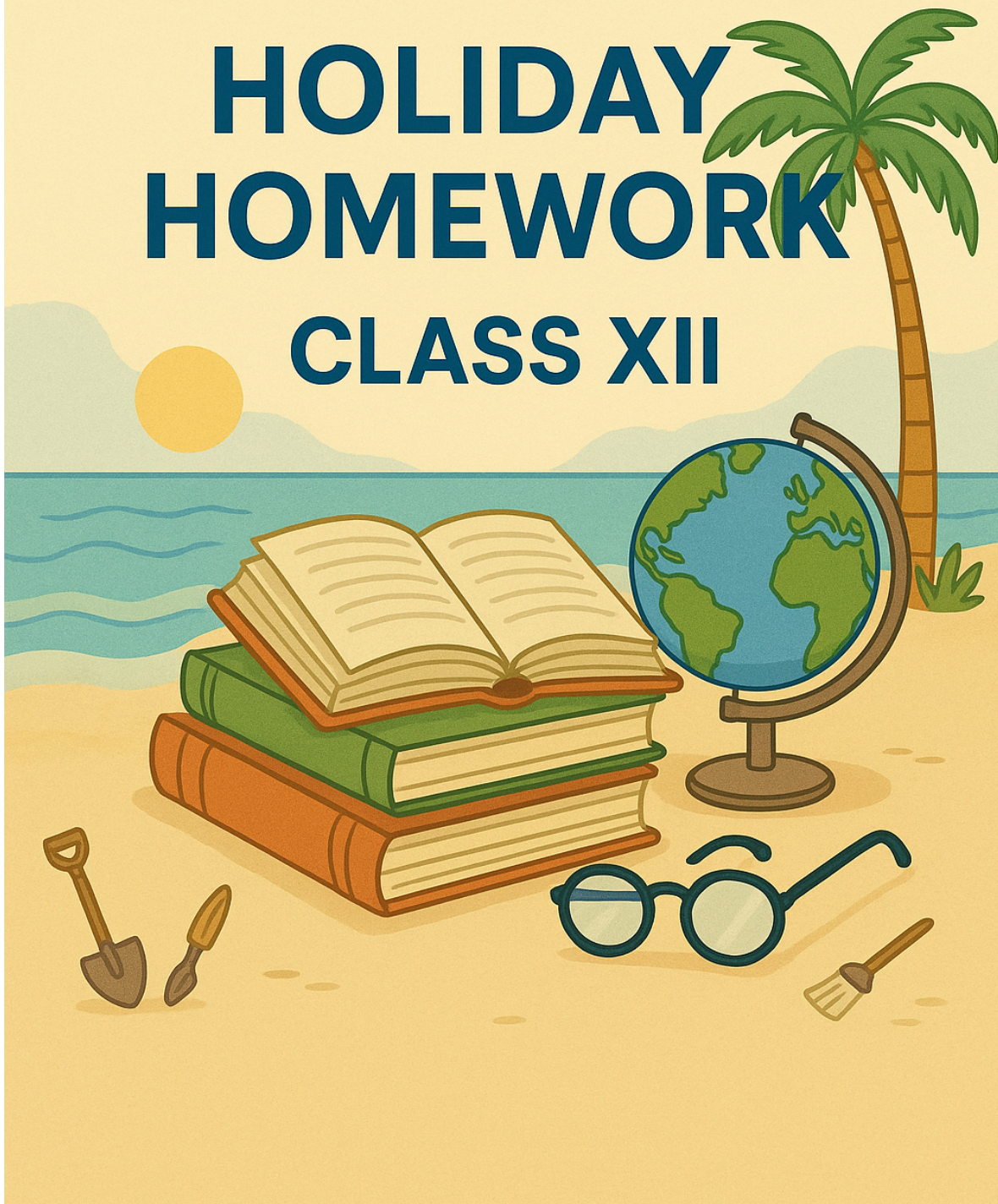


**VIVEKANAND
PUBLIC SCHOOL
HOLIDAY
HOMEWORK
CLASS XII**



Summer Vacation Homework

Instructions –

- Complete the assigned homework tasks and projects.
- Homework submission date is 4 July 25.
- Ensure that the work is neat, legible, and well-organized.
- Assignments are uploaded on Google links.
- Click the link to get subject wise assignments.

POLITICAL SCIENCE

Complete Holiday homework worksheet based on competency of Ch-1 and 2 separately on A-4 size sheet

(Worksheet attached at the end of page)

A) Political Science Project- Prepare a project according to CBSE guidelines.

Topics as discussed in the classroom.

