

- (1) Listens to speeches, lectures, radio talks etc., reflects; to communicate through speech and writing.
- (2) Reads longer texts with implicit meaning and describes inferring from contexts, phonological cues etc. with clarity.
- (3) Writes, collects and appreciates narratives, and short poems based on fantasy, and imagination. shares and enjoys jokes, and cartoons in English, Hindi and Kannada.
- (4) Speaks fluently and spontaneously. Uses interesting, and need-based multilingual vocabulary.
- (5) Uses and understands appropriate punctuation marks, grammatical items, modulation of voice in LSRW, proofreads and edits prose and poetry.
- (6) Speaks using everyday familiar expressions and phrases like greetings, expressions, gentle body language for initiating talk etc.
- (7) Writes creatively emphasizing the main idea; researching about author, and context etc.
- (8) Prepares schedules and organizes classroom activities/school events (Yoga Day, debate, cultural events etc.) with the consensus of peers and teachers.
- (9) Express opinions and views independently, in speech, and writing by using visual graphics. Listens patiently to contradictory points of view on online platforms and answers logically in agreement/ disagreement.
- (10) Identifies and appreciates figures of speech, rhyme scheme, intonation, verse and blank verse etc. in the poetry. expresses in writing and speech using vocabulary to express feelings and emotions.
- (11) Writes paragraph, summary, letter with concern, about social issues e.g., on marginalized people, and environment, by using appropriate vocabulary.
- (16) Writes letters formal, informal and business letters with a sense of audience and purpose.
- (17) Solves grammar exercises with/without context.
- (18) Develops projects based on language and literature and interdisciplinary themes using skills of collecting, organizing, analyzing and report writing.
- (19) Develops posters, notices and organises talk against bullying, ragging, cruelty towards animals, cybercrimes, awareness about the health of the elders, functioning of banks, post office etc. specifically during pandemics, and disasters etc.

कक्षा 10 (द्वितीय भाषा) के मुख्य सीखने के प्रतिफल निम्नलिखित हैं:

1. श्रवण और मौखिक अभिव्यक्ति (Listening and Speaking Skills)

- **जटिल विचारों को समझना:** रेडियो, टीवी, सार्वजनिक भाषणों, परिचर्चाओं या पॉडकास्ट में व्यक्त किए गए अमूर्त और जटिल विचारों को ध्यानपूर्वक सुनकर उनके मुख्य संदेश, व्यंग्य या अंतर्निहित भावना को समझना।
- **तर्कपूर्ण संवाद:** समसामयिक, सामाजिक, सांस्कृतिक या पर्यावरणीय मुद्दों पर अपनी बात को तार्किक, स्पष्ट और आत्मविश्वास के साथ मौखिक रूप से प्रस्तुत करना।
- **विविध प्रस्तुतियाँ:** वाद-विवाद (Debate), सामूहिक चर्चा (Group Discussion), भाषण और साक्षात्कार (Interview) में भाषा के सही उतार-चढ़ाव (Intonation) और गरिमा के साथ भाग लेना।

2. पठन और आलोचनात्मक विश्लेषण (Reading Comprehension and Critical Analysis)

- **गहन और स्वतंत्र पठन:** अपठित और पठित गद्यांशों व काव्यांशों को पढ़कर उनका केवल सतही अर्थ नहीं, बल्कि उनके पीछे छिपे गहरे सामाजिक व राजनैतिक संदर्भों और लेखक के दृष्टिकोण को समझना।
- **साहित्यिक सराहना और मूल्यांकन:** साहित्य की विभिन्न विधाओं (कहानी, कविता, निबंध, नाटक, संस्मरण) की विशेषताओं को पहचानना और उनकी भाषा-शैली, शिल्प व सौंदर्य बोध की आलोचनात्मक सराहना करना।
- **तुलनात्मक अध्ययन:** एक ही विषय पर अलग-अलग लेखकों या कवियों के विचारों की तुलना करने की क्षमता विकसित करना।

3. उन्नत लिखित अभिव्यक्ति और रचनात्मकता (Advanced Written Expression)

