Secondary School Curriculum 2018-19

Volume - IMain Subjects for Classes IX-X



CENTRAL BOARD OF SECONDARY EDUCATION

Shiksha Sadan, 17, Institutional Area, Rouse Avenue, Delhi - 110002

1. PRINCIPLES OF THE CBSE CURRICULUM

The curriculum refers to the lessons and academic content to be taught to a learner in the school. In empirical terms, it may be regarded as the sum total of a planned set of educational experiences provided to a learner by a school. It encompasses general objectives of learning, courses of study, subject-wise instructional objectives and content, pedagogical practices and assessment guidelines. The curriculum provided by CBSE is based on National Curriculum Framework-2005 and seeks to provide opportunities for students to achieve excellence in learning.

1.1 Salient Features of the CBSE Secondary School Curriculum

The Curriculum prescribed by CBSE strives to:

- 1. provide ample scope for physical, intellectual and social development of students;
- 2. enlist general and specific teaching and assessment objectives;
- uphold Constitutional values such as socialism, secularism, democracy, republican character, justice, liberty, equality, fraternity, human dignity and the unity and integrity of the Nation by encouraging values-based learning activities;
- 4. nurture Life-Skills by prescribing curricular and co-curricular activities to help improve self-esteem, empathy towards others and different cultures etc.;
- 5. integrate innovations in pedagogy, knowledge and application, such as human sciences with technological innovations to keep pace with the global trends in various disciplines;
- 6. promote inclusive education by providing equal opportunities to all students;
- 7. integrate environmental education in various disciplines from classes I-XII;
- 8. equally emphasize Co-scholastic areas of Art Education and Health and Physical Education.

1.2 Objectives of the Curriculum

The Curriculum aims to:

- 1. achieve cognitive, affective and psychomotor excellence;
- 2. enhance self-awareness and explore innate potential;
- 3. promote Life Skills goal setting, decision making and lifelong learning;
- 4. inculcate values and foster cultural learning and international understanding in an interdependent society;
- 5. acquire the ability to utilize technology and information for the betterment of humankind;
- 6. strengthen knowledge and attitude related to livelihood skills;
- 7. develop the ability to appreciate art and showcase talents;
- 8. promote physical fitness, health and well-being.

1.3 Curriculum Areas at Secondary Level

The secondary school curriculum acknowledges the fact that subjects like language, mathematics, science and social studies help the cognitive development of the child and, therefore require a greater academic emphasis. Further, CBSE also envisions the all-round development of students in consonance with the holistic approach to education and therefore, emphasize integration of co-curricular domains with curricular activities in an equitable manner.

In operational sense, the secondary curriculum is learner-centered with school being a place where students would be acquiring various skills; building self-concept, sense of enterprise, aesthetic sensibilities and sportsmanship. Therefore, for the purpose of fostering core competencies in learners, this curriculum encompasses seven major learning areas, from scholastic and co scholastic point of view.

Languages	Scholastic Areas
Social Sciences	
Mathematics	
Science	
Health and Physical Education	Co-scholastic Areas
Art Education	

Scholastic Areas:-

The curriculum envisages individualized learning acumen and seeks to explore the potential of students in acquiring substantial acknowledge and skills through academic rigors. With greater academic orientation and research skills in core academic areas, students would evolve as judicious young adults with a sense of real self-estimate having true values and principles. The scholastic areas are as follows:

- (i) Languages include Hindi, English and other 36 languages (detailed in Curriculum Volume II). The curricula in languages focus on listening, speaking, reading and writing skills and, hence, develop effective communicative proficiencies. Learners use language to comprehend, acquire and communicate ideas in an effective manner.
- (ii) Social Sciences (Geography, History, Economics and Political Science) intends to make learners understand their cultural, geographical and historical milieus and gain in-depth knowledge, attitude, skills and values necessary to bring about transformation for a better world. Social Science include the learning of history and culture, geographical environment, global institutions, constitutional values and norms, politics, economy, interpersonal and societal interactions, civic responsibilities and the incorporation of the above-mentioned learning. Learners appreciate and value everyone's right to feel respected and safe, and, also understand their Fundamental Rights and Duties and behave responsibly in the society.
- (iii) Science (Biology, Chemistry and Physics etc.) includes gaining knowledge about Food, Materials, The World of The Living, How Things Work, Moving Things, People and Ideas, Natural Phenomenon and Natural Resources. The focus is on knowledge and skills to develop a scientific attitude and to use and apply such knowledge for improving the quality of life. This learning can be used to analyze, evaluate, synthesize and create. Learners understand and appreciate the physical, biological

