



**GREEN FIELDS SCHOOL
A-2, SAFDARJUNG ENCLAVE
NEW DELHI – 110029**

**CLASS X
HOLIDAY HOMEWORK
(2026-27)**

Dear Students,

Vacations are time to relax, recreate, recharge, reinvent and rejuvenate. Children, this summer vacation, let us all plan to spend more time with family and friends, utilise the leisure time to the fullest and contribute your maximum to save our environment, heritage and culture.

Children, your teachers have made your work easier by presenting to you all an Interdisciplinary, Project Based, Art Integration oriented holiday homework.

We expect you all to complete your holiday homework with utmost sincerity and to present an original work by the wonderful individual you are.

Happy Holidays! Stay Blessed.

Principal



ENGLISH

Activity - 1: Relating Ek Bharat Shreshth Bharat programme (Art Activity)

Dilli to Gangtok: Travel Brochure

(Skill: Research, design, comparative study)

Task: Design a 3-fold brochure promoting Delhi to Sikkim tourists.

What to include:

Delhi → Sikkim: Flight/train routes, distance, cost comparison

5 Must-Visit Places: Tsomgo Lake, Nathu La, Yumthang Valley, Rumtek Monastery, MG Marg

Delhi vs Sikkim Food Page: Chole Bhature vs Momos & Thukpa – with 1 recipe each

Material: A4 sheets, sketch pens, printed pics. Time: 2/3 hours.

Comparative Infographic Poster: Delhi & Sikkim

(Skill: Research, design, comparative study)

Task: Make 1/2 chart paper poster comparing both states. Compare

Aspect	Delhi	Sikkim
Capital	New Delhi	Gangtok
Language	Hindi, Punjabi	Nepali, Lepcha, Bhutia
Main Festival	Diwali, Lohri	Losar, Saga Dawa
Dance Form	Kathak	Singhi Chham, Maruni
Climate	Extreme	Temperate to Alpine
Famous For	Red Fort, Street Food	Organic State, Kanchenjunga

Add: Draw/ paste 1 picture each. Time: 2/3 hours.

OR



ENGLISH

Activity - 2: Creative Writing/Performing Arts

Momo Meets Paratha

(Skill: Creative writing)

Task: Write & illustrate a 2/3-page (250 words maximum) short story in English.

Plot Idea: A Delhi young boy/girl visits Gangtok, befriends a Sikkimese person. They exchange food, festivals, and common fun. Ends with friendship pledge to remain friends for ever.

Material: A4 sheets, colours. Time: 2/3 hours.

Video Blog

(Skill: Performing arts, digital literacy)

Task: Make a video blog of 60 seconds narrating your experience of visiting any place of Sikkim

Write down your script first in 100-120 words then record narrating it. You can use video clips or pictures to go with your narration.

Submit: Via pen drive or Google Drive link. Time: 2/3 hours.

OR



ENGLISH

Activity - 3: Letter to the Editor – Writing Skills

Task: You are Rohan/Meera of Delhi. Write a letter to the Editor of The Times of India in 120 words on 'Making Rainwater Harvesting Compulsory in All Delhi Schools'

Must Include

Problems: Delhi groundwater depletion + waterlogging during rain, 2 benefits of RWH: recharge groundwater + reduce floods

1 suggestion: Govt should fund RWH pits in schools

Learning: CBSE Format + Persuasive writing + RWH facts

Complete the task in your Grammar Notebook



ENGLISH

Activity - 4: Biography – Thinking beyond the text

You have read 'Nelson Mandela: A Long Walk to Freedom' in your textbook 'First Flight'

Now write a short biography of an Indian Freedom Fighter. Maximum word limit: 250

Include: Birth-death. What made him/her to join Indian freedom struggle.

Include minimum 3 of his/her quotes. Add a few of the visuals.

Complete the task in your Literature Notebook.