- **मौलिक और स्वतंत्र लेखन:** किसी भी विषय या स्थिति पर रटे-रटाए वाक्यों के स्थान पर अपने स्वयं के शब्दों में स्वतंत्र, सुसंगत और मौलिक रूप से विचार लिख पाना।
- **व्यावहारिक और व्यावसायिक लेखन:** दैनिक जीवन और भविष्य की आवश्यकताओं के अनुरूप औपचारिक/अनौपचारिक पत्र, लघु कथा लेखन (Story Writing), सूचना लेखन (Notice), ईमेल (E-mail) लेखन और विज्ञापन (Advertisement) तैयार करना।
- **संकेत-बिंदुओं का विस्तार:** दिए गए सूत्रों, आंकड़ों या दृश्य-संकेतों (Picture/Data Prompt) का विश्लेषण करके एक तार्किक अनुच्छेद या रिपोर्ट तैयार करना।

4. व्यावहारिक व्याकरण और भाषा-योग्यता (Applied Grammar & Competency)

- **संदर्भगत व्याकरण:** व्याकरण के नियमों को अलग से रटने के बजाय, वाक्य में उनके सही और प्रभावी प्रयोग को समझना।

- **भाषाई शुद्धता:** वाक्य संरचना, पदबंध (Phrases), रचना के आधार पर वाक्य रूपांतरण, मुहावरों के सटीक उपयोग और विराम चिह्नों के सही स्थान द्वारा अपने लेखन को शुद्ध और प्रभावशाली बनाना।
- **शब्द संपदा का विस्तार:** तत्सम, तद्भव, देशज और विदेशी शब्दों के अंतर को समझते हुए संदर्भ के अनुसार सही शब्द का चयन करना।

5. बहुभाषिकता, संवेदनशीलता और सांस्कृतिक चेतना (Multilingualism & Sensitivity)

- **भाषाई विविधता का सम्मान:** भारत की बहुभाषिक संस्कृति को समझना और अन्य भारतीय भाषाओं के प्रति आदर व जिज्ञासा का भाव रखना।
- **मानवीय और सामाजिक मूल्य:** साहित्य के माध्यम से जेंडर संवेदनशीलता, मानवाधिकार, पर्यावरण संरक्षण, और समाज के वंचित वर्गों के प्रति सहानुभूति व संवेदनशीलता का विकास करना।

1. ಕನ್ನಡ ಭಾಷೆಯನ್ನು ಆಸಕ್ತಿಯಿಂದ ಕಲಿಯುತ್ತಾರೆ.
2. ಶುದ್ಧ ಉಚ್ಚಾರಣೆಯೊಂದಿಗೆ ಓದುತ್ತಾರೆ.
3. ಕೇಳಿದ ವಿಷಯವನ್ನು ಸರಿಯಾಗಿ ಗ್ರಹಿಸುತ್ತಾರೆ.
4. ಗದ್ಯದ ಮುಖ್ಯ ಆಶಯವನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುತ್ತಾರೆ.
5. ಪದ್ಯದ ಭಾವವನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.
6. ಲೇಖಕರ ಹಾಗೂ ಕವಿಗಳ ಪರಿಚಯವನ್ನು ತಿಳಿದುಕೊಳ್ಳುತ್ತಾರೆ.
7. ಹೊಸ ಪದಗಳ ಅರ್ಥವನ್ನು ತಿಳಿದು ಬಳಸುತ್ತಾರೆ.
8. ಪದಸಂಪತ್ತಿಯನ್ನು ವೃದ್ಧಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.
9. ಶುದ್ಧವಾಗಿ ಮಾತನಾಡುವ ಕೌಶಲವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.
10. ಶುದ್ಧವಾಗಿ ಬರೆಯುವ ಕೌಶಲವನ್ನು ಅಭಿವೃದ್ಧಿಪಡಿಸುತ್ತಾರೆ.
11. ವ್ಯಾಕರಣ ನಿಯಮಗಳನ್ನು ಸರಿಯಾಗಿ ಅನ್ವಯಿಸುತ್ತಾರೆ.
12. ನಾಮಪದಗಳನ್ನು ಗುರುತಿಸುತ್ತಾರೆ.
13. ಸರ್ವನಾಮಗಳನ್ನು ಸರಿಯಾಗಿ ಬಳಸುತ್ತಾರೆ.
14. ಕ್ರಿಯಾಪದಗಳನ್ನು ಗುರುತಿಸುತ್ತಾರೆ.
15. ಕಾಲಗಳನ್ನು (ಭೂತ, ವರ್ತಮಾನ, ಭವಿಷ್ಯ) ಬಳಸುತ್ತಾರೆ.
16. ವಿಭಕ್ತಿ ಪ್ರತ್ಯಯಗಳನ್ನು ಸರಿಯಾಗಿ ಬಳಸುತ್ತಾರೆ.
17. ಸಂಧಿಗಳನ್ನು ಗುರುತಿಸಿ ಬಳಸುತ್ತಾರೆ.
18. ಸಮಾಸಗಳನ್ನು ಗುರುತಿಸುತ್ತಾರೆ.
19. ತತ್ಸಮ-ತದ್ಭವ ಪದಗಳನ್ನು ಗುರುತಿಸುತ್ತಾರೆ.
20. ಸಮಾನಾರ್ಥಕ ಪದಗಳನ್ನು ಬಳಸುತ್ತಾರೆ.
21. ವಿರುದ್ಧಾರ್ಥಕ ಪದಗಳನ್ನು ಗುರುತಿಸುತ್ತಾರೆ.
22. ಜೋಡಿ ಪದಗಳನ್ನು ಬಳಸುತ್ತಾರೆ.

