



# SECONDARY SCHOOL CURRICULUM 2021-22



**CENTRAL BOARD OF SECONDARY EDUCATION**

Academic Unit, Shiksha Sadan, 17, Rouse Avenue, New Delhi-110 002



Secondary School Curriculum 2021-22

Class IX-X

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# THE CONSTITUTION OF INDIA

## PREAMBLE

**WE, THE PEOPLE OF INDIA**, having solemnly resolved to constitute India into a <sup>1</sup>**[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC]** and to secure to all its citizens :

**JUSTICE**, social, economic and political;

**LIBERTY** of thought, expression, belief, faith and worship;

**EQUALITY** of status and of opportunity; and to promote among them all

**FRATERNITY** assuring the dignity of the individual and the<sup>2</sup> [unity and integrity of the Nation];

**IN OUR CONSTITUENT ASSEMBLY** this twenty-sixth day of November, 1949, do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

1. Subs, by the Constitution (Forty-Second Amendment) Act, 1976, sec. 2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
2. Subs, by the Constitution (Forty-Second Amendment) Act, 1976, sec. 2, for "unity of the Nation" (w.e.f. 3.1.1977)

# THE CONSTITUTION OF INDIA

## Chapter IV A

### FUNDAMENTAL DUTIES

#### ARTICLE 51A

**Fundamental Duties** - It shall be the duty of every citizen of India-

- (a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers, wild life and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;
- <sup>1</sup>(k) who is a parent or guardian to provide opportunities for education to his/her child or, as the case may be, ward between age of six and fourteen years.

1. Ins. by the constitution (Eighty - Sixth Amendment) Act, 2002 S.4 (w.e.f. 12.12.2002)

# भारत का संविधान

## उद्देशिका

हम, भारत के लोग, भारत को एक सम्पूर्ण 'प्रभुत्व-संपन्न समाजवादी पंथनिरपेक्ष लोकतंत्रात्मक गणराज्य बनाने के लिए, तथा उसके समस्त नागरिकों को:

सामाजिक, आर्थिक और राजनैतिक न्याय,  
विचार, अभिव्यक्ति, विश्वास, धर्म

और उपासना की स्वतंत्रता,  
प्रतिष्ठा और अवसर की समता

प्राप्त कराने के लिए  
तथा उन सब में व्यक्ति की गरिमा

<sup>2</sup>और राष्ट्र की एकता और अखंडता  
सुनिश्चित करने वाली बंधुता बढ़ाने के लिए

दृढ़संकल्प होकर अपनी इस संविधान सभा में आज तारीख 26 नवम्बर, 1949 ई० को एतद्वारा इस संविधान को अंगीकृत, अधिनियमित और आत्मार्पित करते हैं।

1. संविधान ( बयालीसवां संशोधन ) अधिनियम, 1976 की धारा 2 द्वारा ( 3.1.1977 ) से “प्रभुत्व-संपन्न लोकतंत्रात्मक गणराज्य” के स्थान पर प्रतिस्थापित।
2. संविधान ( बयालीसवां संशोधन ) अधिनियम, 1976 की धारा 2 द्वारा ( 3.1.1977 ) से “राष्ट्र की एकता” के स्थान पर प्रतिस्थापित।

## भाग 4 क

## मूल कर्तव्य

**51 क. मूल कर्तव्य** – भारत के प्रत्येक नागरिक का यह कर्तव्य होगा कि वह –

- (क) संविधान का पालन करे और उसके आदर्शों, संस्थाओं, राष्ट्रध्वज और राष्ट्रगान का आदर करे;
- (ख) स्वतंत्रता के लिए हमारे राष्ट्रीय आंदोलन को प्रेरित करने वाले उच्च आदर्शों को हृदय में संजोए रखे और उनका पालन करे;
- (ग) भारत की प्रभुता, एकता और अखंडता की रक्षा करे और उसे अक्षुण्ण रखे;
- (घ) देश की रक्षा करे और आह्वान किए जाने पर राष्ट्र की सेवा करे;
- (ङ) भारत के सभी लोगों में समरसता और समान भ्रातृत्व की भावना का निर्माण करे जो धर्म, भाषा और प्रदेश या वर्ग पर आधारित सभी भेदभाव से परे हों, ऐसी प्रथाओं का त्याग करे जो स्त्रियों के सम्मान के विरुद्ध हैं;
- (च) हमारी सामासिक संस्कृति की गौरवशाली परंपरा का महत्त्व समझे और उसका परिरक्षण करे;
- (छ) प्राकृतिक पर्यावरण की जिसके अंतर्गत वन, झील, नदी, और वन्य जीव हैं, रक्षा करे और उसका संवर्धन करे तथा प्राणी मात्र के प्रति दयाभाव रखे;
- (ज) वैज्ञानिक दृष्टिकोण, मानववाद और ज्ञानार्जन तथा सुधार की भावना का विकास करे;
- (झ) सार्वजनिक संपत्ति को सुरक्षित रखे और हिंसा से दूर रहे;
- (ञ) व्यक्तिगत और सामूहिक गतिविधियों के सभी क्षेत्रों में उत्कर्ष की ओर बढ़ने का सतत प्रयास करे जिससे राष्ट्र निरंतर बढ़ते हुए प्रयत्न और उपलब्धि की नई उंचाइयों को छू ले;
- <sup>1</sup>(ट) यदि माता-पिता या संरक्षक हैं, छह वर्ष से चौदह वर्ष तक की आयु वाले अपने, यथास्थिति, बालक या प्रतिपाल्य के लिये शिक्षा के अवसर प्रदान करे।

1. संविधान ( छयासीवां संशोधन ) अधिनियम, 2002 की धारा 4 द्वारा प्रतिस्थापित।



# 1. PRINCIPLES OF THE CBSE CURRICULUM

## 1.1 CBSE Curriculum

The curriculum refers to the lessons and educational content to be taught to a learner in a 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, competencies to be attained, courses of study, subject-wise learning outcomes 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.

## 1.2 Salient Features of the CBSE Secondary School Curriculum

The Curriculum prescribed by CBSE strives to:

1. provide ample scope for holistic i.e. physical, intellectual and social development of students;
2. emphasize constructivist rather than rote learning by highlighting the importance of hands-on experience;
3. enlist general and specific teaching and assessment objectives to make learning competency-based;
4. encourage the application of knowledge and skills in real-life problem solving scenarios;
5. uphold the 'Constitutional Values' by encouraging values-based learning activities;
6. promote Critical and Creative Thinking aligned to the 21st Century Skills in classrooms;
7. integrate innovations in pedagogy such as experiential learning, Sport & Art-Integrated Learning ,toy-based pedagogy, storytelling, gamification etc. with technological innovations (ICT integration) to keep pace with the global trends in various disciplines;



8. promote inclusive practices as an overriding consideration in all educational activities;
9. enhance and support learning by different types of assessments; and
10. integrate environmental education in various disciplines from classes I- XII.

### 1.3 Objectives of the Curriculum

The Curriculum aims to:

1. achieve cognitive, affective and psychomotor excellence;
2. enhance self-awareness and explore innate potential;
3. attain mastery over laid down competencies;
4. imbibe 21st century learning, literacy and life skills;
5. promote goal setting, and lifelong learning;
6. inculcate values and foster cultural learning and international understanding in an interdependent society;
7. acquire the ability to utilize technology and information for the betterment of humankind;
8. strengthen knowledge and attitude related to livelihood skills;
9. develop the ability to appreciate art and show case talents;
10. Promote physical fitness, health and well-being.
11. Promote arts integrated learning.

### 1.4 Curriculum Areas at Secondary Level

CBSE envisions the all-around development of students in consonance with the holistic approach to education and therefore, has done away with





artificial boundary between the co-curricular domain and the curricular domain.

Secondary Curriculum provides students a broad and balanced understanding of subjects including languages, Mathematics, Science, and Social Science to enable students to communicate effectively, analyze information, make informed decisions, construct their worldview in alignment with constitutional values and move ahead in the direction of becoming productive citizens. The recent focus of CBSE is on the development of 21st-century skills in settings where each student feels independent, safe, and comfortable with their learning. The Board hopes that schools will try to align curriculum in a way so that children feel more connected to it and employ their learning in real-life contexts. To achieve this aim, it is extremely important that children acquire adequate knowledge and skills in other core areas like Health and Physical Education, Life Skills, Values Education, Art Education, Work Education.

In an 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 major learning areas as under:

Languages 1	Compulsory
Languages 2	
Social Science	
Mathematics	
Science	
Elective Subjects	Optional
Health and Physical Education	Compulsory Subjects having only school based internal assessment
Work Experience*	
Art Education	

\* subsumed in Health and Physical Education



## 1.5 Curricular Areas:-

The curriculum envisages individual learning propensity and seeks to explore the potential of students in acquiring knowledge and skills. With greater orientation and research skills in core areas, students would evolve as judicious young adults with a sense of real self-estimate having true values and principles. The curricular areas are as follows:

- (i) **Languages** include Hindi, English and 37 other languages. 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 Science** (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 includes 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) 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. The Curriculum promotes the ability to engage with science-related issues, and with the ideas of science, as a reflective citizen by being able to explain phenomena scientifically, evaluate and design





scientific enquiry, and interpret data and evidence scientifically. Students understand the importance of to apply scientific knowledge in the context of real-life situations and gain competencies that enable them to participate effectively and productively in life.

- (iv) **Mathematics** includes acquiring the concepts related to number sense, operation sense, computation, measurement, geometry, probability and statistics, the skill to calculate and organize, the ability to apply this Knowledge and acquired skills in their daily life and the skills to think mathematically. It also includes understanding of the principles of reasoning and problem solving. Children learn to rationalize and reason about pre-defined arrangements, norms and relationships in order to comprehend, decode, validate and develop relevant patterns.
- (v) **Skills Electives-** A well-skilled workforce is one of the key requirements for the prosperity and growth for any country. Some skills come from general education, but specific occupational skills are also important. Typically initial vocational education and training systems have a big part to play in supplying these skills. To develop skills and talents as a form of free expression, Board offers variety of competency based subjects under NSQF like Retail, Information Technology, Marketing & Sales, Banking, Finance, AI etc. Choosing any one Skill subject at secondary level can helps the child to pursue what truly interests or pleases him or her. This liberty promotes a sense of self-esteem in accepting one's own talents and strengths.

The curriculum and the study material for the Skill Electives is available on the CBSE academic website under the tab 'Skill Education' and can be accessed through the link: <http://cbseacademic.nic.in/skill-education.html>.

- (vi) **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. In addition, Arts should be integrated with other subjects to promote creative thinking and expression

- (vii) **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 life style choices.
- (viii) **Work Experience:** The Work Experience has been subsumed in the Health and Physical Education, however, it is an integral part of the curriculum and is given as much as focus as Health and Physical Education.

## 1.6 Integrating all areas of learning:

All these eight 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 should be engaged 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 to make them good citizens who can contribute in making the world a happy place.

## 2. IMPLEMENTATION OF CURRICULUM

### 2.1 School Curriculum Committee

The Board mandates that all schools must setup a School Curriculum

Committee comprising teachers from each area. 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, gender sensitive, have valid content and do not contain any material which may hurt the sentiments of any community. The committee will then send the list of books to the Principal to take action as per para 2.4.7 (b) of the Affiliation Byelaws, 2018. The committee 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.

## **2.2 Pedagogical Leadership:**

All Principals have a crucial role to play in the evolution of the teaching-learning ecosystem as the Head and pedagogical leader of their schools. In the role of school pedagogical leader, the Principal is expected to undertake the following:

- (a) Lead, Guide and Support the teaching and learning processes in the school by focusing on classroom specific requirements for transacting the curriculum, so that both teachers and students perform at their optimal best.
- (b) Direct the entire focus of all school activities towards the students' learning and acquiring of necessary competencies. Every activity taken up by the school, therefore, should be mapped for the educational competencies, and for life skills, values, etc., being acquired by the students.
- (c) Prepare Annual Pedagogical Plan of the school by designing and developing annual plan for the school by giving equal importance to all areas.



- (d) Promote innovative pedagogy, with special focus on integrating art, sports and ICT (Information and Communication Technology) with education, and use of active and experiential learning methods in the classrooms.
- (e) Ensure joyful learning at all levels through use of such innovative pedagogy.
- (f) Develop school specific resources for teaching and learning, in the form of lesson plans, e-content, use of mathematics and science kits developed by NCERT, etc.
- (g) Ensure proper in-house training of teachers in the school to enable them to unleash their own unique capabilities and creativity in their classrooms.
- (h) To be up to date with all new ideas and tools, etc. being used in education at the global level and constantly innovate the pedagogy of the school.
- (i) To make efforts to learn from the best practices of other schools, by arranging for discussions with Principals of such schools, or through observation visits of teachers to other schools.

The Board has not laid down the structure or format of the annual pedagogical plan as the Board respects educational autonomy of every school and expects each school to prepare its own unique and innovative annual plan. This plan must be an implementable one with realistic timelines that should include administrative inputs and detailed pedagogical aspects.

### **2.3 Pedagogical Practices by Teachers**

The pedagogical practices should be learner centric. Teachers are expected to ensure such an atmosphere for students where they 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'. They should instead attend to the individual difference of students by diagnosing and modifying their pedagogic planning. As far as possible, Arts should be integrated in teaching, especially while teaching the concept which students find difficult to understand.

## **2.4 Competency based Learning:**

To face the challenges of 21st Century, education should be competency based and Principals as Pedagogical Leaders must create conducive environment for the development of competencies among the students. Competency based Learning focuses on the student's demonstration of desired learning outcomes as central to the learning process. Learning outcomes are statements of expected outcomes that the student will be able to do to know, understand and/or be able to demonstrate after completion of a process of learning as a result of learning the activity. Therefore, the focus is on measuring learning through attainment of prescribed learning outcomes. Experiential and active learning are the preferred pedagogies for Competency Based Learning as they promote critical thinking, creativity and effective study skills among students. Learning Outcomes approach developed by NCERT for classes I-X that is enclosed with each subject should be adopted by all the schools and teaching-learning process may be changed in the light of these outcomes. The schools are expected to have well-defined Learning objectives for every grade that are observable and measurable, and empower learners to focus on mastery of valuable skills and knowledge. It is expected that teachers will provide meaningful and joyful learning experiences to the students by adopting variety of innovative pedagogies or instructional activities and go beyond textbooks. Schools are expected to



track the attainment of Learning Outcomes by each learner and ensure that no child is left behind. CBSE has also come out with suggestive mapping of learning outcomes with NCERT curriculum which can be adopted/ adapted by schools. CBSE has also mapped each learning outcome with assessment to enable tracking of learning progress and these resources are available at the website of CBSE in the form of **Teachers Energized Resource Material**. Schools should also attempt this on their own.

## 2.5 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;
- ❖ Group activities/experiments/hands-on-learning;
- ❖ Interdisciplinary Linkages and infusion of Life-skills, Values, Gender sensitivity etc.;
- ❖ Resources (including ICT);
- ❖ Assessment items for measuring the attainment of the Learning Outcome
- ❖ Feedback and Remedial Teaching Plan.
- ❖ Inclusive Practices

## 2.6 Classroom and School Environment

School environment should be conducive for holistic development of the students. The school should focus on health and hygiene by adopting inclusive practices. As part of the policy the school should adopt practices which will promote mental health. In this direction, the schools may follow the guidelines issued by the Board on making the school a No-Anger Zone or Anger Free Zone. The board has developed school health manuals which are





available on [www.cbseacademic.nic.in](http://www.cbseacademic.nic.in). The time table in the school should take care of proper rest and the children learn subjects with relaxation. School must also ensure that Children avoid the intake of junk food and should ban it around school premises. Intake of the healthy foods should be encouraged with activities described in circular issued by CBSE.

The surroundings and daily life activities and situations are the best experiential teachers for the students. Teachers must make efforts to draw examples and group activities from daily life observations within the classroom/within the school and surroundings, and encourage presentations and reflection by the students once the activity is completed, to develop the skills of critical thinking and communication.

Children learn a lot through peer learning. To promote peer learning, flexible seating arrangements may be made available during the classroom transactions. The seating should also take care of the needs of the students with disabilities as well. Learning should focus on individual differences and promote collaborative learning. The classroom activities must be connected to the immediate environment of children. The school should maintain connection with the parents and the progress of children should be communicated to the parents, and, if needed remedial measures be taken up for improving the learning outcomes.

## **2.7 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. Similarly, 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 and Constitutional Values with emphasis on realization of Fundamental Duties may be incorporated depending upon context in almost all the subjects.



## 2.8 Special emphasis on Integrating Arts in education:

All disciplines being pursued by students at all stages require creative thinking and problem-solving abilities. Therefore, when Art is integrated with education, it helps the child apply art-based enquiry, investigation and exploration, critical thinking and creativity for a deeper understanding of the concepts/topics. Secondly, Art Integrated learning is a strong contender for experiential learning, as it enables the student to derive meaning and understanding, directly from the learning experience. Thirdly, this kind of integration not only makes the teaching and learning process joyful, it also has a positive impact on the development of certain life skills, such as, communication skills, reflection and enquiry skills, un-conditioning of the mind leading to higher confidence levels and self-esteem, appreciation for aesthetics and creativity, etc. Fourthly, this kind of integration broadens the mind of the student, and enables him/her to see the multi-disciplinary links between subjects, topics, and real life. Schools are, thus, required to take up the integration of Art with the teaching learning process.

It must be understood that Art Education and Art Integrated Education may be mutually exclusive, but they build upon each other and strengthen each other. Art Education is not only relevant for developing creativity and appreciation of art among students, but is also necessary for inculcating art-based enquiry skills in the students. Art Education is a necessary precursor for the adoption of Art Integrated learning.

### 2.8.1 Art Education and Art Integration:

The following two-pronged approach is followed:

- (i) Art education continues to be an integral part of the curriculum. The schools may also promote and offer Visual and Performing Arts based subjects at the Secondary and Senior Secondary level.
- (ii) Art is also integrated with the teaching and learning process of all subjects from classes 1 to 12, to promote active and experiential



learning for “connecting knowledge to life outside the school, ensuring that learning shifts away from rote methods and for enriching the curriculum, so that it goes beyond textbooks.”

### 2.8.2 Art Integrated Pedagogy:

While preparing its annual pedagogical plan under the leadership of the Principal of the school, the school must plan out in detail the Art Education to be imparted at various levels, and how that Art can be integrated with classroom learning of various subjects. The focus must be on mutually reinforcing Art as a subject and Art as a tool for learning, with efforts towards seamless integration. Team teaching (combination of subject teachers and Art teachers) would also strengthen the integration.

For implementing this in classrooms, the subject teacher picks the topic/ concept/idea that she wants to teach by integrating Art. The teacher can do this jointly with the Art teacher too. Then, the subject teacher collaborates with the Art teacher to align the pedagogy. Next, the teacher teaches the topic/concept/idea ensuring active learning and ensuring that both the subject and Art are integrated well and there is learning in both areas. Finally, the teacher prepares a rubric to assess the student in both the areas - that is, the topic taught and the Art used.

### 2.9 21st Century Skills:

There is an increased awareness among the educators of the need to integrate what are called as 21st Century skills in educational systems. There are three key 21st century skills;

There are three key 21st century skills i.e. Learning Skills, Literacy Skills and Life Skills.

#### Learning skills include:

- Critical Thinking
- Creativity



- Communication
- Collaboration

**Literacy skills include:**

- Information literacy
- Media literacy
- Technology literacy

**Life skills include:**

- Flexibility
- Leadership
- Initiative
- Productivity
- Self-awareness

The need of the hour is that schools must focus on enhancing the skills required for a successful adult life in 21st Century. It is important that the students are able to think scientifically, mathematically or artistically to face the real-life challenges in an information and technology driven world and enhance their inherent potential. CBSE has published a handbook on 21<sup>st</sup> century skills available at its website. Schools may further refer to it.

## **2.10 Inclusive Education:**

Inclusive approach in education is a prerequisite for ensuring full participation of all students with equal opportunity in all areas without any discrimination. Inclusive attitude in all staff and faculty members is crucial for successful inclusive education. Therefore, all the members of teaching and non-teaching staff should be sensitized on the issues of inclusive education. Students without disabilities should also be sensitized. Schools must organize these sensitization programmes with the support of experts from respective field of disabilities. Capacity Building Programmes

on Inclusive Education may be organized in collaboration with the CBSE- Centres of Excellence. Board has made the appointment of special educator mandatory to all the schools affiliated to the CBSE. Special Educators must possess the qualification as prescribed by the Rehabilitation Council of India. (CBSE Circular No. 31/2015). CBSE has published a handbook on Inclusive Education available at its website.

### 3. SCHEME OF STUDIES

#### 3.1 Subjects to be offered:

Class IX and X is a composite course. Students need to take only those subjects in class IX which they intend to continue in Class-X. Subjects can be offered as under:

Subjects		Names of the subjects	Group
Compulsory	Subject 1	Language I (Hindi -Course A or Hindi -Course B or English Language and Literature )	Group-L
	Subject 2	Language II (Any one from the Group of Languages (Group-L) other than the Language chosen as Subject 1)	Group-L
	Subject 3	Mathematics - Basic or Mathematics Standard	Group- A1
	Subject 4	Science	
	Subject 5	Social Science	
Optional	Subject 6	Skill subject	Group-S
	Subject 7	Language III /Any subject other than opted above	Group-L/Group-A2
Subjects of	Subject 8 and 9	Art Education	
Internal Assessment	Assessment and certification at school level	Health & Physical Education Work Experience*	

\*Work experience is subsumed in Health and Physical Education



- (a) The Board Examination in Mathematics is held at two levels in Class X .However, it is not be applicable to the internal assessment done in Mathematics at the school level in class X. For details please refer Circular No. Acad. 03/2019. It may be noted that the students who are opting Mathematics - Basic will have the option of taking Applied Mathematics (241) as an Elective at Class XI/Sr. Secondary though they may not be permitted to take Mathematics (041) at Sr. Secondary level. However a student who has opted Mathematics - standard can offer any one of the two available Mathematics at Sr. Secondary level.
- (b) If a student fails in any one of the three compulsory subjects (i.e. Science, Mathematics and Social Science) and passes in the Skill subject (offered as sixth optional subject), then that subject will be replaced by the Skill subject and the result of Class X Board examination will be computed accordingly.
- (c) If a student fails in any language subject, out of first five subjects, the same will be replaced by the language taken as sixth subject (in case of no skills subjects offered) or as seventh subject (optional), provided that he or she has passed this language and after replacement either Hindi or English remains as a passed language in the first five subjects.
- (d) 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 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 in the Secondary School Examination of the Board at the end of class X unless she/he has passed in the third language. However, students with disabilities are exempted from the study of third language.
- (e) Either 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).

- (f) Students offering additional sixth skill subject may also offer an additional language III/ any subject as seventh subject.
- (g) Out of the three subjects - Computer Application (Code 165), Information Technology (Code 402) and Artificial Intelligence (code 417) - only one can be offered. A combination of any of these subjects is not permitted.
- (h) For Skill subjects, only those subjects can be offered for which permission has been given by the Department of Skill Education, CBSE.
- (i) Board is extending several exemptions/concessions to candidates with disabilities as defined in the "THE RIGHTS OF PERSONS WITH DISABILITIES ACT 2016". Exemptions/Concessions extended to Persons with Benchmark Disabilities for Class X & XII Examinations conducted by the Board and the Standard Operating Procedure for availing these concessions are available on :

[https://www.cbse.gov.in/cbsenew/Examination\\_Circular/2019/5\\_CIRCULAR.pdf](https://www.cbse.gov.in/cbsenew/Examination_Circular/2019/5_CIRCULAR.pdf)

Schools and candidates may also refer to the circulars issued by the Board from time to time on this matter.

- (j) For 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 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. Changes, if any, can be adopted only after CBSE notifies it.



### 3.2 List of subjects offered at Secondary Level:

LANGUAGE ( GROUP-L)							
S	CODE	NAME		Theory Marks	Time (h)	Internal Marks	Total Marks
1	002	HINDI COURSE-A	(ANY ONE )	80	03	020	100
	085	HINDI COURSE-B		80	03	020	100
2	184	ENGLISH LANG & LIT.		80	03	020	100
3	003	URDU COURSE-A	(ANY ONE)	80	03	020	100
	303	URDU COURSE-B		80	03	020	100
4	004	PUNJABI		80	03	020	100
5	005	BENGALI		80	03	020	100
6	006	TAMIL		80	03	020	100
7	007	TELUGU	Any One	80	03	020	100
	089	TELUGU TELANGANA		80	03	020	100
8	008	SINDHI		80	03	020	100
9	009	MARATHI		80	03	020	100
10	010	GUJARATI		80	03	020	100
11	011	MANIPURI		80	03	020	100
12	012	MALAYALAM		80	03	020	100
13	013	ODIA		80	03	020	100
14	014	ASSAMESE		80	03	020	100
15	015	KANNADA		80	03	020	100
16	016	ARABIC		80	03	020	100
17	017	TIBETAN		80	03	020	100
18	018	FRENCH		80	03	020	100
19	020	GERMAN		80	03	020	100
20	021	RUSSIAN		80	03	020	100
21	023	PERSIAN		80	03	020	100
22	024	NEPALI		80	03	020	100
23	025	LIMBOO		80	03	020	100
24	026	LEPCHA		80	03	020	100
25	092	BODO		80	03	020	100
26	093	TANGKHUL		80	03	020	100
27	094	JAPANESE		80	03	020	100
28	095	BHUTIA		80	03	020	100
29	096	SPANISH		80	03	020	100
30	097	KASHMIRI		80	03	020	100
31	098	MIZO		80	03	020	100

32	099	BAHASA MELAYU	80	03	020	100
33	122	SANSKRIT	80	03	020	100
34	131	RAI	80	03	020	100
35	132	GURUNG	80	03	020	100
36	133	TAMANG	80	03	020	100
37	134	SHERPA	80	03	020	100
38	136	THAI	80	03	020	100

### COMPULSORY SUBJECTS (GROUP-A1)

S	CODE	NAME		Theory Marks	Time (h)	Internal Marks	Total Marks
1	041	MATHEMATICS -STANDARD	(ANY ONE )	80	03	020	100
	241	MATHEMATICS - BASIC		80	03	020	100
2	086	SCIENCE		80	03	020	100
3	087	SOCIAL SCIENCE		80	03	020	100

### OTHER SUBJECTS (GROUP- A2)

S	CODE	NAME		Theory Marks	Time (h)	Internal Marks	Prac- tical	Proj- ect	Total Marks
1	031	CARNATIC MUSIC (VOCAL)	(ANY ONE )	30	02	020	50	--	100
	032	CARNATIC MUSIC (MELODIC INSTRUMENTS)		30	02	020	50	--	100
	033	CARNATIC MUSIC (PERCUSSION INSTRUMENTS)		30	02	020	50	--	100
	034	HINDUSTANI MUSIC (VOCAL)		30	02	020	50	--	100
	035	HINDUSTANI MUSIC (MELODIC INSTRUMENTS)		30	02	020	50	--	100
	036	HINDUSTANI MUSIC (PERCUSSION INSTRUMENTS)		30	02	020	50	--	100
2	049	PAINTING		30	03	020	50	--	100
3	064	HOME SCIENCE		70	03	--	30	--	100
4	076	NATIONAL CADET CORPS (NCC)		70	03	30	--	--	100
5	165*	COMPUTER APPLICATIONS		50	02	--	50	--	100
6	154	ELEMENTS OF BUSINESS		70	03	--	30	--	100
7	254	ELEMENTS OF BOOK- KEEP- ING & ACCOUNTANCY		70	03	--	--	30	100



### SKILL SUBJECTS (GROUP-S)

S No	Code	Name	Job Roles	Marks Distribution	
				Theory	Practical
1	401	Retailing	Store Operations Assistant	50	50
2	402*	Information Technology	Domestic IT Executive/ Operator	50	50
3	403	Security	Unarmed Security Guard	50	50
4	404	Automotive	Automotive Service Technician	50	50
5	405	Introduction To Financial Markets	Business Correspondent	50	50
6	406	Introduction To Tourism	Assistant Tour Guide	50	50
7	407	Beauty & Wellness	Assistant Beauty Therapist	50	50
8	408	Agriculture	Solanaceous Crop Cultivator	50	50
9	409	Food Production	Assistant Chef (reg.)	50	50
10	410	Front Office Operations	Front Office Executive	50	50
11	411	Banking & Insurance	Field Executive	50	50
12	412	Marketing & Sales	Marketing Assistant	50	50
13	413	Health Care	General Duty Assistant	50	50
14	414	Apparel	Hand Embroider	50	50
15	415	Multi Media	Texture Artist	50	50
16	416	Multi Skill Foundation Course	Multi Skill Assistant	50	50
17	417*	Artificial Intelligence		50	50
18	418	Physical Activity Trainer (New)		50	50

\*Out of the three subjects with codes - 165, 402 and 417 - only one subject can be offered.