HINDI

पाठ से लए गए कन्ही 10 मुहावरों या लोकोक्तियों पर डजिटल एल्बम या चत्रात्मक एल्बम बनाइए | (A-4 शीट पर बनाये)

कसी प्र सद्ध साहित्यकार (जैसे – प्रेमचंद, कबीर, मीराबाई आदि) पर लघु प्रस्तुति या बायो-स्केच तैयार कीजिए | (चार्ट पेपर पर बनाये)

नोट---उपर्युक्त कसी एक प्रश्न को कीजिए |

नोट- ● पोर्ट फो लयो में संलग्न (जोड़े) करें --- अपने जीवन के लक्ष्य को निर्धारित कर उसकी प्राप्ति हेतु आप अपने जीवन में क्या और कैसे परिवर्तन लाएंगें, उसे २०० शब्दों में चत्र सहित अ भव्यक्त कीजिए।

HINDI

अनिवार्य गृहकार्य-

- वषय : सक्कम की पारंपरिक वेशभूषा और आभूषण (पोर्ट फो लयो में संलग्न (जोड़े) करें)
- सक्कम की पारंपरिक संस्कृति और वेशभूषा का अध्ययन कीजिए।
- पुरुष अथवा महिला की पारंपरिक पोशाक का एक सुंदर पेपर कटिंग करके सक्कम पोशाक डिजाइन कीजिए तथा लगभग 100-120 शब्दों में उसका ववरण ल खएँ

- ववरण में निम्न बिंदुओं को शामिल करें —

वेशभूषा का नाम-

उसमें प्रयुक्त रंग एवं कपड़े-

आभूषण या विशेष सजावट-

कब और क्यों पहचाना जाता है?-

इत्यादी।

MATHEMATICS

1. Complete the following Chapters from Assignment booklet in Assignment Register

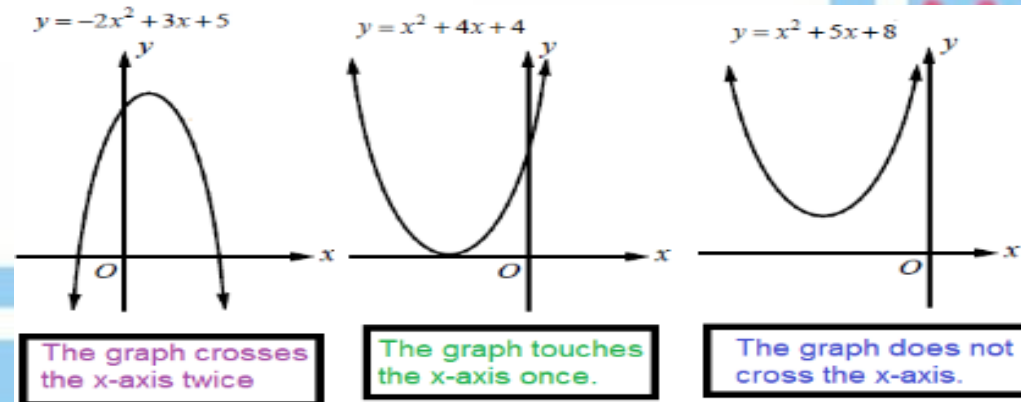
- Chapter 1 Real Numbers
- Chapter 2 Polynomials
- Chapter 3 Pair of Linear Equations in Two Variables
- Chapter 4 Quadratic Equations

2. Following practical to be done in Maths lab practical file:

a) Finding the zeroes of a quadratic polynomial

$$P(x) = 2x^2 - 4x + 5, P(x) = -x^2 - 2x + 3, P(x) = x^2 - 6x + 9,$$

Geometrically on graph paper.



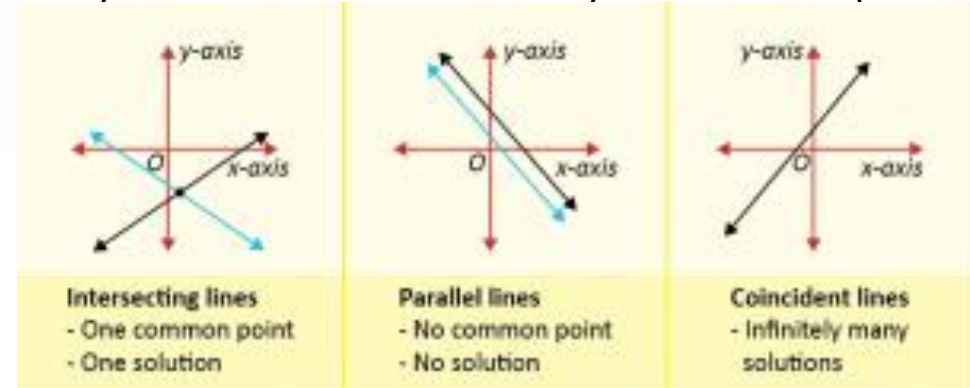
MATHEMATICS

b) To investigate the conditions for consistency and inconsistency of three pair of linear equations graphically.