23. ದ್ವಿರುಕ್ತಿ ಪದಗಳನ್ನು ಗುರುತಿಸುತ್ತಾರೆ.
24. ಗಾದೆ ಮಾತುಗಳನ್ನು ಅರ್ಥೈಸಿ ಬಳಸುತ್ತಾರೆ.
25. ಸ್ವಂತ ವಾಕ್ಯಗಳನ್ನು ರಚಿಸುತ್ತಾರೆ.
26. ವಿರಾಮಚಿಹ್ನೆಗಳನ್ನು ಸರಿಯಾಗಿ ಬಳಸುತ್ತಾರೆ.
27. ಅಪರಿತ ಗದ್ಯಭಾಗವನ್ನು ಓದಿ ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸುತ್ತಾರೆ.
28. ಪಾಠದ ಸಾರಾಂಶವನ್ನು ಬರೆಯುತ್ತಾರೆ.
29. ಪತ್ರಲೇಖನವನ್ನು ಸರಿಯಾದ ವಿನ್ಯಾಸದಲ್ಲಿ ಬರೆಯುತ್ತಾರೆ.
30. ಪ್ರಬಂಧ ಬರೆಯುತ್ತಾರೆ.
31. ವರದಿ ಬರೆಯುವ ಕೌಶಲವನ್ನು ಪಡೆಯುತ್ತಾರೆ.
32. ಸಂಭಾಷಣೆ ರಚಿಸುತ್ತಾರೆ.
33. ಸೂಚನೆಗಳನ್ನು ಬರೆಯುತ್ತಾರೆ.
34. ಪ್ರಕಟಣೆಗಳನ್ನು ಬರೆಯುತ್ತಾರೆ.
35. ಜಾಹೀರಾತುಗಳನ್ನು ರಚಿಸುತ್ತಾರೆ.
36. ಚಿತ್ರಾಧಾರಿತ ಬರವಣಿಗೆ ಮಾಡುತ್ತಾರೆ.
37. ಕಥೆಯನ್ನು ವಿಸ್ತರಿಸಿ ಬರೆಯುತ್ತಾರೆ.
38. ಪದ್ಯದಲ್ಲಿನ ಅಲಂಕಾರಗಳನ್ನು ಗುರುತಿಸುತ್ತಾರೆ.
39. ಕಾವ್ಯದ ಭಾವಸೌಂದರ್ಯವನ್ನು ಆಸ್ವಾದಿಸುತ್ತಾರೆ.
40. ಸಾಹಿತ್ಯದ ಮೌಲ್ಯಗಳನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುತ್ತಾರೆ.
41. ಮಾನವೀಯ ಮೌಲ್ಯಗಳನ್ನು ಅಳವಡಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.
42. ನೈತಿಕ ಮೌಲ್ಯಗಳನ್ನು ಜೀವನದಲ್ಲಿ ಅನುಸರಿಸುತ್ತಾರೆ.
43. ರಾಷ್ಟ್ರೀಯ ಏಕತೆಯ ಮನೋಭಾವವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.
44. ದೇಶಭಕ್ತಿಯನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.
45. ಪರಿಸರ ಸಂರಕ್ಷಣೆಯ ಮಹತ್ವವನ್ನು ಅರಿಯುತ್ತಾರೆ.