Some suggested topics are:

1. Nation building
2. Globalization.
3. New centres of Power
4. India's relations with USA or USSR.
5. United Nations.
6. Regional Aspirations.
7. Contemporary South Asia
8. Emergency 1975
9. Recent Development in Indian Politics

INSTRUCTIONS ARE AS FOLLOWS:

1. Project must be handwritten. Print outs will not be accepted.
 2. Project to be done individually.
 3. Page Limit- 25-30 pages.
 4. Pictures must be incorporated.(On the left hand side)
 5. Assessment will be based on creativity, presentation and research work conducted by the student.
- C) Prepare a poster on 'Emergency - black day for Indian Democracy'.

ASSIGNMENTS

<https://docs.google.com/document/d/18ga0yUnaj7hpjHB6fzwGpt3aYqxc0Q4l032gYSfMlro/edit?usp=drivesdk>

https://docs.google.com/document/d/19SWffrTusGtYSMKIPmgkjTnrQl1TkeD0zqM_nvviLZs/edit

BUSINESS STUDIES

Q1. DO ANY ONE PROJECT AS PER THE GUIDELINES GIVEN BELOW

GUIDELINES FOR PROJECT OF BUSINESS STUDIES (2024-25)

I. Principles of Management

The students are required to visit any one of the following:

1. A departmental store.
2. An Industrial unit.
3. A fast food outlet.
4. Any other organisation approved by the teacher.

They are required to observe the application of the general Principles of management advocated by Fayol.

Fayol's principles

1. Division of work.
2. Unity of command.
3. Unity of direction.
4. Scalar chain
5. Esprit de corps
6. Fair remuneration to all.
7. Order.
8. Equity.
9. Discipline
10. Subordination of individual interest to general interest.
11. Initiative.
12. Centralisation and decentralisation.
13. Stability of tenure.

OR

They may enquire into the application of scientific management techniques by F.W.Taylor in the unit.

Scientific techniques of management.

1. Functional foremanship.
2. Standardisation and simplification of work.
3. Method study.
4. Motion Study.
5. Time Study.
6. Fatigue Study
7. Differential piece rate plan.

Students may use worksheets, questionnaire, interviews and organisational chart etc.

II. Marketing

Students can select any one of the following product-

1. Adhesives
2. Air conditioners
3. Baby diapers
4. Bathing Soap

5. Bathroom cleaner
6. Bike
7. Blanket
8. Body Spray
9. Bread
10. Breakfast cereal
11. Butter
12. Camera
13. Car
14. Cheese spreads
15. Chocolate
16. Coffee
17. Cosmetology product
18. Crayons
19. Crockery
20. Cutlery
21. Cycle
22. DTH
23. Eraser
24. e-wash
25. Fairness cream
26. Fans
27. Fruit candy
28. Furniture
29. Hair Dye
30. Hair Oil
31. Infant dress
32. Inverter
33. Jams
34. Jeans
35. Jewellery
36. Kurti
37. Ladies bag
38. Ladies footwear
39. Learning Toys
40. Lipstick

The identified product should not be items whose consumption/use is discouraged by the society and government like alcohol products/pan masala and tobacco products, etc.

The students are required to make a project on the identified product/service keeping in mind the following:

1. Why have they selected this product/service?
2. Find out '5' competitive brands that exist in the market.
3. What permission and licences would be required to make the product?
4. What are your competitors Unique Selling Proposition.[U.S.P.]?
5. Does your product have any range give details?
6. What is the name of your product?
7. Enlist its features.
8. Draw the 'Label' of your product.
9. Draw a logo for your product.
10. Draft a tag line.
11. What is the selling price of your competitor's product?
 1. Selling price to consumer
 2. Selling price to retailer

3. Selling price to wholesaler

What is the profit margin in percentage to the

- Manufacturer.
- Wholesaler.
- Retailer.

12. How will your product be packaged?

13. Which channel of distribution are you going to use? Give reasons for selection?

14. Decisions related to warehousing, state reasons.

15. What is going to be your selling price?

1. To consumer
2. To retailer
3. To wholesaler

16. List 5 ways of promoting your product.

17. Any schemes for

1. The wholesaler
2. The retailer
3. The consumer

13. What is going to be your 'U.S.P'?

14. What means of transport you will use and why?

15. Draft a social message for your label.

16. What cost effective techniques will you follow for your product.

17. What cost effective techniques will you follow for your promotion plan.

At this stage the students will realise the importance of the concept of marketing mix and the necessary decision regarding the four P's of marketing.

