National Curriculum Framework 2005

The National Curriculum Framework 2005 (NCF 2005) is the fourth National Curriculum Framework published in 2005 by the National Council of Educational Research and Training (NCERT) in India.

This document seeks to provide a framework within which teachers and schools can choose and plan experiences that they think children should have. In order to realise educational objectives, the curriculum should be conceptualised as a structure that articulates required experiences.

National Curriculum Framework 2005 was developed as a means of modernising the system of education. The framework is based on the concept of Learning without burden.

What is the concept of Learning without burden?

Learning Without Burden recommended a major change in the design of syllabi and textbooks and also a change in the social ethos, which places stress on children to become aggressively competitive and exhibit precocity. To make teaching a means of harnessing the child's creative nature, the report recommended a fundamental change in the matter of organising the school curriculum, and also in the system of examination, which forces children to memorise information and to reproduce it. Learning for the sake of being examined in a mechanical manner takes away the joy of being young, and delinks school knowledge from everyday experience. To address this deep structural problem, the present document draws upon and elaborates on the insights of Learning Without Burden.

Guiding Principle of National Curriculum Framework - NCF 2005

The key guiding principles of National Curriculum framework 2005 were:

- connecting knowledge to life outside the school,
- ensuring that learning is shifted away from rote methods,
- enriching the curriculum to provide for overall development of children rather than remain textbook centric,
- making examinations more flexible and integrated into classroom life and,
- nurturing an over-riding identity informed by caring concerns within the democratic polity of the country.

Learning & Knowledge

The important aspects under this section of NCF 2005 are:

Children should like learning and feel valued and heard. The curriculum and school should make pupils feel safe and appreciated. The curriculum should promote pupils' physical, mental, and social growth.

Yoga and athletics are needed to meet pupils' nutritional, physical, and psychosocial needs. Learning should be fun, relevant, and conceptual. Students are vulnerable during adolescence, so the curriculum should prepare them and provide social and emotional support to instil positive behaviour and teach them how to handle life's challenges, peer pressure, and gender stereotypes.

Inclusive education and curriculum flexibility for all students, including those with impairments, should be prioritised.

The curriculum must include constructive learning. Students need challenges, creative possibilities, and active engagement. Encourage students to interact with peers, teachers, and elderly persons for richer learning possibilities.

Strong foundations are needed. Primary, upper primary and middle school should allow students to explore and develop logical thinking and learn concepts, language, knowledge, investigation, and validation techniques.

Curricular Areas, School Stages & Assessment

Language

Language teaching should use the multilingual classroom as a resource and provide pupils with a variety of languages.

If a school doesn't educate in the child's home language(s) at higher levels, the primary school must. We must respect the child's home language(s).In a multilingual nation, the three-language formula should promote multilingual communication.

Later, classical and foreign languages may be studied.

Mathematics

An efficient curriculum is needed that is ambitious, coherent and teaches important principles of mathematics.

- Children learn to enjoy mathematics rather than fear it.
- Children should be taught that Mathematics is more than formulas and mechanical procedures.
- Children should see mathematics as something to talk about, to communicate through, to discuss among themselves, and to work together on.
- Children should be able to pose and solve meaningful problems without fearing those.
- Children should use abstractions to perceive relationships, to see structures, to reason out things, and verify the correctness of statements.
- Children should be able to understand the basic structure of Mathematics: Arithmetic, algebra, geometry and trigonometry, the basic content areas of school Mathematics all offer a methodology for abstraction, structuration and generalisation.

All these above aspects formed an important part of the NCF 2005 Mathematics section.

Computer

The introduction of computers in schools is to move from a predetermined set of outcomes and skill sets to one that enables students to develop 16 explanatory reasoning and other higher-order skills.

- Enable students to access sources of knowledge, interpret them, and create knowledge rather than be passive users.
- Promote flexible models of curriculum transaction.
- Promote individual learning styles.
- Encourage the use of flexible curriculum content, at least in primary education, and flexible models of evaluation.

Science

The essence of an efficient and effective Science curriculum, as mentioned in NCF 2005, is as follows:

At the primary level, the child should enjoy exploring and harmonising with the surroundings. At this stage, the goals are to nurture the child's curiosity about the world (natural environment, artefacts, and people), and to have the child engage in exploratory and hands-on activities for acquiring basic cognitive and psychomotor skills through observation, classification, inference, etc.

