Maharaja Agrasen Model School
Class - X (Session 2025-26)
Holidays Homework

ENGLISH LANGUAGE AND LITERATURE

PART - A: ART-INTEGRATED AND SUBJECT ENRICHMENT ACTIVITY

ScrapBook Title: "Sikkim: Where Science Meets Serenity"

Create a scrapbook on Sikkim with a STEM Focus
Your scrapbook should inform and attract by showcasing the beauty, adventure, and educational value of **Sikkim**, while emphasising **STEM learning opportunities**.

Key Elements to Include:

1. Scenic Beauty & Ecosystems (Science)

- Explore Sikkim's **biodiversity hotspots**, including alpine forests, rhododendron sanctuaries, and mountain ecosystems.
- Share scientific facts about **rare species** such as the Red Panda, Himalayan Monal, and medicinal plants in high-altitude regions.
- Mention **Kanchenjunga National Park**, a UNESCO World Heritage Site, for its rich biodiversity.

2. Adventure Activities & Physics in Action (Science)

- Highlight thrilling adventures like **river rafting in Teesta**, **paragliding in Gangtok**, and **trekking to Goechala Pass**.
- Explain how **gravity, friction, air resistance**, and **altitude pressure** come into play during these activities.

3. Historical Significance & Engineering Marvels (Technology)

- Describe the **architecture of Rumtek Monastery** and how it reflects ancient engineering.
- Highlight how **hill roads and ropeways** are constructed in mountainous terrain using **civil engineering innovations**.

4. Educational Tours & Himalayan Research (Science)

- Promote visits to **Sikkim Science Centre** and **Botanical Gardens**.
- Share how scientists study **glacial retreat, endemic species**, and **climate change** in the Himalayan regions.
- Mention the role of **remote sensing and satellite data** in monitoring landslides and forest health.

5. Environmental Conservation (Science & Math)

- Present **data on forest cover, glacial melting**, and eco-tourism growth.
- Promote **organic farming** and Sikkim's role as India's first **100% organic state**.

6. Cultural Immersion & Indigenous Technology (Science & Anthropology)

- Explore traditional **Lepcha, Bhutia, and Nepali practices** of farming, weaving, and sustainable living.
- Discuss how **rainwater harvesting and traditional architecture** reflect scientific adaptation to geography and climate.

7. Safety and Security (Technology & Engineering)

- Explain the use of **GPS tracking, early-warning systems** for landslides, and **digital monitoring** of trekking routes.
- Describe **eco-resorts** with sustainable design and solar energy systems.

8. Affordable Packages (Mathematics)

- Create a sample **budget chart** for student group tours, including food, travel, and stays.
- Use **graphs or pie charts** to show expenditure breakdown.

9. Contact Information & Digital Communication (Technology)

- Add **QR codes** linking to tourism websites and the **Sikkim Eco-Tourism app**.
- Provide email, phone numbers, and social media handles for **tourist helplines and guides**.

PART- B

1. a) You are Neeraj/Neeraja Shekhar, Principal, Vasant Public School, Pune. Your school has just started a music department. Write a letter to the Manager of Melody House, Pune, a wholesale supplier of musical instruments, placing an order for musical instruments for the school. Ask for a discount on the catalogue prices. (120 – 150 words)

b)You intend to join coaching classes at the Success Coaching Centre situated in Chennai. The institute specializes in teaching science to classes XI – XII. Write a letter of enquiry in 100 – 120 words addressed to the Administrator in charge of the institute seeking clarification about the timing, duration, staff, transport and other necessary details for joining the institute. You are Sonia / Shiv of 2, Murthi Road, Chennai. (120 – 150 words)

c)You are Sanjeet of 122, Arjun Nagar, New Delhi. Several scooters and cars are parked in your locality without any order, causing blockage of the streets. Write a letter to the local Secretary of the Residents' Association complaining about this problem. (120 – 150 words)

(Part B to be done on A4 sheets)

2. Complete Units 3,4, 7, 8 , and 9 of Words and Expressions.

3. Revise the entire syllabus covered till date.

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हिंदी

भाग - 1

प्रश्न:1.

(I) "पर्यटन विभाग की ओर से एक विज्ञापन तैयार कीजिए जिसमें सिक्किम राज्य की प्राकृतिक सुंदरता, संस्कृति और पर्यटन स्थलों को दर्शाया गया हो।"

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उत्तर का संकेत :

"सिक्किम – प्रकृति की गोद में बसा स्वर्ग"

आइए और अनुभव कीजिए हिमालय की गोद में बसे भारत के सबसे सुंदर राज्यों में से एक – सिक्किम!

- बर्फ से ढके पहाड़ – कंचनजंघा की भव्यता
- आध्यात्मिक शांति – रूमटेक और पेमायंग्त्से मठ

- रंग-बिरंगी संस्कृति – लेपचा और भूटिया परंपराएं
- रोमांचक अनुभव – रिवर राफ्टिंग, ट्रेकिंग, पैराग्लाइडिंग
- जैव विविधता – युमथांग वैली, जुलॉजिकल पार्क

"जहाँ प्रकृति, शांति और संस्कृति एक साथ मिलती हैं – सिक्किम आपका स्वागत करता है!"