- Product
- Place
- Price
- Promotion

On the basis of the work done by the students the project report should include the following:

1. Type of product /service identified and the (consumer/industries) process involve there in.
2. Brand name and the product.
3. Range of the product.
4. Identification mark or logo.
5. Tagline.
6. Labeling and packaging.
7. Price of the product and basis of price fixation.
8. Selected channels of distribution and reasons thereof.
9. Decisions related to transportation and warehousing. State reasons.
10. Promotional techniques used and starting reasons for deciding the particular technique.
11. Grading and standardization.

Presentation and Submission of Project Report

Following essentials are required to be fulfilled for its preparation and submission.

1. The total length of the project will be of 25 to 30 pages.
2. The project should be handwritten.
3. The project should be presented in a neat folder.
4. The project report should be developed in the following sequence
 - Cover page should include the title of the Project, student information, school and year.
 - List of contents.
 - Acknowledgements and preface (acknowledging the institution, the places visited and the

- persons who have helped).
- Introduction.
- Topic with suitable heading.
- Planning and activities done during the project, if any.
- Observations and findings of the visit.
- Conclusions (summarized suggestions or findings, future scope of study).
- Photographs (if any).
- Appendix
- Teacher's observation.
- Signatures of the teachers.

ASSIGNMENTS

https://drive.google.com/file/d/19PmcUCDxVbnqoTTfB6o3uJCr5EY_lbmw/view?usp=drivesdk

PHYSICAL EDUCATION

PROJECT WORK

1. Write following in the Physical Education manual :

- Fitness tests administration. (SAI Khelo India Test)
- Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.
- One IOA recognized Sport/Game of choice. Labelled diagram of Field & Equipment. Also, mention its Rules, Terminologies & Skills

2. Prepare a flex chart for the game choose for The above game

ASSIGNMENT

<https://drive.google.com/file/d/1ytiLMkpSJ0lduigbveXS7oHLBjnPznfs/view?usp=drivesdk>

<https://docs.google.com/document/d/107CTbdf0ThwnsyGNRTFPF6KKR844xJgn/edit?usp=drivesdk&oid=111977900308964601744&rtpof=true&sd=true>

MATHEMATICS

General Instructions for Mathematics Lab Manual – Class 12

1. Neatness and Presentation: Write all given activities neatly in your lab manual notebook. Use proper headings and subheadings (e.g., Aim, Materials Required, Procedure, etc.). Diagrams must be drawn with a pencil, using geometry instruments wherever needed.
2. Materials Required: Always bring your geometry box, graph papers, pens, pencils, ruler, eraser, and calculator (if allowed). Keep your lab manual updated and bring it to every lab class.
3. Understanding the Concepts: Read the theory behind each activity before performing it. Understand the mathematical concepts being verified or demonstrated. Ensure that you follow each step logically and record your observations accurately.
4. Participation and Conduct: Maintain discipline and silence during lab sessions. Perform the activity individually or in assigned groups as instructed by the teacher. Seek help only after attempting the procedure yourself.
5. Submission Guidelines: Complete all activities in the prescribed format. Get each activity checked and signed by the teacher after completion. Submit the manual on time for internal assessment.
6. Safety and Responsibility: Handle geometry tools and materials carefully. Take responsibility for keeping your working area clean and organized.

ASSIGNMENT

<https://drive.google.com/drive/folders/1ytQx5Rk1pQKx1g28dJ1001rIN4Arv6kn>

APPLIED MATHEMATICS

Applied Maths Project – Instructions for Students

Objective: To apply mathematical concepts and methods to real-life situations, analyze data, and present findings clearly and accurately.

Project Title: You can choose a specific theme e.g., "Plot the graphs of functions on excel and study the graph to find out the point of 'maxima/minima,'" "Probability and dice roll simulation," "Statistics in Sports," "Stock Market data sheet on excel," etc.(List of projects already given)

Instructions:-

1. **Choose a Topic:** Select a real-world problem or situation where you can apply mathematical concepts (algebra, geometry, statistics, probability, etc.).
2. **Define the Problem:** Write a brief introduction explaining the context of your project and what you aim to find out or solve.
3. **Collect Data:** Gather real or estimated data relevant to your topic. You may use surveys, online sources, or direct observation.
4. **Apply Mathematical Tools:** Use appropriate mathematical methods to analyze the data or solve the problem. Show all your workings and calculations clearly.
5. **Interpret Results:** Explain your findings in simple language. What do the results tell you about the situation?
6. **Use Visual Aids:** Include graphs, tables, charts, or diagrams where applicable to support your analysis.
7. **Conclusion:** Summarize what you learned and how mathematics helped in understanding or solving the problem.
8. **Format:** Cover page with project title, your name, roll number, and class. Typed or neatly handwritten. Organized into sections (Introduction,

Data, Calculations, Results, Conclusion, References).