(i) $2x+y=2$; $4x+2y=8$

(ii) $2x-y=2$; $4x+3y=24$

(iii) $3x-y=2$; $9x-3y=6$



3. Interdisciplinary Project: Organic Farming in Sikkim

Sikkim is India's first fully organic state. Prepare a mathematical study on organic farming in Sikkim using the following points:

- Write a short introduction on organic farming and its importance.

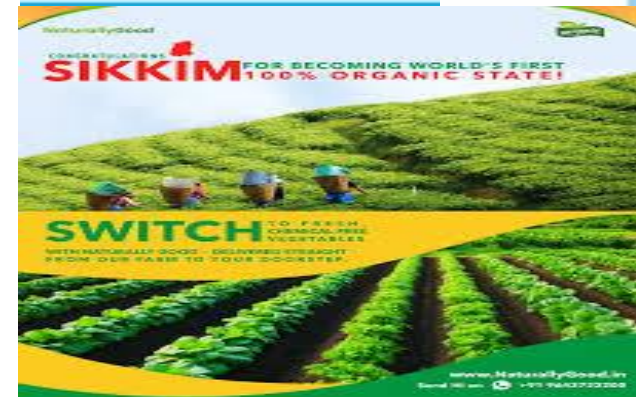
MATHEMATICS

- Collect data of production of any five organic crops (Cardamom, Ginger, Maize, Rice, Turmeric) of Sikkim for two different years 2024 and 2025.
- Prepare a table showing crop-wise production data.
- Calculate:1) Increase/Decrease in production 2)Percentage increase/decrease in production
- Represent the data using: Bar Graph or Pie Chart or Line Graph (Any one)
- Write four observations and a short conclusion based on your findings.
- Submission Instructions:
 - Use A4 sheets/project file.
 - Include pictures and proper labelling.

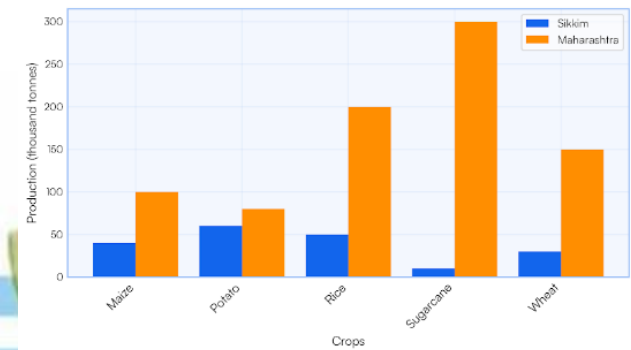
Onlineboard
TOP CROP-PRODUCING STATES 2025
STATIC GK BOOSTER

Crop	Top Producer
Rice	West Bengal
Wheat	Uttar Pradesh
Millets	Rajasthan
Maize	Karnataka
Pulses	Madhya Pradesh
Jowar	Maharashtra
Bajra	Rajasthan

Fact: West Bengal is India's largest producer of rice, contributing over 13% of national output.



Comparison of Crop Production in Sikkim and Maharashtra





SCIENCE

- 1. SUBJECT ENRICHMENT:** Write the experiments done in Practical File
 - To find the focal length of concave mirror.
 - To find the pH of various acids and bases.
 - To study the properties of acids and bases.
 - To prepare a temporary mount of a leaf peel to show stomata.
- 2. ASSIGNMENT:** Relevant questions from assignment booklet, to be done in respective notebooks.
- 3. MULTIPLE ASSESSMENT:** To prepare a Chart on (any 1) of the given topics:
 - Laboratory Rules
 - DO's and DON'Ts in the laboratory.
 - Life sketch of any famous Indian Scientist.