- 46.ಸಾಮಾಜಿಕ ಜವಾಬ್ದಾರಿಯನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುತ್ತಾರೆ.
- 47.ವೈಜ್ಞಾನಿಕ ಮನೋಭಾವವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- 48.ವಿಮರ್ಶಾತ್ಮಕ ಚಿಂತನೆಯನ್ನು ಅಭಿವೃದ್ಧಿಪಡಿಸುತ್ತಾರೆ.
- 49.ಸೃಜನಾತ್ಮಕ ಚಿಂತನೆಯನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- 50.ಸಮಸ್ಯೆ ಪರಿಹರಿಸುವ ಕೌಶಲವನ್ನು ಪಡೆಯುತ್ತಾರೆ.
- 51.ಗುಂಪುಚರ್ಚೆಯಲ್ಲಿ ಸಕ್ರಿಯವಾಗಿ ಭಾಗವಹಿಸುತ್ತಾರೆ.
- 52.ಆತ್ಮವಿಶ್ವಾಸದಿಂದ ಅಭಿಪ್ರಾಯ ವ್ಯಕ್ತಪಡಿಸುತ್ತಾರೆ.
- 53.ಭಾಷಣ ಮಾಡುವ ಕೌಶಲವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- 54.ವೇದಿಕೆ ಮೇಲೆ ನಿರ್ಭಯವಾಗಿ ಮಾತನಾಡುತ್ತಾರೆ.
- 55.ಕನ್ನಡ ಭಾಷೆಯ ಮೇಲಿನ ಅಭಿಮಾನವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- 56.ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಬಗ್ಗೆ ಆಸಕ್ತಿ ಹೊಂದುತ್ತಾರೆ.
57. ಕನ್ನಡ ಸಂಸ್ಕೃತಿ ಮತ್ತು ಪರಂಪರೆಯನ್ನು ಗೌರವಿಸುತ್ತಾರೆ.
58. ಮಾಹಿತಿಯನ್ನು ಸಂಗ್ರಹಿಸಿ ವಿಶ್ಲೇಷಿಸುತ್ತಾರೆ.
- 59.ಗ್ರಂಥಾಲಯ ಹಾಗೂ ಡಿಜಿಟಲ್ ಸಂಪನ್ಮೂಲಗಳನ್ನು ಬಳಸುತ್ತಾರೆ.
60. ಮಾಹಿತಿ ತಂತ್ರಜ್ಞಾನವನ್ನು ಕಲಿಕೆಗೆ ಬಳಸುತ್ತಾರೆ.
- 61.ಸ್ವಯಂ ಅಧ್ಯಯನ ಮಾಡುವ ಅಭ್ಯಾಸವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- 62.ಸಮಯಪಾಲನೆಯ ಮಹತ್ವವನ್ನು ಅರಿಯುತ್ತಾರೆ.
- 63.ಸಹಕಾರ ಮನೋಭಾವವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- 64.ನಾಯಕತ್ವ ಗುಣಗಳನ್ನು ಅಭಿವೃದ್ಧಿಪಡಿಸುತ್ತಾರೆ.
- 65.ಕಲಿತ ಜ್ಞಾನವನ್ನು ದೈನಂದಿನ ಜೀವನದಲ್ಲಿ ಅನ್ವಯಿಸುತ್ತಾರೆ.
66. ಪರೀಕ್ಷಾ ಮಾದರಿಯ ಪ್ರಶ್ನೆಗಳಿಗೆ ಸಮರ್ಥವಾಗಿ ಉತ್ತರಿಸುತ್ತಾರೆ.
- 67.ಭಾಷಾ ಕೌಶಲಗಳಾದ ಕೇಳುವುದು, ಮಾತನಾಡುವುದು, ಓದುವುದು ಮತ್ತು ಬರೆಯುವುದನ್ನು ಸಮರ್ಥವಾಗಿ ಬಳಸುತ್ತಾರೆ.

