the blow lamp: their construction, manipulation and care.
5. Solders—their composition, properties and uses. Fluxes. Soldering irons, their description, uses and care.
6. Soldering, sweating, brazing and tinning.
7. Development and construction of sheet metal articles.
8. Shop calculations and estimation of materials and cost.

II Practical Training

1. Rule reading. Marking out and cutting sheet metal to shapes.
2. Making sheet metal joints including riveted joints, wiring of edges and wiring allowance.
3. Soldering and sweating of joints.
4. Making simple articles such as tray, dust pan, funnel, oil can, box, milk can, and bucket.
5. Annealing of copper and copper alloy sheets. Brazing copper and brass pipes and pipe joints; bending of pipes.
6. Sheet metal beating and shaping to definite contour.
7. Tinning, copper and brass domestic utensils.

FRET-WORK AND WOODEN TOYS

I Theoretical Instruction

1. Use and care of hand-tools and equipment used in wood-work. Safety precautions and first aid.
2. Description and use of different kinds of wood for the production of toys.
3. Description of the different parts of fret-saw machine and wood-turning lathe.
4. Uses and qualities of different colours and materials used in painting.
5. Correct methods of painting and varnishing.
6. Preparation and application of oil paints.
7. Classification of colours and blending the same in any colour scheme.
8. Estimation of materials and cost.

II. Practical Training

1. Planing thin planks out of billets and cutting the same to required sizes and shapes with hand fret-saws.

2. Painting the finished toys with different colours.
3. Fret-work with hand-saws and on machines.
4. Sawing of billets and planing the planks.
5. Cutting the above into different sizes and shapes with fret-saws (either hand or machine) for the production of toys.
6. Making the following articles :—
 - (i) Models of birds, animals etc. of small size.
 - (ii) Models of toy motor cars, toy aeroplanes etc.
 - (iii) Other toys of general interest.

KNITTING WITH HAND MACHINES

I. Theoretical Instruction

1. Description of different types of knitting yarn and their qualities as regards strength, twist and elasticity.
2. Definition of various technical terms pertaining to yarn and knitting machines.
3. Description and uses of different parts of winding wheels and hand-knitting machines.
4. Defects in knitted goods and methods of correcting them.
5. Common stitches employed in knitting.
6. Selection of yarn of right counts for different gauges of knitting machines.
7. Estimation of materials and cost.

II. Practical Training

1. Winding of yarn on bobbins.
2. Knitting of cotton and silk. Izarbands, socks and stockings of cotton, wool and silk on hand knitting machines.
3. Fitting and adjusting the various parts of knitting machines.
4. Knitting designs on the fancy and plain knitting machines for pullovers etc.
5. Heel and toe joining, darning and clocking by hand.
6. Knitting designs on hose tops.
7. Ironing, finishing and making-up knitted goods.

BASKETRY AND WILLOW WORK (INCLUDING SIMPLE FURNITURE OF CANE AND BAMBOO)

I. Theoretical Instruction

1. Description of various materials employed in making baskets and simple furniture, their properties and uses.
2. Description of different tools employed and their uses. Care and maintenance of tools. Safety precautions and first aid.

3. Selection, sorting, soaking and damping of cane, willow, bamboo, etc.
4. Different designs of articles of cane, willow, bamboo, etc.
5. Mixing of colours, paints and varnishes.
6. Finishing of articles for marketing.
7. Estimation of materials and cost.

II. Practical Training

1. Sorting, soaking and damping of cane, willow, bamboo, etc.
2. Skinning of cane to various sizes and splitting of bamboo.
3. Making the following articles :—
 - (i) Fruit baskets.
 - (ii) Bicycle carriers (Baskets) of cane or bamboo.
 - (iii) Palm leaf hand bags for market.
 - (iv) Tiffin Basket.
 - (v) Punt chairs for children.
 - (vi) Teapoys.
 - (vii) Simple chairs.
4. Making fans of reed, bamboo-leaves or grass.