SCIENCE

4. PORTFOLIO:

A. Present an innovative idea along with a project report and prototype / model on any of the following topics:

- Emerging technologies
- Green Energy
- Sustainable Agriculture.
- Health and Hygiene
- Water conservation and management.
- Waste Management and Alternatives to Plastics

B. Roll Nos 1-12 (BIOLOGY) –

Prepare a project report of (5-6) pages on the following topics given below:

- a) The list of hormones secreted by human endocrine glands, along with their functions.
- b) Artificial Kidney → Haemodialysis



SCIENCE

A. Roll Nos 13-24 (CHEM) – Project: “Minerals and Resources” – Sikkim

- a) Title Page: Project Title, Student Information, Subject: Science (Chemistry)- Art Integrated Project, Academic Session
- b) Introduction – A general introduction of the state Sikkim and its mineral resources along with its rich biodiversity.
- c) Objective – To understand about the minerals (metals and non-metals) resources.
- d) Properties of Metals and Non-metals: Metallic minerals and their uses; Non-metallic minerals and their uses.
- e) Extraction and Mining – A brief idea about extraction along with the steps involved in it.
- f) Environmental Impact – A short explanation of how the extraction of minerals is affecting the natural beauty of Sikkim.
- g) Conclusion
- h) Bibliography
- i) List of Websites.

Note: The report should be handwritten by the students. The portfolio should have relevant pictures and figures.



SCIENCE

A. Roll Nos 25-Last (PHY) – PRISM" (Physics Research & Innovative Sikkim Mission)

Activity 1: The Mountain Mirage (Atmospheric Refraction)

- **Task:** Create a "Scientific Travelogue", with a "Scientist's Sketch" of a Superior Mirage—a common phenomenon in cold Himalayan peaks where objects appear to float in the sky.
- **Physics Deliverable:** A precise ray diagram showing the transition of light from denser cold air (near the ground) to rarer warm air (higher up).
- **Sikkim Connection:** Research why the sky over the Teesta River appears a deep blue and explain the Tyndall Effect or Scattering of Light in the clean, high-altitude atmosphere.



SCIENCE

Activity 2: The Eco-Solar Blueprint (Spherical Mirrors)

- **Task:** Design a "Green Sikkim" Solar Cooker for a high-altitude trekker.
- **Physics Deliverable:** A ray diagram of a Concave Mirror where the cooking vessel is placed at the Principal Focus (F).
- **Innovation:** Explain why a Parabolic Reflective Surface is more efficient than a flat one for boiling water in the freezing temperatures of North Sikkim.

TIP:

Students should organize their submission using these exact headings:

- **TRANSMISSION:** (Cover Page: Name, Class, Roll No. with a minimalist Physics-Sikkim logo).
- **INCIDENCE:** (Introduction: Objectives of the Project).
- **BENDING BOUNDARIES:** (Activity 1: Atmospheric Refraction & Scattering).
- **CONVERGING FOR THE FUTURE:** (Activity 2: Solar Cooker Design & Sustainability).
- **EMERGENCE:** (Conclusion: Personal reflection on how Light connects Science and Culture).
- **SOURCES:** (Bibliography).
- **Pro-Tip:** Students to include one "Discovery Photo"—a picture of them actually working on project.



SOCIAL SCIENCE

'Let us strive for a better tomorrow'

Task – 1 : Project Work

- 1. Consumer Awareness (Roll No. 1-15):** Project should be prepared highlighting case studies on any two products and mentioning the consumer rights.
- 2. Social Issues on any one of the topics (Roll No. 16 to 30):**
 - a) Women Empowerment.
 - (b) Girl child
 - (c) Child labour
 - (d) Dowry
 - e) Child Abuse
- 3. Sustainable development on any one topic (Roll No. 31 till the last):**
 - a) **Five R's to save environment** – Reasons to conserve resources, ways to manage resources. Observe various traditional practices for conservation of nature in your daily life. Share within the peer group and make a project report.
 - b) **“Save water save life”**. Mention the water resources in your city, how much water is usable, mention water conservation methods and also how waste water is treated in your city.




SOCIAL SCIENCE ‘Let us strive for a better tomorrow’

c) **Rally For Rivers’** – find out information. Find out various causes for river/sea pollution. How can we control it? Describe the role of urbanization in depletion of water resources.