- and technological world and acquire the knowledge and develop attitude, skills and values to make rational decisions in relation to it.
- (iv) Mathematics includes acquiring the concepts related to number sense, operation sense, computation, measurement, geometry, probability and statistics, the skill to calculate and organize, and the ability to apply this knowledge and acquired skills in their daily life. It also includes understanding of the principles of reasoning and problem solving. Learners identify, integrate and apply numerical and spatial concepts and techniques. They have clarity of concepts and are able to connect them to the real world. Learners rationalize and reason about pre-defined arrangements, norms and relationships in order to comprehend, decode, validate and develop relevant patterns.

Co- Scholastic Areas:-

Only a healthy child can learn effectively and good health leads to better learning. Many activities are necessary for development of the affective and psychomotor domain. The activities like games and sport, art and music, craft work etc. are termed as co-scholastic activities. The term co-scholastic activities are used for both cognitive and non-cognitive development that can take place by exposing the child to the scholastic and non-scholastic subjects. Art Education including local art, craft, literature and skills, Health and Physical Education, Yoga, traditional games, indigenous sports, NCC, Scouts and Guides, Martial Arts etc. are integral parts of the curriculum and to be included in the routine of the schools for the holistic development of children. These are detailed below:

- (v) **Art Education** entails instruction in various art forms (visual as well as performing) with an aim to help children develop an interest for arts and encourage them to enthusiastically participate in related activities, thus, promoting abilities such as imagination, creativity, valuing arts and cultural heritage.
- (vi) Health and Physical Education focuses on holistic development, both mental and physical, understanding the importance of physical fitness, health, wellbeing and the factors that contribute to them. Focus of this area is on helping children develop a positive attitude and commitment to lifelong, healthy active living and the capacity to live satisfying, productive lives with the help of health management, indigenous sports, yoga, NCC, self-defense, fitness and lifestyle choices.

These six learning areas are to be integrated with each other in terms of knowledge, skills (life and livelihood), comprehension, values and attitudes. Children should get opportunities to think laterally, critically, identify opportunities, challenge their potential and be open to new ideas. Children when engage in practices that promote physical, cognitive, emotional and social development and wellbeing, connect different areas of knowledge, application and values with their own lives and the world around them. The holistic nature of human learning and knowledge should be brought forth while transacting the curriculum.

2. Implementation of Curriculum

Schools have to setup a School Curriculum Committee with teachers representing each seven areas. The School Curriculum Committee would define activities for pedagogical practices, evolve a plan of assessment and mechanism of feedback and reflection and ensure its implementation. The committee would also ensure that the textbooks/reference materials are age appropriate, incorporate inclusive principles, are gender sensitive, have valid content and do not contain any material which may hurt the sentiments of any community. It would also ensure that the reference materials reflect conformity with the underlying principles of the Constitution of India and are compliant with NCF 2005. Issues of gender, social, cultural and regional disparities must be taken care of in the curriculum transaction.

2.1 Pedagogical Practices by Teachers

The pedagogical practices should be learner centric. It is expected of a teacher to ensure an atmosphere for students to feel free to ask questions. They would promote active learning among students with a focus on reflections, connecting with the world around them, creating and constructing knowledge. The role of a teacher should be that of a facilitator who would encourage collaborative learning and development of multiple skills through the generous use of resources via diverse approaches for transacting the curriculum.

Teachers should follow inclusive principles and not label children as 'slow learners' or 'bright students', or 'problem children' rather attend to the individual difference of students by diagnosing and modifying their pedagogic planning.

Reflection:

- Teaching should be in the conversational modes rather than in the modes of authoritarian monologue
- The teacher needs to draw the children and gain their confidence,
- Teachers should make deliberate attempts to explain the learning from utility of the textual material taught in school to real life.