The curriculum and the study material for the Skill Electives is available on the CBSE

academic website under the tab 'Skill Education' and can be accessed through the link: <http://cbseacademic.nic.in/skill-education.html>.

#### LIST OF SKILL COURSES OFFERED AT MIDDLE LEVEL (FOR CLASSES VI / VII / VIII)

S. No.	COURSE NAME	Duration in Hours	MARKS DISTRIBUTION	
			Theory	Practical
1	Artificial Intelligence	12	15	35
2	Beauty & Wellness	12	15	35
3	Design Thinking	12	15	35
4	Financial Literacy	12	15	35
5	Handicrafts	12	15	35
6	Information Technology	12	15	35
7	Marketing/ Commercial Application	12	15	35
8	Mass Media	12	15	35
9	Travel & Tourism	12	15	35

### 3.3 Instructional Time

Instructional time shall be as per the subjects selected. Schools must ensure that minimum number of hours are spent for each subject as specified in the curriculum. The time duration for the subjects has been clearly indicated in the syllabus of each subject. However, it is expected that schools will create innovative Timetables (such as, teaching-learning only 2 subjects per day etc.) to ensure that the burden of the bag and homework are substantially reduced and the classroom transaction are based on experiential processes. Schools may also think of introducing bag-less day and same may be incorporated in the time tables. The time table must also include the mandatory periods for compulsory areas including Health and Physical Education.

### 3.4 Medium of Instruction

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



## 4. 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 subjects except compulsory subjects to be assessed internally along with a 20 marks component of Internal Assessment. Students have to secure 33 percent in total in each of these components.

This condition has been relaxed vide Notification No. CBSE/Coord/DS/EC dated 11/10/2018 available at:

[https://www.cbse.gov.in/cbsenew/Examination\\_Circular/2018/15\\_CIRCULAR.pdf](https://www.cbse.gov.in/cbsenew/Examination_Circular/2018/15_CIRCULAR.pdf)

As the Board is progressively allowing more space to 'learning outcome based' assessment in place of textbook driven assessment, question papers of Board examinations will have more questions based on real-life situations requiring students to apply, analyse, evaluate and synthesize information as per the stipulated outcomes. The core-competencies to be assessed in all questions, however, will be from the prescribed syllabus and textbooks recommended therein. This will eliminate predictability and rote learning to a large extent.

### 4.1 Board Examination for (Class X) and Annual Examination (class IX) for 80 marks For Class X:

The Board Examination in each subject will cover entire syllabus of Class-X. Grades corresponding to the marks shall be 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*	Essential Repeat



### 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:

<b>Grading Scale for Scholastic Areas (Class-IX)</b> <b>(School will award grades as per the following grading scale)</b>	
<b>MARKS RANGE</b>	<b>GRADE</b>
91-100	A1
81-90	A2
71-80	B1
61-70	B2
51-60	C1
41-50	C2
33-40	D
32 and below	*Essential Repeat



- ❖ Absolute grading in class IX is used keeping in view the number of students appearing from any particular school as against positional grading used for class X.

## 4.2 Internal Assessment (20 Marks):

One time year-end examination is complimented and supplemented with Internal Assessment (IA) that assesses students in diverse manner, at different times and also examines a broad range of curriculum objectives. IA, in effect school-based assessment, plays the dual role of providing a complete picture of students' abilities or progress towards fulfilling the aims of education and informing teachers' of students' progress and therefore supporting classroom learning. It also informs the individual learner about his/ her progress over a period of time enabling them to develop strategies to improve learning.

### 4.2.1 Periodic Assessment (05 Marks)

The main purpose of Periodic Assessment is to assess the learning progress of students. Such Assessment done at regular intervals provides feedback and insight to teachers regarding learners' needs and helps them to improve instruction, do remedial teaching and set curricular targets for a student or a group of students. The feedback also helps students to know their errors as well as strengths and weaknesses. The students, thus, are enabled for better learning and setting up realistic goals. In essence, this is assessment for, of and as learning. Periodic Assessment is further divided into the following:

**Periodic Tests (05 marks):** As earlier, these would be restricted to 3 in each subject in a year and the average of best 2 would to be taken for final submission of marks. These tests tend to follow a pattern, which is quite similar to the final end of course examination, and have a gradually increasing portion of content. Hence, they also tend to prepare students for final summative exams in a more confident manner.

#### 4.2.2 Multiple Assessment (05 marks):

Multiple assessment strategies relevant to particular learning outcomes are advised over the period of curriculum transaction. The subject teachers would determine the type and frequency of these. This would make assessment more comprehensive and provide schools/teachers flexibility to use multiple and diverse techniques to assess learners viz. observation, oral tests, individual or group work, class discussion, field-work, concept maps, graphic organizers, visual representation etc. Hence, the schools are given autonomy to use alternate modes of assessment as per the demand of the subject and the context towards addressing the goal of assessment for and as learning, such as, quizzes, project-work, Self and peer assessment, collaborative projects, experiments, classroom demonstrations, etc.

Caution must be observed that recording of such assessment is not cumbersome and can be easily translated into individual student scores. Thus, developing simple scoring criteria and rubrics becomes of equal importance when deciding to use a particular technique. In tune with purpose of periodic assessment, i.e., to provide feedback to improve teaching and learning, it becomes of equal importance to use follow-up measures incase students are found deficient in proficiency of relevant learning outcomes.

#### 4.2.3 Portfolio (05 marks):

The creation of portfolios is suggested to broaden the scope of learning and achieve diverse curriculum outcomes by examining a range of evidence of student performances being assessed.

##### **What is a portfolio?**

A portfolio is a collection of chosen work by a student representing a selection of performances that is collected over time and describes the learner's efforts, progress, and achievement in key areas. It is a tool for assessing a variety of skills not usually testable in a single setting of the traditional written paper and pencil tests. Assessment would include self and



peer assessment among others. Its use is recommended as a support to the new instructional approaches that emphasize student's role in constructing knowledge and understanding.

For a more simple approach, it is suggested that the portfolio take the form of a journal or notebook that would include besides classwork, students artifacts selected within a coherent framework along with their reflections. Learner here is an active participant involved in constructing his or her journey through the portfolio building process of selecting, organizing and reflecting. Now Schools are expected to develop the portfolios as per para 4.2.2 (a) above.

This portfolio can be seen both as a process and as a product:

- a. As a product, it holds the performance records and documents, a student has produced during the learning course and represents a collection of their learning achievements.
- b. As a process, it enables learners to monitor their own learning systematically, reflect on their performance, redirect their efforts and set future goals.

What purposes does a portfolio serve? A portfolio

- ◆ offers the possibility of assessing more complex and important aspects of a learning areas or subject matter that can't be assessed through traditional forms of testing;
- ◆ provides a profile of learner's abilities - in-depth growth and progress
- ◆ helps to develop among students an awareness of their own learning. The focus on self-assessment and reflection helps students to identify their strengths and weaknesses thereby facilitating setting up of realistic improvement goals. The active role that students plays in self assessment not only motivates them but also



help to develop metacognitive skills which enable them to make adjustments not only in their learning in school but beyond as well;

- ◆ provides an opportunity to share own learning with peers and review and give feedback on each other's work. Peer Assessment thus becomes a great support that further facilitates a clear understanding and evaluation of personal goals;

### How to prepare a portfolio?

It is suggested that the portfolios would include classwork and homework assignments that would help evaluate learner's progress. Besides this, portfolio should be a space for student to display his/her exemplary work in the related area. The attention should be to promote techniques such as annotation, identification of key words / topics/ themes, summarization and organization of ideas and content, photos, presentations, assignments, art integrated learning, etc.

The sample of creative work and evidences that demonstrate process skills or development of critical thinking or problem solving merit inclusion as well. A periodic review of the evidences includes in the portfolio would facilitate self-assessment by learners who would be more aware of their own learning and be able to identify their strengths and weaknesses. The portfolio also provides an opportunity to learners to share and comment on each other's work. Such peer assessment facilitate understanding of criteria of good work to students. It is advised that such criteria be developed and made clear to students. Initially this self and peer assessment would be a guided endeavor.

### Assessing Portfolios

Students' portfolio can be effectively evaluated using a simple scoring rubric. The criteria - to be used in determining the quality of a particular student's portfolio needs to be carefully developed and shared with students. They key elements of the particular criteria need to be specified as well.



Suggested are some elements to judge student's portfolio:

- ◆ Organization - Neatness, Creativity and Visual Appeal
- ◆ Completion of guided work focused on specific curricular objectives
- ◆ Evidences of student's growth
- ◆ Inclusion of all relevant work (Completeness)

Teachers can include other subject relevant criteria and elements to assess portfolios.

**A Word of Caution:** Portfolios need to be developed in an easy to manage form. They need to be meaningful but simple and accessible. Developing them should not be a burden on students- both in terms of cost and time.

#### 4.2.4 Subject Enrichment Activities (05 marks):

Subject enrichment activities aligned with the secondary school curriculum aim at enrichment of the understanding and skill development. They provide in-depth learning that motivates students to dig deeper into the discipline. These enrichment activities need to challenge students and permit them to apply knowledge to the next level. These activities become an important instrument to learn the processes by which knowledge is generated in a particular discipline. They ought to provide opportunity to students to explore their own interests as well along with an understanding of the nature of particular discipline.

It is important that the Subject Enrichment Activities be conducted with rigour and focus. Some suggestions for this are as follows:

**Languages** provide ample space and the autonomy to subject teachers to develop relevant listening and speaking skills. Teachers need to use this opportunity to full advantage and use excerpts from relevant suitable literature to develop vocabulary and heighten students' awareness and sensitivity.

The specified activities in practical work in **Science** and **Mathematics** need





to be conducted in the investigatory spirit in congruence to the aims and objectives of the subject. The focus must shift from confirmatory nature of lab experiments to explorations that focus on development of science processes. Students need to be encouraged to raise questions, generate hypotheses, experiment, innovate and find solutions to questions/ problems encountered.

The discipline of **Social Science** puts the responsibility on concerned teachers to facilitate students to design and execute relevant projects. It is suggested that social science being the subject relevant to social context, projects be related to Art and culture and include development of Life Skills too. Art is not only about self - expression but is more about perceptions and a special way of understanding and responding to work. Exploring into ideas and meanings through the works of artists/experts/ writers/poets, the students would develop imagination and critical awareness.

### 4.3 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.

### 4.4 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 life long, healthy and active living and the capacity to live satisfying, productive lives with the help of health, hygiene and sanitation, work experience, indigenous sports, yoga, NCC, self-defense, fitness and lifestyle choices.

Health and Physical Activities, preferably sports must be given one regular period per day. 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 instills 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 a year along with a follow-up session during the year. School should also bring any noticeable disability in a student to the notice of the school counselor and parents. Cases of special needs of students with medical history must be carefully noted and handled accordingly. Detailed information on the Comprehensive Physical and Health Education Curriculum is enclosed with this document.

## 4.5 Assessment of Art Education and Health and Physical Education

Assessment of Art Education and Health and Physical Education 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 two areas i.e. Art Education, Health and Physical Education. Work Experience is subsumed in the Physical and Health Education. No up scaling of grades will be done.

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

### 4.5.1 Parameters of Assessment

While the students are engaged in the core areas like Health and Physical Education and Art Education, 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:

Area	Product	Process
Health and Physical Education including Work Experience	Overall fitness	Participation, team- spirit, commitment and honest effort.
Art Education	Expression, creativity and Aesthetic appeal	Participation, Creative process, material use, appreciation, reflection, effort, craftsmanship and completion



#### 4.5.2 Details of Five-point Grading for Art Education (Class IX and X)

Grade	Connotation
A	Exemplary
B	Proficient
C	Developing
D	Emerging
E	Beginner

#### 4.5.3 Distribution of Periods/ Grades for Internal Assessment in Health and Physical Education (with Work Experience subsumed in it)

Strand	Periods (Approx)	Grades*
<b>1.GAMES</b> Athletics/ Swimming Team Games Individual Games/ Activity Adventure Sports	<b>90 periods</b>	While filling online data, following grades may be filled against HPE: Class IX-X: Grade (A-E) on 5-point scale (A, B, C, D, E)
<b>2. Health and Fitness</b>	<b>50 periods</b>	
<b>3. SEWA</b>	<b>50 periods</b>	Grades of SEWA is considered against Work Experience Class IX-X: Grade (A-E) on 5-point scale (A, B, C, D, E)
<b>4. Health and Activity Card</b>	<b>10 periods</b>	
<b>Total</b>	<b>200 Periods</b>	

\* Refer the detailed HPE guidelines available on [www.cbseacademic.nic.in](http://www.cbseacademic.nic.in), including the above amendment

## 4.6 Development of competencies through Student Enrichment activities:

In the recent past the board has been organizing various activities for promoting various 21st century skills. Following are some such activities introduced with the intention of enhancement of the skills and values.

S. No.	Student Enrichment Activity	Skills/Values to be Enhanced
1	Story Telling Competition	Thinking Skills: Creative, Analytical, Evaluative  Communication Skills  Linguistic Skills
2	Reading Week	
3	Fastest Reading Contest	
4	Aryabhata Ganit Challenge	Reasoning Abilities Problem Solving Skills Critical thinking Analytical thinking  Ability to manipulate precise and intricate ideas  Ability to construct logical arguments
5	CBSE Heritage India Quiz	Values of respect for diversity and tolerance  Awareness about preserving Indian heritage and monuments  Critical thinking skills  Appreciation for rich heritage and diversity of the country
6	Science Exhibition	Critical and Creative Thinking Skills Problem Solving Skills Scientific Temperament Connecting Science to day to day life
7	Science Literacy Promotion Test	
8	Expression Series	Creative Thinking Skills Communication Skills
9	Eco-Club Activities	Awareness about Environmental Conservation and Protection  Clean lines Habits
10	Swachhata Abhiyan	



11	Ek Bharat Shrestha Bharat	Spirit of Patriotism and Unity Creative Skills
12	Rashtriya Ekta Diwas	
13	Inter School Band Competition	
14	Fit India School Week	Healthy lifestyle
15	CBSE Inter-School Sports & Games Competitions	
16	International Day of Yoga	
17	Matri bhasha Diwas	Awareness of Linguistic and Cultural traditions, Values of Tolerance and Dialogue, Communication Skills
18	The Constitution Day	importance of Constitution, its history, structure and implications to citizens  orientation to composite culture and diversity of our nation  awareness of Fundamental Rights and Duties as enshrined in the Indian Constitution.
19	Art Integrated Project	application of art-based enquiry, investigation and exploration, critical thinking and creativity for a deeper understanding of the concepts/ topics  promotes experiential learning as it enables to derive meaning and understanding directly from the learning  enables students to see the multi-disciplinary linkages between subjects, topics, and real life.

Schools are encouraged to ensure that their students participate in these activities of the Board for making the students future-ready and also for becoming a holistic learner.

#### 4.7 Suggestions for Teachers

Teachers should encourage participation of each child in some activity or the others. They must ensure that no child is left out from participation in activities organized by the Board or at the class/school or at interschool level. By carefully examining the behavior / 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 for facilitating and assessing learner's performance and then finally assigning grades.

#### **4.8 Discipline (Attendance, Sincerity, Behavior, 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 class work. 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.

#### **4.9 Rules regarding Admission and Examination**

Regarding eligibility for Admission, Eligibility for Examination, Scheme of Examination and related information, please see the Examination Bye-Laws of CBSE available on [www.cbse.nic.in](http://www.cbse.nic.in).

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**CENTRAL BOARD OF SECONDARY EDUCATION**

Academic Unit, Shiksha Sadan, 17, Rouse Avenue, New Delhi-110 002



**ENGLISH LANGUAGE AND LITERATURE (Code No. 184)**

**CLASS – X(2021-22)**

**SECTION - WISE WEIGHTAGE**

<b>Sections</b>		
A	Reading Skills	(50 periods)
B	Writing Skills with Grammar	(60 periods)
C	Literature Textbooks and Supplementary Reading Text	(60 periods)
	TOTAL	

**PART A**

**Reading**

**20Marks**

**I.** Multiple Choice Questions based on a Discursive passage of 400-450 words to test inference, evaluation and vocabulary. Ten out of twelve questions to be answered.

**(10x1=10)**

**II.** Multiple Choice Questions based on a Case-based factual passage (with visual input- statistical data, chart etc.) of 300-350 words to test analysis and interpretation. Ten out of twelve questions to be answered.

**(10x1=10)**

**(Total length of two passages to be 700-750 words).**

**Literature Textbooks**

**10 Marks**

**III.** Multiple Choice Questions based on an extract from drama/prose to test inference, evaluation and vocabulary. Any 1 out of 2 extracts to be done.

**(5x1=5)**

**IV.** Multiple Choice Questions based on an extract from poetry to test analysis and interpretation. Any 1 out of 2 extracts to be done

**(5x1=5)**

**Grammar**

**10 Marks**

**V.** Ten Multiple Choice Questions, out of twelve, to be answered (including gap filling/ editing/ dialogue writing). Questions shall be based on the following:

- Tenses
- Modals
- Subject – verb concord
- Reported speech
- Commands and requests
- Statements
- Questions
- Determiner
- Use of Passive Voice
- Clauses: Noun, Adverb Clauses of condition and time, Relative Clauses
- Prepositions

## **PART B**

### **Writing**

**10 Marks**

**I.** Formal letter based on a given situation (word limit 100-120 words). One out of two questions is to be answered. **(5 marks)**

**II.** Writing an analytical paragraph based on the given map/ Chart/ report/ line graph/ Cue/s (word limit 100-120 words). One out of two questions is to be answered. **(5 marks)**

### **Literature**

**30 Marks**

**III. Four out of six** Short Answer Type Questions to be answered in 20-30 words each from FIRST FLIGHT and FOOTPRINTS WITHOUT FEET (two out of three from FIRST FLIGHT and two out of three from FOOTPRINTS WITHOUT FEET). **(2x4=8)**

**IV. Four out of six** Short Answer Type Questions to be answered in 40-50 words each from FIRST FLIGHT and FOOTPRINTS WITHOUT FEET (two out of three from FIRST FLIGHT and two out of three from FOOTPRINTS WITHOUT FEET). **(3x4=12)**

**V. One out of two** Long Answer Type Questions from FIRST FLIGHT to be answered in about 100-120 words each to assess creativity, imagination and extrapolation beyond the text and across the texts. This can be a passage-based question taken from a situation/plot from the texts. **(5 marks)**

**VI. One out of two** Long Answer Type Questions from FOOTPRINTS WITHOUT FEET on theme or plot involving interpretation, extrapolation beyond the text and inference or character sketch to be answered in about 100-120 words. **(5 marks)**

**Prescribed Books: Published by NCERT, New Delhi**

**1. FIRST FLIGHT – Text for Class X**

**2. FOOTPRINTS WITHOUT FEET – Supplementary Reader for Class X**

**3. WORDS AND EXPRESSIONS – II (WORKBOOK FOR CLASS X)**

**Note: Teachers are advised to:**

- (i) encourage interaction among peers, students and teachers through activities such as role play, discussions, group work etc.
- (ii) reduce teacher-talking time and keep it to the minimum,
- (iii) take up questions for discussion to encourage pupils to participate and to marshal their ideas and express and defend their views, and
- (iv) follow the Speaking and Listening activities given in the NCERT books.

Besides measuring learning outcome, texts serve the dual purpose of diagnosing mistakes and areas of non-learning. To make evaluation a true index of learners' knowledge, each language skill is to be assessed through a judicious mixture of different types of questions.

1. Reading Section: Reading for comprehension, critical evaluation, inference and analysis are to be tested.
2. Writing Section: All types of short and extended writing tasks will be dealt with.
3. Grammar: Grammar items mentioned in the syllabus will be taught and assessed over a period of time.

## **INTERNAL ASSESSMENT**

### **Listening and Speaking Competencies      50 Periods**

Assessment of Listening and Speaking Skills will be for 05 marks.

It is recommended that listening and speaking skills should be regularly practiced .

**Art-integrated projects based on activities like Role Play, Skit, Dramatization etc. must be used. Please refer to the Circular no. Acad-33/2020 dated 14<sup>th</sup> May 2020 at the [http://cbseacademic.nic.in/web\\_material/Circulars/2020/33\\_Circular\\_2020.pdf](http://cbseacademic.nic.in/web_material/Circulars/2020/33_Circular_2020.pdf) for details**

### **Guidelines for Assessment in Listening and Speaking Skills**

#### **i. Activities**

- Activities for listening and speaking available at [www.cbseacademic.in](http://www.cbseacademic.in) can be used for developing listening and speaking skills of students.
- Subject teachers should also refer to books prescribed in the syllabus.
- In addition to the above, teachers may plan their own activities and create their own material for assessing the listening and speaking skills.

#### **ii. Parameters for Assessment:**

The listening and speaking skills are to be assessed on the following parameters:

- i. Interactive competence (Initiation & turn taking, relevance to the topic).
- ii. Fluency (cohesion, coherence and speed of delivery).
- iii. Pronunciation
- iv. Language (accuracy and vocabulary).

#### **iii. Schedule:**

- The practice of listening and speaking skills should be done throughout the academic year.
- The final assessment of the skills is to be done as per the convenience and schedule of the school.

**iv. Record keeping:**

The record of the activities done and the marks given must be kept for three months after the declaration of result, for any random checking by the Board.

**No recording of speaking skills is to be sent to the Board.**

## ENGLISH LANGUAGE AND LITERATURE

Code no. (184)

CLASS - X (2021-22)

Marks 80

Sections	Competencies	Total marks	% Weightage
Reading Comprehension	Conceptual understanding, decoding, analyzing, inferring, interpreting and vocabulary	20	25%
Writing Skill and Grammar	Creative expression of an opinion, reasoning, justifying, illustrating, appropriacy of style and tone, using appropriate format and fluency. Applying conventions, using integrated structures with accuracy and fluency	20	25%
Literature Textbook and Supplementary Reading Text	Recalling, reasoning, appreciating, applying literary conventions illustrating and justifying etc. Extract relevant information, identifying the central theme and sub-theme, understanding the writers' message and writing fluently.	40	50%
<b>Total</b>		<b>80</b>	

## Class X

Suggested Pedagogical Processes	Learning Outcomes
<p><b>The learners may be provided opportunities individually or in groups and encouraged to—</b></p> <ul style="list-style-type: none"> <li>• participate in interactive tasks and activities.</li> <li>• take notes and respond accordingly, making use of appropriate vocabulary, and sense of audience while listening to people around.</li> <li>• engage themselves in conversation, dialogue, discussion and discourse in peer-peer mode, and with teacher on various themes.</li> <li>• participate in role play, short speech and skits; interview personalities, common people for the purpose of collecting views on certain relevant issues, during surveys, project works, etc.</li> <li>• give opinion about classroom transactions, peer feedback with clarity, and provide suggestions for improvement.</li> <li>• read alternative material such as Braille texts, poems, cartoons, graphic presentations, audio tapes, video tapes, and audio visuals to speak on issues related to society.</li> <li>• develop familiarity with workplace culture and language and terminology for different vocational skills like carpentry, mobile repairing, tailoring, etc.</li> <li>• volunteer in organising school functions, assembly, community activities and interactions; prepares schedules, reports, etc.</li> <li>• read literature from different countries, and appreciate the ideas, issues, and themes given there.</li> <li>• read texts independently, comprehend, and respond to or ask questions on the text.</li> <li>• read stories and literary texts — both fiction and non-fiction with understanding for pleasure and enjoyment; discuss on characters,</li> </ul>	<p><b>The learner—</b></p> <ul style="list-style-type: none"> <li>• listens to announcements, instructions, read-aloud texts, audio, videos for information, gist and details; responds by answering questions accordingly.</li> <li>• listens to and discusses literary / non-literary inputs in varied contexts to infer, interpret, and appreciate.</li> <li>• speaks with coherence and cohesion while participating in interactive tasks.</li> <li>• uses language appropriate to purposes and perspectives.</li> <li>• talks on key contemporary issues like social justice, environment, gender, etc., in speech and writing.</li> <li>• participates in bilingual or multilingual discourses on various themes.</li> <li>• reads, comprehends, and responds to complex texts independently.</li> <li>• reads stories and literary texts, both fiction and non-fiction, with understanding for pleasure and enjoyment and discusses about these.</li> <li>• appreciates nuances and shades of literary meanings, talks about literary devices like onomatopoeic sounds, symbols, metaphors, alliterations, comparisons, allusions and the poet's or the writer's point of view.</li> <li>• collects evidences and discusses in groups for reading autobiographies, history and science based literary texts.</li> <li>• writes paragraphs, narratives, etc., by planning revising, editing, rewriting, and finalising.</li> <li>• writes reports of functions in school, family, and community activities.</li> <li>• writes personal, official and business letters, articles, debates, paragraphs based on visual or verbal clues, textual inputs, etc.</li> <li>• evaluates content presented in print and in different genres/formats</li> </ul>



issues, situations; and if there is a problem, work on the solutions.