9. Submission Date: (Set a deadline — e.g., "Submit by 4th July 2025")

10. Assessment Criteria: Relevance of topic, Accuracy of calculations, Clarity of explanation, Use of visuals, Overall presentation

ASSIGNMENT

<https://drive.google.com/drive/folders/1ytQx5Rk1pQKx1g28dJ1001rIN4Arv6kn>

ECONOMICS

Guidelines for Project Work in Economics (Class XII)

The objectives of the project work are to enable learners to:

- 1) probe deeper into theoretical concepts learnt in classes XI and XII
- 2) analyse and evaluate real world economic scenarios using theoretical constructs and

3) arguments demonstrate the learning of economic theory

4) follow up aspects of economics in which learners have interest

5) develop the communication skills to argue logically

The expectations of the project work are that: learners will complete only ONE project in

each academic session project should be of 3,500–4,000 words

(excluding diagrams & graphs), preferably hand-written, it will be an

independent, self-directed piece of study

Role of the teacher: The teacher plays a critical role in developing thinking skills of the learners.

A teacher should: help each learner select the topic based on recently

published extracts from the news media, government policies, RBI

bulletin, NITI Aayog reports, IMF/World Bank reports etc., after detailed

discussions and deliberations of the topic play the role of a facilitator

and supervisor to monitor the project work of the learner through

periodic discussions guide the research work in terms of sources for

the relevant data educate learner about plagiarism and the importance

of quoting the source of the information to ensure authenticity of

research work prepare the learner for the presentation of the project

work arrange a presentation of the project file

Scope of the project: Learners may work upon the following lines as a suggested flow chart:

- Choose a title/topic
- Collection of the research material/data

- Organization of material/data
- Present material/data
- Analysing the material/data for conclusion
- Draw the relevant conclusion
- Presentation of the Project Work Expected Checklist: Introduction of topic/title Identifying the causes, consequences and/or remedies Various stakeholders and effect on each of them.

Suggestive List of Projects:

Class XII Effect on PPC due to various government policies Invisible Hand (Adam Smith)

Opportunity Cost as an Economic Tool (taking real life situations)

Effect of Price Change on a Substitute Good (taking prices from real life visiting local market)

Effect on equilibrium Prices in Local Market (taking real life situation or recent news)

Effect of Price Change on a Complementary Good (taking prices from real life visiting local market) Solar Energy, a Cost Effective

Comparison with Conventional Energy Sources Bumper Production- Boon or Bane for the Farmer Any other newspaper article and its evaluation on basis of economic principles

ASSIGNMENT

<https://docs.google.com/document/d/1GnpZZDSD7UJ0TJ0OmRS7mvB2dbMQQggc/edit?usp=drivesdk&oid=107276887443946514845&rtpof=true&sd=true>

<https://docs.google.com/document/d/1GZbH4usbr5nDPI-bf9AVNr9f9IYGWvoYC/edit?usp=drivesdk&oid=107276887443946514845&rtpof=true&sd=true>

ACCOUNTANCY

Project Work One specific project based on financial statement analysis of a company covering any two aspects from the following:

1. Comparative and common size financial statements
2. Accounting Ratios
3. Segment Reports
4. Cash Flow Statements

OR

Part B: Computerised Accounting

Unit 4: Computerised Accounting Overview of Computerised Accounting System • Introduction: Application in Accounting.

- Features of Computerised Accounting System.
- Structure of CAS.
 - Software Packages: Generic; Specific; Tailored. Accounting Application of Electronic Spreadsheet
- Concept of electronic spreadsheet.
- Features offered by electronic spreadsheet.
- Application in generating accounting information – bank reconciliation statement; asset accounting; loan repayment of loan schedule, ratio analysis
- Data representation– graphs, charts and diagrams. Using Computerized Accounting System.
 - Steps in installation of CAS, codification and Hierarchy of account heads, creation of accounts.
 - Data: Entry, validation and verification.
 - Adjusting entries, preparation of balance sheet, profit and loss account with closing entries and opening entries.
 - Need and security features of the system.

ASSIGNMENT:

<https://docs.google.com/document/d/10nAtx-XsAQnZ456SOPcfen->

[d2gKUCJ5w/edit?usp=drive_link&oid=105382473118874823041&rtpof=true&sd=true](https://docs.google.com/document/d/1IPrB7eUa05bDsASi_82WOMpKyZ0tjR6J/edit?usp=drive_link&oid=105382473118874823041&rtpof=true&sd=true)

https://docs.google.com/document/d/1IPrB7eUa05bDsASi_82WOMpKyZ0tjR6J/edit?usp=drive_link&oid=105382473118874823041&rtpof=true&sd=true

BIOLOGY

Prepare a project based on your syllabus.