IMPORTANT INSTRUCTIONS

Following essentials are required to be fulfilled for the preparation and submission of the Project:


- 1. The total length of the project report should not be more than 15 pages.**
(Use A-4 size coloured sheet. Do not use designed sheets, you can draw/design the borders yourself.)
 - 2. The project report should be handwritten and credit will be given to original drawings, illustrations and creative use of materials.**
 - 3. The project report should be spiral bounded.**
- 



SOCIAL SCIENCE

‘Let us strive for a better tomorrow’

4. The project will be developed and presented in this order :

- **Cover page** showing project topic on top and student name, class, school name at the bottom. You can paste pictures supporting the project title.
 - **Acknowledgement** (acknowledging the institution, libraries visits and persons who have helped and guided).
 - **Index page** : (make 3 columns) Serial No. , List of contents and Teacher’s signature.
 - **Project Overview** : Purpose, Aim, Methodology and experiences while doing the project.
 - **Project content** : with relevant topics and sub topics. Topics to be supported with suitable pictures, diagrams etc. which should be pasted/done on the blank side.
 - **Bibliography** : list of books, magazines, website with the specific website link used.
 - **Submission Date: First week after summer vacations**
- 



SOCIAL SCIENCE 'Let us strive for a better tomorrow'

Task – 2 : Map Work

1. Mark all states and their capitals on a political map of India. Make a neat key.
2. On a Political map of India mark the soil types.

Task – 3 : Pairing State Sikkim

1. Create a brochure for Sikkim – mentioning its location, climate, tourist places, culture and handicrafts.
2. Also make a colourful collage on the flora and fauna of Sikkim.

Task – 4 : Portfolio Activities

1. Geography – Locate and label the following multipurpose projects on a political map of India: Salal, Bhakra Nangal, Tehri, Rana Pratap Sagar, Sardar Sarovar, Hirakund, Nagarjuna Sagar, Tungabhadra



ARTIFICIAL INTELLIGENCE

4. During the rainy season, a city recorded rainfall for 12 months. Write a Python program to analyze the rainfall data, identify the month with maximum rainfall, and display the comparison using a bar graph.
5. A teacher wants to study the attendance record of students in a class. Develop a Python program that calculates attendance percentages and displays them using a bar chart.

SECTION B

6. Explain the different stages of the AI Project Cycle in detail and describe how each stage helps in developing an Artificial Intelligence solution for real-life problems.
7. What are the major barriers to effective communication? Explain any four barriers and suggest methods to overcome them.
8. What is NumPy in Python? Explain its features and advantages, and describe how NumPy arrays are useful in data handling and calculations.



ARTIFICIAL INTELLIGENCE

1. All programs in Section A must be executed on Python IDLE.
2. Take a clear printout of the source code and its corresponding output.
3. Paste the output printout immediately after the code in your practical file.
4. All questions must be attempted in a sequential order as given.
5. Section B questions should be handwritten in the AI Homework Register.
6. Ensure the index is properly maintained with Date and Page Numbers.



ARTIFICIAL INTELLIGENCE

SECTION A: PRACTICAL PROGRAMMING

1. Write a Python program using NumPy and Matplotlib to store the daily temperatures of a city for one month, calculate the average temperature, maximum temperature, and minimum temperature, and display the temperature changes using a line graph with proper labels and title.
2. Write a Python program using NumPy and Matplotlib to store the electricity consumption of a house for 12 months, calculate the total electricity usage and average monthly usage, and display the data using a line chart.
3. A school wants to compare the marks scored by students in Mathematics. Create a Python program using NumPy to store the marks of 10 students, calculate the average, highest, and lowest marks, and use Matplotlib to display the marks in a bar graph.



ARTIFICIAL INTELLIGENCE

9. Explain the concept of advanced Python programming and discuss the importance of functions, modules, and libraries in writing efficient programs.
10. Discuss the importance of coding, data analysis, and communication skills for students in the field of Artificial Intelligence and modern technology.
11. Predict the output of the following Python code:

a) `Import numpy as np`

```
arr=np.array([10,20,30,40,50])print(arr[2])
```

```
print(np.mean(arr))print(np.max(arr))
```

```
import matplotlib.pyplot as plt x = [1, 2, 3, 4]
```

```
y=[10,20,30,40]
```

```
plt.plot(x,y)plt.title("LineGraph") plt.show()
```

```
for i in range(1,6): if i % 2 == 0:print(i)
```



INFORMATION TECHNOLOGY

1. All programs in Section A must be executed on MS ACCESS.
2. Take a clear printout of the source code and its corresponding output.
3. Paste the output printout immediately after the code in your practical file.
4. All questions must be attempted in a sequential order as given.
5. Section B questions should be handwritten in the IT Homework Register.
6. Ensure the index is properly maintained with Date and Page Numbers.