ARTISTIC WORK ON LEATHER AND MANUFACTURE OF FANCY LEATHER ARTICLES

I Theoretical Instruction :

1. Names, uses and maintenance of hand tools common to the trade. Safety precautions and first aid.
2. Description of various kinds of skins suitable for artistic work.
3. Common defects, flaws and damages in skins for artistic work.
4. Kinds of dyes, their combination and methods of application.
5. Choice and purchase of materials.
6. Method of finishing the work.)
7. Shop calculations and estimation of materials and cost.

(There are small books on this craft, one of which could be prescribed as a text-book.)

II. Practical Training

1. Use of hand tools.
2. Practice of tooling, matting and raising on small pieces of leather.
3. Sketching the designs on leather pieces and tooling the same.
4. Preparing the surface—dented, checked or matted etc. on leather pieces.

5. Colouring and finishing the same.
6. Cutting paper patterns and making the following articles :—
 - (i) Comb cases.
 - (ii) Key pouches.
 - (iii) Card cases.
 - (iv) Small purses.
 - (v) Blotters.
 - (vi) Diary covers.
 - (vii) Tie and handkerchief cases.
 - (viii) Ladies' purses and bags of simple designs.

MANUFACTURE OF SUITCASES AND BAGS

I. Theoretical Instruction

1. Names, uses and maintenance of hand tools common to the trade. Safety precautions and first aid.
2. Description of various types of hides and skins used in the manufacture of suit cases and bags.
3. Flaws and damages in the hides and skins with special reference to cutting the articles intended for production.
4. Names, descriptions and uses of the various items of raw materials used in making suitcases and bags.
5. Kinds of adhesives used and their advantages in suitcase making.
6. Different kinds of seams and their treatment.
7. Choice and purchase of raw materials.
8. Shop calculations and estimation of materials and cost.

II. Practical Training

1. Kit cutting (sharpening of awls, knives and other tools).
2. Cutting paper patterns.
3. Economical adjustment of patterns on the leather and cutting the various parts.
4. Manufacture of following items—
 - (i) Suitcases.
 - (ii) Attache cases.
 - (iii) Hand-bags.
 - (iv) Hold-alls.
 - (v) Straps of different kinds.
 - (vi) Small cases.
 - (vii) Purses.
 - (viii) Satchels.

COTTON SPINNING AND WEAVING

I. Theoretical Instruction

1. Short notes on different textile fibres with their origin, properties and uses.
2. Definition of such technical terms, as counts of yarn, reeds and healds, lea, hank, etc.
3. Description and use of various types of preparatory appliances employed in hand-spinning and weaving.
4. Uses of various sizing ingredients and recipes for size mixtures.
5. Descriptions and functions of different types of looms, dobbies and adjusting the same for different patterns.
6. General information regarding markets for purchasing raw materials and selling finished goods.
7. Designing. Use of counting glass and point paper.
8. Calculations to find out the weight of warp and weft and the prime cost of fabrics.

II. Practical Training

1. Carding and spinning of cotton.
2. Winding, warping and sizing on improved appliances.
3. Weaving *newar*, tapes and other fabrics of coarse counts of yarn on tape looms.
4. Weaving napkins, dusters, towels, and plain dhotis on handlooms.

AGRICULTURE

1. Importance of Agriculture, different branches of Agriculture viz, Agriculture proper. Animal Husbandry, Horticulture, Lacculture Sericulture and Poultry-farming etc.

2. *The plant*—Brief description of the root, the leaves, the stem, the flowers, the fruit and the seed.

3. *The soil and its cultivation*—Different types of soils, tilth and tillage operations, methods of sowing, *Kera*, *Pora* and *Chatta*.

4. *Agricultural Implements and Hand Tools*—(a) *Implements*.—Comparative uses, and working of an indigenous plough and a furrow turning plough ; a brief description and functions of different types of ploughs, cultivators, harrows, *sohagas*, rollers, *kharif* and *rabi* drills, *karrahs* fodder cutter, cart and yokes. (b) *Hand Tools*.—Brief description and functions of Spade, *Ramba*, *Gandala*, *Baguri*, *Kasosola*, *Kullahri*, *Toka*, *Pahaura*, Hand hoe, Sickle, *Jandra*, *Sangas*.