2.2 Lesson/ Unit Plan

Specific Lesson Plans for the topics are to be prepared by the teachers. These plan may have the following parts:

- Specific Learning Outcomes;
- Pedagogical Strategies;
- activities/experiments/hands-on-learning;
- Interdisciplinary Linkages and infusion of Core Skills (Life-skills, Values, Gender sensitivity etc.);
- Resources (including ICT);
- Feedback and Remedial Teaching Plan.

2.3 Creating Cross-Curricular Linkages

Creating cross-curricular linkages are vital to learning as they help to connect prior

knowledge with new information. For example, Mathematical data handling and interpretation can be effectively applied in geography and science; children can write better-framed answers in history, geography and science when they have learnt how to write explanations/short descriptions in a language; Life Skills like empathy, problem solving and interpersonal communications can be easily integrated with the study of literature and other areas. Universal Values, Life Skills, Constitutional Values with emphasis on realization of Fundamental Duties may be incorporated depending upon context in almost all the subjects.

3. STRUCTURE OF ASSESSMENT SCHEME

The Assessment scheme will have an 80 marks component for Board examination (class X) and Annual examination (class IX) in all scholastic subjects along with a 20 marks component of Internal Assessment. Students have to secure 33 percent marks separately in each of these components.

3.1 Board Examination for (class X) and Annual examination (class IX) 80 marks

For Class X:

The Board Examination of three hour duration for 80 marks in each subject will cover entire syllabus of Class-X. Marks and grades on the basis of 9-point grading system Grades will be awarded in each scholastic subject. For awarding the grades, the Board will put all the passed students in a rank order and will award the grades as follows:

A-1	Top 1/8th of the passed candidates
A-2	Next 1/8th of the passed candidates
B-1	Next 1/8th of the passed candidates
B-2	Next 1/8th of the passed candidates
C-1	Next 1/8th of the passed candidates
C-2	Next 1/8th of the passed candidates
D-1	Next 1/8th of the passed candidates
D-2	Next 1/8th of the passed candidates
E	Failed candidates

Notes:-

- a) Minor variations in proportion of candidates to adjust ties will be made.
- b) In case of a tie, all the students getting the same score, will get the same grade. If the number of students at a score point need to be divided into two segments, the smaller segment will go with the larger.
- c) Method of grading will be used in subjects where the number of candidates who have passed is more than 500.
- d) In respect of subjects where total number of candidates passing a subject is less than 500, the grading would be adopted on the pattern of grading and distribution in other similar subjects.

For Class IX:

The assessment scheme will be similar to class X Board examination. However, the grading in class IX will be as follows:

Grading Scale for Scholastic Areas (Class-IX)		
(School will award grades as per the following grading scale)		
MARKS RANGE GRADE		
91-100	A1	
81-90	A2	
71-80	B1	
61-70	B2	

51-60	C1
41-50	C2
33-40	D
32 and below	E (Failed)

3.2 Internal Assessment (20 Marks)

Internal Assessment(IA), emphasizing assessment of learning through multiple approaches, comprises Periodic Tests (PT) with weightage of 10 marks, Notebook Submission of 5 marks and Subject Enrichment Activities of 5 Marks.

IA helps teachers to set their curricular targets for students and adjust pedagogy as per the need of students. It apprises both teachers and students about the extent of learning at a point when timely intervention or remedial action can be made. It also provides a mechanism for individual learner to actively understand the level of their attainment. By analyzing and discussing their queries, the students develop strategies to improve learning and enhance their study habits and, therefore, accordingly formulate strategies with the help of parents and teachers.

(i) Periodic Test (PT) for 10 Marks

Periodic Test is a Pen and Paper assessment which is to be conducted by the respective subject teacher. The format of periodic test must have questions items with a balance mix, such as, very short answer (VSA), short answer (SA) and long answer (LA) to effectively assess the knowledge, understanding, application, skills, analysis, evaluation and synthesis. Depending on the nature of subject, the subject teacher will have the liberty of incorporating any other types of questions too. The modalities of the PT are as follows:

- a) Mode: The periodic test is to be taken in the form of pen-paper test.
- b) **Schedule:** In the entire Academic Year, three Periodic Tests in each subject may be conducted as follows:

Test	Pre Mid-term (PT-I)	Mid-Term (PT-II)	Post Mid-Term (PT-III)
Month	July-August	November	December-January

This is only a suggestive schedule and schools may conduct periodic tests as per their convenience. The winter bound schools would develop their own schedule with similar time gaps between two consecutive tests.