At the upper primary level, the child should be actively involved in learning the fundamentals of science through relatable experiences, designing simple technological units and modules with their hands on, and continuing to learn more about the environment and health, including reproductive and sexual health, through activities and surveys.

At the secondary stage, students should be engaged in learning science as a composite discipline, 49 in working with hands and tools to design more advanced technological modules than at the upper primary stage, and in activities and analyses on issues concerning the environment and health, including reproductive and sexual health.

At the higher secondary stage, science should be introduced as a separate discipline, with emphasis on experiments/technology and problem-solving.

Social Science

For the primary grades, the natural and the social environment will be explained as integral parts of languages and mathematics. Children should be engaged in activities to understand the environment through illustrations from the physical, biological, social, and cultural spheres. The language used should be gender sensitive. Teaching methods should be in a participative and discussion-oriented mode.

For Classes III to V, the subject of Environment Studies (EVS) will be introduced. In the study of the natural environment, the emphasis will be on its preservation and the urgency of saving it from degradation. Children will also begin to be sensitised to social issues like poverty, child labour, illiteracy, caste and class inequalities in rural and urban areas. The content should reflect the day-to-day experiences of children and their life worlds.

Art Education

The need to integrate art education in the formal schooling of our students now requires urgent attention if we are to retain our unique cultural identity in all its diversity and richness.

The arts, visual and performing, need to become an important component of learning in the curriculum. Children must develop skills and abilities in these areas, and not treat these as a mere entertaining fringe.

Through the arts curriculum students must be introduced to the rich and varied artistic traditions of the country. Arts education must become both a tool and a subject taught in every school as a compulsory subject (up to Class X), and facilities for the same may be provided in every school.

Health & Physical Education

The importance of this subject to overall development needs to be reinforced at the policy level, with participation by administrators, other subject teachers in schools, the Health Department, parents and children.

Recognising this subject as a core subject Health and Physical Education must continue to be a compulsory subject from the primary, to the secondary stages, and as an optional subject at the higher secondary stage. However, it needs to be given equal status with other subjects, a status that is not being given at present.

This subject area, consisting of health education, physical education and yoga, must be suitably integrated into the elementary and secondary pre-service teacher education courses.

Work & Education

Work related education is made as an integral component of the school curriculum, in the form of – work experience, work education, SUPW, craft education, life oriented education, pre vocational education and generic education. Work based education aims at involving children in a variety of production or service oriented activities, to develop skills, positive attitudes and values through work and also to develop work related competencies.

Peace

Education for peace seeks to nurture ethical development, inclucating the values, attitudes and skills required for living in harmony with oneself and with others, including nature. It embodies the joy of living and personality development with the qualities of love, hope and courage. It encompasses respect for human rights, justice, tolerance, cooperation, social responsibility, and respect for cultural diversity, in addition to a firm commitment to democracy and non-violent conflict resolution.

Learning Habitat

Humankind must, therefore, make an attempt to comprehend its roots, to re-establish links with its habitat, and to understand and take good care of it. In substance and spirit, then the theme ' Habitat and Learning' is equivalent to environmental education. These significant concerns are best realised by infusing the components of environmental education as part of different disciplines while ensuring that adequate time is earmarked for pertinent activities.

Assessment & Evaluation

A good evaluation and examination system can become an integral part of the learning process and benefit both the learners themselves and the educational system by giving credible feedback.

School & Classroom Environment

The physical environment has to be maintained favourable to students in terms of infrastructure, adequate light and ventilation, Student-teacher ratio, Hygiene and a safe environment. Schools should also treat students with equality, justice, respect, dignity and right of the students. Give equal opportunities for all students to participate in all activities without any bias. A policy of inclusion has to be part of the school where differently abled and children from marginalized sections get equal opportunities. The schools should also be well-equipped with libraries, laboratories and educational technology laboratories.

Systemic Reforms

Devising the curriculum for every aspect of child learning and development will fail if not supported by an effective framework, guidelines and systemic reforms.

Systemic reforms of structures and institutions promote children's involvement in school and learning along with the broad purposeful curricular vision. The system for preparing teachers and supporting their professional practice through monitoring and academic leadership; the system for producing textbooks and learning materials; decentralisation and Panchayati Raj Institutions; work-centered education and Vocational Education and Training (VET); and the most important structural feature—the examination system—are important. Therefore, for a curriculum to be successful, there must be effective systemic reforms to back those.

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