- appreciate nuances and shades of literary meanings in a variety of poems like lyric, ballad, ode, limerick, elegy, etc., and the literary devices like onomatopoeic sounds, symbols, metaphors, alliteration, etc., understand comparisons, allusions, poet's or writer's point of view, etc.
- use subject, or contexts, and content related vocabulary to express their understanding of the texts and tasks.
- understand writing is a process-oriented skill which requires drafting, revising, editing for punctuation, grammatical accuracy, spelling, etc.
- understand the grammar in context, functions, and usages noting from examples and discover rules.
- write using symbols, tables, graphs, diagrams, etc.
- contribute in building safe and stress-free environment for learning.
- collect and make use of meaningful resources generated by the learners.
- make use of their experiences and relate with their learning.
- use visual aids, and locally developed learning materials to complement and supplement the textbook and supplementary reader.
- frame questions to assess their comprehension.
- promote core values such as tolerance, appreciation of diversity and civic responsibility through debate, discussion, etc.
- develop critical thinking on issues related to society, family, adolescence, etc. This will lead to develop their abilities for problem-solving, conflict resolution, and work collaboratively.
- use multilingualism and translation as a strategy and resource for understanding and learning and participating in classroom transactions.

and presents content using symbols, graphs, diagrams, etc.

- analyses and appreciates a point of view or cultural experience as reflected in the text; presents orally or in writing.
- draws references from books, newspapers, internet, etc., and interprets using analytical skills.
- speaks or writes on variety of themes.
- consults or refers to dictionary, periodicals, and books for academic and other purposes; and uses them in speech and writing.
- provides facts and background knowledge in areas such as science and social science and presents view points based on those facts.
- takes down dictation using appropriate punctuation marks and correct spelling of the words dictated.
- takes and makes notes while listening to TV news, discussions, speech, reading aloud or silent reading of texts, etc., and summarises.
- uses grammatical items appropriate to the context in speech and writing.
- uses grammatical items as cues for reading comprehension such as tense, reported speech, conjunctions, and punctuation.
- uses words according to the context and delineate it in speech and writing.
- uses formulaic and idiomatic expressions in speech and writing.
- makes use of collocations and idioms in speech and writing.
- identifies significant literary elements such as figurative language—metaphor, imagery, symbol, simile, intention or point of view, rhyme scheme, etc.
- uses the figurative meaning of words and phrases as given in the texts read.
- assesses one's own and peers' work based on developed rubrics.





- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• participate in interdisciplinary tasks, activities and projects.</li> <li>• connect and apply their learning to activities, routines, and functions at home and in the community.</li> <li>• maintain diary and journal for recording responses and reflections, develop rubrics with the help of the teacher for self-assessment.</li> <li>• work on the teacher and peer feedback and self-assessment to improve their performance.</li> <li>• understand the concept of directions on a given map of a locality, town, city, country, tactile or raised material for children with special needs.</li> <li>• get familiarised with Sign Language for using with learners with hearing impairment in an inclusive environment in the school.</li> </ul> | <ul style="list-style-type: none"> <li>• develops questions for collecting data for survey on relevant issues.</li> <li>• writes scripts and participates in role play, skit, street plays for the promotion of social issues like <i>Beti Bachao Beti Badhao</i>, <i>Swachh Bharat Abhiyaan</i>, conservation of environment, child labour, drug abuse, and promotion of literacy, etc.</li> <li>• uses bilingual or multilingual ways to exchange ideas or disseminating information with the help of ICT, PPT, role play, street play, drama, written scripts, etc.</li> <li>• recognises and appreciates cultural experiences given in the text in a written paragraph, or in narrating the situations and incidents in the class.</li> <li>• exhibits core values such as tolerance, appreciation of diversity and civic responsibility through debate, discussion, etc.</li> <li>• learns to use Sign Language to communicate and uses Sign Language with fellow learners with hearing impairment in an inclusive set up.</li> <li>• reads the poems, stories, texts given in Braille; graphs and maps given in tactile or raised material; interprets, discusses, and writes with the help of a scribe.</li> </ul> |
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## कक्षा 10वीं हिंदी 'ब' परीक्षा हेतु पाठ्यक्रम विनिर्देशन 2021-2022

- प्रश्न-पत्र दो खण्डों - खंड 'अ' और 'ब' का होगा।
- खंड 'अ' में 53 वस्तुपरक प्रश्न पूछे जाएँगे जिनमें से केवल 40 प्रश्नों के ही उत्तर देने होंगे।
- खंड 'ब' में वर्णनात्मक प्रश्न पूछे जाएँगे। प्रश्नों में उचित आंतरिक विकल्प दिए जाएँगे।

भारांक 80

निर्धारित समय 3 घंटे

परीक्षा भार विभाजन		
	विषयवस्तु	भार
	खंड अ (वस्तुपरक प्रश्न)	40
1	अपठित गद्यांश (चिंतन क्षमता एवं अभिव्यक्ति कौशल पर बहुविकल्पात्मक प्रश्न पूछे जाएँगे)	10
	अ चार अपठित गद्यांशों में से कोई दो गद्यांश करने होंगे। (200-250 शब्दों के) 2 गद्यांश x( 5 प्रश्न)	10
2	व्याकरण: पाठ्यपुस्तक में दिए गए भाषा-अध्ययन के आधार पर बहुविकल्पात्मक प्रश्न (1 अंक x16 प्रश्न)	16
	1 पद बंध (3 में से किन्हीं 2 के उत्तर)	02
	2 रचना के आधार पर वाक्य रूपांतरण (4 में से किन्हीं 3 के उत्तर)	03
	3 समास (5 में से किन्हीं 4 के उत्तर)	04
	4 मुहावरे (4 प्रश्न)	04
	5 अलंकार (अनुप्रास, यमक, उपमा, रूपक, अतियोशक्ति, मानवीकरण) (3 प्रश्न)	03
3	पाठ्यपुस्तक स्पर्श भाग – 2	14

	<b>काव्य खंड</b>		<b>04</b>
	पठित पद्यांश पर चार बहुविकल्पी प्रश्न। (4 प्रश्न)		
	<b>गद्य खंड</b>		<b>10</b>
	दो पठित गद्यांशों पर पाँच-पाँच बहुविकल्पी प्रश्न। 2 गद्यांश x ( 5 प्रश्न)		
	<b>खंड (वर्णनात्मक प्रश्न) ब -</b>		<b>40</b>
<b>4</b>	<b>पाठ्यपुस्तक स्पर्श भाग - 2</b>		<b>08</b>
	<b>1</b>	स्पर्श से निर्धारित पाठों के आधार पर विषय-वस्तु का ज्ञान, बोध, अभिव्यक्ति आदि पर 25 - 30 शब्दों वाले तीन में दो प्रश्न पूछे जाएंगे। (2 अंक x 2 प्रश्न)	04
	<b>2</b>	स्पर्श से निर्धारित पाठों के आधार पर विद्यार्थियों की उच्च चिंतन क्षमताओं एवं अभिव्यक्ति का आकलन करने हेतु 60-70 शब्दों वाला (4 अंक x 1 प्रश्न)	04
	<b>पूरक पाठ्यपुस्तक संचयन भाग - 2</b>		<b>06</b>
	पूरक पाठ्यपुस्तक संचयन के निर्धारित पाठों से तीन में से दो प्रश्न पूछे जाएंगे जिनका उत्तर 40-50 शब्दों में देना होगा। (3 अंक x 2 प्रश्न)		06
<b>5</b>	<b>लेखन</b>		<b>26</b>
	<b>अ</b>	संकेत बिंदुओं पर आधारित समसामयिक एवं व्यावहारिक जीवन से जुड़े हुए किन्हीं तीन विषयों में से किसी एक विषय पर 80 से 100 शब्दों में अनुच्छेद। (6 अंक x1 प्रश्न) (विकल्प सहित)	6
	<b>ब</b>	औपचारिक विषय से संबंधित पत्र। (5 अंक x1 प्रश्न) (विकल्प सहित)	5
	<b>स</b>	व्यावहारिक जीवन से संबंधित विषयों पर आधारित 30-40 शब्दों में सूचना लेखन। (5 अंक x1 प्रश्न) (विकल्प सहित)	5

<b>द</b>	विषय से संबंधित 25-50 शब्दों के अंतर्गत विज्ञापन लेखन। (5 अंक x1 प्रश्न) (विकल्प सहित)	5
<b>इ</b>	लघु कथा लेखन – दिए गए प्रस्थान बिंदु के आधार पर 100-120 शब्दों में लघु कथा लेखन। (5 अंक x1 प्रश्न) (विकल्प सहित)	5
<b>कुल</b>		<b>80</b>

**निर्धारित पुस्तकें:**

1. **स्पर्श, भाग-2**, एन.सी.ई.आर.टी., नई दिल्ली द्वारा प्रकाशित नवीनतम संस्करण
2. **संचयन, भाग-2**, एन.सी.ई.आर.टी., नई दिल्ली द्वारा प्रकाशित नवीनतम संस्करण

❖ **नोट: निम्नलिखित पाठ हटा दिये गये हैं ।**

पद्य खंड	
<b>1.</b>	महादेवी वर्मा-मधुर-मधुर मेरे दीपक जल
गद्य खंड	
<b>2.</b>	अंतोन चेखव-गिरगिट

कक्षा दसवीं हेतु प्रश्न पत्र का विस्तृत प्रारूप जानने के लिये कृपया बोर्ड द्वारा जारी आदर्श प्रश्न पत्र देखें।

# हिंदी भाषा सीखने के प्रतिफल

## परिचय

नवीं कक्षा में दाखल होने वाले वद्यार्थी की भाषा, शैली और वचार बोध एक ऐसा आधार बन चुका होता है की अब उसे उसके भाषक डायरे के वस्तार और वैचारिक समृद्ध के लए जरूरी संसाधन मुहैया कराये जाने की आवश्यकता होती है। माध्यमक स्तर तक आते-जाते वद्यार्थी कशोर हो चुका होता है और उसमें सुनने, बोलने, पढ़ने, लखने एवं समझने के साथ-साथ आलोचनात्मक दृष्टि वकसत होने लगती है। भाषा के सौंदर्यात्मक पक्ष, कथामकता, गीतमकता, अखबारी समझ, शब्द के दूसरी शक्तियों के बीच अंतर राजनैतिक चेतना एवं समाजीक चेतना का वकास हो जाता है। वह आस-पड़ोस के भाषा और आवश्यकता के अनुसार उपयुक्त भाषा-प्रयोग, शब्दों के सूचनित इस्तेमाल, भाषा की नियमबद्ध प्रकृति आदि से परिचित हो जाता है। इतना ही नहीं वह व भन्न वधाओं और अभव्यक्ति की अनेक शैलियों से भी वाकफ हो चुका होता है। अब वद्यार्थी के पढ़ाई आस-पड़ोस, राज्य-देश के सीमा को लांघते हुए वैश्विक क्षतिज तक फैल जाती है। इन बच्चों के दुनिया में समाचार, खेल, फिल्म तथा अन्य कलाओं के साथ-साथ पत्र-पतरिकलाए और अलग-अलग तरह की कताबें भी प्रवेश पा चुकी होती हैं।

यह आवश्यकता है की इस स्तर पर मातृभाषा हिंदी का अध्ययन साहित्यिक, सांस्कृतिक और व्यावहारिक भाषा के रूप में कुछ इस तरह से हो क उच्चतर माध्यमक स्तर तक पहुँचते-पहुँचते यह वद्यार्थी की पहचान, आत्मवश्वास और वमर्श के भाषा बन सके। प्रयास यह भी होगा क वद्यार्थी भाषा के लखत प्रयोग के साथ-साथ सहज और स्वाभाविक मौखक अभव्यक्ति में भी सक्षम हो सके। हिंदी के प्रकृति के अनुसार वर्तनी और उच्चारण के आपसी संबंध दो समझ सके, ता क उसकी लखत और मौखक भाषा में एक समानता एवं स्पष्टता हो।

## भाषा को सीखना-सखाना

इस संदर्भ में हम यही कहेंगे क अपनी बात दूसरों तक पहुँचाने ने एक माध्यम के रूप में हम भाषा को पहचानते और समझते रहे हैं, इस लए हम सब यही परिभाषा पढ़ते हुए बड़े हुए क भाषा अभव्यक्ति का माध्यम है; यानि भाषा के ज़रिए ही हम कुछ कहते और लखते हैं और कसी दे वद्वारा कहे और लखे को सुनते और पढ़ते हैं, इस लए भाषा के चार कौशलों की बात इस तरह से प्रमुख होती चली गई क हम भूल ही गए क कहने-सुनने वाला सोचता भी है। इस संदर्भ में बरतोल्लत ब्रेख्त की कुछ पंक्तियाँ ध्यान देने योग्य हैं, जिनमें सोचने के कौशल की ओर इशारा है-“जनरल, आदमी कतना उपयोगी है, वह उड़ सकता है और मार सकता है। ले कन उसमें एक नुक्स है-वह सोच सकता है।” बच्चे जो कुछ देखते या सुनते हैं उसे अपनी दृष्टि और समझ से देखते-सुनते हैं, और अपनी ही दृष्टि और समझ के साथ बोलते और लखते हैं। यह दृष्टि/समझ एक परिवेश और समाज के भीतर ही बनती है, इस लए परिवेश और समाज के बीच बन रही बच्चे की समझ को उपयुक्त अभव्यक्ति में समर्थ बनने के कोशिश होनी चाहिये। जब क हो यह रहा है क जब बच्चे स्कूल आते हैं तो घर की भाषा और स्कूल की भाषा के बीच एक द्वंद शुरू हो जाता है। इस द्वंद से माध्यमक स्तर के बच्चे जो क कशोरावस्था में पहुँच रहे होते हैं, को भी जूझना पड़ता है, उनके पास अनेक सवाल हैं, अपने आस-पास के समाज और संसार से। जिनका जवाब वे ढूँढ रहे हैं। अगर हमारी भाषा के कक्षा उनके सवालों और जवाबों को, उनकी अपनी भाषा दे सके तो यह इसकी सार्थकता होगी। इस लए कक्षा में भाषा-कौशल को एक साथ जोड़कर पढ़ने-पढ़ाने की दृष्टि भी वकसत करने होगी। यह भी ध्यान रखना होगा क भाषा-कौशल को बेहतर बनाने के लए बच्चे के परिवेश में उस भाषा के उपयुक्त सामग्री उपलब्ध हो।

खासतौर से द्वितीय भाषा के रूप मीन हिन्दी पढ़ने-पढ़ाने वालों के लए यह ज़रूरी होगा। भाषा पढ़ने के माहौल और प्रक्रिया के अनुसार ही बच्चों में सीखने के प्रतिफल रूपी गुण जाग्रत होंगे।

द्वितीय भाषा के रूप में हिन्दी में निपुणता प्राप्त करने के लए आवश्यक है कि हिन्दी भाषा में प्रचुर मात्रा एन पाठ्यसामग्री के साथ-साथ हिन्दी में लगातार रोचक अभ्यास (शिक्षण-अधगम प्रक्रिया) करना-कराना। यह प्रक्रिया जितनी अधिक रोचक, सक्रिय एवं प्रासंगिक होगी, वद्यार्थियों की भाषक उपलब्धि भी उतनी तेज़ी से बढ़ेगी। मुखर भाषक अभ्यास के लए वार्तालाप, रोचक ढंग से कहानी कहना-सुनना, घटना-वर्णन, चित्र-वर्णन, वाद-ववाद, अभिनय, भाषण प्रतियोगिताएं, कविता पाठ और अंत्याक्षरी जैसी गतिवधियों का सहारा लया जा सकता है, व भन्न प्रकार के श्रव्य-दृश्य - द्रव्य चित्रों और फीचर फिल्मों को सीखने-सखाने की सामग्री के रूप में इस्तेमाल किया जा सकता है, जैसा कि हम जानते हैं, बहुभाषकता हमारे ज्ञान-निर्माण के प्रक्रिया में सकारात्मक भूमिका निभाती है, मातृभाषा के व वध भाषा-कौशलों एवं ज्ञान का उपयोग शिक्षक एवं वद्यार्थी द्वितीय-भाषा के रूप-में हिन्दी सीखने-सखाने के लए कर सकते हैं। प्रयास यह हो कि वद्यार्थी अपनी मातृभाषा और परिवेशगत भाषा को साथ रखकर हिन्दी भाषा-साहित्य को समझ सकें, उसका आनंद लें और अपने व्यावहारिक-जीवन में उसका उपयोग कर सकें।

पाठ्यक्रम संबंधी अपेक्षाएँ-

- वद्यार्थी अगले स्तरों पर अपनी रुचि और आवश्यकता के अनुरूप हिन्दी के पढ़ाई कर सकेंगे तथा हिन्दी में बोलने और लिखने में सक्षम हो सकेंगे।
- अपनी भाषा-दक्षता के चलते उच्चतर माध्यमिक स्तर पर वज्ञान, सामाजिक वज्ञान और अन्य पाठ्यक्रमों के साथ सहज संबद्धता (अंतःसंबन्ध) स्थापित कर सकेंगे।
- दैनिक व्यवहार, आवेदन पत्र लिखने, अलग-अलग कस्म के पत्र-ई-मेल लिखने, प्राथमिकी दर्ज कराने इत्यादि में सक्षम हो सकेंगे।
- उच्चतर माध्यमिक स्तर पर पहुँचकर, भाषा की व भन्न प्रयुक्तियों में मौजूद अंतःसंबन्ध को समझ सकेंगे।
- हिन्दी में दक्षता को वे अन्य भाषा-संरचनाओं के समझ विकसित करने के लए इस्तेमाल कर सकेंगे, स्थानांतरित कर सकेंगे।
- कक्षा आठवीं तक अर्जित भाषक कौशलों (सुनना, बोलना, पढ़ना, लिखना और चिंतन) का उत्तरोत्तर विकास कराना।
- सृजनात्मक साहित्य के आलोचनात्मक आस्वाद के क्षमता का विकास हो सकेगा।
- स्वतंत्र और मौखिक रूप से अपने विचारों के अभिव्यक्ति का विकास हो सकेगा।
- साहित्य की व भन्न विधाओं के मध्य अंतःसंबन्ध एवमनंतर के पहचान कर सकेंगे।
- भाषा और साहित्य के रचनात्मक उपयोग के प्रति रुचि उत्पन्न कर सकेंगे।
- ज्ञान के व भन्न अनुशासनों के, वकर्ष के भाषा के रूप में हिन्दी के व शष्ट प्रकृति एवं क्षमता का बोध कराना।
- साहित्य के प्रभावकाजी स्मृति का उपयोग करते हुए सभी प्रकार के व वधताओं (राष्ट्रियता, धर्म, जेंडर, भाषा) के प्रति सकारात्मक और संवेदनशील रवैये का विकास कराना।
- जाति, धर्म, जेंडर, राष्ट्रियता, क्षेत्र आदि से संबन्धित पूर्वाग्रहों, के चलते बनी रुझानों की भाषक अभिव्यक्तियों के प्रति सजगता एवं आलोचनात्मक दृष्टिकोण का विकास कर सकेंगे।

- वदेशी भाषाओं समेत व भन्न भारतीय भाषाओं के संस्कृति के व वधता से परिचय कराना।
- व्यावहारिक और दैनिक जीवन में व वध कस्म, के अ भव्यक्तियों के मौ खक व ल खत क्षमता का वकास कराना।
- संचार माध्यमों (प्रंट और इलैक्ट्रोनिक) में प्रयुक्त हिंदी के प्रकृति से अवगत कराना और उन्हें नए-नए तरीकों, से प्रयोग करने के क्षमता का परीचय कराना।
- अर्थपूर्ण वश्लेषण, स्वतंत्र अ भव्यक्ति और तर्क क्षमता का वकास कराना।
- भाषा के अमूर्त रूप को समझने की पूर्व-अर्जित शांतावों का उत्तरोत्तर वकास कराना।
- भाषा में मौजूद हिंसा के संरचनाओं की समझ का वकास कराना।
- मतभेद, वरोध और टकराव की परिस्थितियों में भी भाषा के संवेदनशील और तर्दपूर्ण इस्तेमाल से शांतिपूर्ण संवाद की क्षमता का वकास कराना।
- भाषा के स्मवेशी और बहुभा षक प्रकृति के प्रति एतिहा सक और सामाजिक नज़रिये का वकास कराना।
- शारीरिक और अन्य सभी प्रकार के चुनौतियों का सामना कर रहे बच्चों में भा षक क्षमताओं के वकास की उनकी अपनी व शष्ट गति और प्रतभा की पहचान कराना।
- इलैक्ट्रोनिक माध्यमों से जुडते हुए भाषा-प्रयोग की बारी कयों और सावधानियों से अवगत कराना।

सीखने- सखाने की प्रक्रिया	सीखने के प्रतिफल
<p>सभी वदयार्थियों को समझते हुए सुननेए बोलने पढ़ने लखने और परिवेशीय सजगता को ध्यान में रखते हुए व्यक्तिगत या सामूहिक रूप से कार्य करने के अवसर और प्रोत्साहन दिए जाएँ ता क -</p> <ul style="list-style-type: none"> <li>• संगीत, लोक-कलाओं फलम, खेल आदि की भाषा पर पाठ पढ़ने या कार्यक्रम के दौरान गौर से करने सुनने के बाद संबंधित गति व धर्याँ कक्षा में हों। वदयार्थियों को प्रेरित कया जाए क वे आस पास की ध्वनियों और भाषा को ध्यान से सुनें और समझें।</li> <li>• उन्हें इस बात के अवसर मलें क वे रेडयो और टेली वजन पर खेल, फलम एवं संगीत तथा अन्य गति व धर्यों से संबंधित कार्यक्रम देखें सुनें और उनकी भाषा, लय संचार-संप्रेषण पर चर्चा करें।</li> <li>• रेडयो और टेली वजन पर राष्ट्रीय, सामाजिक चर्चाओं को सुनने देखने और सुनाने समझने तथा उन पर टिप्पणी करने के अवसर हों।</li> <li>• अपने आस-पास के लोगों की जरूरतों को जानने के लए उनसे साक्षात्कार और बातचीत के अवसर सुलभ हों, ऐसी गति व धर्याँ पाठ्यक्रम का हिस्सा हों।</li> <li>• हिंदी के साथ-साथ अपनी भाषा की सामग्री पढ़ने- लखने (ब्रेल तथा अन्य संकेत भाषा में भी) और उन पर बातचीत की आजादी हो।</li> <li>• अपने अनुभवों को स्वतंत्र ढंग से लखने के अवसर हों।</li> <li>• अपने परिवेश, समय और समाज से संबंधित रचनाओं को पढ़ने और उन पर चर्चा करने के अवसर हों।</li> <li>• अपनी भाषा गढ़ते हुए लखने की स्वतंत्रता हो।</li> <li>• सक्रय और जागरूक बनाने वाले स्त्रोत अखबार एवं पत्रिकाएँ फलम और अन्य दृश्य-श्रव्य सामग्री को देखने व सुनने पढ़ने और लखकर अभव्यक्त करने संबंधी गति व धर्याँ हों।</li> <li>• कल्पनाशीलता और सृजनशीलता को वक सत करने वाली गति व धर्यों, जैसे- अभनय, भूम का निर्वाह (रोल-प्ले), क वता पाठ, सृजनात्मक लेखन, व भन्न स्थितियों में संवाद आदि के आयोजन हों तथा उनकी</li> </ul>	<p>वदयार्थी-</p> <ul style="list-style-type: none"> <li>• अपने परिवेशगत अनुभवों पर अपनी स्वतंत्र और स्पष्ट राय मौखक एवं ल खत रूप में व यक्त करते हैं। जैसेक- मुसकान आजकल चुप क्यों रहती हैघ मुसकान को स्कूल में हम लाएँगे।</li> <li>• अपने आस-पास और स्कूली सा थर्यों की जरूरतों को अपनी भाषा में अभ व यक्त करते हैं। जैसे- भाषण या वाद ववाद में इन पर चर्चा करते हैं।</li> <li>• आँखों से न देख सकने वाले साथी की जरूरत की पाठ्यसामग्री को उपलब्ध कराने के संबंध में पुस्तकालयाध्यक्ष से बोलकर और लखकर निवेदन करते हैं।</li> <li>• न बोल सकने वाले साथी की बात को समझकर अपने शब्दों में बताते हैं।</li> <li>• नई रचनाएँ पढ़कर उन पर परिवार एवं सा थर्यों से बातचीत करते हैं।</li> <li>• रेडयो, टी.वी. या पत्र-पत्रिकाओं व अन्य श्रव्य-दृश्य संचार माध्यमों से प्रसारित, प्रका शत रूप को कथा साहित्य एवं रचनाओं पर मौखक एवं ल खत टिप्पणी/वश्लेषण करते हैं।</li> <li>• पत्रिका पर प्रसारित प्रका शत व भन्न पुस्तकों की समीक्षा पर अपनी टिप्पणी देते हुए वश्लेषण करते हैं।</li> <li>• अपने अनभवों एवं कल्पनाओ को सजृनात्मक ढंग से लखते हैं। जैसेक- कोई यात्रा वर्णन, संस्मरण लखना।</li> <li>• क वता या कहानी की पुनर्रचना कर पाते हैं। जैसे- कसी च र्चित क वता में कुछ पंक्तियाँ जोड़कर नई रचना बनाते हैं।</li> <li>• औपचारिक पत्र, जैसे- प्रधानाचार्य, संपादक को अपने आस-पास की समस्याओं मुद्दों को ध्यान में रखकर पत्र लखते हैं।</li> <li>• रोजमर्रा के जीवन से अलग कसी घटना स्थिति - वशेष में भाषा का काल्पन क और सृजनात्मक प्रयोग</li> </ul>