68.ಎಸ್‌ಎಸ್‌ಎಲ್‌ಸಿ ಪರೀಕ್ಷೆಗೆ ಅಗತ್ಯವಾದ ಭಾಷಾ ಸಾಮರ್ಥ್ಯವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.

69.ನಿರಂತರ ಕಲಿಕೆಯ ಮನೋಭಾವ ಹಾಗೂ ಜೀವನಪರ್ಯಂತ ಕಲಿಕೆಯ ಅಭ್ಯಾಸವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ

1. Develop logical thinking, critical reasoning, and a structured approach to problem-solving.
2. Build the ability to recognise, analyse, and solve diverse problems with confidence and adaptability.
3. Communicate mathematical ideas effectively using appropriate language, symbols, and representations.
4. Appreciate the beauty, history, and real-life relevance of Mathematics as a discipline; connect mathematical concepts to fields such as Science, Technology, Engineering, and Economics.
5. Engage in both collaborative and independent mathematical exploration and learning; develop habits of precision, accuracy, and logical consistency in mathematical work.
6. Build confidence to explore, experiment, and grow in mathematical understanding without fear of failure.

1. Compare the characteristics of initial & final substances in order to check whether the change is physical or chemical.
2. Use chemical symbols & chemical formulae correctly in order to acquire the skill of writing chemical equations
3. Apply the Law of Conservation of Mass in order to balance chemical equations.
4. Classify the given reaction as displacement or double displacement based on the type of reactants used & products formed.
5. Predict the reaction as Oxidation or Reduction based on the addition/removal of oxygen/hydrogen/ electrons to the reactants to form products.
6. Observe colour change in iron, copper and silver articles over time in order to outline the effects of corrosion in our surroundings
7. Categorize the given reactions as (combination / decomposition) based on the reactants & products of a chemical reaction.
8. Detect changes in smell, colour, taste of food items overtime, in order to explain the effects of oxidation on food items.
9. Write down the ions present in aqueous solution of an acid or a base, in order to explain why aqueous acid/ base conduct electricity
10. Identify the positive and negative radicals present in a salt, in order to predict a salt's family and pH range
11. Recall the tastes of acids and bases in order to point out if given food items contain an acid or a base
12. Observe the action of given substances with various indicators, in order to categorize them as acids or bases
13. Detect the formation of hydrogen gas when a metal reacts with an acid or a base, in order to confirm the presence of an acid/ base given an unknown compound
14. Detect the formation of carbon dioxide when a metal carbonate/ bicarbonate reacts with acid, in order to detect the presence of acid given an unknown compound
15. Demonstrate the activity of heating copper sulphate crystals and change in colour, in order to detect the presence of water of crystallisation
16. Explain the effect of pH change in animals, plants and environment in order to learn a suitable pH range for survival.
17. Outline the process of formation of sodium hydroxide in order to explain its manufacture using common salt.
18. List the properties & explain the preparation/ manufacture some important compounds of Sodium. (bleaching powder, baking soda and washing soda) in order to explain their manufacture using common salt
19. Detect the strength of given substances based on their position in the pH scale
20. Analyse the reaction taking place between an acid and a base(alkalis, metal oxides) using an indicator.
21. Observe various substances and their physical properties in order to classify them as metals or nonmetals.
22. Predict the products when metals & non-metals react with oxygen, water, dilute acids in order to write a balanced chemical equation.