- Project should contain following parts..
- -Topic of the project
- - Objective/ Importance of the selected topic
- - Methodology
- - case study/ Interview/ supporting study
- - Observations
- - Conclusion/ Learning
- - Bibliography

B. Prepare your practical record and complete all practicals in it.

C. Complete the given assignments in homework notebook.

ASSIGNMENT

<https://docs.google.com/document/d/1BJTjStc9YXQvyAqRDhY2euhEOgoZp7q1nPA1cCVKtl4/edit?usp=drivesdk>

https://docs.google.com/document/d/17_UXzezGsguGUufPDvq7tudqGHDTeSYa/edit?usp=drivesdk&oid=106260477561359092012&rtpof=true&sd=true

HISTORY

GUIDELINES FOR THE HISTORY PROJECT

OBJECTIVES: -

Project work will help students:-

- To develop skills to gather data from a variety of sources investigate diverse viewpoints and arrive at logical deductions.
- To develop skills to comprehend, analyze, interpret, evaluate historical evidence and also understand the limitations of historical evidence.
- To develop 21st century managerial skills of co- ordination, self-direction and time management.

While crafting your project, you must follow this specified format:

1. Cover Page: Topic and Pic related to it
2. 1 page - Student information, Name , class ,Roll no - (Board no) School name and year.
3. Index (List of Contents)
4. Acknowledgement.
5. Rationale- . Clearly state the purpose of the report and explain why it is necessary. .
6. Introduction.
7. Topic with a Unique Title/Heading.
8. List of activities and planning done to gather information about the project (If any)
9. Conclusion
10. Bibliography

Paste pic on the left hand page only.

Good historical projects are based on primary sources.

The most common primary sources are written documents. They can also include photographs, paints, sculpture, architecture, oral interviews, statistical tables, bar graphs, anecdotes and even geography.

- it should have 10 to 15 pages.
- It should be handwritten.

ASSESSMENT

ALLOCATION OF MARKS (20)

Project synopsis. (2)

Data/Statistical analysis/Map work (3)

Visual/overall presentation (5)

Analysis/explanation and interpretation (5)

Bibliography. (1)

Viva. (4)

TOTAL. 20 MARKS

* Do the assignments in your history register.

* Do map work in the political map of India.

ASSIGNMENT

<https://drive.google.com/drive/folders/1xMLw2F078ehpv8BxOiOSZxYmZ5iebLAp?usp=sharing>

ENGLISH

Q1. Complete the project taking ideas from the guidelines given below. It has to be made on A4 sized sheets and to be enclosed in a beautiful file.

Q2. Complete the assignment given below in your English notebooks.

SUGGESTIONS FOR PROJECT WORK:

The Project can be inter-disciplinary in theme. The students must take any one of the techniques given below as a methodology of project work

a) Interview-Based Research:

Students can choose a topic and conduct interviews with a few neighbors/friends/acquaintances etc. on the topic. For that the student will frame questions based on the preliminary research/background and then he will then write an essay/ write up / report etc. up to 1000 words on his/her research and submit it.

b) Audio/ Video based Research:

Students can listen to podcasts/ interviews/radio or TV documentary on a topic and prepare a report countering or agreeing with the speakers. Write an 800 - 1000 words report and submit

The ideas/issues highlighted in the chapters/ poems/ drama given in the prescribed books can be developed in the form of a project with the suggestive sub topic given below.

Kindly refer to Project guidelines and the Parameters of Assessment while making the project.

LIST OF TOPICS/THEMES

I) THE LAST LESSON- FREEDOM OF SPEECH AND EXPRESSION

- a) Linguistic chauvinism
- b) Importance of Language
- c) Globalization of Language
- d) Franco-Prussian War
- e) Historical References of Events wherein linguistic identity was threatened/snatched

II) LOST SPRING-LIFE IN A SLUM

- f) Research and case study of a slum.
- g) Life of the people in a slum
- h) Education

- i) Health and Infrastructure
- j) Government Initiatives
- k) Role of youth in the upliftment of the weaker sections of the society
- l) Comparative Study of Slums
- m) Slums of yesterday turned to cities of today.

III) DEEP WATER- PHOBIA

- a) Phobias and fears of people.
- b) Psychological and emotional impact.
- c) How to overcome.
- d) Impact on one's life and society
- e) Case Study

IV) RATRAP-THE STUDY OF CRIME AND CRIMINALS

- a) Circumstances that lead to crime.
- b) Case Study
- c) Corrective Measures
- d) Impact of Criminal Behaviors on Society
- e) How to bring them into mainstream.
- f) Attitude of society towards criminals.