<p>तैयारी से संबंधित स्क्रिप्ट (पटकथा) लेखन और रिपोर्ट लेखन के अवसर सुलभ हों।</p> <ul style="list-style-type: none"> <li>• अपने माहौल और समाज के बारे में स्कूल तथा व भन्न पत्र-पत्रिकाओं में अपनी राय देने के अवसर हों।</li> <li>• कक्षा में भाषा-साहित्य की व वध छ वर्यों/वधाओं के अंतरसंबंधों को समझते हुए उनके परिवर्तनशील स्वरूप पर चर्चा हो, जैसे - आत्मकथाएँ जीवन, संस्मरण, क वता, कहानी, निबंध आदि।</li> <li>• भाषा-साहित्य के सामाजिक - सांस्कृतिक-सौंदर्यात्मक पक्षों पर चर्चा व वश्ले षण करने के अवसर हों।</li> <li>• संवेदनशील मुद्दों पर आलोचनात्मक वचार वमर्श के अवसर हों जैसे- जाति, धर्म, रीति-रिवाज, जेंडर आदि।</li> <li>• कृ ष, लोक-कलाओं, हस्त-कलाओं लघु-उद्योगों को दखने और जानने के अवसर हों और उनसे संबंधित शब्दावली को जानने और उनके उपयोग के अवसर हों।</li> <li>• कहानी, क वता, निबंध आदि वधाओं में व्याकरण के विविध प्रयोगों तथा उपागमों पर चर्चा के अवसर हों।</li> <li>• वद्यार्थी को अपनी व भन्न भाषाओं के व्याकरण से तलुनास्मानता देखने के अवसर हों।</li> <li>• रचनात्मक लेखन पत्र-लेखन टिप्पण, अनच्छेद-गद्य-पद्य के सभी रूपों में, निबंध, यात्रा वृत्तांत आदि लेखने के अवसर हों।</li> <li>• उपलब्ध सामग्री एवं भाषा में व्य करण के मौ लक प्रयोग की चर्चा एवं वश्ले षण के अवसर हों।</li> <li>• दैनिक जीवन में भाषा के उपयोग के व वध प्रकार एवं परिवेशगत अनुभव-आधारित-रचनात्मक लेखन के अवसर उपलब्ध हों।</li> </ul>	<p>करते हुए लेखते हैं। जैसे- दिन में रात, बिना बोले एक दिन, बिना आँखों के एक दिन आदि।</p> <ul style="list-style-type: none"> <li>• पाठ्यपस्तुकों में शा मल रचनाओं के अतिरिक्त अन्य क वता, कहानी, एकांकी को पढ़ते-लेखते और मंचन करते हैं।</li> <li>• भाषा-साहित्य की बारीकियों पर चर्चा करते हैं, जैसे क- व शष्ट शब्द-भंडार, वाक्य-संरचना, शैली के प्रयोगक प्रयोग एवं संरचना आदि ।</li> <li>• व वध साहित्यिक वधाओं के अंतर को समझते हुए उनके स्वरूप का वश्ले षण निरूपण करते हैं।</li> <li>• व भन्न साहित्यिक वधाओं को पढ़ते हुए व्याकरणक संरचनाओं पर चर्चा/टिप्पणी करते हैं।</li> <li>• प्राकृतिक एवं सामाजिक मद्दों, घटनाओं के प्रति अपनी प्रतिक्रिया को बोलकर/लेखकर व्यक्त करते हैं।</li> <li>• फिल्म एवं वज्ञापनों को देखकर उनकी समीक्षा लेखते हुए।</li> <li>• दृश्य माध्यम की भाषा का प्रयोग करते हैं।</li> <li>• परिवेशगत भाषा प्रयोगों पर प्रश्न करते हैं। जैसे- रेलवे स्टेशन/एयरपोर्ट/बस स्टैंड, ट्रक, ऑटोरिक्षा पर लखी कई भाषाओं में एक ही तरह की बातों पर ध्यान देंगे।</li> <li>• अपने परिवेश को बेहतर बनाने की कोशिश में सृजनात्मक लेखन करते हैं। जैसे- क्या-क्या रिसाइकलिंग कर सकते हैं, और पेड़ों को कैसे बचाएँ।</li> <li>• हस्त कलाएँ वास्तुकला, खेती-बाड़ी के प्रति अपना रुझान व्यक्त करते हैं तथा इनमें प्रयुक्त कलात्मक संदर्भों/भा षक प्रयोगों को अपनी भाषा में जोड़कर बोलते-लेखते हैं।</li> </ul>
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समावेशी शिक्षण व्यवस्था के लए कुछ सुझाव

कक्षा में सभी बच्चों के लए पाठ्यचर्या समान रहती है एवं कक्षा-गति व धर्यों में सभी बच्चों की प्रतिभा गता होनी चाहिए। व शष्ट आवश्यकता वाले बच्चों के लए पाठ्यचर्या में कई बार रूपान्तरों की आवश्यकता होती है। दिए गए सीखने के प्रतिफल समावेशी शिक्षण व्यवस्था के लए हैं, परंतु कक्षा में ऐसे भी बच्चे होते हैं जिनकी कुछ वशेष आवश्यकताएँ होती है, जैसे-दृष्टि-बा धत, श्रव्य-बा धत इत्यादि । उन्हें अति रिक्त सहयोग की आवश्यकता होती है। उनकी आवश्यकताओं को ध्यान में रखते हुए शिक्षकों के लए निम्न ल खत सुझाव प्रस्ता वत हैं-

- अध्यापक द्वारा व भन्न प्रारूपों (जैसेक- पत्र लेखन, आवेदन आदि) को मौ खक रूप से समझाया जा सकता है।
- वद्या र्थर्यों को बोलकर पढ़ने के लए प्रेरित कया जाना चाहिए।
- अध्यापक बातचीत के माध्यम से कक्षा में संप्रेषण कौशल को बढ़ा सकते हैं।
- नए शब्दों की जानकारी ब्रेल ल प में अर्थ सहित दी जानी चाहिए।
- दैनिक गति व धर्यों का मौ खक अर्थपूर्ण भा षक अभ्यास।
- शब्दों का वस्तुत उच्चारणगत हो, जैसे - मनट, वशाल, समुद्र, छोटे जीव तथा कीट इत्यादि।
- प्रश्नों का निर्माण करना और बच्चों को उत्तर देने के लए प्रोत्साहित करना। साथ ही बच्चों को भी प्रश्न-निर्माण करने को कहना और स्वयं उनका उत्तर तलाश करने के लए कहना।
- उच्चारण सुधारने के लए ऑ डयो सामग्री का प्रयोग और कहानी सुनाना। अलग-अलग तरह की आवाज़ों की रिकों डंग करकेए जैसे- झरना, हवा, लहरें, तूफान, जानवर और परिवहन, ता क उनके माध्यम से संकल्पना/धारणा/वचार को समझाया जा सके।
- वद्या र्थर्यों को एक - दूसरे से बातचीत के लए प्रेरित करना।
- अ भनय, नाटक और भूम का-निर्वाह (रोल-प्ले) का प्रयोग करने के लए प्रेरणा देना।
- पढ़ाए जाने वाले वषय पर दृश्य-शब्द कोश की शीट तैयार की जाए जैसे- शब्दों को चत्रों के माध्यम से दिखाया/बताया जाए।
- बोर्ड पर नए शब्दों को लखना। यदि उपलब्ध हो तो शब्द कोश के शब्दों को चत्र के माध्यम से प्रयोग कया जाए।
- नए शब्दों को बच्चों के रोजमर्रा के जीवन में इस्तेमाल करना और व भन्न प्रसंगों में उनका प्रयोग करना।
- शीर्षक और ववरण के साथ दृश्यात्मक तरीके से कक्षा में शब्दों का प्रयोग करना।
- स्पष्ट रूप से समझाने के लए फुटनोट को उदाहरण के साथ लखना।
- संप्रेषण के व भन्न तरीकों (जैसेक मौ खक एवं अमौ खक ग्रा फक्स, कार्टून्स (बोलते हुए गुब्बारे), चत्रों, संकेतों, ठोस वस्तुएँ एवं उदाहरण) का प्रयोग करना।
- ल खत सामग्री को छोटे-छोटे एवं सरल वाक्यों में तोड़नाए सं क्षप्त करना तथा लेखन को व्यवस्थित करना।
- बच्चों को इस योग्य बनाना क वे रोजमर्रा की घटनाओं को साधारण ढंग से डायरी, वार्तालाप, जर्नल, पत्रिका इत्यादि के रूप में लख सकें ।
- वाक्यों की बनावट पर आधारित अभ्यासों को बार-बार देना, ता क बच्चा शब्दों एवं वाक्यों के प्रयोग को ठीक ढंग से सीख सके । चत्रों/समाचारों/समसामयिक घटनाओं से उदाहरणों का प्रयोग करें।
- बच्चों के स्तर के अनुसार उन्हें पाठ्य-सामग्री तथा संसाधन प्रदान करना।
- पाठ में आए मुख्य शब्दों पर आधारित तरह-तरह के अनुभवों को देना।

- कलर को डंग (Color Coding) प्रयोग करना (जैसे- स्वर एवं व्यंजन के लए अलग-अलग रंगों का प्रयोग), कांसेप्ट मैप (Color map) तैयार करना।
- प्रस्तुति करण के लए व भन्न शैली एवं तरीकों, जैसे- दृश्य, श्रव्य, प्रायोगिक शिक्षण इत्यादि का प्रयोग।
- अनुच्छेदों को सरल बनाने के लए उनकी जटिलता को कम किया जाए।
- सामग्री को और अधिक आकर्षक बनाने के लए भन्न-भन्न व चारों, नए शब्दों के प्रयोग, कार्ड्स, हाथ की कठपुतली, वास्तविक जीवन के अनुभवों, कहानी प्रस्तुतिकरण, वास्तविक वस्तु एवं पूरक सामग्री का प्रयोग किया जा सकता है।
- अच्छी समझ के लए जरूरी है कि वषय से संबंधित पृष्ठभूमि के बारे में पूर्व ज्ञान से जोड़ते हुए नई सूचना दी जाए।
- कवताओं का पठन, समचित भावाभिव्यक्ति/अभिनय/गायन के साथ किया जाए।
- पाठों के परिचय एवं परीक्षण खंड अथवा आकलन में व भन्न समूहों के लए व भन्न प्रकार के प्रश्नों की रचना की जा सकती है।
- पठन-कार्य को अच्छा बनाने के लए दो-दो बच्चों के समूह द्वारा पाठ्यसामग्री को प्रस्तुत करवाया जाए।
- कठिन शब्दों के लए शब्दों के अर्थ या पर्यायवाची उन शब्दों के साथ ही कोष्ठक में लखे जाएँ। जिन शब्दों की व्याख्या जरूरी हो उन्हें व्याख्यायित किया जाए तथा सारांश को रेखांकित किया जाए।

#### सीखने के प्रतिफल-कुछ महत्वपूर्ण बिन्दु

- सीखने के प्रतिफल सीखने-सखाने की प्रक्रिया के दौरान शिक्षकों तथा बच्चों को सखाने में मदद करने वाले सभी लोगों की सुवधा के लए वकसत किए गए हैं।
- माध्यमिक स्तर (9-10) पर सीखने-सखाने की प्रक्रिया और माहौल में विशेष अंतर नहीं किया गया है। यद्यपि भाषा सीखने-सखाने के वकासात्मक स्तर में अंतर हो सकता है।
- भाषा सीखने के प्रतिफलों को ठीक ढंग से उपयोग करने के लए, दस्तावेज़ में प्रारंभिक पृष्ठभूमि दी गई है। इसे पढ़े, यह बच्चों की प्रगति को सही ढंग से समझने में मदद करेगी।
- इसमें राष्ट्रीय पाठ्यचर्या की रूपरेखा-2005 के आधार पर वकसत पाठ्यक्रम में नवीं और दसवीं कक्षाओं के लए हिंदी शिक्षण के उद्देश्यों को दृष्टि में रखते हुए पाठ्यक्रम संबंधी अपेक्षाएँ दी गई हैं।
- इन पाठ्यक्रम संबंधी अपेक्षाओं को वद्यार्थी तभी हासिल कर सकता है, जब सीखने के तरीके और कक्षा में अनुकूल माहौल हो।
- यद्यपि हमारी कोशिश यही रही है कि कक्षावार प्रतिफलों को दिया जाए, लेकिन भाषा की कक्षा में सीखने के व भन्न चरणों को देखते हुए इस प्रकार का बारीक अंतर करना मुश्किल हो जाता है।
- सीखने के प्रतिफल बच्चे के मनोवैज्ञानिक धरातल को ध्यान में रखते हुए, सीखने की प्रक्रिया के सभी अधिगमानुकूल तथ्यों व आवश्यकताओं को ध्यान में रखकर तैयार किए गए हैं।
- ये प्रतिफल सीखने-सखाने की प्रक्रिया के दौरान सतत और समग्र आकलन में भी आपकी मदद करेंगे, क्योंकि सीखने-सखाने की प्रक्रिया के दौरान ही बच्चे को लगातार फीडबैक (प्रतिपुष्टि) भी मिलता जाएगा।
- इन प्रतिफलों की अच्छी समझ बनाने के लए पाठ्यचर्या और पाठ्यक्रम को पढ़ना-समझना बेहद जरूरी है।

- ये प्रतिफल वद्यार्थी की योग्यताएँ कौशल, मूल्य, दृष्टिकोण तथा उसकी व्यक्तिगत और सामाजिक विशेषताओं से जुड़े हुए हैं। आप देखेंगे कि वद्यार्थी की आयु, स्तर और परिवेश की विशेषताओं के अनुसार प्रतिफलों के सङ्घात परिणाम में भी बदलाव आता है।
- समावेशी कक्षा को ध्यान में रखते हुए पाठ्यक्रम की अपेक्षाओं सीखने के तरीके और माहौल तथा प्रतिफलों के विकास में सभी तरह के बच्चों को ध्यान में रखा गया है।
- अलग-अलग शैक्षार्थी-समूहों एवं भाषायी परिवेश के अनुसार उल्लिखित एक ही प्रतिफल का अलग-अलग स्तर संभव है, जैसे- लिखने-पढ़ने या राय व्यक्त करने की दक्षता के अनुसार संबंधित प्रतिफलों का वृद्ध स्तर हो सकता है।
- इस दस्तावेज़ में चर्चित किए गए प्रतिफलों के अतिरिक्त -प्रतिफलों की ओर भी अध्यापकों का ध्यान जाना चाहिए।

## COURSE STRUCTURE CLASS -X

Units	Unit Name	Marks
I	NUMBER SYSTEMS	06
II	ALGEBRA	20
III	COORDINATE GEOMETRY	06
IV	GEOMETRY	15
V	TRIGONOMETRY	12
VI	MENSURATION	10
VII	STATISTICS & PROBABILITY	11
	Total	80

### UNIT I: NUMBER SYSTEMS

#### 1. REAL NUMBER

(15) Periods

Euclid's division lemma, Fundamental Theorem of Arithmetic - statements after reviewing work done earlier and after illustrating and motivating through examples, Proofs of irrationality of  $\sqrt{2}, \sqrt{3}, \sqrt{5}$  Decimal representation of rational numbers in terms of terminating/non-terminating recurring decimals.

### UNIT II: ALGEBRA

#### 1. POLYNOMIALS

(7) Periods

Zeros of a polynomial. Relationship between zeros and coefficients of quadratic polynomials. Statement and simple problems on division algorithm for polynomials with real coefficients.

#### 2. PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

(15) Periods

Pair of linear equations in two variables and graphical method of their solution, consistency/inconsistency.

Algebraic conditions for number of solutions. Solution of a pair of linear equations in two variables algebraically - by substitution, by elimination and by cross multiplication method. Simple situational problems. Simple problems on equations reducible to linear equations.

#### 3. QUADRATIC EQUATIONS

(15) Periods

Standard form of a quadratic equation  $ax^2 + bx + c = 0$ , ( $a \neq 0$ ). Solutions of quadratic equations (only real roots) by factorization, and by using quadratic formula. Relationship between discriminant and nature of roots.

Situational problems based on quadratic equations related to day to day activities to be incorporated.

#### **4. ARITHMETIC PROGRESSIONS**

**(8) Periods**

Motivation for studying Arithmetic Progression Derivation of the  $n^{\text{th}}$  term and sum of the first  $n$  terms of A.P. and their application in solving daily life problems.

#### **UNIT III: COORDINATE GEOMETRY**

##### **1. LINES (In two-dimensions)**

**(14) Periods**

**Review:** Concepts of coordinate geometry, graphs of linear equations. Distance formula. Section formula (internal division). Area of a triangle.

#### **UNIT IV: GEOMETRY**

##### **1. TRIANGLES**

**(15) Periods**

Definitions, examples, counter examples of similar triangles.

1. (Prove) If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio.
2. (Motivate) If a line divides two sides of a triangle in the same ratio, the line is parallel to the third side.
3. (Motivate) If in two triangles, the corresponding angles are equal, their corresponding sides are proportional and the triangles are similar.
4. (Motivate) If the corresponding sides of two triangles are proportional, their corresponding angles are equal and the two triangles are similar.
5. (Motivate) If one angle of a triangle is equal to one angle of another triangle and the sides including these angles are proportional, the two triangles are similar.
6. (Motivate) If a perpendicular is drawn from the vertex of the right angle of a right triangle to the hypotenuse, the triangles on each side of the perpendicular are similar to the whole triangle and to each other.
7. (Prove) The ratio of the areas of two similar triangles is equal to the ratio of the squares of their corresponding sides.
8. (Prove) In a right triangle, the square on the hypotenuse is equal to the sum of the squares on the other two sides.
9. (Prove) In a triangle, if the square on one side is equal to sum of the squares on the other two sides, the angles opposite to the first side is a right angle.

##### **2. CIRCLES**

**(8) Periods**

Tangent to a circle at, point of contact

1. (Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact.
2. (Prove) The lengths of tangents drawn from an external point to a circle are equal.
3. (Motivate) Alternative Segment theorem: If a chord is drawn through the point of contact of a tangent to a circle, then the angles made by the chord with the tangent are respectively equal to the angles subtended by the chord in the alternate segments.

### **3. CONSTRUCTIONS**

**(8) Periods**

1. Division of a line segment in a given ratio (internally).
2. Tangents to a circle from a point outside it.
3. Construction of a triangle similar to a given triangle.

### **UNIT V: TRIGONOMETRY**

#### **1. INTRODUCTION TO TRIGONOMETRY**

**(10) Periods**

Trigonometric ratios of an acute angle of a right-angled triangle. Proof of their existence (well defined); motivate the ratios whichever are defined at  $0^\circ$  and  $90^\circ$ . Values of the trigonometric ratios of  $30^\circ$ ,  $45^\circ$  and  $60^\circ$ . Relationships between the ratios.

#### **2. TRIGONOMETRIC IDENTITIES**

**(15) Periods**

Proof and applications of the identity  $\sin^2 A + \cos^2 A = 1$ . Only simple identities to be given. Trigonometric ratios of complementary angles.

#### **3. HEIGHTS AND DISTANCES: Angle of elevation, Angle of Depression. (8) Periods**

Simple problems on heights and distances. Problems should not involve more than two right triangles. Angles of elevation / depression should be only  $30^\circ$ ,  $45^\circ$ , and  $60^\circ$ .

### **UNIT VI: MENSURATION**

#### **1. AREAS RELATED TO CIRCLES**

**(12) Periods**

Motivate the area of a circle; area of sectors and segments of a circle. Problems based on areas and perimeter / circumference of the above said plane figures. (In calculating area of segment of a circle, problems should be restricted to central angle of  $60^\circ$ ,  $90^\circ$  and  $120^\circ$  only. Plane figures involving triangles, simple quadrilaterals and circle should be taken.)

#### **2. SURFACE AREAS AND VOLUMES**

**(12) Periods**

1. Surface areas and volumes of combinations of any two of the following: cubes, cuboids, spheres, hemispheres and right circular cylinders/cones. Frustum of a cone.
2. Problems involving converting one type of metallic solid into another and other mixed problems. (Problems with combination of not more than two different solids be taken).

### **UNIT VII: STATISTICS AND PROBABILITY**

#### **1. STATISTICS**

**(18) Periods**

Mean, median and mode of grouped data (bimodal situation to be avoided). Cumulative frequency graph.

#### **2. PROBABILITY**

**(10) Periods**

Classical definition of probability. Simple problems on finding the probability of an event.

**MATHEMATICS-Standard**  
**QUESTION PAPER DESIGN**  
**CLASS – X (2021-22)**

**Time: 3 Hours**

**Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	<b>Remembering:</b> Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.  <b>Understanding:</b> Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	43	54
2	<b>Applying:</b> Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	19	24
3	<b>Analysing :</b> Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations  <b>Evaluating:</b> Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.  <b>Creating:</b> Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	18	22
	<b>Total</b>	80	100

<b>INTERNAL ASSESSMENT</b>	<b>20 MARKS</b>
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks



**MATHEMATICS-Basic**  
**QUESTION PAPER DESIGN**  
**CLASS – X (2021-22)**

**Time: 3 Hours**

**Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	<b>Remembering:</b> Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.  <b>Understanding:</b> Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	60	75
2	<b>Applying:</b> Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	12	15
3	<b>Analysing :</b> Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations  <b>Evaluating:</b> Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.  <b>Creating:</b> Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	8	10
	<b>Total</b>	80	100

<b>INTERNAL ASSESSMENT</b>	<b>20 MARKS</b>
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks

**PRESCRIBED BOOKS:**

1. Mathematics - Textbook for class IX - NCERT Publication
2. Mathematics - Textbook for class X - NCERT Publication
3. Guidelines for Mathematics Laboratory in Schools, class IX - CBSE Publication
4. Guidelines for Mathematics Laboratory in Schools, class X - CBSE Publication
5. Laboratory Manual - Mathematics, secondary stage - NCERT Publication
6. Mathematics exemplar problems for class IX, NCERT publication.
7. Mathematics exemplar problems for class X, NCERT publication.

<p>lengths) and frequency polygons.</p> <ul style="list-style-type: none"> <li>• collect data from their surroundings and calculate central tendencies such as, mean, mode or median.</li> <li>• explore the features of solid objects from daily life situations to identify them as cubes, cuboids, cylinders, etc.</li> <li>• play games involving throwing a dice, tossing a coin, etc., and find their chance of happening.</li> <li>• do a project of collecting situations corresponding to different numbers representing probabilities.</li> <li>• visualise the concepts using Geogebra and other ICT tools.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>derives</b> formulae for surface areas and volumes of different solid objects like, cubes, cuboids, right circular cylinders/ cones, spheres and hemispheres and applies them to objects found in the surroundings.</li> <li>• <b>solves</b> problems that are not in the familiar context of the child using above learning. These problems should include the situations to which the child is not exposed earlier.</li> </ul>
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## Learning Outcomes for Mathematics

### Class- X

Suggested Pedagogical Processes	Learning Outcomes
<p><b>The learners may be provided with opportunities individually or in groups and encouraged to —</b></p> <ul style="list-style-type: none"> <li>• extend the methods of finding LCM and HCF of large numbers learnt earlier to general form.</li> <li>• discuss different aspects of polynomials, such as — their degree, type (linear, quadratic, cubic), zeroes, etc., relationship between their visual representation and their zeroes.</li> <li>• play a game which may involve a series of acts of factorising a polynomial and using one of its factors to form a new one. For example, one group factorizing say, <math>(x^3 - 2x^2 - x - 2)</math> and using one of its factors <math>x-1</math> to construct another polynomial, which is further factorized by another group to continue the</li> </ul>	<p><b>The learner —</b></p> <ul style="list-style-type: none"> <li>• <b>generalises</b> properties of numbers and relations among them studied earlier to evolve results, such as, Euclid's division algorithm, Fundamental Theorem of Arithmetic and applies them to solve problems related to real life contexts</li> <li>• <b>develops</b> a relationship between algebraic and graphical methods of finding the zeroes of a polynomial.</li> </ul>

process.

- use quadratic equations to solve real life problems through different strategies, such as, making a perfect square, quadratic formula, etc.
- discuss different aspects of linear equations by engaging students in the activities of the following nature:
  - one group may ask another to form linear equation in two variables with coefficients from a particular number system, i.e., natural numbers or numbers that are not integers, etc.
  - graphically representing a linear equation in 1D or 2D and try to explain the difference in their nature.
  - encouraging students to observe identities and equations and segregate them.
- use graphical ways to visualise different aspects of linear equations, such as, visualising linear equations in two variables or to find their solution.
- observe and analyse patterns in their daily life situations to check if they form an Arithmetic Progression and, if so, find rule for getting their  $n$ th term and sum of  $n$  terms. The situations could be — our savings or pocket money, games such as, playing cards and snakes and ladders, etc.
- analyse and compare different geometrical shapes, charts, and models made using paper folding and tell about their similarity and congruence.
- discuss in groups different situations,

- **finds** solutions of pairs of linear equations in two variables using graphical and different algebraic methods.
- **demonstrates** strategies of finding roots and determining the nature of roots of a quadratic equation.
- **develops** strategies to apply the concept of A.P. to daily life situations.
- **works** out ways to differentiate between congruent and similar figures.
- **establishes** properties for similarity of two triangles logically using different geometric criteria established earlier such as, Basic Proportionality Theorem, etc.

such as, constructing maps, etc., in which the concepts of trigonometry are used.

- work in projects related to heights and distances, that may include situations in which methods have to be devised for measuring the angle of inclination of the top of a building and their own distance from the building.
- devise ways to find the values of different trigonometric ratios for a given value of a trigonometric ratio.
- observe shapes in the surroundings that are a combination of shapes studied so far, such as, cone, cylinder, cube, cuboid, sphere, hemisphere, etc. They may work in groups and may provide formulas for different aspects of these combined shapes.
- determine areas of various materials, objects, and designs around them for example design on a handkerchief, design of tiles on the floor, geometry box, etc.
- discuss and analyse situations related to surface areas and volumes of different objects, such as, (a) given two boxes of a certain shape with different dimensions, if one box is to be changed exactly like another box, which attribute will change, its surface area or volume? (b) By what percent will each of the dimensions of one box have to be changed to make it exactly of same size as the other box?
- discuss and analyse the chance of happening of different events through simple activities like tossing a coin, throwing two dices simultaneously, picking up a card from a deck of 52

- **derives** formulae to establish relations for geometrical shapes in the context of a coordinate plane, such as, finding the distance between two given points, to determine the coordinates of a point between any two given points, to find the area of a triangle, etc.
- **determines** all trigonometric ratios with respect to a given acute angle (of a right triangle) and uses them in solving problems in daily life contexts like finding heights of different structures or distance from them.
- **derives** proofs of theorems related to the tangents of circles
- **constructs —**
  - a triangle similar to a given triangle as per a given scale factor.
  - a pair of tangents from an external point to a circle and justify the procedures.
- **examines** the steps of geometrical constructions and reason out each step
- **finds** surface areas and volumes of objects in the surroundings by visualising them as a combination of different solids like cylinder and a cone, cylinder and a hemisphere, combination of different cubes, etc.

<p>playing cards, etc.</p> <ul style="list-style-type: none"> <li>• generalise the formulas of mean, median and mode read in the earlier classes by providing situations for these central tendencies.</li> <li>• collect data from their surroundings and calculate the central tendencies.</li> <li>• to draw tangents to a circle from a point which lies outside and a point which lies inside the circle. They may be motivated to evolve different ways to verify the properties of such tangents.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>calculates</b> mean, median and mode for different sets of data related with real life contexts.</li> <li>• <b>determines</b> the probability of an event and applies the concept in solving daily life problems.</li> </ul>
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### **Suggested Pedagogical Processes in an Inclusive Setup**

Children with special needs to be taken along the class and keeping in view the learning objectives, similar to those of the others, appropriate activities may be designed. The teacher should take into account the specific problem of the child and plan alternate strategies for teaching-learning process. A healthy inclusive classroom environment provides equal opportunity to all the students; to those with and without learning difficulties. The measures to be adopted may include:

- developing process skills through group activities and using ICT for simulation, repeated practice and evaluation.
- assessing learning progress through different modes taking cognizance of the learner's response.
- observing the child's engagement in multiple activities, through varied ways and levels of involvement.
- using of embossed diagram in the pedagogical process and learning progress.
- using of adapted equipment (large print materials, adapted text materials with simple language, more pictures and examples, etc.) in observation and exploration (for example: visual output devices should have aural output and vice versa) during the teaching-learning process.
- using multiple choice questions to get responses from children who find it difficult to write or explain verbally.

## **SCIENCE**

**(Code No. 086)**

**Classes: IX and X (2021-22)**

The subject of Science plays an important role in developing well-defined abilities in cognitive, affective and psychomotor domains in children. It augments the spirit of enquiry, creativity, objectivity and aesthetic sensibility.

Upper primary stage demands that a number of opportunities should be provided to the students to engage them with the processes of Science like observing, recording observations, drawing, tabulation, plotting graphs, etc., whereas the secondary stage also expects abstraction and quantitative reasoning to occupy a more central place in the teaching and learning of Science. Thus, the idea of atoms and molecules being the building blocks of matter makes its appearance, as does Newton's law of gravitation.