23. Identify the product formed when a metal reacts with a metal salt, in order to list the metals in order of their reactivity
24. Analyse the process of getting metals from their oxides, sulphides, carbonates in order to extract them from their ores
25. Explain the process of electrolytic refining in order to assess how to obtain pure metals from impure samples
26. Observe corrosion in metal articles & its process in order to develop ways to prevent corrosion by forming alloys, painting, galvanising
27. Discuss the process of how metals react with nonmetals, in order to explain formation & properties of ionic compounds
28. Analyse the process of getting metals from their oxides, sulphides, carbonates in order to extract them from their ores
29. Classify carbon compounds in homologous series in order to predict their properties
30. Illustrate the chemical properties of carbon compounds (like combustion, oxidation, addition & substitution) along with balanced chemical reaction
31. Identify how carbon compounds react with hydrogen in the presence of nickel catalyst, in order to write a balanced chemical reaction
32. Identify how carbon compounds react with chlorine in the presence of sunlight, in order to write a balanced chemical reaction
33. Observe how carbon compounds burn in oxygen, in order to classify them as saturated or unsaturated
34. Perform physical and chemical tests in order to distinguish between Ethanol & Ethanoic acid based on their properties (reaction with other substances)
35. Describe the process of micelle formation in order to understand how soaps work
36. Draw structures of carbon compounds and show types of bonds (single/ double/ triple) in order to classify them as alkanes/ alkenes/ alkynes
37. Draw structures of carbon compounds with functional groups, in order to predict their properties due to functional groups and type of bonding present
38. Write down electron shell configuration of carbon in order to predict formulae of carbon compounds and illustrate the structure of molecules of carbon compounds with chain, branched & ring structure.
39. Draw structures of carbon compounds in order to classify them as saturated or unsaturated
40. Identify the functional group, type of bonding, number of C atoms present in a carbon compound, in order to correctly name them.
41. List and explain the strategies employed by heterotrophs to take up food, in order to understand how heterotrophs obtain nutrition and differentiate it from autotrophic nutrition
42. Explain the process of absorption of CO_2 & H_2O , in order to understand how autotrophs obtain substances necessary for nutrition
43. Illustrate the process involved in human digestive system, in order to explain how humans obtain nutrients from food
44. List the enzymes & their functions involved in human digestive system, in order to understand breakdown of food in humans
45. Outline and explain the ways of breakdown of glucose by various pathways, in order to explain how energy is obtained in organisms
46. Illustrate the process involved in human respiratory system, in order to explain

- how humans take in oxygen and expel CO₂
48. Outline the process of double circulation of blood in fishes, in order to explain how oxygenated & deoxygenated blood is compartmentalized.
 49. Describe the function of blood vessels, arteries, platelets & lymph in the human body, in order to understand how the human transportation system works.
 50. Illustrate the process involved in the human excretory system, in order to explain how waste is transported out of the human body.
 51. Describe transpiration and other ways in which plants shed extra wastes, in order to explain excretion in plants.
 52. Outline the working of a reflex arc, in order to explain how reflex actions take place in humans
 53. Examine tropic movements in plants, in order to understand how plants respond to environmental triggers like light, gravity and water.
 54. Discuss limitations of electrical impulses, in order to outline the importance and use of hormones.
 55. Illustrate the function of endocrine glands in the human body, in order to understand the functioning of hormones.
 56. Draw the structure & explain the functioning of a neuron, in order to explain how electrical signals travel in human body
 57. Illustrate the location and functions of different parts of human brain, in order to understand working of human brain
 58. Illustrate the process of fission in amoeba & plasmodium, in order to understand how unicellular organisms divide
 59. Illustrate the process of regeneration in Planaria, in order to understand how fully differentiated multicellular organisms divide.
 60. Illustrate the process of fragmentation in spirogyra and spore formation in Rhizopus in order to understand how multicellular organisms with simple body design divide
 61. Describe the changes taking place in female body after/ without fertilization, in order to understand human reproduction.
 62. List down the changes occurring in male and female body in teenage years, in order to understand the effects of puberty.
 63. Illustrate the male reproductive system, in order to understand its function in reproduction.
 64. Illustrate the female reproductive system, in order to understand its function in reproduction.
 65. Illustrate the process of vegetative propagation in plants like sugarcane, roses, grapes in order to understand how plants reproduce without seeds
 66. List down the ways to avoid fertilization in order to avoid pregnancy and maintain reproductive health.
 67. List down the reasons for changes in DNA copying and their effect on the ecosystem in order to understand the importance of variations.
 68. Explain the combination of sex chromosomes, in order to understand how sex is determined in humans.
 69. State and explain Mendel's traits of inheritance, in order to understand how traits are inherited from one generation to next.
 70. Classify the given traits as inherited or acquired, in order to understand which traits cause a change in genes.
 71. Explain how changes in DNA can lead to stronger/better species, or formation of new species altogether, in order to understand natural selection & speciation
 72. Identify if a given pair of organs is analogous or homologous, in order to find relationships between species.