5. *Irrigation*.—Importance and main sources of irrigation, main types of water lifts, i. e. Persian Wheel, *Charsa*, *Dhienkhli*, Pumps, *Jhallar*, Sowing basket.

6. *Rotation and Manuring of Crops*.—Importance of rotation and manuring. Farm and manure, Compost manure, green manuring, and artificial fertilizers.

7. *Farm crops*.—Cultivation, time of sowing, seed rate, number of irrigations, time of harvesting and yields of the following crops :—

(a) *Food Crops*.—Wheat, barley, rice, maize, jowar, bajra, gram, sugar-cane.

(b) Cotton and Sunhemp (Fibre crops).

(c) *Oil Seeds*—Toria, sarson, and tara mira.

(d) *Fodder Crop*.—Chari, guara, oats, berseem, lucern.

(e) *Miscellaneous Crops*—Tobacco.

8. *Weeds*—Important *kharif* and *rabi* weeds, and their measures of control.

FRUIT CULTURE

1. Site and soil suitable for fruit gardens

2. Preparation of land for orchard, various methods of lay out, distances, and defects in the present practices.

3. Important points in the cultivation of apple, banana, papaya, grape vine, orange, date, peach, pomegranate, almond, plum, pear, guava, loquat and mango.

4. *Pruning*—Objects and time for pruning, pruning of deciduous and ever green trees.

5. Methods of irrigation of fruit garden, manuring and intercropping

6. Tinning of fruits, picking and packing for marketing.

7. Methods of propagation of fruit trees, *i. e.* budding, layering, grafting, enarching etc.—laying out of fruit nurseries and their maintenance.

Vegetables—Soil requirements, methods and time of sowing, irrigation and interculture and manuring of important summer and winter vegetables.

Fruit Preservation—Preparation of juices, jellies, jams and squashes.

PLANT PROTECTION

1. *Diseases*

(a) Rusts and Smuts of wheat, oats and barley.

(b) Root rot, wilt and Tirak of cotton.

(c) Wilt and Blight of gram.

(d) Early and late blights of potato.

(e) Red rot of sugar cane.

(f) Wither tip and Ganker of citrus.

2. *Angiospermic Parasites*

- (a) *Striga*—On sorgham.
- (b) *Orobanche*—On tobacco and mustard.
- (c) *Cuseuta*—On Zucerna "Ber" etc.

INSECT PESTS ETC.

1. *Pest Control*—(Study of important insect pests of the following farm crops, vegetables, fruit trees and their control)

- (a) *Cotton*—Pink boll worm, spotted boll worm, white flies, and fassids.
- (b) *Sugarcane*—Top, stem and root borers, Pysilla and white ants.
- (c) *Gram*—Gram Grain caterpillars.
- (d) *Maize, Jowar and Rice*—Borers.
- (e) *Vegetables*—Hudds of brinjals, red pumpkin beetle.
- (f) *Citrus*—Citruspsylla and citrus white fly.
- (g) Mango hopper and mango mealy bug.

2. Study of important insect pests of the following stored grains, their remedial and control measures :—

- (a) *Wheat*—Wheat products, *Khapra*, beetles, susri (flour beetle).
- (b) *Rice*—Rice Weevil and rice moth.
- (c) *Gram*—Peas-Dhora (Pea Weevil).

3. Preparation and use of the following insecticides and fungicides—Lead arsenate lime mixture, Polson bran mash, Rosin compound, Tobacco decoction, lime sulphur wash, crude oil emulsion, Bordeaux mixture.

Dusts—Sodium flousilicate and parisgreen, study and use of the following spraying and dusting machines:—Sprayer : pneumatic sprayers, Hand bellows, Dusting gun, Rotary dusting machine and Knapsac dusters.

4. *Bee Keeping*—Types of honey bees and their life history. Indigenous and improved methods of bee-keeping, bee flora, extraction and marketing of honey.

5. *Sericulture*—Silk worm moth and its life history, silk rearing on home scale, important diseases of silk worm.

6. *Lacculture*—Lac insect and its life history, food plants, lac production on commercial scale.