The present syllabus has been designed around seven broad themes viz. Food; Materials; The World of The Living; How Things Work; Moving Things, People and Ideas; Natural Phenomenon and Natural Resources. Special care has been taken to avoid temptation of adding too many concepts than can be comfortably learnt in the given time frame. No attempt has been made to be comprehensive.

At this stage, while science is still a common subject, the disciplines of Physics, Chemistry and Biology begin to emerge. The students should be exposed to experiences based on hands on activities as well as modes of reasoning that are typical of the subject.

### **Curricular Expectations**

At this stage learners are expected to:

- develop understanding of concepts, principles, theories, and laws governing the physical world, consistent with the stage of cognitive development.
- develop ability to acquire and use the methods and processes of science, such as observing, questioning, planning investigations, hypothesising, collecting, analyzing and interpreting data, communicating explanations with evidences, justifying explanations, thinking critically to consider and evaluate alternative explanation, etc.
- conduct experiments, also involving quantitative measurements.
- appreciate how concepts of science evolve with time giving importance to its historical prospective.
- develop scientific temper (objectivity, critical thinking, freedom from fear and prejudice, etc.).
- nurture natural curiosity, aesthetic sense, and creativity.
- imbibe the values of honesty, integrity, cooperation, concern for life and preservation of environment.
- develop respect for human dignity and rights, equity and equality.

**General Instructions:**

1. There will be an Annual Examination based on the entire syllabus.
2. The Annual Examination will be of 80 marks and 20 marks weightage shall be for Internal Assessment.
3. For Internal Assessment:
  - a There will be Periodic Assessment that would include:
    - For 5 marks- Three periodic tests conducted by the school. Average of the best two tests to be taken that will have a weightage of 05 marks towards the final result.
    - For 5 marks- Diverse methods of assessment as per the need of the class dynamics and curriculum transaction. These may include - short tests, oral test, quiz, concept maps, projects, posters, presentations and enquiry based scientific investigations etc. and use rubrics for arguing them objectively. This will also have a weightage of 05 marks towards the final result.
  - b Practical / Laboratory work should be done throughout the year and the student should maintain record of the same. Practical Assessment should be continuous. There will be weightage of 5 marks towards the final result. All practicals listed in the syllabus must be completed.
  - c Portfolio to be prepared by the student- This would include classwork and other sample of student work and will carry a weightage of 5 marks towards the final results.

**COURSE STRUCTURE CLASS X**  
**(Annual Examination)**

**Marks: 80**

Unit No.	Unit	Marks	Periods
I	Chemical Substances-Nature and Behaviour	25	55
II	World of Living	23	50
III	Natural Phenomena	12	23
IV	Effects of Current	13	32
V	Natural Resources	07	20
	<b>Total</b>	<b>80</b>	
	<b>Internal assessment</b>	<b>20</b>	
	<b>Grand Total</b>	<b>100</b>	

**Theme: Materials**

**(55 Periods)**

**Unit I: Chemical Substances - Nature and Behaviour**

**Chemical reactions:**

Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, neutralization, oxidation and reduction.

**Acids, bases and salts:**

Their definitions in terms of furnishing of  $H^+$  and  $OH^-$  ions, General properties, examples and uses, concept of pH scale (Definition relating to logarithm not required), importance of pH in everyday life; preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris.

**Metals and nonmetals:**

Properties of metals and non-metals; Reactivity series; Formation and properties of ionic compounds; Basic metallurgical processes; Corrosion and its prevention.

**Carbon compounds:**

Covalent bonding in carbon compounds. Versatile nature of carbon. Homologous series. Nomenclature of carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes and alkynes), difference between saturated hydrocarbons and unsaturated hydrocarbons. Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). Ethanol and Ethanoic acid (only properties and uses), soaps and detergents.

**Periodic classification of elements:**

Need for classification, early attempts at classification of elements (Dobereiner's Triads, Newland's Law of Octaves, Mendeleev's Periodic Table), Modern periodic table, gradation in properties, valency, atomic number, metallic and non-metallic properties.



**Theme: The World of the Living****(50 Periods)****Unit II: World of Living****Life processes:**

‘Living Being’. Basic concept of nutrition, respiration, transport and excretion in plants and animals.

**Control and co-ordination in animals and plants:**

Tropic movements in plants; Introduction of plant hormones; Control and co-ordination in animals: Nervous system; Voluntary, involuntary and reflex action; Chemical co-ordination: animal hormones.

**Reproduction:**

Reproduction in animals and plants (asexual and sexual) reproductive health-need and methods of family planning. Safe sex vs HIV/AIDS. Child bearing and women’s health.

**Heredity and Evolution:**

Heredity; Mendel’s contribution- Laws for inheritance of traits: Sex determination: brief introduction; Basic concepts of evolution.

**Theme: Natural Phenomena****(23 Periods)****Unit III: Natural Phenomena**

Reflection of light by curved surfaces; Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length, mirror formula (Derivation not required), magnification.

Refraction; Laws of refraction, refractive index.

Refraction of light by spherical lens; Image formed by spherical lenses; Lens formula (Derivation not required); Magnification. Power of a lens.

Functioning of a lens in human eye, defects of vision and their corrections, applications of spherical mirrors and lenses.

Refraction of light through a prism, dispersion of light, scattering of light, applications in daily life.

**Theme: How Things Work****(32 Periods)****Unit IV: Effects of Current**

Electric current, potential difference and electric current. Ohm’s law; Resistance, Resistivity, Factors on which the resistance of a conductor depends. Series combination of resistors, parallel combination of resistors and its applications in daily life. Heating effect of electric current and its applications in daily life. Electric power, Interrelation between P, V, I and R.

**Magnetic effects of current :**

Magnetic field, field lines, field due to a current carrying conductor, field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming’s Left Hand Rule, Electric Motor, Electromagnetic induction. Induced potential difference, Induced current. Fleming’s Right Hand Rule, Electric Generator, Direct current. Alternating current: frequency of AC. Advantage of AC over DC. Domestic electric circuits.

**Theme: Natural Resources**

**(20 Periods)**

**Unit V: Natural Resources**

**Sources of energy:**

Different forms of energy, conventional and non-conventional sources of energy: Fossil fuels, solar energy; biogas; wind, water and tidal energy; Nuclear energy. Renewable versus non-renewable sources of Energy.

**Our environment:**

Eco-system, Environmental problems, Ozone depletion, waste production and their solutions. Biodegradable and non-biodegradable substances.

**Management of natural resources:**

Conservation and judicious use of natural resources. Forest and wild life; Coal and Petroleum conservation. Examples of people's participation for conservation of natural resources. Big dams: advantages and limitations; alternatives, if any. Water harvesting. Sustainability of natural resources.

## PRACTICALS

Practical should be conducted alongside the concepts taught in theory classes

### LIST OF EXPERIMENTS

1. A. Finding the pH of the following samples by using pH paper/universal indicator: **Unit-I**
  - (i) Dilute Hydrochloric Acid
  - (ii) Dilute NaOH solution
  - (iii) Dilute Ethanoic Acid solution
  - (iv) Lemon juice
  - (v) Water
  - (vi) Dilute Hydrogen Carbonate solution

B. Studying the properties of acids and bases (HCl & NaOH) on the basis of their reaction with: **Unit-I**

  - a) Litmus solution (Blue/Red)
  - b) Zinc metal
  - c) Solid sodium carbonate
2. Performing and observing the following reactions and classifying them into: **Unit-I**
  - A. Combination reaction
  - B. Decomposition reaction
  - C. Displacement reaction
  - D. Double displacement reaction
    - (i) Action of water on quicklime
    - (ii) Action of heat on ferrous sulphate crystals
    - (iii) Iron nails kept in copper sulphate solution
    - (iv) Reaction between sodium sulphate and barium chloride solutions
3. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions: **Unit-I**
  - i)  $\text{ZnSO}_4(\text{aq})$
  - ii)  $\text{FeSO}_4(\text{aq})$
  - iii)  $\text{CuSO}_4(\text{aq})$
  - iv)  $\text{Al}_2(\text{SO}_4)_3(\text{aq})$

Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on the above result.
4. Studying the dependence of potential difference (V) across a resistor on the current (I) passing through it and determine its resistance. Also plotting a graph between V and I. **Unit-IV**
5. Determination of the equivalent resistance of two resistors when connected in series and parallel. **Unit-IV**
6. Preparing a temporary mount of a leaf peel to show stomata. **Unit- II**
7. Experimentally show that carbon dioxide is given out during respiration. **Unit-II**
8. Study of the following properties of acetic acid (ethanoic acid): **Unit- I**
  - i) Odour
  - ii) solubility in water
  - iii) effect on litmus
  - iv) reaction with Sodium Hydrogen Carbonate

9. Study of the comparative cleaning capacity of a sample of soap in soft and hard water. **Unit- I**
10. Determination of the focal length of: **Unit-III**
- i) Concave mirror
- ii) Convex lens
- by obtaining the image of a distant object.
11. Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result. **Unit - III**
12. Studying (a) binary fission in *Amoeba*, and (b) budding in yeast and Hydra with the help of prepared slides. **Unit-II**
13. Tracing the path of the rays of light through a glass prism. **Unit-III**
14. Finding the image distance for varying object distances in case of a convex lens and drawing corresponding ray diagrams to show the nature of image formed. **Unit-III**
15. Identification of the different parts of an embryo of a dicot seed (Pea, gram or red kidney bean). **Unit-II**

#### **PRESCRIBED BOOKS:**

- Science-Textbook for class IX-NCERT Publication
- Science-Text book for class X- NCERT Publication
- Assessment of Practical Skills in Science-Class IX - CBSE Publication
- Assessment of Practical Skills in Science- Class X- CBSE Publication
- Laboratory Manual-Science-Class IX, NCERT Publication
- Laboratory Manual-Science-Class X, NCERT Publication
- Exemplar Problems Class IX – NCERT Publication
- Exemplar Problems Class X – NCERT Publication

## Assessment Areas (Theory) 2021-22

(Class X)

Science (086)

Time: 3 hrs.

Maximum Marks: 80 Marks

Competencies	
Demonstrate Knowledge and Understanding	46 %
Application of Knowledge/Concepts	22 %
Analyze, Evaluate and Create	32 %

### Note:

- Typology of Questions: VSA including objective type questions, Assertion – Reasoning type questions; SA; LA; Source-based/ Case-based/ Passage-based/ Integrated assessment questions.
- An internal choice of approximately 33% would be provided.

### Internal Assessment (20 Marks)

- **Periodic Assessment** - 05 marks + 05 marks
- **Subject Enrichment** (Practical Work) - 05 marks
- **Portfolio** - 05 marks

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### Suggestive verbs for various competencies

- **Demonstrate Knowledge and Understanding**  
State, name, list, identify, define, suggest, describe, outline, summarize, etc.
- **Application of Knowledge/Concepts**  
Calculate, illustrate, show, adapt, explain, distinguish, etc.
- **Analyze, Evaluate and Create**  
Interpret, analyze, compare, contrast, examine, evaluate, discuss, construct, etc.

## Class X

Suggested Pedagogical Processes	Learning Outcomes
<p><b>The learners may be provided with opportunities individually or in groups and encouraged to—</b></p> <ul style="list-style-type: none"> <li>• recognise the difference between reactions, such as, exothermic and endothermic, oxidation and reduction, etc.</li> <li>• observe to understand the difference in the temperatures in both the reactions using laboratory thermometer.</li> <li>• investigate the ways of segregation of waste material on the basis of their degradation property. They may be encouraged to practice the segregation of waste before disposal at home, school, and public places.</li> <li>• explore the relationship between two physical quantities, such as, between potential difference across a conductor and electric current flowing through it; design, conduct, and share the findings of an activity</li> <li>• find out ‘why’ and ‘how’ of processes or phenomena, such as, transportation in plants and animals, extraction of metals from ores, with the help of activities, experiments, and demonstration. The learners may be encouraged to discuss, relate, conclude and explain processes or phenomena to their peers using interdisciplinary approach.</li> <li>• observe diagrams, such as that of digestive system and the names given to various organs. The learners may be motivated to make poster of the digestive system for displaying in school. They may also be provided opportunities to use ICT tools for drawing.</li> <li>• collect wide variety of graphs from newspapers, magazines, or the internet, with a view to understand the information contained therein. The learners may be facilitated to draw a graph, such as V-I graph for analysing the relationship between the potential difference across a conductor and the current through it.</li> </ul>	<p><b>The learner—</b></p> <ul style="list-style-type: none"> <li>• <b>differentiates materials, objects, organisms, phenomena, and processes, based on, properties and characteristics,</b> such as, autotrophic and heterotrophic nutrition, biodegradable and non-biodegradable substances, various types of reactions, strong and weak acids and bases, acidic, basic, and neutral salts using different indicators, real and virtual images, etc.</li> <li>• <b>classifies materials, objects, organisms, phenomena, and processes, based on properties and characteristics,</b> such as, metals and non-metals, acid and bases on the basis of their physical and chemical properties.</li> <li>• <b>plans and conducts investigations and experiments to arrive at and verify the facts, principles, phenomena, or to seek answers to queries on their own,</b> such as, investigates conditions necessary for rusting, tests the conductivity of various solutions, compares the foaming capacity of different types of soap samples, verifies laws of reflection and refraction of light, Ohm’s law, etc. Do variegated leaves perform photosynthesis? Which gas is evolved during fermentation? Why does the shoot of a plant move towards light?</li> <li>• <b>relates processes and phenomena with causes and effects,</b> such as, hormones with their functions, tooth decay with pH of saliva, growth of plants with pH of the soil, survival of aquatic life with pH of water, blue colour of sky with scattering of light, deflection of compass needle due to magnetic effect of electric current, etc.</li> <li>• <b>explains processes and phenomena,</b> such as, nutrition in human beings and plants, transportation in plants</li> </ul>

- study how chemical equations are balanced using simple mathematical skills. Discussion may be conducted on the significance of balancing of chemical equations.
- get familiar with New Cartesian Sign Convention using illustrated cards and may be given ample opportunities to apply the sign convention in various situations of reflection by spherical mirrors.
- perform a role-play on ecosystem in a hypothetical situation, such as, what will happen if all herbivores suddenly vanish from earth. This may be followed by a discussion about how the loss of biodiversity disrupts the food chain hereby adversely affecting the energy flow in an ecosystem.
- derive equations, formulae, laws, etc. For example, the derivation for formula of the equivalent resistance of resistors in series (or parallel). They should be encouraged to practice the derivation till they are confident.
- study the features inherited through genes, such as, attached or free earlobes. They may be encouraged to observe and compare the earlobes of their friends with the earlobes of their parents and grandparents to arrive at the conclusion that characters or traits are inherited in offsprings from their parents.
- collect print and non-print materials by exploring the library and the internet about scientists and their findings to appreciate how concepts evolved with time. They may be motivated to share their findings by preparing posters and performing role plays or skits.
- encourage learners to visit science museums, biodiversity parks, aviaries, zoological parks, botanical gardens, fisheries, poultry farms, factories, etc.

and animals, extraction of metals from ores, placement of elements in modern periodic table, displacement of metals from their salt solutions on the basis of reactivity series, working of electric motor and generator, twinkling of stars, advanced sunrise and delayed sunset, formation of rainbow, etc.

- **draws labelled diagrams, flow charts, concept maps, and graphs,** such as, digestive, respiratory, circulatory, excretory, and reproductive systems, electrolysis of water, electron dot structure of atoms and molecules, flowchart for extraction of metals from ores, ray diagrams, magnetic field lines, etc.
- **analyses and interprets data, graphs, and figures,** such as, melting and boiling points of substances to differentiate between covalent and ionic compounds, pH of solutions to predict the nature of substances, V-I graphs, ray diagrams, etc.
- **calculates using the data given,** such as, number of atoms in reactants and products to balance a chemical equation, resistance of a system of resistors, power of a lens, electric power, etc.
- **uses scientific conventions to represent units of various quantities, symbols, formulae, and equations,** such as, balanced chemical equation by using symbols and physical states of substances, sign convention in optics, SI units, etc.
- **handles tools and laboratory apparatus properly; measures physical quantities using appropriate apparatus, instruments, and devices,** such as, pH of substances using pH paper, electric current and potential difference using ammeter and voltmeter, etc.

- collect eco-friendly, commonly available materials to design and develop technological devices and innovative exhibits, such as, electric motor, soda acid fire extinguisher, respiratory system, etc. They may be motivated to display their exhibits or models in science exhibitions, science club, classrooms, during parent-teacher meet and to respond to the queries raised during interaction.
- visit classrooms, laboratories, library, toilets, playground, etc., to identify places where wastage of electricity and water may be occurring. Discussion may be held on importance of natural resources and their conservation, leading to the conviction for adoption of good habits in their day-to-day life. The learners may also organise a sensitisation programme on such issues.
- share their findings of the activities, projects, and experiments, such as, extraction of metals from ores, working of electric motor and generator, formation of rainbow, etc., in oral and written forms. Report writing may be facilitated to share their findings by using appropriate technical terms, figures, tables, graphs, etc. They may be encouraged to draw conclusions on the basis of their observations.
- **applies learning to hypothetical situations**, such as, what will happen if all herbivores are removed from an ecosystem? What will happen if all non-renewable sources of energy are exhausted?
- **applies scientific concepts in daily life and solving problems**, such as, suggest precautions to prevent sexually transmitted infections, uses appropriate electrical plugs (5/15A) for different electrical devices, uses vegetative propagation to develop saplings in gardens, performs exercise to keep in good health, avoids using appliances responsible for ozone layer depletion, applies concept of decomposition reaction of baking soda to make spongy cakes, etc.
- **derives formulae, equations, and laws**, such as, equivalent resistance of resistors in series and parallel, etc.
- **draws conclusion**, such as, traits or features are inherited through genes present on chromosomes, a new species originates through evolutionary processes, water is made up of hydrogen and oxygen, properties of elements vary periodically along the groups and periods in periodic table, potential difference across a metal conductor is proportional to the electric current flowing through it, etc.
- **takes initiative to know about scientific discoveries and inventions**, such as, Mendel's contribution in understanding the concept of inheritance, Dobereiner for discovering triads of elements, Mendeleev for the development of the periodic table of elements, Oersted's discovery that electricity and magnetism are related, discovery of relation between potential difference across a metal conductor and the electric current flowing through it by Ohm, etc.
- **exhibits creativity in designing models using eco-friendly resources**, such as, working model of respiratory,



digestive, and excretory systems, soda acid fire extinguisher, periodic table, micelles formation, formation of diamond, graphite, and Buckminsterfullerene, human eye, electric motor and generator, etc.

- **exhibits values of honesty, objectivity, rational thinking, and freedom from myth and superstitious beliefs while taking decisions, respect for life, etc.,** such as, reports and records experimental data accurately, says no to consumption of alcohol and drugs, sensitises others about its effect on physical and mental health, sensitises for blood and organ donations, understands the consequences of pre-natal sex determination, etc.
- **communicates the findings and conclusions effectively,** such as, those derived from experiments, activities, and projects orally and in written form using appropriate figures, tables, graphs, and digital forms, etc.
- **makes efforts to conserve environment realising the inter-dependency and inter-relationship in the biotic and abiotic factors of environment,** such as, appreciates and promotes segregation of biodegradable and non-biodegradable wastes, minimises the use of plastics, takes appropriate steps to promote sustainable management of resources in day-to-day life, advocates use of fuels which produce less pollutants, uses energy efficient electric devices, uses fossil fuels judiciously, etc.

**COURSE STRUCTURE**  
**CLASS X (2021-22)**

**Theory Paper**

Time: 3 Hrs.		Max. Marks: 80	
No.	Units	No. of Periods	Marks
I	India and the Contemporary World – II	60	20
II	Contemporary India – II	55	20
III	Democratic Politics - II	50	20
IV	Understanding Economic Development	50	20
<b>Total</b>		<b>215</b>	<b>80</b>

**COURSE CONTENT**

Unit 1: India and the Contemporary World – II		60 Periods
Themes	Learning Objectives	
<b>Section 1: Events and Processes</b>		
<b>1. The Rise of Nationalism in Europe</b>		
<ul style="list-style-type: none"><li>• The French Revolution and the Idea of the Nation</li><li>• The Making of Nationalism in Europe</li><li>• The Age of Revolutions: 1830-1848</li><li>• The Making of Germany and Italy</li><li>• Visualizing the Nation</li><li>• Nationalism and Imperialism</li></ul>	<ul style="list-style-type: none"><li>• Enable the learners to identify and comprehend the forms in which nationalism developed along with the formation of nation states in Europe in the post-1830 period.</li><li>• Establish the relationship and bring out the difference between European nationalism and anti-colonial nationalisms.</li><li>• Understand the way the idea of nationalism emerged and led to the formation of nation states in Europe and elsewhere.</li></ul>	
<b>2. Nationalism in India</b>		
<ul style="list-style-type: none"><li>• The First World War, Khilafat and Non - Cooperation</li><li>• Differing Strands within the Movement</li><li>• Towards Civil Disobedience</li><li>• The Sense of Collective Belonging</li></ul>	<ul style="list-style-type: none"><li>• Recognize the characteristics of Indian nationalism through a case study of Non-Cooperation and Civil Disobedience Movement.</li><li>• Analyze the nature of the diverse social movements of the time.</li><li>• Familiarize with the writings and ideals of different political groups and individuals.</li></ul>	

<p><b>Section 2: Livelihoods, Economies and Societies:</b> Any <b>one theme</b> of the following:</p> <p><b>3. The Making of a Global World</b></p> <ul style="list-style-type: none"> <li>• The Pre-modern world</li> <li>• The Nineteenth Century (1815-1914)</li> <li>• The Inter war Economy</li> <li>• Rebuilding a World Economy: The Post-War Era</li> </ul> <p><b>4. The Age of Industrialization</b></p> <ul style="list-style-type: none"> <li>• Before the Industrial Revolution</li> <li>• Hand Labour and Steam Power</li> <li>• Industrialization in the colonies</li> <li>• Factories Come Up</li> <li>• The Peculiarities of Industrial Growth</li> <li>• Market for Goods</li> </ul> <p><b>Section 3: Everyday Life, Culture and Politics</b></p> <p><b>5. Print Culture and the Modern World</b></p> <ul style="list-style-type: none"> <li>• The First Printed Books</li> <li>• Print Comes to Europe</li> <li>• The Print Revolution and its Impact</li> <li>• The Reading Mania</li> <li>• The Nineteenth Century</li> <li>• India and the World of Print</li> <li>• Religious Reform and Public Debates</li> <li>• New Forms of Publication</li> <li>• Print and Censorship</li> </ul>	<ul style="list-style-type: none"> <li>• Appreciate the ideas promoting Pan Indian belongingness.</li> <li>• Show that globalization has a long history and point to the shifts within the process.</li> <li>• Analyze the implication of globalization for local economies.</li> <li>• Discuss how globalization is experienced differently by different social groups.</li> <li>• Familiarize with the Pro- to-Industrial phase and Early – factory system.</li> <li>• Familiarize with the process of industrialization and its impact on labour class.</li> <li>• Enable them to understand industrialization in the colonies with reference to Textile industries.</li> <li>• Identify the link between print culture and the circulation of ideas.</li> <li>• Familiarize with pictures, cartoons, extracts from propaganda literature and newspaper debates on important events and issues in the past.</li> <li>• Understand that forms of writing have a specific history, and that they reflect historical changes within society and shape the forces of change.</li> </ul>
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Unit 2: Contemporary India – II		55 Periods
Themes		Learning Objectives
<b>1. Resources and Development</b> <ul style="list-style-type: none"> <li>• Types of Resources</li> <li>• Development of Resources</li> <li>• Resource Planning in India</li> <li>• Land Resources</li> <li>• Land Utilization</li> <li>• Land Use Pattern in India</li> <li>• Land Degradation and Conservation Measures</li> <li>• Soil as a Resource</li> <li>• Classification of Soils</li> <li>• Soil Erosion and Soil Conservation</li> </ul>		<ul style="list-style-type: none"> <li>• Understand the value of resources and the need for their judicious utilization and conservation.</li> </ul>
<b>2. Forest and Wildlife</b> <ul style="list-style-type: none"> <li>• Biodiversity or Biological Diversity</li> <li>• Flora and Fauna in India</li> <li>• Vanishing Forests</li> <li>• Asiatic Cheetah: Where did they go?</li> <li>• The Himalayan Yew in trouble</li> <li>• Conservation of forest and wildlife in India</li> <li>• Project Tiger</li> <li>• Types and distribution of forests and wildlife resources</li> <li>• Community and Conservation</li> </ul> <p><b><i>Note: The chapter 'Forest and Wildlife' to be assessed in the Periodic Tests only and will not be evaluated in Board Examination.</i></b></p>		<ul style="list-style-type: none"> <li>• Understand the importance of biodiversity with regard to flora and fauna in India.</li> <li>• Analyse the importance of conservation of forests and wildlife.</li> </ul>
<b>3. Water Resources</b> <ul style="list-style-type: none"> <li>• Water Scarcity and The Need for Water Conservation and Management</li> <li>• Multi-Purpose River Projects and Integrated Water Resources Management</li> <li>• Rainwater Harvesting</li> </ul>		<ul style="list-style-type: none"> <li>• Comprehend the importance of water as a resource as well as develop awareness towards its judicious use and conservation.</li> </ul>

***Note: The theoretical aspect of chapter 'Water Resources' to be assessed in the Periodic Tests only and will not be evaluated in Board Examination. However, the map items of this chapter as given in the Map List will be evaluated in Board Examination.***

#### **4. Agriculture**

- Types of farming
- Cropping Pattern
- Major Crops
- Technological and Institutional Reforms
- Impact of Globalization on Agriculture

#### **5. Minerals and Energy Resources**

- What is a mineral?
- Mode of occurrence of Minerals
- Ferrous and Non-Ferrous Minerals
- Non-Metallic Minerals
- Rock Minerals
- Conservation of Minerals
- Energy Resources
  - Conventional and Non-Conventional
  - Conservation of Energy Resources

#### **6. Manufacturing Industries**

- Importance of manufacturing
- Contribution of Industry to National Economy
- Industrial Location
- Classification of Industries

- Explain the importance of agriculture in national economy.
- Identify various types of farming and discuss the various farming methods; describe the spatial distribution of major crops as well as understand the relationship between rainfall regimes and cropping pattern.
- Explain various government policies for institutional as well as technological reforms since independence.
- Identify different types of minerals and energy resources and places of their availability
- Feel the need for their judicious utilization
- Bring out the importance of industries in the national economy as well as understand the regional disparities which resulted due to concentration of industries in some areas.