73. Classify different waste products as biodegradable or non-biodegradable, in order to assess their effect on environment
74. Tabulate the organisms feeding on one another (producers, consumers, decomposers) and energy transfer between them, in order to form a food chain or a food web
75. Describe the formation & properties of ozone, in order to identify ways to protect it from depletion
76. Classify biotic and abiotic components and their interaction with each other, in order to describe an ecosystem
77. Tabulate the organisms feeding on one another (producers, consumers, decomposers) and energy transfer between them, in order to form a food chain or a food web.
78. State the laws of reflection of light, in order to understand how light travels in a medium when it encounters another object.
79. Represent the path of incident ray and reflected ray in order to decipher the position and nature of the image formed.
80. Outline the rule of image formation by spherical mirrors in order to complete the ray diagrams by drawing reflected rays
81. Represent the path of incident & reflected light rays from a concave mirror, in order to decipher the position and nature of the image formed.
82. Demonstrate the path of light when it travels through a rectangular glass slab, in order to formulate laws of refraction of light.
83. Represent the path of incident & reflected light rays from a concave lens, in order to decipher the position and nature of the image formed.
84. Express u , v , f in the lens formula in order
85. to apply sign convention in solving word problems
86. Deduce the nature and size of image by magnification in order to relate height of object with height of image
87. State the magnification for a lens, in order to relate height of object with height of image
88. Calculate the power of a lens, in order to determine its power to converge or diverge
89. Illustrate the path of incident & reflected light rays from a convex lens, in order to decipher the position and nature of the image formed.
90. Construct the lens formula for a lens relating substances, sign convention in optics, SI units, etc. v , u , f ; in order to find an unknown variable given the other two.
91. Calculate the power of a lens, in order to determine its power to converge or diverge.
92. Relate changes in focal length of eye lens to vision of distant and nearby objects
93. Describe the structure of an eye and functions of various parts that help humans to see
94. Identify the causes of defects of vision in human eye and suggest correction procedures
95. Examine the path of light rays through a prism and identify various rays and angles formed
96. Demonstrate that white light is dispersed into seven colours by a prism and explain the reasons for the same.
97. Relate scattering of light to Tyndall effect, blue colour of sky and red colour of sun at sunrise and sunset.
98. Provide scientific explanation for the twinkling of stars, advanced sunrise and sunset.

99. Plot a graph between voltage and current, in order to prove ohm's law & find resistance.
100. Define resistivity and its range for different materials, in order to classify substances as conductors, alloys and insulators.
101. Explain and calculate the heating effect of electric current, in order to learn working of appliances like heater, iron and fuse.
102. Evaluate the charge flowing through a conductor in a given time, in order to calculate current flowing through it.
103. Determine work done in moving a charge across two points, in order to calculate potential difference between two points
104. Calculate power, in order to represent electric consumption in domestic circuits
105. Identify the electrical components and their functions, in order to build a functioning circuit
106. Explain and calculate the heating effect of electric current, in order to learn working of appliances like heater, iron and fuse.
107. Determine the resultant resistance in a series and a parallel combination, in order to identify the suitable combination like house, etc
108. Draw magnetic field lines for a bar magnet, in order to identify the magnetic field strength at different points around a magnet
109. Represent magnetic field lines for a straight current carrying conductor, in order to identify the magnetic field strength at different points around it.
110. Draw magnetic field lines for at current carrying circular loop, in order to identify the magnetic field strength at different points around it
111. Outline magnetic field lines for at current carrying solenoid, in order to identify the magnetic field strength at different points around it
112. Discuss electromagnetic induction, in order to understand how a moving magnet can be used to generate electric currents
113. Analyse the significance of neutral, earth and live wire, in order to understand formation of a domestic electrical circuit