V) INDIGO

- a) Condition of Farmers in Champaran -Then and Now
- b) Farm Bill Agitation
- c) Gandhi's Contribution
- d) Other Political Leaders who brought about a change in the lives of farmers.
- e) Farmer Protection Laws in India
- f) Condition of Farmers in India vis-a-vis world.
- g) Future Prospects-Growth-Suggestions

VI) THE ENEMY- WAR AND PEACE

- a) To maintain peace, we need to go to war.
- b) Impact of War on Society

- c) Predicament of War
- d) Escapism and Depression due to war.
- e) Stance of the Political Lobby and Civilians.

VII) SHOULD WIZARD HIT MOMMY-INSIGHT TO PARENTHOOD

- a) Evolving Parenthood
- b) Problems faced by parents
- c) Teaching moral values
- d) Generation Gap
- e) Identity Crisis
- f) Role of Joint and Nuclear Families
- g) Dilemmas of a parent.

VIII) ON THE FACE OF IT- DISABILITY

- a) Coping with disability
- b) Society's attitude towards disability
- c) Struggles of a disabled person
- d) Laws for the disabled
- e) Government policies for the betterment of the disabled.
- f) Need of inclusion of the disabled in the mainstream society.

IX) TOPICS BEYOND BOOKS

- a) The Population Control Bill is the Right Step Forward.
- b) Unrestrained Freedom of Speech and Expression is the Pillar of Progressive Society.
- c) Fulfilment of new woman in India is a Myth.
- d) Where Humanity Fails, Pandemic Occurs
- e) Peace is Both a Right and Duty.
- f) Designer Babies- a Boon or Bane
- g) Should Healthcare and Medicine be Provided Free by the Government?
- h) Childhood Vaccinations should be Compulsory.
- i) Populism is a threat to Democracy.
- j) People should not have more than two children.

- k) People are the Gender They Choose.
- l) Euthanasia-a Right to Death
- m) Is Masculinity a Problem to overcome?
- n) Juveniles should be tried and tested as adults.
- o) Objectification of women in society.
- p) There is a need to restore Net Neutrality.
- q) Legalize the Sale of Human Organs.
- r) Paperless Currency-the future of the World Economy.
- s) Sports Scenario of India - Do players or owners make a team?
- t) Should we determine the team greatness with championship?
- u) OTT platform vs. Conventional Cinema
- v) NEP 2020

PROJECT LAYOUT

SHEET 1 - Cover Page with title, school details, details of students

SHEET 2 - Statement of purpose/ Objective/ Goal

SHEET 3 - Certificate of Completion under the guidance of the teacher.

SHEET 4 - Action Plan

- a) 3-4 lines about the project.
- b) Research Tools and Methodology.
- c) Supporting Material-AV Aids/ PPT

SHEET 5 - Introduction of the Project.

SHEET 6 -

- a) Supporting Material
- b) Questionnaire
- c) Case Study
- d) Assignments
- e) Survey Report
- f) Transcripts
- g) Articles
- h) Interview

SHEET 7 - REPORT

800-1000-word essay/script/report

SHEET 8 - STUDENT/GROUP REFLECTION

100-150 words paragraph about the experience and learning outcomes

SHEET 9 - PHOTOGRAPHS

SHEET 10 - LIST RESOURCES/ BIBLIOGRAPHYY

Q-2- Do the Following assignment in your class Note book neatly:

Assignment-I

<https://drive.google.com/file/d/1jyl356T2PsZuhY8Y7Pl1GoW-E2DfIUAE/view?usp=sharing>

Assignment-II

<https://drive.google.com/file/d/1G3JU3a5V-fM2gzfnGSAjDkbbkAF7CdOh9/view?usp=sharing>

COMPUTER SCIENCE

Project Work

Guidelines for Project work

The aim of the class project is to create something that is tangible and useful **using Python file handling/ Python-SQL connectivity**. This should be done in groups of two students.

Students are encouraged to visit local businesses and ask them about the problems that they are facing. For example, if a business is finding it hard to create invoices for filing GST claims, then students can do a project that takes the raw data (list of transactions), groups the transactions by category, accounts for the GST tax rates, and creates invoices in the appropriate format. Students can be extremely creative here. They can use a wide variety of Python libraries to create user friendly applications such as games,

software for their school, software for their disabled fellow students, and mobile applications, of course to do some of these projects, some additional learning is required; this should be encouraged. Students should know how to teach themselves. The students should be sensitized to avoid plagiarism and violations of copyright issues while working on projects. Some sample project ideas are given below:-

Mental Health Tracker

- Users log daily moods, journal entries, and habits. The system suggests coping strategies using stored SQL data.