- c) **Syllabus:** The portion of syllabus will be cumulatively covered in periodic test with reference to the announcement of date of tests by schools.
- d) Average of Marks: Once schools complete conduct of all the three periodic tests, they will convert the weightage of each of the three tests into ten marks each for identifying best two tests. The best two will be taken into consideration and the average of the two shall be taken as the final marks for PT.
- e) The school will ensure simple documentation to keep a record of performance as suggested in detail circular no. Acad-05/2017.
- f) Sharing of Feedback/Performance: The students' achievement in each test must be shared with the students and their parents to give them an overview of the level

of learning that has taken place during different periods. Feedback will help parents formulate interventions (conducive ambience, support materials, motivation and morale-boosting) to further enhance learning. A teacher, while sharing the feedback with student or parent, should be empathetic, non-judgmental and motivating. It is recommended that the teacher share best examples/performances of IA with the class to motivate all learners.

(ii) Notebooks Submission (5 Marks)

Notebook Submission is an appraisal tool to ensure the regular and attentive participation of students in classroom transaction. Notebook submission addresses the critical aspect of regularity, punctuality, neatness and notebook upkeep. Through Notebooks, students also gain efficiency in writing by improving speed and handwriting. Moreover, notebooks also promotes techniques such as annotation, summarization, identification of keywords, themes and topics etc.

Notebooks may also be a tool for teacher to ascertain engagement level of the students and their organizational skills. Notebooks serve as an important evidence for Principals to keep track of the learning of students and progress of teaching learning in a particular class. Notebooks can also add value in planning remedial strategies. It also keeps parents informed about the academic progress of their ward and the coverage of syllabus in the class.

Assessment of Notebook: While assessing Notebook Submission, teachers should follow these parameters:

- a. **Regularity:** refers to bringing notebooks as per the timetable. Students who do not bring the notebooks regularly should be motivated/ encouraged/ counselled to be regular in bringing the notebooks.
- b. **Completion of Assignment/work done:** Timely and regular completion of work done/assignments in notebook is expected from students. Special attention/counseling/feedback to parents should be given to students who do not complete the assignment/work.
- c. **Neatness and Upkeep of Notebook:** Quality of work in the notebook (legible, properly- indexed and dated, properly titled and labelled topics, creativity, neatness, cognitive/psycho-motor skills, e.g. drawing of graphs/diagrams/analytical work done in the assignment given)

Suggestions for teachers

- Notebook assignments must be aligned to classroom teaching.
- The volume and nature of assignments should be age appropriate.
- It may be ensured that notebooks should not become an expensive or burdensome activity for the students.
- Teachers should avoid negative remarks and try to motivate students by providing positive feedback keeping abilities of individual student in view.
- Teacher must identify cases of dysgraphia or students with some kind of writing difficulties and make special provisions for them per se. As far as practicable, care should be taken for individual difference of students.

(iii) Subject Enrichment Activities (5 Marks)

These are subject specific activities aimed at enrichment of the understanding and skill development. These activities are to be recorded internally by respective subject teachers.

For Languages: Activities conducted for subject enrichment in languages should aim at equipping the learner with effective Listening and Speaking skills. Assessment of listening and speaking skills may be done on the basis of Interaction, Pronunciation, Fluency, Coherence, Vocabulary and Grammar.

Suggestive Activities in Listening and Speaking

The teachers may use activities for Listening and Speaking provided in the prescribed text.

Listening: Listening to small narrations, stories etc. and handling exercises such as true /false, MCQ, gap filling and Short Answer Questions.

Speaking: Conversations and dialogues, presentation on an unseen visual/verbal stimulus (within the prescribed syllabus), spontaneous question-answers, recitation and narration. Schools should not send any recording of speaking skills to CBSE.

Options for speech or aural disabled candidates:

In lieu of the assessment of Listening and Speaking, students will be required to write a story/poem/small narrative/article etc. which may express the creativity and imagination of the student. Students who stammer may be given extra time during the assessment process as per the need of the child.