Chapter	Learning Outcomes (Students will be able to...)
1. The Rise of Nationalism in Europe	• Explain the emergence and growth of nationalism in Europe. • Describe the role of liberalism, revolutions, and nation-states in shaping modern Europe. • Analyse the impact of nationalism on European politics and society.
2. Nationalism in India	• Explain the growth of Indian nationalism and the freedom struggle. • Describe the role of different movements and groups in the national movement. • Analyse the significance of the Non-Cooperation and Civil Disobedience Movements.
3. The Making of a Global World	• Explain the development of global connections through trade, migration, and technology. • Analyse the effects of globalisation on societies and economies. • Understand the historical factors that shaped the modern world.
4. The Age of Industrialisation	• Explain the process of industrialisation and its impact on production and society. • Describe changes in labour, markets, and technology. • Analyse the effects of industrial growth on different sections of society.
5. Print Culture and the Modern World	• Explain the development and spread of print technology. • Analyse the role of print in spreading ideas, education, and social reforms. • Understand the relationship between print culture and public opinion.
6. Resources and Development	• Identify different types of resources and their distribution. • Explain the importance of resource planning and conservation. • Develop awareness about sustainable resource management.

7. Forest and Wildlife Resources	• Explain the importance of forests and biodiversity. • Analyse causes of depletion of forests and wildlife. • Suggest measures for conservation and sustainable use of natural resources.
8. Water Resources	• Explain the importance and distribution of water resources. • Analyse causes of water scarcity and challenges of water management. • Understand the need for conservation and sustainable water use.
9. Agriculture	• Describe different types of farming and cropping patterns in India. • Explain factors affecting agricultural production. • Analyse challenges faced by Indian agriculture and sustainable farming practices.
10. Minerals and Energy Resources	• Identify major minerals and energy resources of India. • Explain their distribution, uses, and importance for development. • Appreciate the need for conservation and renewable energy resources.
11. Manufacturing Industries	• Explain the importance of industries in economic development. • Analyse factors influencing industrial location. • Understand the impact of industries on the environment and society.
12. Lifelines of National Economy	• Explain the importance of transport, communication, and trade networks. • Analyse the role of infrastructure in economic development. • Understand India's connectivity with national and global markets.
13. Power Sharing	• Explain the importance of power sharing in democracy. • Compare different forms of power sharing. • Understand how power sharing promotes stability and unity.
14. Federalism	• Explain the features and importance of federalism. • Describe the division of powers between different levels of government. • Understand the role of decentralisation in strengthening democracy.

15. Gender, Religion and Caste	• Explain how social differences influence society and politics. • Analyse issues related to gender inequality, religion, and caste. • Appreciate the values of equality, inclusion, and social justice.
16. Political Parties	• Explain the functions and importance of political parties. • Analyse challenges faced by political parties. • Understand the role of political participation in democracy.
17. Outcomes of Democracy	• Evaluate the achievements and limitations of democracy. • Analyse how democracy promotes accountability and dignity. • Develop informed opinions about democratic governance.
18. Development	• Explain different meanings and indicators of development. • Compare development goals of different people. • Understand the importance of sustainable and inclusive development.
19. Sectors of the Indian Economy	• Classify economic activities into primary, secondary, and tertiary sectors. • Explain employment patterns and the role of different sectors. • Understand the importance of organised and unorganised sectors.
20. Money and Credit	• Explain the functions of money and the role of financial institutions. • Understand formal and informal sources of credit. • Analyse the importance of responsible borrowing and lending.
21. Globalisation and the Indian Economy	• Explain the process and impact of globalisation. • Understand the role of multinational companies and international trade. • Analyse opportunities and challenges of globalisation.
22. Consumer Rights	• Explain consumer rights and responsibilities. • Understand consumer protection measures. • Develop awareness about informed and responsible consumer choices.

Overall Learning Outcomes

By the end of **Class 10**, learners should be able to:

- Analyse historical events, movements, and developments using timelines, maps, and various sources of evidence.
- Explain the impact of political, social, economic, and cultural changes on societies in India and the world.
- Understand the relationship between natural resources, environment, economic activities, and sustainable development.
- Interpret geographical data, maps, graphs, and diagrams to understand spatial patterns and human–environment interactions.
- Explain the functioning of democracy, political institutions, power-sharing, federalism, and the role of citizens.
- Understand economic concepts related to development, sectors of the economy, money, credit, globalisation, and consumer rights.
- Develop critical thinking, inquiry, analytical reasoning, and problem-solving skills through social science concepts.
- Appreciate constitutional values such as equality, justice, liberty, diversity, and democratic participation.
- Recognise the importance of sustainable resource use, environmental conservation, and responsible citizenship.
- Apply knowledge of history, geography, civics, and economics to understand contemporary issues and real-life situations.