



BRILLIANTS' CONVENT

CLASS-XI
2026-27

SUMMER HOLIDAY HOMEWORK



Class-XI English

1. Hidden Stories of Sikkim

Every place holds stories that are not immediately visible. Inspired by this idea, create a “*Hidden Story Flip Card*” or a *Mini Booklet* based on an untold story from Sikkim.

Your work should include:

- a. A short creative piece (120–150 words) based on one idea:
 - A traveller’s experience near Nathula Pass or any other important geographical location.
 - A hidden mystery in the mountains or monastery
 - A local legend or an imagined story
 - Nature narrating its own story
- b. A creative element such as a flap, fold, or hidden message that reveals part of the story.

Guidelines:

- Try to use recycled materials and make it creative, neat and presentable.
- Add a suitable title to your work.
- Mention your Name, Class, and Section clearly.

Q2. Design Your Own Word Game

Language becomes powerful when we play with it. Inspired by the rich vocabulary, themes, and expression in your Class XI English syllabus (Hornbill & Snapshots), design your own interactive word game that helps improve vocabulary and language skills in a fun way.

Create a small, playable word game using any one format:

- Vocabulary Cards
- Guess-the-Word Game
- Synonym/Antonym Battle
- Board Game or Quiz Game

Note: choose your own format, but the game must be engaging and easy to play.

REQUIREMENTS:

- a. Game Content
 - Include at least 15–20 words
 - Words should be:
 - Relevant to Class XI level
 - Inspired by themes from your syllabus (e.g., relationships, travel, emotions, identity)

2. Rules of the Game

- Number of players
- How the game begins
- How players move/play
- How a player wins

Instructions:

- Submit your game (cards/board/material) and a written sheet containing all the rules and rewards.
- Mention your name, class and section clearly.
- You can submit this as a group task (max 3 students in the group).

Physics

Create a Technical Illustration of a traditional Sikkimese house designed for cold climates. Use arrows and color coding (Red for hot, Blue for cold) to show Conduction, Convection, and Radiation. Calculate the efficiency of "passive solar heating" in these structures. Explain how the material (wood/mud) acts as an insulator to maintain thermal equilibrium.

Chemistry

1. Write an article on - How climate change affects Himalayan regions like Sikkim:

- Melting glaciers
- Landslides and floods
- Effect on water resources
- How chemistry helps in environmental protection

Include:

- Newspaper clipping or printed image
- One preventive solution

2. Prepare an investigatory project on a research based topic discussed with the teacher.

Investigatory project topics

Environment & Green Chemistry

1. Study of methods of purification of water
2. Comparative study of tap water, RO water and river water
3. Checking pH of rainwater in different areas
4. Study of biodegradable and non-biodegradable substances
5. Effect of detergents on water pollution
6. Eco-friendly plastics and green chemistry
7. Study of acid rain and its effects on monuments

Food Chemistry

8. Detection of food adulterants in daily food items
9. Comparative study of packaged and fresh fruit juices
10. Study of preservatives used in jams and pickles
11. Estimation of vitamin C in different fruit juices
12. Analysis of acidity in soft drinks
13. Study of ripening of fruits using chemicals
14. Study of common adulterants in milk, ghee and spices

Daily Life Chemistry

15. Comparative study of commercial antacids
16. To study the foaming capacity of soaps
17. Study of the cleansing action of different detergents
18. Preparation of herbal soap and comparison with market soap
19. Study of rate of evaporation of different liquids
20. Effect of acids and bases on fabric/fibres
21. Preparation of natural indicators from flowers and turmeric

Organic Chemistry Based Topics

22. Extraction of essential oils from clove, cardamom or orange peel
23. Preparation of soybean milk and comparison with natural milk
24. Extraction of natural dyes from flowers and leaves
25. Preparation of perfumes using flowers
26. Study of fermentation in food items
27. Comparative study of starch content in potatoes/rice/wheat

Biology

1. Revise the syllabus covered in class.
2. Prepare an Investigatory Project on a research-based topic discussed with the teacher.

Investigatory Project Topics

- Effect of Music on Plant Growth
- Study of Microorganisms in Curd
- Water Quality Testing of Different Sources
- Human Heart Working Model
- Blood Group Detection Study
- Compost Formation and Decomposition
- Hydroponics vs Soil Plant Growth
- Study of Food Adulteration
- Medicinal Plants and Their Uses
- Effect of Light on Seed Germination
- Menstrual Hygiene Awareness Survey
- DNA Model Preparation
- Artificial Ecosystem (Terrarium/Aquarium)
- Mosquito-Borne Diseases Awareness Project
- Balanced Diet Chart for Teenagers
- Plastic Pollution and Its Impact on Living Organisms
- Comparative Study of Plant Cells and Animal Cells
- Study of Pulse Rate Before and After Exercise
- Vermicomposting Project
- Biodiversity Study of Local Area
- Forensic Science: Fingerprint Detection and Analysis

Project Report Format

- Front Page / Cover Page
 - Certificate
 - Acknowledgement
 - Table of Contents
 - Objective / Aim of the Project
 - Introduction / Theory
 - Materials Required
 - Procedure
 - Observation / Result
 - Analysis and Interpretation
 - Precaution
 - Conclusion
 - Bibliography / References
3. Prepare a blog on the Biodiversity of including:
- Habitat
 - Diversity of Plants
 - Diversity of Animals

Mathematics

1. Use information about the state of Sikkim – districts or regions, languages, tourist activities, flora & fauna, and demographics—to answer the following. Show all working and state any assumptions you make.
 - a. Write Finite, infinite, empty & singleton sets for the following:
Set of airports in Sikkim.
 - b. Set of natural numbers n such that n tourists visited Sikkim in year 2024.
 - c. Set of coral species endemic to Sikkim.
2. State whether two sets are equal or not:
 $A = \{ x : x \text{ is a letter in the word Sikkim} \}$
 $B = \{ y : y \text{ is a letter in the word Sikkim} \}$
3. Let S be the set of all distinct letters in the word "Gangtok" (the capital of Sikkim).
 1. Write the set S in Roster Form.
 2. Write the set S of vowels present in the name "Sikkim" in Set-Builder Form.