<ul style="list-style-type: none"> <li>• Spatial distribution</li> <li>• Industrial pollution and environmental degradation</li> <li>• Control of Environmental Degradation</li> </ul> <p><b>7. Life Lines of National Economy</b></p> <ul style="list-style-type: none"> <li>• Transport – Roadways, Railways, Pipelines, Waterways, Airways</li> <li>• Communication</li> <li>• International Trade</li> <li>• Tourism as a Trade</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss the need for a planned industrial development and debate over the role of government towards sustainable development.</li> <li>• Explain the importance of transport and communication in the ever-shrinking world.</li> <li>• Understand the role of trade and tourism in the economic development of a country.</li> </ul>
<b>Unit 3: Democratic Politics – II</b>	
<b>50 Periods</b>	
<b>Themes</b>	<b>Learning Objectives</b>
<p><b>1. Power Sharing</b></p> <ul style="list-style-type: none"> <li>• Case Studies of Belgium and Sri Lanka</li> <li>• Why power sharing is desirable?</li> <li>• Forms of Power Sharing</li> </ul> <p><b>2. Federalism</b></p> <ul style="list-style-type: none"> <li>• What is Federalism?</li> <li>• What make India a Federal Country?</li> <li>• How is Federalism practiced?</li> <li>• Decentralization in India</li> </ul> <p><b>3. Democracy and Diversity</b></p> <ul style="list-style-type: none"> <li>• Case Studies of Mexico</li> <li>• Differences, similarities and divisions</li> <li>• Politics of social divisions</li> </ul> <p><b>Note: The chapter ‘Democracy and Diversity’ to be assessed in the Periodic Tests only and will not be evaluated in Board Examination.</b></p> <p><b>4. Gender, Religion and Caste</b></p> <ul style="list-style-type: none"> <li>• Gender and Politics</li> <li>• Religion, Communalism and Politics</li> </ul>	<ul style="list-style-type: none"> <li>• Familiarize with the centrality of power sharing in a democracy.</li> <li>• Understand the working of spatial and social power sharing mechanisms.</li> <li>• Analyse federal provisions and institutions.</li> <li>• Explain decentralization in rural and urban areas.</li> <li>• Analyse the relationship between social cleavages and political competition with reference to Indian situation.</li> <li>• Identify and analyse the challenges posed by</li> </ul>

<ul style="list-style-type: none"> <li>• Caste and Politics</li> </ul> <p><b>5. Popular Struggles and Movements</b></p> <ul style="list-style-type: none"> <li>• Popular Struggles in Nepal and Bolivia</li> <li>• Mobilization and Organization</li> <li>• Pressure Groups and Movements</li> </ul> <p><b>Note: The chapter ‘Popular Struggles and Movements’ to be assessed in the Periodic Tests only and will not be evaluated in Board Examination.</b></p> <p><b>6. Political Parties</b></p> <ul style="list-style-type: none"> <li>• Why do we need Political Parties?</li> <li>• How many Parties should we have?</li> <li>• National Political Parties</li> <li>• State Parties</li> <li>• Challenges to Political Parties</li> <li>• How can Parties be reformed?</li> </ul> <p><b>7. Outcomes of Democracy</b></p> <ul style="list-style-type: none"> <li>• How do we assess democracy’s outcomes?</li> <li>• Accountable, responsive and legitimate government</li> <li>• Economic growth and development</li> <li>• Reduction of inequality and poverty</li> <li>• Accommodation of social diversity</li> <li>• Dignity and freedom of the citizens</li> </ul> <p><b>8. Challenges to Democracy</b></p> <ul style="list-style-type: none"> <li>• Thinking about challenges</li> <li>• Thinking about Political Reforms</li> </ul>	<p>communalism to Indian democracy.</p> <ul style="list-style-type: none"> <li>• Recognise the enabling and disabling effects of caste and ethnicity in politics.</li> <li>• Develop a gender perspective on politics.</li> <li>• Understand the vital role of people’s struggle in the expansion of democracy.</li> <li>• Analyse party systems in democracies.</li> <li>• Introduction to major political parties, challenges faced by them and reforms in the country.</li> <li>• Evaluate the functioning of democracies in comparison to alternative forms of governments.</li> <li>• Understand the causes for continuation of democracy in India.</li> <li>• Distinguish between sources of strengths and weaknesses of Indian democracy.</li> <li>• Reflect on the different kinds of measures possible to deepen democracy.</li> </ul>
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<ul style="list-style-type: none"> <li>• Redefining democracy</li> </ul> <p><b>Note: The chapter 'Challenges to Democracy' to be assessed in the Periodic Tests only and will not be evaluated in Board Examination.</b></p>	<ul style="list-style-type: none"> <li>• Promote an active and participatory citizenship.</li> </ul>
<b>Unit 4: Understanding Economic Development</b>	
<b>50 Periods</b>	
<b>Themes</b>	<b>Objectives</b>
<b>1. Development</b> <ul style="list-style-type: none"> <li>• What Development Promises - Different people different goals</li> <li>• Income and other goals</li> <li>• National Development</li> <li>• How to compare different countries or states?</li> <li>• Income and other criteria</li> <li>• Public Facilities</li> <li>• Sustainability of development</li> </ul>	<ul style="list-style-type: none"> <li>• Familiarize with concepts of macroeconomics.</li> <li>• Understand the rationale for overall human development in our country, which includes the rise of income, improvements in health and education rather than income.</li> <li>• Understand the importance of quality of life and sustainable development.</li> </ul>
<b>2. Sectors of the Indian Economy</b> <ul style="list-style-type: none"> <li>• Sectors of Economic Activities</li> <li>• Comparing the three sectors</li> <li>• Primary, Secondary and Tertiary Sectors in India</li> <li>• Division of sectors as organized and unorganized</li> <li>• Sectors in terms of ownership: Public and Private Sectors</li> </ul>	<ul style="list-style-type: none"> <li>• Identify major employment generating sectors.</li> <li>• Reason out the government investment in different sectors of economy.</li> </ul>
<b>3. Money and Credit</b> <ul style="list-style-type: none"> <li>• Money as a medium of exchange</li> <li>• Modern forms of money</li> <li>• Loan activities of Banks</li> <li>• Two different credit situations</li> <li>• Terms of credit</li> <li>• Formal sector credit in India</li> <li>• Self Help Groups for the Poor</li> </ul>	<ul style="list-style-type: none"> <li>• Understand money as an economic concept.</li> <li>• Understand the role of financial institutions from the point of view of day-to-day life.</li> </ul>
<b>4. Globalization and the Indian Economy</b>	





If required, students may go out for collecting data and use different primary and secondary resources to prepare the project. If possible, **different forms of art** may be integrated in the project work.

3. The distribution of marks over different aspects relating to Project Work is as follows:

S. No.	Aspects	Marks
a.	Content accuracy, originality and analysis	2
b.	Presentation and creativity	2
c.	Viva Voce	1

4. The projects carried out by the students in different topics should subsequently be shared among themselves through interactive sessions such as exhibitions, panel discussions, etc.

5. All documents pertaining to assessment under this activity should be meticulously maintained by concerned schools.

6. A Summary Report should be prepared highlighting:

- objectives realized through individual work and group interactions;
- calendar of activities;
- innovative ideas generated in the process ;
- list of questions asked in viva voce.

7. It is to be noted here by all the teachers and students that the projects and models prepared should be made from eco-friendly products without incurring too much expenditure.

8. The Project Report should be handwritten by the students themselves.

9. Records pertaining to projects (internal assessment) of the students will be maintained for a period of three months from the date of declaration of result for verification at the discretion of Board. Subjudiced cases, if any or those involving RTI / Grievances may however be retained beyond three months.

### **PRESCRIBED BOOKS:**

1. India and the Contemporary World-II (History) - Published by NCERT
2. Contemporary India II (Geography) - Published by NCERT
3. Democratic Politics II (Political Science) - Published by NCERT
4. Understanding Economic Development - Published by NCERT

5. Together Towards a Safer India - Part III, a textbook on Disaster Management - Published by CBSE
6. Learning Outcomes at the Secondary Stage – Published by NCERT

**Note: Please procure latest reprinted edition of prescribed NCERT textbooks.**

**SOCIAL SCIENCE (CODE NO. 087)  
QUESTION PAPER DESIGN  
CLASS X (2021-22)**

Time: 3 Hours		Maximum Marks : 80	
Sr. No.	Competencies	Total Marks	% Weightage
1	<b>Remembering and Understanding:</b> Exhibiting memory of previously learned material by recalling facts, terms, basic concepts, and answers; Demonstrating understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions and stating main ideas	28	35%
2	<b>Applying:</b> Solving problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	14	17.5%
3	<b>Formulating, Analysing, Evaluating and Creating:</b> Examining and breaking information into parts by identifying motives or causes; Making inferences and finding evidence to support generalizations; Presenting and defending opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria; Compiling information together in a different way by combining elements in a new pattern or proposing alternative solutions.	32	40%
4	<b>Map Skill</b>	6*	7.5%
		<b>80</b>	<b>100%</b>

**Note: Teachers may refer 'Learning Outcomes' published by NCERT for developing Lesson Plans, Assessment Framework and Questions.**

\*02 Items from History Map List and 04 from Geography Map List

**Internal Assessment: 20 Marks**

## INTERNAL ASSESSMENT

	Marks	Description				
Periodic Assessment	10 Marks	<table><tr><td>Pen Paper Test</td><td>5 marks</td></tr><tr><td>Assessment using multiple strategies For example, Quiz, Debate, Role Play, Viva, Group Discussion, Visual Expression, Interactive Bulletin Boards, Gallery Walks, Exit Cards, Concept Maps, Peer Assessment, Self-Assessment, etc.</td><td>5 marks</td></tr></table>	Pen Paper Test	5 marks	Assessment using multiple strategies For example, Quiz, Debate, Role Play, Viva, Group Discussion, Visual Expression, Interactive Bulletin Boards, Gallery Walks, Exit Cards, Concept Maps, Peer Assessment, Self-Assessment, etc.	5 marks
Pen Paper Test	5 marks					
Assessment using multiple strategies For example, Quiz, Debate, Role Play, Viva, Group Discussion, Visual Expression, Interactive Bulletin Boards, Gallery Walks, Exit Cards, Concept Maps, Peer Assessment, Self-Assessment, etc.	5 marks					
Portfolio	5 Marks	<ul style="list-style-type: none"><li>• Classwork and Assignments</li><li>• Any exemplary work done by the student</li><li>• Reflections, Narrations, Journals, etc.</li><li>• Achievements of the student in the subject throughout the year</li><li>• Participation of the student in different activities like Heritage India Quiz</li></ul>				
Subject Enrichment Activity	5 Marks	<ul style="list-style-type: none"><li>• Project Work</li></ul>				

## LIST OF MAP ITEMS CLASS X (2021-22)

A. **HISTORY** (Outline Political Map of India)

**Chapter - 3 Nationalism in India** – (1918 – 1930) for Locating and Labelling / Identification

**1. Indian National Congress Sessions:**

- a. Calcutta (Sep. 1920)
- b. Nagpur (Dec. 1920)
- c. Madras (1927)

**2. Important Centres of Indian National Movement**

- a. Champaran (Bihar) - Movement of Indigo Planters
- b. Kheda (Gujarat) - Peasant Satyagrah

- c. Ahmedabad (Gujarat) - Cotton Mill Workers Satyagraha
- d. Amritsar (Punjab) - Jallianwala Bagh Incident
- e. Chauri Chaura (U.P.) - Calling off the Non-Cooperation Movement
- f. Dandi (Gujarat) - Civil Disobedience Movement

## **B. GEOGRAPHY (Outline Political Map of India)**

### **Chapter 1: Resources and Development (Identification only)**

- a. Major soil Types

### **Chapter 3: Water Resources (Locating and Labelling)**

#### **Dams:**

- |                      |                    |
|----------------------|--------------------|
| a. Salal             | e. Sardar Sarovar  |
| b. Bhakra Nangal     | f. Hirakud         |
| c. Tehri             | g. Nagarjuna Sagar |
| d. Rana Pratap Sagar | h. Tungabhadra     |

***Note: The theoretical aspect of chapter 'Water Resources' to be assessed in the Periodic Tests only and will not be evaluated in Board Examination. However, the map items of this chapter as listed above will be evaluated in Board Examination.***

### **Chapter 4: Agriculture (Identification only)**

- a. Major areas of Rice and Wheat
- b. Largest / Major producer states of Sugarcane, Tea, Coffee, Rubber, Cotton and Jute

### **Chapter 5: Minerals and Energy Resources**

#### **Minerals (Identification only)**

##### **a. Iron Ore mines**

- |              |             |
|--------------|-------------|
| • Mayurbhanj | • Bellary   |
| • Durg       | • Kudremukh |
| • Bailadila  |             |

##### **b. Coal Mines**

- |            |           |
|------------|-----------|
| • Raniganj | • Talcher |
| • Bokaro   | • Neyveli |

##### **c. Oil Fields**

- |               |               |
|---------------|---------------|
| • Digboi      | • Bassien     |
| • Naharkatia  | • Kalol       |
| • Mumbai High | • Ankaleshwar |

## **Power Plants**

**(Locating and Labelling only)**

### **a. Thermal**

- Namrup
- Singrauli
- Ramagundam

### **b. Nuclear**

- Narora
- Kakrapara
- Tarapur
- Kalpakkam

## **Chapter 6: Manufacturing Industries (Locating and Labelling Only)**

### **Cotton Textile Industries:**

- a. Mumbai
- b. Indore
- c. Surat
- d. Kanpur
- e. Coimbatore

### **Iron and Steel Plants:**

- a. Durgapur
- b. Bokaro
- c. Jamshedpur
- d. Bhilai
- e. Vijaynagar
- f. Salem

### **Software Technology Parks:**

- a. Noida
- b. Gandhinagar
- c. Mumbai
- d. Pune
- e. Hyderabad
- f. Bengaluru
- g. Chennai
- h. Thiruvananthapuram

## **Chapter 7: Lifelines of National Economy**

### **Major Ports: (Locating and Labelling)**

- a. Kandla
- b. Mumbai
- c. Marmagao
- d. New Mangalore
- e. Kochi
- f. Tuticorin
- g. Chennai
- h. Vishakhapatnam
- i. Paradip
- j. Haldia

### **International Airports:**

- a. Amritsar (Raja Sansi)
- b. Delhi (Indira Gandhi International)
- c. Mumbai (Chhatrapati Shivaji)
- d. Chennai (Meenam Bakkam)
- e. Kolkata (Netaji Subhash Chandra Bose)
- f. Hyderabad (Rajiv Gandhi)

**Note: Items of Locating and Labelling may also be given for Identification.**

<p>promotion of patriotism, unity of the country, equality of people, respect for all human beings, and doing one's duties, etc.</p> <ul style="list-style-type: none"> <li>engage in role play/short drama to highlight the problem faced by poor as well as food insecure people followed by discussion</li> <li>identify the chain of ration shops established in your nearby area to ensure the supply of essential commodities for the targeted population</li> <li>compose a short speech on gender equality and dignity for all (marginalized as well as Group with Special Needs)</li> </ul>	
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## Class X

Suggested Pedagogical Processes	Learning Outcomes
<p><b>The learners may be provided with opportunities individually or in groups and encouraged to—</b></p> <ul style="list-style-type: none"> <li>collect different soil samples from the surroundings; recognise them with the help of their colour, texture, and composition; relate them with the geographical areas of India shown on the map; study the process of formation of these soils.</li> <li>locate them on different types of maps of India such as, political, physical and outline map, wall map, and atlas; list and label places or areas where different agricultural crops, minerals, etc., are produced.</li> <li>use tactile maps for students with visual impairments.</li> <li>find the meaning of resources, subsistence agriculture, plantation, etc., from any dictionary of Geography.</li> <li>read different sources and discover the course of the Indian national movement till India's independence.</li> </ul>	<p><b>The learner—</b></p> <ul style="list-style-type: none"> <li><b>recognises and retrieves facts, figures, and narrate, processes, for example,</b> <ul style="list-style-type: none"> <li>identifies different types of soil, minerals, renewable and non-renewable energy resources, etc.</li> <li>locates areas or regions known for production of coal, iron ore, petroleum, rice, wheat, tea, coffee, rubber, and cotton textile on the map of India.</li> <li>defines important terms in Geography such as, resource, renewable and non-renewable resources, subsistence agriculture, plantation, shifting agriculture, environmental protection, and environmental sustainability.</li> <li>defines basic Economic terms associated with economic development such as, human capital, sustainable development, gross domestic product, gross value added, per capita income, human development index, multinational</li> </ul> </li> </ul>

- get familiarised with the concepts of nation and nationalism.
- acquaint with the writings and ideals of different social, political groups and individuals.
- collect the details of social groups which joined the Non-Cooperation Movement of 1921.
- draw a timeline on significant events of India's national movement.
- collect the details of major languages of India and the number of persons who speak those languages from the latest reports of Census of India and discuss.
- read the Indian Constitution and discuss various parts in it.
- collect a variety of resources, for example, forests, water, minerals, etc., and use a variety of criteria to group and display in the class.
- relate different cropping patterns in India and their impact on economic development and discuss in the class.
- use internet to study interactive thematic maps, for example, agriculture, minerals, energy, industry, etc., on School Bhuvan NCERT portal.
- discuss the relationship or difference between European nationalism and anti-colonial nationalisms.
- discuss industrialisation in the imperial country and in a colony.
- study globalisation in different contexts.
- find out about the anti-colonial movement in any one country in South America and compare with India's national movement based on certain parameters.
- collect the details of how globalisation is experienced differently by different social groups using goods and services used by people in their daily lives such as company, foreign trade, liberalisation and foreign investment.
- lists different forms of money and sources of credit, rights of consumers.
- recalls names, places, dates, and people associated with some important historical events and developments such as the French Revolution, nationalism, industrialisation, globalisation, and urbanisation.
- defines terms and concepts such as, nationalism, colonialism, orientalism, democracy, satyagraha, and liberty.
- defines important terms such as, federalism, diversity, religion, and political party
- **classifies and compares events, facts, data and figures, for example,**
  - classifies types of resources, minerals, farming, for example, subsistence and commercial farming.
  - compares areas growing rice and wheat on the map of India.
  - compares visuals such as, the image of Bharatmata with the image of Germania.
  - compares European nationalism with anti-colonial nationalism in countries such as, India, South America, Kenya, Indo-China.
  - compares per capita income of some important countries.
  - differentiates consumer rights.
  - classifies occupations and economic activities into sectors using different criteria.
  - compares the powers and functions of state and central government in India.
  - classifies national and regional political parties in India.
  - explains the terms used in political discussions and their meaning, for example, Gandhian, communist,



<p>as, television, mobile phones, home appliances, etc., and discuss.</p> <ul style="list-style-type: none"> <li>• study different types of governments in the world—democratic, communist, theocratic, military dictatorships, etc. Within democracies, various forms of governments, such as, federal and unitary, republican and monarchy, etc., can also be studied.</li> <li>• read the functioning of state governments ruled by different parties or coalitions; examine their specific features such as, slogans, agenda, symbols, and characteristics of their leaders.</li> <li>• study the distinctive features of different political parties.</li> <li>• collect the economic details of states and countries. For example, based on the human development index, they can classify a few countries. They can also group or categorise countries on the basis of Gross Domestic Product (states on the basis of state domestic product), life expectancy, and infant mortality rates, etc.</li> <li>• collect the details of economic activities, jobs, and occupations in their neighbourhood and group them using a few criteria, for example, organised and unorganised, formal and informal, primary-secondary-tertiary, etc.</li> <li>• collect data on sources of credit from their neighbourhood—from where people borrow and group them into formal and informal.</li> <li>• overlay thematic layers of maps on School Bhuvan NCERT portal, for example, distribution of rice in India and overlay layers of soils, annual rainfall, relief features and swipe these layers to establish cause and effect relationship.</li> <li>• classify different types of industries based on raw materials, locate them on</li> </ul>	<p>secularist, feminist, casteist, communalist, etc.</p> <ul style="list-style-type: none"> <li>• <b>explains cause and effect relationship between phenomena, events, and their occurrence, for example,</b> <ul style="list-style-type: none"> <li>○ explains factors responsible for production of different crops in India.</li> <li>○ explains industries and their impact on environment.</li> </ul> </li> </ul>
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the map and relate them with pollution in nearby areas.

- find out about the changes in print technology in the last 100 years. Discuss the changes, why they have taken place and their consequences.
- read various provisions of the Indian Constitution as causes, and the resulting political scenario as its effects. For example, the independent status of the judiciary effected in smooth functioning of federalism.
- discuss (a) why a large section of India's population depend on primary sector; (b) what contributed to rapid increase in service sector output.
- conduct a survey among neighbourhood, households and collect the reasons for their dependence on formal or informal sources of credit. Teachers can then organise debate on whether or not banks contribute to needy borrowers living in rural areas in the class.
- collect stories of communities involved in environmental conservation from different parts of India and study them from geographical perspective.
- collect and discuss the details of people's participation in environmental conservation movements and their impact on socio-cultural life of the region for example, Chipko and Appiko Movements.
- collect data from Economic Survey of India, newspaper, magazines related to gross domestic product, per capita income, availability of credit for various households, land use, cropping pattern and distribution of minerals in India, production of cereals for different years and convert them into pie or bar graphs and study the pattern and display in the class.

- explains the cause and effect between different historical events and developments such as, the impact of print culture on the growth of nationalism in India.
- examines the impact of technology on food availability.
- assesses the impact of the global transfer of disease in the pre-modern world in different regions of the world, for example, in the colonisation of America.
- analyses the impact of overuse of natural resources such as, ground water and crude oil.
- analyses the change in sectoral composition of gross domestic product.
- analyses the consequences of dependence on different sources of credit.
- explains the policies and programmes of different political parties in the states of India.

• **analyses and evaluates information, for example,**

- assesses the impact of conservation of natural resources on the life of people in any area in view of sustainable development.
- analyses indigenous or modern methods of conservation of water, forests, wildlife, and soil.
- explains victories and defeats of political parties in general elections.
- evaluates various suggestions to reform democracy in India.
- analyses texts and visuals such as, how symbols of nationalism in countries outside Europe are different from European symbols.
- assesses the impact of MNREGA, role of banks as a source of credit.
- assesses the impact of globalisation in their area, region, and local economy.
- analyses the contribution of different sectors to output and employment.

- familiarise with pictures, photographs, cartoons, extracts from a variety of original sources—eye witness accounts, travel literature, newspapers or journals, statements of leaders, official reports, terms of treaties, declarations by parties, and in some cases contemporary stories, autobiographies, diaries, popular literature, oral traditions, etc., to understand and reconstruct histories of important historical events and issues of India and contemporary world.
- observe and read different types of historical sources; think of what they communicate, and why a thing is represented in a particular way. Raise questions on different aspects of pictures and extracts to allow a critical engagement with these, i.e., visuals of cloth labels from Manchester and India; carefully observe these and answer questions like: What do they see in these pictures? What information do they get from these labels? Why are images of gods and goddesses or important figures shown in these labels? Did British and Indian industrialists use these figures for the same purpose? What are the similarities or differences between these two labels?
- study and discuss different perspectives on diversification of print and printing techniques; visit to a printing press to understand the changes in printing technology.
- critically examine the implementation of government schemes based on learners or their family's experiences such as, Mid-day meal scheme, loan waiver schemes for farmers; scholarships through cash transfer to students; schemes to provide liquid

petroleum gas to low income families: life insurance scheme for low income families/scheme of financial support for house construction, MUDRA, etc. They may be guided to supplement with data/news clippings as evidences.

- overlay maps showing distribution of resources for example, minerals, and industries on the map of India and relate it with physical features of India and climate by overlaying the layers on School Bhuvan NCERT portal and analyse the maps.
- elaborate relationship between different thematic maps using atlas.
- locate places, people, regions (affected by various treaties such as, Treaty of Versailles, economic activities, etc).
- find and draw interconnections among various regions and the difference in nomenclatures of places used for various regions and places during this period and present day, i.e., learner can be asked to find and draw the sea and land links of the textile trade from India to Central Asia, West Asia and Southeast Asia on a map of Asia.
- study the political maps of the world and India to recognise a country's importance and role in world politics.
- examine political maps of states, consider their size and location and discuss their importance in national politics.
- locate the places in which important multinational corporations set up their offices and factories on the map of India and discuss the reasons behind the choice of location and its implication on people's livelihood.
- read cartoons, messages conveyed in sketches, photographs associated with political events and participate in discussions.

- **interprets, for example,**

- maps
- texts
- symbols
- cartoons
- photographs
- posters
- newspaper clippings
- climatic regions
- changes in maps brought out by various treaties in Europe
- sea and land links of the trade from India to West Asia, South East Asia and other parts of the world
- pie and bar diagrams related to gross domestic product, production in different sectors and industries, employment and population in India

- read demographic data, data related to political party preferences and social diversity.
  - collect news clippings/texts from popular magazines and journals pertaining to developmental issues, globalisation and sustainable development and synthesise the details and present in the class.
  - convert tables relating to GDP, and employment, in primary, secondary and tertiary sectors into pie, bar and line diagrams.
  - interpret charts using a few parameters and describe the patterns and differences. They can refer to books, Economic Survey of India for the latest year and newspapers.
  - locate production of raw materials on the map of India and relate them with economic activities and development of that area for example, coal, iron ore, cotton, sugarcane, etc.
  - collect information about the development of different areas of India since Independence.
  - find out the linkages among various subjects through examples and do group projects on some topics; for example, group project on 'Globalisation'. Teachers may raise questions like, is it a new phenomenon or does it have a long history? When did this process start and why? What are the impacts of globalisation on primary, secondary and tertiary activities? Does it lead to inequality in the world? What is the importance of global institutions? Do these institutions play a major role in globalisation? How do they influence the developed countries? What do you mean by global economy? Is economic globalisation a new phenomenon? Are environmental issues global problems
- **draws interlinkages within Social Science**
    - analyses changes in cropping pattern, trade and culture
    - explains why only some regions of India are developed
    - analyses the impact of trade on culture shows the linkages between economic development and democracy

or local problems? How can globalisation potentially contribute to better environment?

- study the rate and features of economic growth in democracies and those under dictatorship.
  - examine time series data on GDP and other economic aspects since 1950s.
  - debate on (a) How India's freedom struggle was related to India's economy? (b) Why India did not go for privatisation of manufacturing activities after 1947? (c) Why have developed nations started to depend on countries such as, India for leather and textile goods more now? (d) Why multinational corporations from developed nations set up their production and assembly units in developing countries and not in their own countries and what are its impacts on employment in their own countries?
  - discuss on why manufacturing sector multinational companies (Gurugram in Haryana) and service sector multinational companies (Bengaluru in Karnataka) are located at specific places—the relevance of geographic factors.
  - collect information regarding religion, food habits, dress, colour complexion, hair, language, pronunciation, etc., of people living in different geographical regions of India.
  - list biases/prejudices, stereotypes against people living in different geographical regions and discuss about these in the classroom.
  - raise questions on developments that are seen as symbolising modernity, i.e., globalisation, industrialisation and see the many sides of the history of these developments, i.e., learner can be asked: Give two examples where
- **identifies assumptions, biases, prejudices or stereotypes about various aspects, for example,**
    - region
    - rural and urban areas
    - food habits
    - gender
    - language
    - idea of development
    - voting behaviour
    - caste
    - religion
    - democracy
    - political parties

modern development associated with progress, has led to problems. Think of areas related to environmental issues, nuclear weapons or disease

- read the statements of leaders or political parties in newspapers and television narratives to examine the truth, bias and prejudices. Similarly, various demands of political parties from time to time may also be analysed.
- reflect on why popular prejudices/ stereotypes prevail about low income families, illiterates and persons with low literacy levels, disabled, persons belonging to certain socio-religious and biological categories. Teachers may facilitate learners to discuss their origin and review.
- discuss the probable assumptions behind the (a) promotion of sustainable development practices; (b) enactment of few national level acts such as, Consumer Protection Act 1986; Right to Information Act 2005; Mahatma Gandhi National Rural Employment Guarantee Act 2005 and The Right of Children to Free and Compulsory Education Act 2009. Students may need to get the details of situation in the years when these laws were enacted from elderly persons, parents and teachers.
- show industrial regions on map and relate it with infrastructural development of that region. Why are industries located nearby rivers, railways, highways, raw material producing areas, market, etc.?
- show water scarcity in visuals such as, snow covered areas of Kashmir, dry regions of Gujarat and flood prone areas of West Bengal; learners may be asked to investigate reasons of water scarcity of each region located in

- marginalised and differently abled groups
- globalisation and industrialisation
- the notion of progress and modernity

• **demonstrates inquisitiveness, enquiry, for example, pose questions related to the—**

- Concentration of industries in certain areas.
- Scarcity of potable water.
- role of women in the nationalist struggles of different countries.
- various aspects of financial literacy.
- working of democracy from local to national levels.



different climatic areas and prepare a report or chart.