For Mathematics: The listed laboratory activities and projects as given in the prescribed publication of CBSE/NCERT may be followed.

For Science: The listed practical works / activities may be carried out as prescribed by the CBSE in the curriculum. It is well recognized that concepts of science are best understood by students through demonstration and lab experiments.

For Social Science: Map and project work may be undertaken as prescribed by the CBSE in the curriculum.

3.3 Co-Scholastic Areas

Education envisages the comprehensive and holistic development of children and, hence, Co-scholastic activities are essential. CBSE recommends three major Co-scholastic activities viz., Art Education and Health and Physical Education.

(a) Art Education

Art Education constitutes curricular activities for the development of the wholesome personality of the children, aesthetic sensibilities and respect for social values and cultural heritage. It encourages learners to develop creative expression, sharpens keen observation and develops a sense of organization and order. Students may select one form each from Visual Arts (drawing, painting, murals, collages, crafts, sculpture, etc.) and Performing Arts (dance, music, drama, puppetry and Folk Art forms etc.). Children's participation in activities / competitions organized and conducted

throughout the year form the basis of assessing the student by the Visual Art/Performing Art teacher.

(b) Health and Physical Education (Sports/Self-Defence/Yoga/NCC etc.)

Health and Physical Education focuses on holistic development, both mental and physical, understanding the importance of physical fitness, health, wellbeing and the factors that contribute to them. Focus of this area of curriculum is on helping children develop a positive attitude and commitment to lifelong, healthy and active living and the capacity to live satisfying, productive lives with the help of health, hygiene and sanitation, work education, indigenous sports, yoga, NCC, self-defense, fitness and lifestyle choices.

Health and Physical Activities, preferably sports must be given a regular period. Students should be provided opportunities to get professionally trained in the area of their interest. Indigenous sports, yoga and NCC must be encouraged in the schools as they develop physical fitness, discipline, sportsmanship combined with patriotism, self-sacrifice and health care. Similarly Self-defense may be actively taught to students, especially girl students, as it instils confidence and empowers them. The teachers should ensure that the students get opportunities to participate in activities of their choice and help them in identifying and nurturing their talents and gain confidence. The Physical Education Teacher will maintain the record of all the Health and Physical Education activities / competitions that each of the children participate in. The Comprehensive School Health Manuals (four volumes) brought out by CBSE could be referred to for detailed information and the graded activities could be taken up as part of the curriculum in school.

To address the Health aspect of HPE, qualified doctors should examine children once in the academic year along with a follow-up session during the year. This has also been stated in affiliation byelaws of the Board. School should also bring any noticeable disability in a student to the notice of the school counsellor and parents. Cases of special needs of students with medical history must be carefully noted and handled accordingly.

Assessment of Co-Scholastic Areas

Assessment of Co-scholastic Areas may be continuously done by collecting information, reflecting on and using that information to review children's progress and to plan future learning experiences. The documented data, after interpretation, should be reflected in the Report Card of the children in the form of grades.

In the existing scheme of assessment, these activities will be graded on a 5-point grading scale (A to E) for classes IX-X and will have no descriptive indicators. The students shall be assessed on any two activities of her/his choice from each of the three areas i.e. Art Education, Health and Physical Education. No upscaling of grades will be done.

The concerned teacher would make an objective assessment of the level of performance/participation demonstrated by a student throughout the academic year and finally assign grades.

Parameters of Assessment

While the students are engaged in the co-scholastic areas, the process is as important as

the product. Hence, the assessment in these areas should take account of both aspects. The basis of assessment has been suggested below:

Co-scholastic Areas	Product	Process
Health and Physical Education	Overall fitness	Participation, team-spirit, commitment and honest effort.
Art Education	Expression, creativity and Aesthetic appeal	Participation, cooperativeness, patience, systematic approach, neatness and cleanliness in work and work place and devotion and honest effort in work

Details of Five-point Grading for Co-scholastic Areas (Class IX and X)

Grade	Connotation
A	Outstanding
В	Very Good
С	Good
D	Fair
E	Average

Suggestions for Teachers

Teachers should encourage participation of each child in some activity or the other so that no child is left out from participation in activities organized at the class/school or at interschool level. By carefully examining the behaviour / skills / competencies of children in the class on all possible occasions, teachers will maintain records of the performance of learners. Schools should encourage teachers to work collaboratively with other teachers to facilitate and assess learner's performance and then finally assign grades.