Accountancy

1. Prepare a project consisting of a comprehensive problem which will include
 - a. Journal
 - b. Ledger
 - c. Trial Balance
 - d. Trading Account
 - e. Profit and Loss Account
 - f. Balance Sheet
2. Take a balance sheet of a successful business of Sikkim and then classify its different types such as current liabilities, intangible assets, non-current assets etc.
3. Revise the syllabus covered in class.

Business Studies

1. Prepare a project on the topic that is allotted according to your roll number.
 - Banking --- Roll no. 1 to 18
 - Insurance --- Roll no. 18 to 36
2. Take any one business organisation of Sikkim and identify its form like partnership firm, private company, public company, cooperative society, sole proprietorship, HUF etc. Also mention its features, merits and demerits.
3. Revise the syllabus covered in the class

Economics

1. Revise the syllabus covered in the class
2. Prepare a project on the topic that is allotted according to your roll number.
 - SAMPLE AND CENSUS METHOD- Even roll numbers
 - PRESENTATION OF DATA- Odd roll numbers
3. Prepare flash cards on classification of Economic Activities i.e., Agriculture, Industry, Trade, Tourism, Infrastructure, Facilities etc of Sikkim on A-3 Size sheet.

Political Science

1. Complete the following activities neatly in your Political Science Notebook.

Roll No	Topic
1 – 3	Mobile-Free Challenge: Stay without a mobile phone for 24 hours and write on: <i>“Freedom vs Dependency”</i>
4 – 6	Constitution in Real Life Explain any ONE Constitutional Article (14, 19 or 21) with a real-life example.
7 – 9	Family Interview Activity: Interview your elders on: <i>“Politics Earlier and Politics Today”</i>
10 – 11	Life Survival & Citizenship Manual Include: <ul style="list-style-type: none">• Emergency contacts• First aid basics• Citizen duties• Online safety• Disaster survival tips

2. Practical File Work

Roll No	Topic
1 – 4	Constitution: Why and How?
5 – 7	Rights in the Indian Constitution
8 – 9	Election and Representation
10 – 11	Legislature: Parliament of India

Guidelines

- Handwritten work only
- Cover page and index compulsory
- Use headings, pictures, charts and newspaper cuttings
- Include an introduction, content, a conclusion and a bibliography
- Minimum 10–12 pages
- Maintain a neat and creative presentation

Computer Science / Informatics Practices

1. Design a Poster Campaign: “AI for Good”

Create a poster that promote how AI can help with global issues (climate change, hunger, education). Use art, slogans, facts, and make it visually appealing.

2. Do the following questions on A-4 size sheets

- Write a program to input three numbers from user. Swap their values in such a way that second variable carries double of itself, third variable carries three times of first variable. Print new values.

Write a program to find the volume of sphere. (Accept radius from user)($V = \frac{4}{3} \pi r^3$)

- Write a program to input weight in kg from user. Convert it into milligram. Print it.
- Write a program to accept first name and last name from user and display full name.

3. Identify the invalid variable names from the following and specify the reasons also:

m_n	Unit_day	24Apple	#sum
for	S name	For	Name

4. Write the output of the following:

- `print("hello * 5")`
- `print("hello" * 5)`
- `print("Hello", "how", "R", "U")`
- `print("Hello"+"how"+"R"+"U")`
- `print("Anuj"+"Sethi")`
- `print(23+9)`
- `print("23+9")`
- `print(7/6)`
- `print(7//6)`
- `print(8%2)`
- `print(3%7)`
- `print(4**3)`
- `print(7*5)`
- `print(8-15)`

3. Revise topics taught till now and do complete the work in your notebook/ file.

Note: E-mail your homework

Hindi

1. सिक्किम और दिल्ली का संक्षिप्त परिचय लिखिए। निम्न बिंदुओं के आधार पर—
 - भौगोलिक स्थिति
 - जलवायु
 - प्रमुख भाषाएँ
 - वेशभूषा
 - प्रसिद्ध पर्यटन स्थल
2. यात्रा-ब्रोशर (**Travel Brochure**) सिक्किम पर्यटन विभाग की ओर से एक आकर्षक हिंदी ब्रोशर तैयार कीजिए जिसमें—
 - घूमने योग्य स्थान,
 - यात्रा का सही समय,
 - प्रसिद्ध भोजन,
 - सावधानियाँ, आदि का उल्लेख हो।
3. रचनात्मक लेखन - “यदि दिल्ली और सिक्किम आपस में बात करते...” इस विषय पर मानवीकरण शैली में **200** शब्दों का रोचक लेख लिखिए।
4. डिजिटल प्रस्तुति (**Optional**)
यदि संभव हो तो **PowerPoint/Canva** पर **5** स्लाइड्स की प्रस्तुति तैयार करें—
 - दिल्ली का परिचय
 - सिक्किम का परिचय
 - सांस्कृतिक विविधता
 - प्राकृतिक सुंदरता
 - निष्कर्ष

Physical Education

1. Make the project files as per the topics discussed in the class.
2. Revise the entire syllabus covered so far in the class.