NGO Donation Management System

- Track donors, donation amounts, and projects funded by donations.

Freelancer Work Log

- Freelancers can record completed tasks, hours worked, payment received, and client details.

Recipe Recommendation System

- Store recipes, ingredients, and dietary tags in SQL; allow users to search by ingredient or dietary preference.

Local Event Management System

- Organizers can create events and users can register or RSVP; all records stored in SQL.

Parking Lot Management System

- Tracks entry and exit of vehicles, available slots, and generates reports for daily usage.

Fitness Club Membership System

- Manage member details, workout plans, attendance, trainer schedules.

College Club Mgmt System

Students can register for clubs, post events, and log participation, with admin approval system.

Online Voting System for School Elections

- Students log in to vote, one vote per user, results tallied and displayed securely.

Pet Adoption Center System

ASSIGNMENT

<https://drive.google.com/file/d/1jWhdgEWgcxniwK9b6xjiYX7gll7gAc9z/view?usp=sharing>
<https://drive.google.com/file/d/1zaPVXZtjZTTYTNH9zLVPsxE5bzaEcVxq/view?usp=sharing>

CHEMISTRY

(1) Prepare project report as per the guidelines

Your project should have the following elements:

- Synopsis - This is a summary of your idea and should include the purpose of the experiment, procedure used, data, and conclusion
- Research paper - A research paper should be prepared and must be available along with the project data book with relevant written material. A research paper helps organize data as well as thoughts. A good paper includes the following sections:
 - Title page - Centre the project title, and put your name, address, and school
 - Aim / Objective - The introduction sets the stage for your report. The aim includes your hypothesis, an explanation of what prompted your research and what you hoped to achieve.
 - Scientific Principle Involved - In this section describe the principal involved.
 - Material Used - List all the items used here this will help you in working out the final cost.
 - Method - This section describes how you did the study. Describe in detail the methodology used to collect

your data or make your observations. Your report should be detailed enough for someone to be able to repeat the experiment. Include photographs or drawings of self-designed equipment. The research work conducted by you may have taken more than a year. In such case, include this year's work only.

➤ Discussion - This is the essence of your paper. The results and conclusions should flow smoothly and logically from your data. Be thorough. This should let the reader know exactly what you did, compare your results with theoretical values, published data and expected results. Include a section of possible errors. How did the data vary between repeated observations of a similar event? How were your results affected by uncontrolled events? What would you do differently if you were to repeat this project? What other experiments should be conducted?

➤ Conclusion - This section describes the findings and conclusion of the project. Briefly summarize your results. Be specific, do not generalize. Never introduce anything in the conclusion that has not been discussed.

➤ Further scope of project - This is a step further; here you describe the future scope of your experiment.

➤ Acknowledgement - You should always give credit to those who assisted you; they may be individuals, educational or research institutions ➤ Reference list - Your reference list should include any documentation that is not your own (i.e. books, journal articles, include specific internet url's).

For help you can click on the following link

<https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/classXI/chemistry/kelm208.pdf>

List of Project according to Roll Number and class wise

S No.	Topics	Roll No of XII-A, B & F
1.	Effect of Potassium Bisulphate as a food preservative	1, 34
2.	Quantity of the presence of casein in different samples of milk	2
3.	Extraction of various essential oils present in Ajwain (Carum), Illaichi (Cardamom), and Saunf (Fennel Seeds)	3, 35
4.	Paper chromatography	4
5.	Nano-gold for Cancer Therapy	5, 36
6.	Electrolyte turns on the solar cell	6
7.	Effects of Dye on different types of fabric	7, 37
8.	Comparative study of the rate of fermentation in the following substances- potato juice, wheat flour, carrot juice, gram flour, etc.	8
9.	Common food adulterants in fat, butter, oil, turmeric powder, pepper, chili powder, sugar, etc.	9, 38
10.	Removal of alcohol from the body through Esterification	10
11.	Sterilization of water using bleaching powder	11, 39
12.	Analysis of fertilizer	12
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14.	Preparation of Toilet Soaps	14, 41
15.	To Prepare a Smoke Bomb	15, 42
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20.	Measurement of the diffusion coefficient in liquids	20
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23.	Catalytic decomposition	23
24.	Presence of pesticides and insecticides in fruits and vegetables	24, 47
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27.	Determining the amount of phosphate in detergents	27
28.	Preparation of Potash Alum	28, 50
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31.	Extraction of Nicotine Sulphate from Samples of Cigarettes	31
32.	Using Zeolites as a Fertilizer	32
33.	Formation Of Biodiesel	33