- answer questions like 'Why did various classes and groups of Indians participate in the Civil Disobedience Movement?' or 'How did the Indian National Congress respond to the Partition of Bengal and why?' and point out to them the need to look for supplementary literature on issues, events, and personalities in which they may express an interest to know more.
- participate in teacher-guided debates on the advantages and drawbacks of democracy.
- choose one example from economics related with developmental issues and collect economic information and come out with solutions, for example, (a) employment (is India generating employment opportunities sufficiently?) (b) GDP (why only service sector is able to increase its share much more than other sectors?), (c) financial issues (how to improve credit access to low income families?).
- challenge assumptions and be motivated to come out with creative solutions to specific social, economic or political issues in their area, region or state.
- examine maps of India—(physical and political), latitudinal and longitudinal extent of India, relief features, etc., and come out with ideas about the impact of these on cultural diversity of the regions.
- display different themes of history through creatively designed activities and role play on any event or personality of their liking.
- engage in debates on interpreting different events both from historical and contemporary viewpoint.

• **constructs views, arguments and ideas on the basis of collected or given information, for example,**

- natural resources and their impact on cultural diversity of any region
- historical events and personalities
- economic issues, such as, economic development and globalisation
- definitions commonly available in textbooks for various economic concepts



- help them prepare digital, print as well as audio-visual materials which can be converted into Braille.
  - participate in group discussions on changes within rural economy in the contemporary/modern times.
  - find information from elders, newspapers/TV reports about pollution in water bodies such as, rivers/lakes/wells/ground water, etc., and foresee health issues in their neighbourhood. For example, the effect of arsenic in the groundwater in West Bengal.
  - discuss the impact of deforestation on soil erosion in hilly areas of North East Region and relate them with floods and landslides.
  - imagine a conversation between two persons participating in freedom struggle in India. Learners answer questions, such as, what kind of images, fiction, folklore and songs, popular prints and symbols would they want to highlight with which people can identify the nation and what do all these mean to them.
  - gather information with the help of teacher/parents/peers on exports and imports, current employment situation, details of schools and hospitals to see the trend.
  - collect problems related to agriculture in one's own area and come out with remedial measures.
  - imagine a conversation between a British industrialist and an Indian industrialist, who is being persuaded to set up a new industry. Learners in such a role play answer questions, such as, (a) what reasons would the British industrialist give to persuade the Indian industrialist? and (b) what opportunities and benefits the Indian industrialist is looking for?
- methodology used to estimate gross domestic product, poverty and size of the organised/unorganised sector
- **extrapolates and predicts events and phenomena, for example,**
    - predicts the impact of pollution of water, air, land and noise on human health.
    - predicts natural disasters due to deforestation.
    - infers and extrapolates from situations, such as, how artists and writers nurture nationalist sensibilities through art, literature, songs and tales.
    - come out with answers creatively on the issue: (a) if India stops importing petroleum crude oil; (b) if multinational companies are closed; (c) the nature of employment in India in 2050; (d) what would happen if all schools and hospitals in India are privatised?
- **illustrates decision making/ problem solving skills, for example,**

comes out with solutions to issues in one's own area such as,: (a) problems related to agriculture and transport, (b) generate employment opportunities, improve access to credit for low income families and (c) assesses how certain developments in colonial India were useful for both colonisers as well as

- conduct extra-curricular activities, daily chores in the school, sports, cultural programmes by students to help decision making and develop problem solving skills.
- describe their goals in life and how they are going to achieve them.
- review sources of credit and their impact. They can be encouraged to discuss various solutions for easy access to credit with low interest rates.
- come out with new ways of generating employment or creating new jobs.
- submit group projects suggesting the steps to be followed in their daily life promoting sustainable development practices.
- discuss the work done by peer or differently abled persons and the need to cooperate with each other.
- provide illustrative, examples, of conflicts on several issues, such as, river water/dam/land, industry/forestland and forest dwellers, etc., through textbooks, newspapers, etc. They may be guided to debate these issues in groups and come out with creative solutions.
- read stories of real life experiences of individuals and communities of the period, i.e., learner can imagine oneself as an indentured Indian labourer working in the Caribbean. Based on details collected from the library or through internet, learners can be encouraged to write a letter to family describing their life and feelings.
- prepare posters with drawings and pictures and make oral and written presentation on the significance of the non-violent struggle for swaraj.
- discuss the life around their place of living and the school locality. Select

nationalists in different fields such as, literature, transportation and industries.

- **shows sensitivity and appreciation skills, for example,**

- empathises with differently abled and other marginalised sections of the society, such as, forest dwellers, refugees and unorganised sector workers appreciates political diversity
- appreciates cultural diversity
- appreciates religious diversity
- recognises social diversity
- empathises with the people who were affected by displacement, extremism and natural as well as human-made disasters; Indian indentured labourers working in different countries such as, Caribbean and Fiji.

available local examples apart from the relevant lessons in the textbook, to teach sensitivity and peaceful resolution of contentious issues.

- participate in role play on (a) challenges faced by low income families, disabled/elderly persons, people suffering from pollution; (b) different ways through which consumers are denied their rights and challenges faced by them to get their grievances addressed.
- discuss the impact of wars and conflicts on daily lives of people including schooling in different Indian states.
- collect details of countries in which wars and conflicts took place recently and organise discussion on the impacts.

### **Suggested Pedagogical Processes in an Inclusive Setup**

The curriculum in a classroom is same for everyone. This means all students can actively participate in the classroom. There may be some students who have learning difficulties including language, visual-spatial or mixed processing problems. They may require additional teaching support and some adaptation in the curriculum. By considering the specific requirements of children with special needs, few pedagogical processes for the teachers are suggested below:

- Use detailed verbal descriptions of graphical representations and pictures like maps. These can also be made tactile with proper contrasts.
- Use models and block paintings.
- Use examples from everyday life for explaining various facts/concepts.
- Use audio visual materials like films and videos to explain abstract concepts; for example, discrimination, stereotyping, etc.
- Develop embossed timeline for memorising; for example, different historical periods.
- Organise group work involving debates, quizzes, map reading activities, etc.
- Organise excursions, trips and visits to historical places (educational tour).
- Involve students in exploring the environment using other senses like smell and touch.
- Give a brief overview at the beginning of each lesson.
- Provide photocopies of the relevant key information from the lesson.

- Highlight or underline the key points and words.
- Use visual or graphic organisers like timelines (especially for explaining chronology of events), flow charts, posters, etc.
- Organise group work involving activities like cut and paste, and make use of pictorial displays, models, pictures, posters, flash cards or any visual items to illustrate the facts and concepts.
- Plan occasions with real life experiences.
- Use films or documentaries and videos.
- Use magazines, scrapbooks and newspapers, etc., to help learners understand the textual material.
- Draw links with what has been taught earlier.
- Make use of multisensory inputs.
- All examples given with pictures in the textbook can be narrated (using flash cards, if required).
- While teaching the chapters, use graphic organisers, timelines and tables as this will make the task simpler.
- Maps should be enlarged and colour coded.
- The text, along with pictures, can be enlarged, made into picture cards and presented sequentially as a story. Sequencing makes it easier to connect information.
- Asking relevant questions frequently to check how much the learner has learnt as it helps in assimilating information.
- Teach and evaluate in different ways, for example, through dramatisation, field trips, real life examples, project work, etc.
- Highlight all the important phrases and information.
- Pictures may be labelled and captioned.

# PUNJABI

(ਅਪ੍ਰੈਲ 2021 ਤੋਂ ਮਾਰਚ 2022)

Class X

ਲਿਖਤੀ ਪਰੀਖਿਆ - 80 ਅੰਕ

ਅੰਤਰਿਕ ਮੁਲਾਂਕਣ - 20 ਅੰਕ

ਕੁੱਲ ਅੰਕ - 100

ਲਿਖਤੀ ਪਰੀਖਿਆ ਲਈ ਸਮਾਂ 3 ਘੰਟੇ

## ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਸਿੱਖਣ ਦੇ ਉਦੇਸ਼

ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦੇ ਗਿਆਨ ਨੂੰ ਸਮਝ ਕੇ ਉਸ ਦੀ ਢੁਕਵੀਂ ਵਰਤੋਂ ਦੇ ਯੋਗ ਬਣਾਉਣਾ ਤੇ ਸਾਹਿਤ ਦੀਆਂ ਵੱਖ-ਵੱਖ ਵਿਧਾਵਾਂ-ਕਵਿਤਾ, ਨਾਟਕ, ਨਾਵਲ, ਕਹਾਣੀ ਅਤੇ ਵਾਰਤਕ ਤੋਂ ਜਾਣੂ ਕਰਾਉਣਾ ਤਾਂ ਕਿ ਵਿਦਿਆਰਥੀ ਭਾਸ਼ਾ ਦੇ ਵੱਖ-ਵੱਖ ਕੌਸ਼ਲਾਂ ਵਿੱਚ ਨਿਪੁੰਨ ਹੋ ਕੇ ਆਪਣੀ ਬਹੁ-ਪੱਖੀ ਪ੍ਰਤਿਭਾ ਦਾ ਵਿਕਾਸ ਕਰ ਸਕਣ। ਭਾਸ਼ਾ ਦਾ ਮੂਲ ਉਦੇਸ਼ ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਪੰਜਾਬੀ ਸਾਹਿਤਕ ਵਿਰਸੇ ਨਾਲ ਜੋੜਨਾ ਹੈ।

### 1. ਸਲਾਨਾ ਲਿਖਤੀ ਪਰੀਖਿਆ

(Year End Written Exam - 80)

ਇਕਾਈ / ਸਿੱਖਣ ਦਾ ਖੇਤਰ	ਅੰਕ	ਪੀਰੀਅਡ
<b>ਭਾਸ਼ਾ</b>		
(ੳ) ਅਡਵਾਂਸ ਪੜ੍ਹਨ-ਕੌਸ਼ਲ	10	15
(ਅ) ਵਿਆਕਰਨ	20	35
(ੲ) ਪ੍ਰਭਾਵਸ਼ਾਲੀ ਲਿਖਣ-ਕੌਸ਼ਲ	20	35
<b>ਸਾਹਿਤ</b> (ਪਾਠ-ਪੁਸਤਕਾਂ 'ਤੇ ਆਧਾਰਿਤ)	30	65

### 2. ਅੰਤਰਿਕ ਮੁਲਾਂਕਣ

(Internal Assessment - 20)

#### ਕਿਰਿਆਤਮਿਕ ਕੰਮ

(Activity/Assignment)	20	30
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<b>I. ਪੜ੍ਹਨ-ਕੌਸ਼ਲ (Reading Skill)</b>	<b>10</b>
1. ਅਣਡਿੱਠਾ ਪੈਰਾ (ਵਾਰਤਕ) 200-250 ਸ਼ਬਦਾਂ ਵਿੱਚ ਤਿੰਨ ਛੋਟੇ ਪ੍ਰਸ਼ਨ (2+2+2) + 1 ਅੰਕ ਸਿਰਲੇਖ ਲਈ	7
2. ਅਣਡਿੱਠੀ ਕਾਵਿ ਟੁਕੜੀ ਨਾਲ ਸੰਬੰਧਿਤ (ਤਿੰਨ ਪ੍ਰਸ਼ਨ)	(1X3)=3
<b>II. ਵਿਆਕਰਨ (Grammar) (ਬਹੁ-ਵਿਕਲਪੀ ਅਤੇ ਛੋਟੇ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ)</b>	<b>20</b>
1. ਸਮਾਸੀ ਸ਼ਬਦ (ਬਹੁ-ਵਿਕਲਪੀ)	4
2. ਬਹੁ-ਅਰਥਕ (ਬਹੁ-ਵਿਕਲਪੀ)	4
3. ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ (ਬਹੁ-ਵਿਕਲਪੀ)	4
4. ਅਗੇਤਰ-ਪਿਛੇਤਰ (ਸ਼ਬਦ ਬਣਾਉਣਾ)	4
5. ਮੁਹਾਵਰੇ (ਕ ਤੋਂ ਝ ਤੱਕ) (ਵਾਕਾਂ ਵਿੱਚ ਵਰਤ ਕੇ ਅਰਥ ਸਪਸ਼ਟ ਕਰਨਾ)	4
<b>III. ਪ੍ਰਭਾਵਸ਼ਾਲੀ ਲਿਖਣ-ਕੌਸ਼ਲ (Writing Skill)</b>	<b>20</b>
1. ਲੇਖ-ਰਚਨਾ (ਵਿਚਾਰ ਪ੍ਰਧਾਨ ਅਤੇ ਆਮ ਵਿਸ਼ੇ) 200 ਸ਼ਬਦ (ਤਿੰਨ ਲੇਖ ਚੋਣ ਆਧਾਰਿਤ—ਨੁਕਤਿਆਂ ਸਹਿਤ)	8
2. ਪੱਤਰ-ਰਚਨਾ (ਨਿੱਜੀ ਤੇ ਦਫ਼ਤਰੀ) (ਦੋ ਪੱਤਰ ਚੋਣ ਆਧਾਰਿਤ—ਨੁਕਤਿਆਂ ਸਹਿਤ)	07
3. ਚਿੱਤਰ (ਫੋਟੋ)/ਤਸਵੀਰ (ਦ੍ਰਿਸ਼) ਦੇ ਆਧਾਰ 'ਤੇ ਵਰਨਣ (50 ਸ਼ਬਦਾਂ ਵਿੱਚ)	05
<b>IV. ਪਾਠ-ਪੁਸਤਕਾਂ 'ਤੇ ਆਧਾਰਿਤ (Text Books)</b>	<b>30</b>
1. ਅਤਿ ਛੋਟੇ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ (1 ਅੰਕ ਵਾਲੇ) (ੳ) ਕਹਾਣੀ ਤੇ ਵਾਰਤਕ ਵਿੱਚੋਂ (ਬਹੁ-ਵਿਕਲਪੀ) (ਅ) ਕਵਿਤਾ ਤੇ ਇਕਾਂਗੀ ਵਿੱਚੋਂ (ਇੱਕ ਸ਼ਬਦ ਵਾਲੇ)	1X5=5 1X5=5
2. ਛੋਟੇ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ 2 ਅੰਕ ਵਾਲੇ (25 ਤੋਂ 30 ਸ਼ਬਦਾਂ ਵਿੱਚ) (ਕਹਾਣੀ ਤੇ ਇਕਾਂਗੀ ਵਿੱਚੋਂ)	(2X4)=8
3. ਵੱਡੇ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ (50 ਤੋਂ 60 ਸ਼ਬਦਾਂ ਵਿੱਚ) ਕਵਿਤਾ ਤੇ ਵਾਰਤਕ ਵਿੱਚੋਂ (ਚੋਣ ਆਧਾਰਿਤ)	(4X2)=8
4. ਇਕਾਂਗੀ 'ਚੋਂ ਵੱਡੇ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ (50 ਤੋਂ 60 ਸ਼ਬਦਾਂ ਵਿੱਚ) (ਚੋਣ ਆਧਾਰਿਤ)	(4X1)=4

1. ਸਾਹਿਤ-ਮਾਲਾ : 10 (ਪੰਜਾਬੀ ਕਵਿਤਾ ਤੇ ਵਾਰਤਕ)

(ਪ੍ਰਕਾਸ਼ਕ - ਪੰਜਾਬ ਸਕੂਲ ਸਿੱਖਿਆ ਬੋਰਡ)

- ਕਾਵਿ-ਰਚਨਾਵਾਂ —
1. ਸੋ ਕਿਉਂ ਮੰਦਾ ਆਖੀਐ (ਗੁਰ ਨਾਨਕ ਦੇਵ ਜੀ)
  2. ਕਿਰਪਾ ਕਰਿ ਕੈ ਬਖਸਿ ਲੈਹੁ (ਗੁਰੂ ਅਮਰਦਾਸ ਜੀ)
  3. ਤੂੰ ਮੇਰਾ ਪਿਤਾ ਤੂੰ ਹੈ ਮੇਰਾ ਮਾਤਾ (ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ)
  4. ਸਤਿਗੁਰ ਨਾਨਕ ਪ੍ਰਗਟਿਆ (ਭਾਈ ਗੁਰਦਾਸ ਜੀ)
  5. ਜੰਗ ਦਾ ਹਾਲ (ਸ਼ਾਹ ਮੁਹੰਮਦ)

- ਵਾਰਤਕ —
1. ਘਰ ਦਾ ਪਿਆਰ (ਪ੍ਰਿੰ. ਤੇਜਾ ਸਿੰਘ)
  2. ਬੋਲੀ (ਸ. ਗੁਰਬਖਸ਼ ਸਿੰਘ)
  3. ਪ੍ਰਾਰਥਨਾ (ਡਾ. ਬਲਬੀਰ ਸਿੰਘ)
  4. ਮੇਰੇ ਵੱਡੇ-ਵੱਡੇ (ਗਿਆਨੀ ਗੁਰਦਿੱਤ ਸਿੰਘ)
  5. ਤੁਰਨ ਦਾ ਹੁਨਰ (ਡਾ. ਨਰਿੰਦਰ ਸਿੰਘ ਕਪੂਰ)

2. ਵੰਨਗੀ 10 (ਪੰਜਾਬੀ ਕਹਾਣੀਆਂ ਤੇ ਇਕਾਂਗੀ)

(ਪ੍ਰਕਾਸ਼ਕ - ਪੰਜਾਬ ਸਕੂਲ ਸਿੱਖਿਆ ਬੋਰਡ)

- ਕਹਾਣੀਆਂ —
1. ਕੁਲਫੀ (ਸੁਜਾਨ ਸਿੰਘ)
  2. ਅੰਗ-ਸੰਗ (ਵਰਿਆਮ ਸਿੰਘ ਸੰਧੂ)
  3. ਧਰਤੀ ਹੇਠਲਾ ਬਲਦ (ਕੁਲਵੰਤ ਸਿੰਘ ਵਿਰਕ)

- ਇਕਾਂਗੀ —
1. ਜ਼ਫਰਨਾਮਾ (ਡਾ. ਹਰਚਰਨ ਸਿੰਘ)
  2. ਦੂਜਾ ਵਿਆਹ (ਸੰਤ ਸਿੰਘ ਸੇਖੋ)

ਨਿਰਧਾਰਿਤ ਪਾਠ-ਪੁਸਤਕਾਂ : 1. ਸਾਹਿਤ ਮਾਲਾ 10 (ਪੰਜਾਬ ਸਕੂਲ ਸਿੱਖਿਆ ਬੋਰਡ)  
2. ਵੰਨਗੀ 10 (ਪੰਜਾਬ ਸਕੂਲ ਸਿੱਖਿਆ ਬੋਰਡ)

ਨੋਟ - 1. ਸਾਹਿਤ ਮਾਲਾ 10, 2. ਵੰਨਗੀ 10 ਪਾਠ-ਪੁਸਤਕਾਂ ਨੂੰ ਪੰਜਾਬ ਸਕੂਲ ਸਿੱਖਿਆ ਬੋਰਡ, ਸਾਹਿਬਜ਼ਾਦਾ ਅਜੀਤ ਸਿੰਘ ਨਗਰ (ਮੋਹਾਲੀ) ਵੱਲੋਂ ਪ੍ਰਕਾਸ਼ਤ ਕੀਤਾ ਗਿਆ ਹੈ। ਇਹ ਪੁਸਤਕਾਂ ਬੋਰਡ ਦੀ ਵੈੱਬਸਾਈਟ : [www.pseb.ac.in](http://www.pseb.ac.in) 'ਤੇ ਵੀ ਉਪਲਬਧ ਹਨ।

# ਦਸਵੀਂ ਜਮਾਤ ਦੇ ਪ੍ਰਸ਼ਨ-ਪੱਤਰ ਦੀ ਰੂਪ-ਰੇਖਾ (ਕੁੱਲ ਅੰਕ 80)

## (ਅਪ੍ਰੈਲ 2021 ਤੋਂ ਮਾਰਚ 2022)

ਕ੍ਰਮ ਨੰ.	ਸਿੱਖਣ ਸਿਖਾਉਣ ਦੀ ਮੁਲਾਂਕਣ ਵਿਧੀ/ਕੌਸ਼ਲ ਪ੍ਰਸ਼ਨਾਂ ਦੀਆਂ ਕਿਸਮਾਂ	ਛੋਟੇ ਉੱਤਰ ਵਾਲੇ ਪ੍ਰਸ਼ਨ 1 ਅੰਕ	ਛੋਟੇ ਉੱਤਰ ਵਾਲੇ ਪ੍ਰਸ਼ਨ 2 ਅੰਕ	ਲੰਮੇ ਉੱਤਰ ਵਾਲੇ ਪ੍ਰਸ਼ਨ 4,5,7,8 ਅੰਕ	ਅੰਕ	%
1.	ਪਾਠ ਪੁਸਤਕਾਂ 'ਤੇ ਆਧਾਰਿਤ (ਸ਼ੁੱਧ ਲੇਖਣੀ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਤਰਕਸ਼ੀਲਤਾ, ਰਚਨਾਤਮਿਕਤਾ)	ਬਹੁ-ਵਿਕਲਪੀ 1x5(5) (MCQ) ਛੋਟੇ ਉੱਤਰ ਵਾਲੇ ਪ੍ਰਸ਼ਨ 1x5(5) (VSQ)	2x4(8) (SQ)	4x2(8) 4x1(4) (LQ)	30	37.5%
2.	ਸਮਝ-ਸੂਝ ਆਧਾਰਿਤ (ਗਿਆਨ ਬੋਧ-ਅਣਡਿੱਠਾ ਪੈਰਾ ਅਤੇ ਅਣਡਿੱਠੀ ਕਾਵਿ-ਟੁਕੜੀ)	ਛੋਟੇ ਉੱਤਰ ਵਾਲੇ ਪ੍ਰਸ਼ਨ 1x4(4) (VSQ)	2x3(6) (SQ)	—	10	12.5%
3.	ਵਿਹਾਰਕ (ਵਿਹਾਰਕ ਗਿਆਨ ਦੇ ਨਵੇਂ ਸਿਧਾਂਤ) ਅਨੁਮਾਨਿਤ ਕਿਸਮਾਂ	ਬਹੁ-ਵਿਕਲਪੀ ਚੋਣ ਅਧਾਰਿਤ 1x12(12) (MCQ) ਛੋਟੇ ਉੱਤਰ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ਚੋਣ ਅਧਾਰਿਤ 1x8(8) (VSQ)	—	—	20	25.00%
4.	ਸਿਰਜਣਾਤਮਿਕ (ਸਥਿਤੀ ਜਾਂ ਵਿਚਾਰ ਦੀ ਪਰਖ ਲਈ ਰਚਨਾਤਮਿਕ ਮੁਲਾਂਕਣ)	—	—	1x1 (5) 7x1 (7) 8x1 (8) (LQ)	20	25.00%
	ਕੁਲ ਅੰਕ	34	14	32	80	100%



## ਦਸਵੀਂ ਜਮਾਤ ਵਿੱਚ ਪੰਜਾਬੀ ਵਿਸ਼ੇ ਦੀਆਂ ਗਤੀਵਿਧੀਆਂ ਅਤੇ ਮੁਲਾਂਕਣ

### Guidelines for Activities and Evaluation

ਪਾਠ-ਕ੍ਰਮ ਦਾ ਉਦੇਸ਼ ਵਿਦਿਆਰਥੀਆਂ ਦੀ ਛਿਪੀ ਹੋਈ ਪ੍ਰਤਿਭਾ ਨੂੰ ਬਾਹਰ ਲਿਆਉਣਾ ਹੈ, ਇਸ ਲਈ ਬੋਰਡ ਵੱਲੋਂ ਸਲਾਨਾ ਪਰੀਖਿਆ ਦੇ ਨਾਲ-ਨਾਲ ਅੰਤਰਿਕ ਮੁਲਾਂਕਣ ਲਈ 20 ਅੰਕ ਰਾਖਵੇਂ ਰੱਖੇ ਗਏ ਹਨ। ਜਿਸ ਦੇ ਤਹਿਤ—

10 ਅੰਕ	ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ (ਜਮਾਤ ਟੈਸਟ)
5 ਅੰਕ	ਗਤੀਵਿਧੀਆਂ (ASSIGNMENT) ਜਮਾਤ ਅਤੇ ਘਰ ਦਾ ਕਾਰਜ, ਮੁਲਾਂਕਣ ਪੱਤਰ 'ਤੇ ਆਧਾਰਿਤ
5 ਅੰਕ	LS (ਸੁਣਨ, ਬੋਲਣ 'ਤੇ ਆਧਾਰਿਤ)

ਇਹਨਾਂ ਗਤੀਵਿਧੀਆਂ ਦਾ ਮੁਲਾਂਕਣ ਵਿਸ਼ੇ ਨਾਲ ਸੰਬੰਧਿਤ ਅਧਿਆਪਕ ਤੇ ਸਕੂਲ ਪ੍ਰਿੰਸੀਪਲ ਵੱਲੋਂ ਨਿਰਧਾਰਿਤ ਅਧਿਆਪਕ ਦੀ ਨਿਗਰਾਨੀ ਵਿੱਚ ਪੜ੍ਹਨ-ਸੰਬੰਧੀ (Comprehension), ਲਿਖਣ ਕੌਸ਼ਲ (Writing Skill), ਬੋਲਣ ਕੌਸ਼ਲ (Speaking Skill) ਅਨੁਸਾਰ ਕੀਤਾ ਜਾਵੇਗਾ।