DAIRYING

1. *Dairying and Animal Husbandry*—Points of good milch animals, milk and causes of variation in yield and quality. The hygiene and handling of milk as food. Treatment given to milk before issue. Standardization, sterilisation. Methods of creaming separation and separators, butter making, production of ghee, *Khowa*, etc., present position of milk supply in India. Improvement of cattle, breeds of India. Artificial insemination.

2. *Feeding and Management*—Classes of food and their comparative nutritive values. Different practices of feeding, housing, sanitation, general care and management of young stock.

3. *Sheep and Goat Rearing and Poultry*.—Some common breeds, improvements, feeding and management. Important diseases of cattle and their remedies.

HEALTH EDUCATION

1. Anatomy and Physiology
(to provide elementary background).

1. Composition of human body.
2. Circulatory system.
3. Digestive system.
4. Nervous system.
5. Respiratory system.
6. Genito-urinary system.
7. Special senses.

2. Scope of school health work.

Educational value of health of school child; death rates from preventable diseases; school medical inspection; why it is done; how is it done; what it discovers. Defects; correction; how it is to be done; discovery without correction of little value; prevention of recurrence; training in proper habits of living. Sanitation of school and surroundings.

3. Health of the Teacher and his place in the school health programme; factors which affect the teacher's health.

Environment

Cleanliness of home and surroundings; ventilation and lighting of the dwelling; adequate and protected water supply; sanitary latrine.

Personal Habits

Cleanliness of person, daily bath, care of teeth, use of tooth brush or chew sticks, daily bowel motion, hand washing, drinking water (clean or boiled).

Food

Three meals a day at regular times; milk, vegetables, fruits, eggs, unpolished rice.

Sleep :

Fresh air, exercise outdoors, windows open at night, recreation, regularity of habits, alcohol, tobacco, periodic health examination.

4. Method of Teaching Health.

Principles used in health teaching : (a) make use of child's natural wants and desires; (b) present positive rather than negative rules; (c) give concrete instructions rather than abstract generalizations; (d) associate pleasure activities with health teaching; (e) give opportunity to practise lessons taught; (f) adopt teaching to child's needs and interests; (g) healthy competition.

Routine activities : daily morning inspection, practice of health habits, individual score sheet and class-room chart, weighing and measuring, health plays, health clubs, Junior Red Cross.

Parent-teacher association, school health demonstration.

5. Training in Health Habits.

Physical characteristics of the normal healthy child. Significance of weight as evidence of normal health. Function of child is to grow. Factors influencing growth; heredity, malnutrition, acute and chronic diseases, bad housing, over-work, lack of exercise, ante-natal influences. Signs of malnutrition.

Health Habits: Why and the wherefore of the 10 model health habits—Sleep with windows open; cleanliness of teeth, use of latrine for daily bowel movement, bath, wash hands before meals, three meals a day, drink milk, eat green leafy vegetables and fruits, drink four glasses of water, play two hours out of doors; correct posture in standing, sitting and walking.

6. Care of the Teeth.

7. Communicable Diseases: General—

Bacteria: microbes, insect carriers of disease, flies mosquitoes, lice, bed bugs, preventive measures, personal, general notification, isolation, quarantine, disinfection. Special measures.

8. Communicable Diseases. Disease Control in Schools. Description of common minor ailments found in school children and how dealt with, scabies, pediculosis, impetigo.

Early signs of common infectious disease; chickenpox, measles, influenza, mumps, whooping cough. What each is, how spread, exclusion from school, duration of exclusion. How the teacher can help, procedure for communicable diseases in schools.

Practices in schools which help to control disease, immunizing, hand washing, safe drinking water, inspections.

9. Communicable Diseases—the Major Diseases—Smallpox, Cholera, Plague.

10. Communicable Diseases-Enteric Fever, Dysentery, Malaria and Hookworm. Anti-typhoid inoculation; administration of quinine in schools, life history of the mosquito.

11. A. Water-supply Sources—pollution, water-borne diseases; safe water in schools; how to protect a well; method of domestic purification of water by boiling.

B. Disposal of Excreta; Diseases spread through improper disposal; Dysentery, enteric, hookworm; fly as spreader of disease, life history; types of latrines, squatting plate most important, super structure not important.