3.4 Discipline (Attendance, Sincerity, Behaviour, Values)

Discipline significantly impacts career shaping and helps build character, sincerity, self-control, perseverance, good behavior and values. The concept of discipline should not be confused with strict authoritarian environment and the students should be given freedom to share their doubts and ideas with teachers regarding classwork. Constitutional and universal values should also be encouraged amongst students. Hygiene, sanitation, dedication, honesty, truthfulness, kindness, empathy respect for the environment, elders and all living things etc. are the values that our students must actively practice. Parents may also support schools in cultivating disciplined behavior in their wards. Class teacher will grade the students on a Five-point scale (A to E) keeping in view the overall attendance, sincerity, values and behavior of the students. Values Education Resource Book and Kit developed by CBSE may be used for inculcating values in students.

3.5 Rules regarding Admission and Examination

For Eligibility for Admission and Examination and Scheme of Examination and related information, kindly see the Examination Bye-Laws of CBSE available at the following URL

http://www.cbse.nic.in/newsite/examinationbyelaws.html

4. SCHEME OF STUDIES

4.1 SUBJECT OF STUDIES

The learning areas will be as follows:

(1) and (2) Two Languages out of:

Hindi, English, Assamese, Arabic, Bahasa Melayu, Bengali, Bhutiya, Bodo, French German, Gujarati, Gurung, Japanese, Kannada, Kashmiri, Lepcha, Limboo, Marathi, Malayalam, Manipuri, Mizo, Nepali, Odia, Persian, Punjabi, Rai, Russian, Sanskrit, Sindhi, Sherpa, Spanish, Tamil, Telugu, Tibetan, Tamang, Tangkhul, Thai and Urdu

- (3) Mathematics
- (4) Science
- (5) Social Sciences
- (6) Art Education
- (7) Health and Physical Education

4.2 ADDITIONAL SUBJECTS

Students may offer any one of the following as an additional subject:

A. Language other than the two compulsory languages (offered as subjects of study)

OR

B. Elements of Book Keeping and Accountancy, Elements of Business, Painting, Music(6 Variants), Home Science, NCC or Computer Applications

OR

C. Retail, Information Technology, Security, Automotive, Introduction to Financial Market, Introduction to Tourism, Beauty & Wellness, Agriculture, Food Production, Front Office Operations, Banking & Insurance, Marketing & Sales, Health Care, Apparel and Media.

NOTES

(i) It is expected that all the students would have studied three languages up to class VIII. Those students who could not clear the third language in class VIII, and have been promoted to class IX, shall be examined by the concerned schools at the end of class IX in the same syllabus and textbooks as are prescribed for class VIII. Those who are still unable to clear the third language at the end of class IX may be given another opportunity in class X. No student shall be eligible to appear at the Secondary School Examination of the Board at the end of class X unless she/he has cleared the third language.

- (ii) Hindi and English must be two of the three languages to be offered as stated in the note (i) above. Hindi and English must have been studied at least up to class VIII.
- (iii) Hindi or English must be one of the two languages to be studied in class IX and X. Hindi and English can also be offered simultaneously. In Hindi two courses have been provided for class IX and X keeping in view the varying backgrounds of the students and a student may either opt for Hindi A (Code 002) or Hindi B (Code 085).
- (iv) Students offering additional sixth vocational subject under NSQF scheme may also offer an additional language III as 7th subject.
- (v) In Regional Languages, the Board prescribes the textbooks being followed in classes IX and X in the respective State Boards where the language is taught. Schools are also advised to bring to the notice of CBSE the changes, if any, brought out at the commencement of the academic session by the respective State Boards, in the textbooks of the language of their State. Schools are directed to strictly follow the textbooks prescribed by CBSE in its curriculum.

4.3 INSTRUCTIONAL TIME AND OTHER PROVISIONS

Instructional time and other provisions will be as per the Right to Education Act-2009, Affiliation Bye-laws and Examination-Bye-laws of the Board.

4.4 MEDIUM OF INSTRUCTION

The medium of instruction in general in all the schools affiliated with the Board shall either be Hindi or English.