ਦਿਵਯਾਂਗ ਵਿਦਿਆਰਥੀਆਂ ਲਈ	
ਜੇਕਰ ਵਿਦਿਆਰਥੀ ਨਾ ਬੋਲ ਸਕਦਾ ਹੈ ਤੇ ਨਾ ਹੀ ਸੁਣ ਸਕਦਾ ਹੈ	ਵਿਦਿਆਰਥੀ ਦੇ ਬੋਲਣ ਤੇ ਸੁਣਨ ਕੌਸ਼ਲ ਲਈ ਉਹ ਆਪਣੀ ਮਨਪਸੰਦ ਵਿਸ਼ੇ 'ਤੇ ਕੋਈ ਵੀ ਕਹਾਣੀ ਲਿਖ ਸਕਦਾ ਹੈ। ਜਿਸ ਵਿੱਚ ਉਸ ਦੀ ਸਿਰਜਣਾਤਮਿਕ ਤੇ ਕਲਪਨਾ ਸ਼ਕਤੀ ਦਾ ਨਿਰੀਖਣ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
ਜਾਂ	ਸ਼ਬਦਾਂ ਦੀ ਸੀਮਾ
ਕੇਵਲ ਸੁਣ ਸਕਦਾ ਹੈ ਪਰ ਬੋਲ ਨਹੀਂ ਸਕਦਾ	ਨੌਵੀਂ ਜਮਾਤ ਲਈ 150-200 ਸ਼ਬਦ
ਜਾਂ	ਦਸਵੀਂ ਜਮਾਤ ਲਈ 250-300 ਸ਼ਬਦ
ਕੇਵਲ ਬੋਲ ਸਕਦਾ ਹੈ ਪਰ ਸੁਣ ਨਹੀਂ ਸਕਦਾ	

## ਸੁਝਾਅ

	ਵਿਸ਼ਾ	ਮੁਲਾਂਕਣ ਵਿਧੀ
1.	ਭਾਸ਼ਾ ਨੂੰ ਪ੍ਰਫੁੱਲਤ ਕਰਨ ਲਈ ਨਿਰਧਾਰਿਤ ਰੂਪ-ਰੇਖਾ	1. ਸ਼ਬਦ-ਭੰਡਾਰ 2. ਰਚਨਾਤਮਕ 3. ਪੇਸ਼ਕਾਰੀ
2.	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਨੂੰ ਬੋਲਣ ਤੇ ਲਿਖਣ ਦੀ ਕਲਾ ਨੂੰ ਨਿਖਾਰਨਾ	1. ਭਾਸ਼ਾ ਦੀ ਸੂਝ-ਬੂਝ 2. ਸਵੈ-ਭਰੋਸਾ 3. ਹੁਨਰ ਦੀ ਪਰਖ 4. ਪੇਸ਼ਕਾਰੀ
3.	ਵਿਦਿਆਰਥੀ ਦਾ ਆਪਣੇ ਸਹਿਪਾਠੀਆਂ ਨਾਲ ਵਰਤਾਓ। ਸਥਿਤੀ ਤੇ ਨੈਤਿਕਤਾ	1. ਪੇਸ਼ਕਾਰੀ ਦਾ ਹੁਨਰ 2. ਰਚਨਾਤਮਿਕਤਾ 3. ਵਿਸ਼ੇ ਨੂੰ ਗ੍ਰਹਿਣ ਕਰਨ ਦੀ ਸੂਝ 4. ਸ਼ਬਦਾਵਲੀ 5. ਵਿਅਕਤੀਗਤ ਉੱਤਮਤਾ
4.	ਸਕੂਲ ਦੇ ਰਸਾਲੇ ਲਈ ਰਚਨਾਤਮਿਕ ਕਾਰਜ	1. ਭਾਸ਼ਾ-ਗਿਆਨ 2. ਸ਼ਬਦ-ਭੰਡਾਰ 3. ਪ੍ਰਭਾਵਸ਼ਾਲੀ ਲਿਖਤ 4. ਰਚਨਾਤਮਿਕਤਾ
5.	ਵਿਦਿਆਰਥੀ ਦੇ ਗਿਆਨ ਗ੍ਰਹਿਣ ਕਰਨ ਦੇ ਸ੍ਰੋਤ। ਜਿਵੇਂ— ਪਾਠ-ਪੁਸਤਕਾਂ, ਇੰਟਰਨੈਟ ਅਤੇ ਹੋਰ ਸ੍ਰੋਤ	1. ਮੌਲਿਕਤਾ 2. ਰਚਨਾਤਮਿਕ 3. ਤਰਕ ਭਰਪੂਰ ਯੋਗਤਾ

6.	ਕਿਸੇ ਵੀ ਲਿਖਤੀ ਅੰਸ਼ ਨੂੰ ਕਾਰਟੂਨ/ਚਲ-ਚਿੱਤਰ (ਫਿਲਮ) ਤਸਵੀਰ ਰਾਹੀਂ	1. ਮੌਲਿਕਤਾ 2. ਨਿਰੰਤਰਤਾ 3. ਕਲਪਨਾ 4. ਪੇਸ਼ਕਾਰੀ (ਹਾਵ-ਭਾਵ ਰਾਹੀਂ)
7.	ਭਾਸ਼ਾ ਉਚਾਰਨ : ਅਰਥ ਭਰਪੂਰ, ਉਚਾਰਨ ਢੰਗ, ਵਾਕ-ਬਣਤਰ 1. ਵਿਅਕਤੀ 2. ਸਮੂਹ ਵਿੱਚ	1. ਠੀਕ ਸ਼ਬਦਾਵਲੀ ਦਾ ਪ੍ਰਯੋਗ ਕਰਨਾ 2. ਠੀਕ ਵਾਕ ਬਣਾਉਣਾ 3. ਸਹੀ ਸ਼ਬਦ ਚੋਣ 4. ਸਹੀ ਬੋਲਚਾਲ
8.	ਤੁਰੰਤ ਦਿੱਤੇ ਵਿਸ਼ੇ 'ਤੇ ਬੋਲਣਾ (ਪਾਠਕ੍ਰਮ ਜਾਂ ਆਮ ਜੀਵਨ 'ਚੋਂ)	1. ਗ੍ਰਹਿਣ ਕਰਨਾ 2. ਕਲਪਨਾ 3. ਪੇਸ਼ਕਾਰੀ 4. ਵਿਚਾਰ ਪ੍ਰਗਟਾਅ 5. ਸਵੈ-ਭਰੋਸਾ 6. ਸਮੁੱਚਾ ਪ੍ਰਭਾਵ

### ਸੁਝਾਈਆਂ ਗਤੀਵਿਧੀਆਂ (Suggested Activities)

- |                            |                          |
|----------------------------|--------------------------|
| 1. ਸੁਲੇਖ                   | 2. ਕਵਿਤਾ ਉਚਾਰਨ ਜ਼ਬਾਨੀ    |
| 3. ਭਾਸ਼ਣ ਮੁਕਾਬਲਾ           | 4. ਵਾਦ-ਵਿਵਾਦ             |
| 5. ਕੁਇਜ਼ (ਪ੍ਰਸ਼ਨੋਤਰੀ)      | 6. ਨਾਟਕ ਮੰਚਣ             |
| 7. ਦਿਨ-ਤਿਉਹਾਰ ਬਾਰੇ ਜਾਣਕਾਰੀ | 8. ਲੋਕ-ਗੀਤ               |
| 9. ਪੁਰਾਤਨ ਸੱਭਿਆਚਾਰ         | 10. ਚਲੰਤ ਘਟਨਾਵਾਂ ਦਾ ਵਰਣਨ |

ਨੋਟ— 1. ਵਿਦਿਆਰਥੀ ਦਾ ਮੁਲਾਂਕਣ ਉਪਰੋਕਤ ਦਿੱਤੇ ਗਏ ਦਿਸ਼ਾ-ਨਿਰਦੇਸ਼ਾਂ ਅਨੁਸਾਰ ਕੀਤਾ ਜਾਵੇ।  
2. ਮੁਲਾਂਕਣ ਵਿਸ਼ੇ ਨਾਲ ਸੰਬੰਧਤ ਅਧਿਆਪਕ ਤੇ ਸਕੂਲ ਮੁਖੀ ਵੱਲੋਂ ਨਿਰਧਾਰਤ ਅਧਿਆਪਕ ਦੀ ਨਿਗਰਾਨੀ ਹੇਠ ਹੋਵੇਗਾ।

# **CBSE | DEPARTMENT OF SKILL EDUCATION**

## **CURRICULUM FOR SESSION 2020-2021**

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### **INFORMATION TECHNOLOGY (CODE – 402)**

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#### **JOB ROLE: DOMESTIC DATA ENTRY OPERATOR**

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#### **CLASS – X**

#### **COURSE TITLE: Domestic Data Entry Operator**

Domestic Data Entry Operator in the IT-ITeS Industry is also known as Data Entry Operator. Individuals are responsible to provide daily work reports and work on daily hour bases. The individual is responsible for electronic entry of data from the client side to the office site or vice-versa. Individual tasks vary depending on the size and structure of the organization. This job requires the individual to have thorough knowledge of various technology trends and processes as well as have updated knowledge about database management systems and IT initiatives. The individual should have fast and accurate typing/data encoding. This job involves working in a personal computer, and appropriate software to enter accurate data regarding different issues like retrieving data from a computer or to a computer

#### **COURSE OUTCOME:**

On completion of the course, students should be able to:

- Apply effective oral and written communication skills to interact with people and customers;
- Identify the principal components of a computer system; Demonstrate the basic skills of using computer;
- Demonstrate self-management skills;
- Demonstrate the ability to provide a self-analysis in context of entrepreneurial skills and abilities;
- Demonstrate the knowledge of the importance of green skills in meeting the challenges of sustainable development and environment protection;
- Work safely on computer.
- Start the computer.
- Open and use the related software.
- Exit from the software.
- Shut down the computer.
- Use the computer for data entry process.
- Collect all necessary information about the query.
- Log any decision about the query on the data entry tracking form.
- Follow Rules and guidelines for data entry.
- Handle queries.
- Undertake data entry with speed and accuracy.

- Identify and control hazards in the workplace that pose a danger or threat to their safety or health, or that of others.

### **COURSE OBJECTIVES:**

In this course, the students will be introduced to the fundamental concepts of digital documentation, digital spreadsheet, digital presentation, database management and internet security.

The following are the main objectives of this course:

- To familiarize the students with the world of IT and IT enabled services.
- To provide an in-depth training in use of data entry, internet and internet tools.
- To develop practical knowledge of digital documentation, spreadsheets and presentation.
- To enable the students to understand database management system and have updated knowledge about digital record keeping.
- To make the students capable of getting employment in Private Sector, Public Sector, Ministries, Courts, House of Parliament and State Legislative Assemblies.
- To develop the following skills:
  - Data Entry and Keyboarding skills
  - The concept of Digital Documentation
  - The concept of Digital Presentation
  - The concept of Electronic Spreadsheet
  - The concept of Databases
  - Internet Technologies

### **SALIENT FEATURES:**

To be a data entry operator/analyst, one requires a lot of hard work and practical hands-on experience. One should have an intensive knowledge of Office applications, computer operations, and knowledge of clerical, administrative techniques and data analysis. Along with this, as a data entry operator/analyst, you will be expected to have fast typing speed, accuracy, and efficiency to perform tasks.

As a data entry operator/analyst, one should improve their computer skills, numerical and literacy skills. These skills can help one expand into a new career path in the future

## **CLASS – X SESSION 2020-2021**

**Total Marks: 100 (Theory-50+Practical-50)**

### **SCHEME OF UNITS**

This course is a planned sequence of instructions consisting of units meant for developing employability and vocational competencies of students of Class X opting for skill subject along with other subjects. The unit-wise distribution of hours and marks for class X is as follows:

**INFORMATION TECHNOLOGY (402)**  
**Class X (Session 2020-21)**

	UNITS	NO. OF HOURS for Theory and Practical 200		MAX. MARKS for Theory and Practical 100
Part A	Employability Skills			10
	Unit 1 : Communication Skills-II	10		
	Unit 2 : Self-Management Skills-II	10		
	Unit 3 : Information and Communication Technology Skills-II	10		
	Unit 4 : Entrepreneurial Skills-II	15		
	Unit 5 : Green Skills-II	05		
	Total	50		10
Part B	Subject Specific Skills	Theory (In Hours)	Practical (In Hours)	Marks
	Unit 1: Digital Documentation (Advanced)	12	18	8
	Unit 2: Electronic Spreadsheet (Advanced)	15	23	10
	Unit 3: Database Management System	18	27	12
	Unit 4: Web Applications and Security	15	22	10
	Total	60	90	40
Part C	Practical Work			
	Practical Examination			15
	Written Test			10
	Viva Voce			10
	Total			35
Part D	Project Work/Field Visit			
	Practical File/ Student Portfolio			10
	Viva Voce			05
	Total			15
	GRAND TOTAL	200		100

## **DETAILED CURRICULUM/TOPICS:**

### **Part-A: EMPLOYABILITY SKILLS**

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-II	10
2.	Unit 2: Self-management Skills-II	10
3.	Unit 3: Information and Communication Technology Skills-II	10
4.	Unit 4: Entrepreneurial Skills-II	15
5.	Unit 5: Green Skills-II	05
<b>TOTAL DURATION</b>		<b>50</b>

**NOTE:** For Detailed Curriculum/ Topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

### **Part-B – SUBJECT SPECIFIC SKILLS**

S. No.	Units	Duration in Hours
1.	Unit 1: Digital Documentation (Advanced)	30
2.	Unit 2: Electronic Spreadsheet (Advanced)	38
3.	Unit 3: Database Management System	45
4.	Unit 4: Web Applications and Security	37
<b>TOTAL DURATION</b>		<b>150</b>

#### **UNIT 1: DIGITAL DOCUMENTATION (ADVANCED)**

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1.	Create and Apply Styles in the document	<ul style="list-style-type: none"><li>• Styles/ categories in Word Processor</li><li>• Styles and Formatting window.</li><li>• Fill Format.</li><li>• Creating and updating new style from selection</li><li>• Load style from template or another document.</li><li>• Creating a new style using drag-and-drop.</li><li>• Applying styles.</li></ul>	<ul style="list-style-type: none"><li>• List style categories. Select the style from the Styles and Formatting window.</li><li>• Use Fill Format to apply a style to many different areas quickly.</li><li>• Create and update new style from a selection.</li><li>• Load a style from a template or another document.</li><li>• Create a new style using drag-and-drop.</li></ul>

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
2.	Insert and use images in document	<ul style="list-style-type: none"> <li>Options to insert image to document from various sources.</li> <li>Options to modify, resize, crop and delete an image. Drawing objects and its properties.</li> <li>Creating drawing objects and changing its properties. Resizing and grouping drawing objects.</li> <li>Positioning image in the text.</li> </ul>	<ul style="list-style-type: none"> <li>Insert an image to document from various sources.</li> <li>Modify, resize, crop and delete an image.</li> <li>Create drawing objects</li> <li>Set or change the properties of a drawing object</li> <li>Resize and group drawing objects</li> <li>Position the image in the text</li> </ul>
3.	Create and use template	<ul style="list-style-type: none"> <li>Templates.</li> <li>Using predefined templates.</li> <li>Creating a template.</li> <li>Set up a custom default template.</li> <li>Updating a document.</li> <li>Changing to a different template.</li> <li>Using the Template.</li> </ul>	<ul style="list-style-type: none"> <li>Create a template.</li> <li>Use predefined templates.</li> <li>Set up a custom default template.</li> <li>Update a document.</li> <li>Change to a different template.</li> <li>Use the Template.</li> </ul>
4.	Create and customize table of contents	<ul style="list-style-type: none"> <li>Table of contents. Hierarchy of headings. Customization of table of contents.</li> <li>Character styles. Maintaining a table of contents.</li> </ul>	<ul style="list-style-type: none"> <li>Create table of contents. Define a hierarchy of headings.</li> <li>Customize a table of contents.</li> <li>Apply character styles. Maintain a table of contents.</li> </ul>
5	Implement Mail Merge	<ul style="list-style-type: none"> <li>Advance concept of mail merge in word processing,</li> <li>Creating a main document,</li> <li>Creating the data source,</li> <li>Entering data in the fields,</li> <li>Merging the data source with main document,</li> <li>Editing individual document,</li> <li>Printing a letter and its address label</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate to print the label using mail merge, do the following to achieve</li> <li>Create a main document,</li> <li>Create the data source,</li> <li>Enter data in the fields,</li> <li>Merge the data source with main document,</li> <li>Edit individual document,</li> <li>Print the letter and address label</li> </ul>



## UNIT 2: ELECTRONIC SPREADSHEET (ADVANCED)

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1.	Analyse data using scenarios and goal seek.	<ul style="list-style-type: none"> <li>Using consolidating data. Creating subtotals.</li> <li>Using “what if” scenarios. Using “what if” tools</li> <li>Using goal seek and solver.</li> </ul>	<ul style="list-style-type: none"> <li>Use consolidating data Create subtotals</li> <li>Use “what if” scenarios Use “what if” tools</li> <li>Use goal seek and solver</li> </ul>
2.	Link data and spreadsheets	<ul style="list-style-type: none"> <li>Setting up multiple sheets. Creating reference to other sheets by using keyboard and mouse.</li> <li>Creating reference to other document by using keyboard and mouse.</li> <li>Relative and absolute hyperlinks</li> <li>Hyperlinks to the sheet.                             <ul style="list-style-type: none"> <li>Linking to external data.</li> <li>Linking to registered data sources.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Setup multiple sheets by inserting new sheets.</li> <li>Create reference to other sheets by using keyboard and mouse.</li> <li>Create reference to other document by using keyboard and mouse.</li> <li>Create, Edit and Remove hyperlinks to the sheet.</li> <li>Link to external data.</li> <li>Link to registered data source.</li> </ul>
3.	Share and review a spreadsheet	<ul style="list-style-type: none"> <li>Setting up a spreadsheet for sharing.</li> <li>Opening and saving a shared spreadsheet. Recording changes.</li> <li>Add, Edit and Format the comments.</li> <li>Reviewing changes – view, accept or reject changes. Merging and comparing.</li> </ul>	<ul style="list-style-type: none"> <li>Set up a spreadsheet for sharing.</li> <li>Open and save a shared spreadsheet.</li> <li>Record changes.</li> <li>Add, Edit and Format the comments.</li> <li>Review changes – view, accept or reject changes.</li> <li>Merge and compare sheets.</li> </ul>
4.	Create and Use Macros in spreadsheet	<ul style="list-style-type: none"> <li>Using the macro recorder. Creating a simple macro. Using a macro as a function.</li> <li>Passing arguments to a macro.</li> <li>Passing the arguments areas values.</li> <li>Macros to work like built-in functions.</li> <li>Accessing cells directly.</li> <li>Sorting the columns using macro.</li> </ul>	<ul style="list-style-type: none"> <li>Use the macro recorder. Create a simple macro. Use a macro as a function.</li> <li>Pass arguments to a macro.</li> <li>Pass the arguments are as values.</li> <li>Write macros that act like built-in functions</li> <li>Access cells directly.</li> <li>Sort the columns using macro.</li> </ul>

### UNIT 3: DATABASE MANAGEMENT SYSTEM

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1.	Appreciate the concept of Database Management System	<ul style="list-style-type: none"> <li>• Concept and examples of data and information,</li> <li>• Concept of database,</li> <li>• Advantages of database,</li> <li>• Features of database,</li> <li>• Concept and examples of Relational database,</li> <li>• Concept and examples of field, record, table, database,</li> <li>• Concept and examples of Primary key, composite primary key, foreign key,</li> <li>• Relational Data base management system (RDBMS) software.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the data and information,</li> <li>• Identify the field, record, table in the database,</li> <li>• Prepare the sample table with some standard fields.</li> <li>• Assign the primary key to the field,</li> <li>• Identify the primary key, composite primary key, foreign key.</li> </ul>
2.	Create and edit tables using wizard and SQL commands	<ul style="list-style-type: none"> <li>• Introduction to a RDBMS</li> <li>• Database objects – tables, queries, forms, and reports of the database,</li> <li>• Terms in database – table, field, record,</li> <li>• Steps to create a table using table wizard, Data types in Base,</li> <li>• Option to set primary key Table Data View dialog box</li> <li>• DDL Commands</li> </ul>	<ul style="list-style-type: none"> <li>• Start the RDBMS and observe the parts of main window,</li> <li>• Identify the data base objects Create the sample table in any category using wizard, Practice to create different tables from the available list and choosing fields from the available fields.</li> <li>• Assign data types of field, Set primary key,</li> <li>• Edit the table in design view, Enter the data in the fields.</li> <li>• Create and edit table using DDL Commands</li> </ul>
3.	Perform operations on table	<ul style="list-style-type: none"> <li>• Inserting data in the table,</li> <li>• Editing records in the table,</li> <li>• Deleting records from the table,</li> <li>• Sorting data in the table, Referential integrity,</li> <li>• Creating and editing relationships – one to one, one to many, many to many,</li> <li>• Field properties.</li> </ul>	<p>Demonstrate to:</p> <ul style="list-style-type: none"> <li>• Insert data in the table, Edit records in the table, Delete records from table, Sort data in the table,</li> <li>• Create and edit relationships</li> <li>• one to one, one to many, many to many,</li> <li>• Enter various field properties.</li> </ul>

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
4.	Retrieve data using query	<ul style="list-style-type: none"> <li>Database query,</li> <li>Defining query,</li> <li>Query creation using wizard,</li> <li>Creation of query using design view,</li> <li>Editing a query,</li> <li>Applying criteria in query – single field, multiple fields, using wildcard,</li> <li>Performing calculations,</li> <li>Grouping of data,</li> <li>Structured Query Language (SQL).</li> </ul>	<ul style="list-style-type: none"> <li>Prepare a query for given criteria,</li> <li>Demonstrate to create query using wizard, and using design view,</li> <li>Edit a query,</li> <li>Demonstrate to apply various criteria in query – single field, multiple fields, using wild card,</li> <li>Performing calculations using query in Base,</li> <li>Demonstrate to group data,</li> <li>Use basic SQL commands,</li> </ul>
5.	Create Forms and Reports using wizard	<ul style="list-style-type: none"> <li>Forms in Base,</li> <li>Creating form using wizard,</li> <li>Steps to create form using Form Wizard,</li> <li>Options to enter or remove data from forms</li> <li>Modifying form,</li> <li>Changing label, background,</li> <li>Searching record using Form,</li> <li>Inserting and deleting record using Form View,</li> <li>Concept of Report in Base,</li> <li>Creating Report using wizard,</li> <li>Steps to create Report using Wizard.</li> </ul>	<ul style="list-style-type: none"> <li>Illustrate the various steps to create Form using Form Wizard,</li> <li>Enter or remove data from Forms,</li> <li>Demonstrate to modify Forms,</li> <li>Demonstrate to change label, background,</li> <li>Search record using Form,</li> <li>Insert and delete record using Form View,</li> <li>Illustrate the various steps to create Report using Report Wizard,</li> <li>Demonstrate various examples of Report.</li> </ul>

#### UNIT 4: WEB APPLICATIONS AND SECURITY

S. No.	LEARNING OUTCOMES	THEORY	PRACTICAL
1.	Working With Accessibility Options.	<ul style="list-style-type: none"> <li>Understand various types of impairment that impact computer usage</li> <li>Computer Accessibility Dialog box and its tabs</li> <li>Serial Keys</li> </ul>	<ul style="list-style-type: none"> <li>Illustrate use of various options under Computer Accessibility like Keyboard , mouse, sound, display setting serial keys, cursor options</li> <li>use of toggle keys, filter keys, sticky keys,</li> <li>sound sentry, show sounds etc.</li> </ul>
2.	Understand Networking Fundamentals	<ul style="list-style-type: none"> <li>Network and its types.</li> <li>Client Server Architecture, Peer-to-peer (P2P) Architecture,</li> <li>internet, World Wide Web,</li> <li>benefits of networking</li> <li>internet, getting access to internet,</li> <li>internet terminology</li> <li>Some of the commonly used Internet connectivity options</li> <li>Data transfer on the Internet</li> </ul>	<ul style="list-style-type: none"> <li>Identify applications of Internet</li> <li>comparing various internet technologies</li> <li>identifying types of networks and selecting internet</li> </ul>
3.	Introduction to Instant Messaging	<ul style="list-style-type: none"> <li>learn key features of instant messaging</li> <li>Creating an instant messaging account</li> <li>Launching Google Talk</li> <li>Signing In into your Google Talk Account</li> </ul>	<ul style="list-style-type: none"> <li>Illustrate steps to create instant messaging account</li> <li>Signing In into your Google Talk Account</li> </ul>
4.	Chatting With a Contact – Google Talk	<ul style="list-style-type: none"> <li>learn to chat with a contact that is already added to your contact list.</li> <li>sending text chat messages instantly by double-clicking on a contact.</li> <li>general rules and etiquettes to be followed while chatting.</li> <li>chatting on various types of messengers</li> </ul>	<ul style="list-style-type: none"> <li>Illustrate chat with a contact and send messages,</li> <li>chatting with various messenger services</li> </ul>
5	Creating and Publishing Web Pages – Blog ...-	<ul style="list-style-type: none"> <li>learn and appreciate a blog and its creation with the help of some blog providers</li> <li>set up title and other parameters in a blog posting comments</li> <li>using offline blog editors</li> </ul>	<ul style="list-style-type: none"> <li>Illustrate Blog Creation and setting various parameters in it</li> </ul>

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6	Using Offline Blog Editors	<ul style="list-style-type: none"> <li>• Concept to create blogs using a blog application and publish the blog whenever internet connectivity is available.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration on how to create blogs using a blog application offline.</li> <li>• posting messages in an offline application</li> <li>• Publish the blog whenever internet connectivity is available using various examples</li> </ul>
7	Online Transaction	<ul style="list-style-type: none"> <li>• concept of e-commerce and various online applications</li> <li>• importance of secure passwords</li> </ul>	<ul style="list-style-type: none"> <li>• Illustration of online shopping using various e-commerce sites</li> <li>• Demonstration of securing passwords for online transactions.</li> </ul>
8.	Internet Security	<ul style="list-style-type: none"> <li>• Need of internet security</li> <li>• Cyber threats like phishing, email-spoofing, char spoofing etc.</li> <li>• best practices for internet security and secure passwords</li> <li>• concept of browser, cookies, backup, antivirus</li> <li>• clearing data in browsers</li> </ul>	<ul style="list-style-type: none"> <li>• illustration of internet security threats through various ways</li> <li>• cyber security tips</li> <li>• tips for secure passwords</li> <li>• demonstration of strong passwords using various websites.</li> <li>• clearing data stored in browser applications.</li> </ul>
9.	Maintain workplace safety	<ul style="list-style-type: none"> <li>• Basic safety rules to follow at workplace – Fire safety,</li> <li>• Falls and slips, Electrical safety,</li> <li>• Use of first aid.</li> <li>• Case Studies of hazardous situations.</li> </ul>	<ul style="list-style-type: none"> <li>• Practice to follow basic safety rules at workplace to prevent accidents and protect workers – Fire safety,</li> <li>• Falls and slips, Electrical safety, Use of first aid.</li> </ul>
10.	Prevent Accidents and Emergencies	<ul style="list-style-type: none"> <li>• Accidents and emergency,</li> <li>• Types of Accidents,</li> <li>• Handling Accidents</li> <li>• Types of Emergencies.</li> </ul>	<ul style="list-style-type: none"> <li>• Illustrate to handle accidents at workplace,</li> <li>• Demonstrate to follow evacuation plan and procedure in case of an emergency.</li> </ul>
11.	Protect Health and Safety at work	<ul style="list-style-type: none"> <li>• Hazards and sources of hazards,</li> <li>• General evacuation procedures,</li> <li>• Healthy living.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify hazards and sources of hazards,</li> <li>• identify the problems at workplace that could cause accidents,</li> <li>• Practice the general evacuation procedures in case of an emergency.</li> </ul>