How to care for the school latrine.

12. Sanitation of the Home and the School.

13. Health Organisation—Maternity and Child Welfare.

14. First Aid.

15. Food and Nutrition. Food—a basic requirement of life.

Six essential nutrients in food; carbohydrates, fats, proteins, mineral salts, vitamins and water.

Discovery of vitamins and the function of vitamins A, B, C. and D; their distribution in natural foods. Effects of cooking on vitamins. Difference between malnutrition and undernutrition.

Protective foods and their properties. Classification of food into cereals, pulses, vegetables, flesh foods, milk, fruits and nuts etc. Balancing of diets.

GENERAL CULTURE

Objectives

(a) To develop a sense of the unity of the world and a healthy interest in the peoples of India and other lands.

(b) To inculcate in the pupils a consciousness of our cultural heritage and foster a sense of citizenship.

Syllabus

I. *Peoples of the World*—(a) The main divisions of the world: Europe and its extension to America; World of Islam and countries sharing the Islamic Civilisation; the World of China and Japan etc., etc.

Some account of these lands and their peoples; Physical features, climate, chief products, industries, trade etc. Food, dress, houses, customs, festivals and occupation of the peoples.

(b) Provinces and States in the Indian Union—Important Physical features, climate, chief products, industries etc. Special characteristics of people in each province—food, dress, festivals, occupation, customs etc. Some outstanding personalities of each province.

II. *Cultural Heritage*—1. *Mohenjodaro Civilisation*: Life of the people in towns. Their religion, industries—textiles and metals. Agriculture, Arts and Crafts. Planning of towns, Architecture and Sanitation. Seals of the period and their importance.

2. *Vedic and Epic Period*: Social, economic and religious life of the people in the Vedic and the Epic age. Political Divisions of the country. Political organisation. Origin and development of Caste System. Position of women and their achievements in Literature, Philosophy and Politics.

3. *Maurya Period and Buddhism*: Buddha and his teachings. Mahavira and Jainism. Chandragupta Maurya and his administration. Asoka the Great. Contacts with foreign countries. Progress of Science, Learning, Sculpture, Architecture and Painting. Chanakya's *Arthashastra*.

4. *Golden Age of Hinduism*: Chandragupta, Vikramaditya, Harsha Vardhan, Legal Code by Manu. Renaissance of Art, Science, Architecture and Literature. Chinese Pilgrims—Fa Hian and Hiuen Tsang.

5. *Coming of Islam*: The Prophet and his preachings. First contacts with Islam. Causes which led to the conquest of India. Reopening of Land and Sea routes. Contribution of Islam to Indian Art, Architecture, Literature and Religion. Political, social and economic life of the people. Attempts at evolving a common religion and culture. Some great kings, saints, poets, and artists—Akbar, Shah-jehan, Shivaji, Nanak, Kabir, Tulsi, Das, Faizi, Tan Sen, etc., etc.

6. *Contact with Western Civilisation*—Discovery of sea route and traders from Western countries—Portuguese, Dutch, French, and British. Establishment of British power in India. Resistance from Indians. Influence of western civilisation on India's social, economic and political life—Education, expansion of industry and manufactures, agriculture, disappearance of Panchayats etc. Some outstanding figures of the period—Raja Ram Mohan Roy, Tagore, Sir Jamsedji Tata, etc.

7. *Struggle for Freedom*: Birth of Indian National Congress, Partition of Bengal. Swadeshi Movement. Non-cooperation and Civil Disobedience and achievement of Independence. Work of Gokhale, Tilak, Gandhi and Nehru.

III. *Citizenship*: Local Self-Government—Panchayats, District Local Boards and Municipalities; their organisation and functions; sources of revenue.

Provincial and State Governments—Constitution, functions and powers; source of revenue.

Central Government—Constitution, functions and powers; sources of revenue.

Rights and responsibilities of citizenship in a Democracy. Importance of the vote.

Advance of Science and unification of the World.

Dangers of modern war; causes of war, necessity of toleration for peace.

Important political and economic systems—Democracy, Socialism, Communism, Capitalism, Imperialism and Dictatorship.