INFORMATION TECHNOLOGY

SECTION A: PRACTICAL



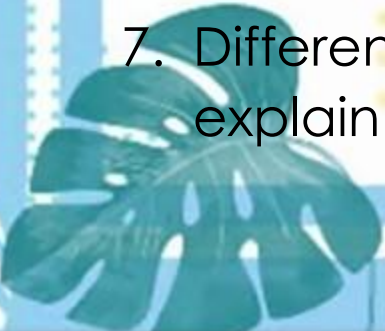

1. Create a database named "School Management System" in MS Access and design a table named Student Record containing fields such as Student ID, Student Name, Class, Section, Roll Number, and Marks. Enter at least 10 records in the table.
2. Design a table named Employee Details in MS Access with appropriate data types for Employee ID, Employee Name, Department, Salary, and Joining Date. After creating the table, add records and apply primary key to a suitable field.
3. Create a form in MS Access using the Student Record table that allows users to enter, edit, and view student details easily through the form interface.



INFORMATION TECHNOLOGY

4. Prepare a digital document on the topic “Importance of Information Technology in Education” using a open office writer. Apply formatting features such as headings, bold, italics, page border, table, images, and page numbering.
5. Create a report in MS Access based on the Employee Details table to display employee information department-wise with proper headings and formatting.

SECTION B:

6. Explain the concept of DBMS and discuss the advantages of using a Database Management System in schools, banks, and offices.
 7. Differentiate between tables, forms, queries, and reports in MS Access and explain the purpose of each object in database management.
- 
- 
- 
- 



INFORMATION TECHNOLOGY

8. Communication skills are essential for personal and professional success. Explain the importance of verbal and non-verbal communication with suitable examples.
9. What are the barriers to effective communication? Explain any four barriers and suggest suitable methods to overcome them in daily life situations.
10. Differentiate between a manual file management system and a computerized database management system. Explain the advantages of using DBMS over traditional record-keeping methods.
11. Data types play an important role while creating database tables in MS Access. Explain different data types such as Text, Number, Date/Time, Currency, and AutoNumber with suitable examples.



INFORMATION TECHNOLOGY

12. Queries are considered one of the most powerful features of a database. Explain the role of queries in MS Access and discuss how queries help in searching, sorting, and filtering data.
13. A Database Management System (DBMS) is an important tool used for storing and managing data in an organized manner. Explain the concept of DBMS in detail and discuss its importance in schools, hospitals, banks, railway reservation systems, and business organizations. Also explain how DBMS makes data storage and retrieval faster and more efficient compared to traditional methods.
14. Tables are considered the backbone of a database. Explain the concept of tables in MS Access and describe the role of records, fields, rows, and columns in storing information systematically. Also explain the importance of selecting appropriate field names and data types while creating database tables.



HOME SCIENCE

1. Design a balanced diet chart for a teenager.
2. Prepare a toy for a 0-2 year old child.
3. Identify and Suggest Energy saving practices for Household appliances. (eg: Refrigerator, AC).
4. Identify and Label 5 different types of fibres using Burning test (cotton, wool, silk, Polyester, Blend)
5. Project work: Make an album on "COMMON ADULTERANTS IN FOOD"

Guidelines for completion:

1. Submit work in a neat, well Documented folder including photos of practical work.
2. Ensure all the projects are submitted by 1st week of July.



PAINTING

Task A: Composition

- Format: Prepare a composition on an A2 sheet.
- Subject: Draw a Tea stall featuring at least three human figures in correct proportion.
- Medium: Use watercolors or poster colors.

Task B: Canvas Painting

- Paint one canvas (any size) during the summer holidays.
- Medium: Use acrylic colors on any topic of your choice.

Happy Summer Vacation



Wake up early in the morning



Follow a fitness regime



Indulge in new sports or games



Study for an hour



Try to learn something new



Maintain good health & hygiene



Volunteer with a community group