ASSIGNMENT

https://drive.google.com/drive/folders/1aDLiPkUs5oyE_CJT-t3bVQeIDzBT5v-T

PHYSICS

(1) Prepare project report as per the guidelines

Your project should have the following elements:

- Synopsis - This is a summary of your idea and should include the purpose of the experiment, procedure used, data, and conclusion
- Research paper - A research paper should be prepared and must be available along with the project data book with relevant written material. A research paper helps organize data as well as thoughts. A good paper includes the following sections:
 - Title page - Centre the project title, and put your name, address, and school
 - Aim / Objective - The introduction sets the stage for your report. The aim includes your hypothesis, an explanation of what prompted your research and what you hoped to achieve.
 - Scientific Principle Involved - In this section describe the principal involved.
 - Material Used - List all the items used here this will help you in working out the final cost.
 - Method - This section describes how you did the study. Describe in detail the methodology used to collect your data or make your observations. Your report should be detailed enough for someone to be able to repeat the experiment. Include photographs or drawings of self-designed equipment. The research work conducted by you may have taken more than a year. In such case, include this year's work only.
 - Discussion - This is the essence of your paper. The results and conclusions should flow smoothly and logically from your data. Be thorough. This should let the reader know exactly what you did, compare your results with theoretical values, published data and expected results. Include a section of possible errors. How did the data vary between repeated observations of a similar event? How were your results affected by uncontrolled events? What would you do differently if you were to repeat this project? What other experiments should be conducted?
 - Conclusion - This section describes the findings and conclusion of the project. Briefly summarize your results. Be specific, do not generalize. Never introduce anything in the conclusion that has not been discussed..
 - Acknowledgement - You should always give credit to those who assisted you; they may be individuals, educational or research institutions
- Reference list - Your reference list should include any documentation that is not your own (i.e. books, journal articles, include specific internet url's).

For help you can click on the following link

<https://www.slideshare.net/slideshow/cbse-class-xii-physics-investigatory-project/72684792>

Suggested Investigatory Projects

1. To study various factors on which the internal resistance/EMF of a cell depends.
2. To study the variations in current flowing in a circuit containing an LDR because of a variation in (a) the power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the lamps at a fixed)
(b) the distance of a incandescent lamp (of fixed power) used to 'illuminate' the LDR.
3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equiconvex lens (made from a glass of known refractive index) and anadjustable object needle.
4. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer.
5. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids.
6. To estimate the charge induced on each one of the two identical Styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law.
7. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor/(bulb) in a circuit fed up by an A.C. source of adjustable frequency.

ASSIGNMENT:
<https://drive.google.com/file/d/15mpkJJ4oHhq0IFROobEkrVinj5zqkr0/view?usp=drivesd>
<https://drive.google.com/file/d/15mYOLImyxaXP4Sp57xzC9FG2o9kux6AP/view?usp=drivesdk>

SEWA PROJECT 2025-26



1CBSE SEWA (Social Empowerment through Work Education and Action)

Theme: Caring for the Elderly

Title of the Project:

Compassion in Action: Supporting Our Elders

Objective:

To foster empathy and respect for the elderly by engaging students in meaningful interactions and support activities that contribute to their emotional and social well-being.

Planning and Preparation:

The student planned visits to a local old age home and also spent time with elderly neighbours. Activities included reading aloud, helping with small chores, and having conversations to reduce loneliness.

Place: Local Old Age Home and Neighbourhood

Materials: Books, board games, home-cooked snacks, notebook for documenting experiences

Execution/Implementation:

The student visited the old age home thrice and spent time with elderly residents, listening to their stories, playing games, and helping them write letters to family members. At home, the student helped an elderly neighbour with grocery shopping, arranging medicines, and shared tea-time talks.

Reflections:

Through these interactions, the student developed a deep sense of empathy and respect for the elderly. It was humbling to see their resilience and hear their life experiences. The activity fostered patience and enhanced communication skills. It also made the student more aware of the challenges faced by the elderly, especially those living alone.

Photographs:

1. Student playing board games with a resident at the old age home
2. Reading session with a senior citizen
3. Helping an elderly neighbour arrange her bookshelf
4. A group photo from the old age home visit

Acknowledgements:

I would like to thank my school for giving me this opportunity, the staff of the old age home for their support, and the elderly individuals who welcomed me so warmly and shared their time and stories with me.