(II) सभी बच्चों को सिक्किम की संस्कृति पर आधारित एक कविता A4 शीट पर लिखकर याद करके आनी है।

भाग - 2

प्रश्न 1.निम्नलिखित विषयों पर अनुक्रमांक संख्या (रोल नंबर) के अनुसार लगभग 100 शब्दों में अनुच्छेद अथवा स्वरचित कविता लिखिए -

i. आत्मनिर्भर भारत ....
(अनुक्रमांक संख्या 1 से 20 तक)

ii. प्लास्टिक मुक्त भारत
(अनुक्रमांक संख्या 21 से अंत तक)

प्रश्न 2. नीचे दिए गए विषयों पर दो अलग-अलग सूचना पत्र लिखिए :

i. जल संरक्षण एवं
ii. योग शिविर
(अनुक्रमांक संख्या 1 से 20 तक)

iii. पर्यावरण संरक्षण एवं
iv. रक्त दान शिविर
(अनुक्रमांक संख्या 21 से अंत तक)

प्रश्न 3.अपनी पाठ्य पुस्तक के पढ़े हुए पाठों में से किन्हीं बीस मुहावरों को चुनकर उन्हें आकर्षक रूप से अर्थ सहित लिखिए।

प्रश्न 4. निम्नलिखित विषयों पर लगभग **100 शब्दों** में लघुकथा **(short story)** लिखिए -

i. प्रायश्चित - अनुक्रमांक संख्या 1 से   20 तक

ii. अहिंसा परमो धर्म - अनुक्रमांक संख्या 21 से अंत तक

नोट : भाग -2 के प्रश्नों का कार्य आपको अपनी हिंदी की उत्तर पुस्तिका (fair notebook) में करना है।

सभी बच्चों को Comprehensive exam के पाठ्यक्रम को याद करना है

संस्कृत

Part A

संस्कृत में एक पोस्टर अथवा चार्ट का निर्माण कीजिए जिसमें , सिक्किम राज्य की प्राकृतिक सुंदरता, संस्कृति और पर्यटन स्थलों को दर्शाया गया हो।"

प्राकृतिक सुंदरता | सांस्कृतिक धरोहर | जैसे

- कंचनजंगा की बर्फ से ढकी चोटियाँ

- गुरुडोंगमार और त्सोंगमो झील का शांत सौंदर्य

- लाचेन, लाचुंग और युमथांग की घाटियों की मंत्रमुग्ध कर देने वाली छटा

- बौद्ध मठों की आध्यात्मिक शांति — रूमटेक, पेमायांग्त्से और ताशिडिंग

- गंगटोक का जीवंत बाजार और मॉडर्न सुविधाएँ

- सिक्किम की पारंपरिक लोककला, नृत्य और स्वादिष्ट व्यंजन

Part B

1. पाँच अपठित गद्यांश, पाँच संवाद,पाँच पत्र (औपचारिक ओर अनौपचारिक दोनों) और पाँच चित्र वर्णन 'Together with Sanskrit' में कीजिए।
2. मणिका भाग २ पाठ्य पुस्तक के पाठ १, २, ३ को पुनः पढ़े और उनके अतिरिक्त प्रश्न 'Together with Sanskrit' में कीजिए।
3. संधि, समय,अव्यय,अशुद्धि संशोधन और प्रत्यय का अभ्यास कीजिए।
4. श्रीमदभागवतगीता (ज्ञान योग) से संबंधित पाँच श्लोकों पर एक चार्ट तैयार कीजिए

MATHEMATICS

PART - A: ART-INTEGRATED AND SUBJECT ENRICHMENT ACTIVITY

Art Integrated learning project: Sikkim folk dances feature a variety of poses, often incorporating intricate footwork, graceful hand movements, and symbolic props.

Graceful hand movements, often with specific symbolic meanings, are also common. Some of the traditional folk dance poses are shown below.
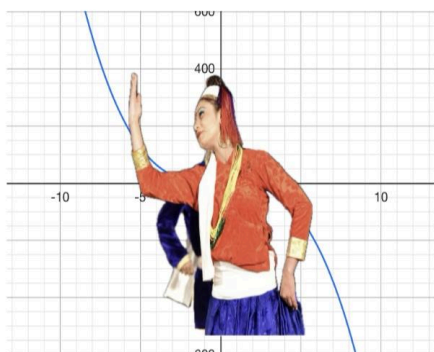
These graceful hand movements reflect polynomial curves.

Draw graphs of polynomials given below on a graph sheet and paste the picture/drawing of the dance pose it resembles. Find out the name of the dance form whose picture you have pasted/drawn.
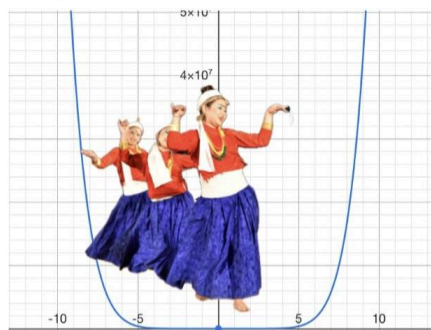
    a) $y = 2x^2$

    b) $y = -x^2$

    c). $y = -(x-1)^3$

After drawing the graphs, find out how the sign of the leading coefficient affects the curve. Based on the graph, find the zeroes of the polynomials. A few examples are shown below:

Graph for $-x^3$

Graph for x^8

Dance Name: Tamang Selo folk dance of Sikkim

Graph sheets may further be pasted on A4 A4-sized sheet for submission.

PART-B: Subject-specific

1. Complete the lab manual activities 1 to 5

2. Complete all the assignments shared with you in the assignment register.

3. Complete NCERT Exemplar questions on Chapters, 1,2,3, and 4.

4. Practice the competency based questions on Chapters- 1,2,3 and 4 from CBSE resource material .(Link is provided below)

https://cbseacademic.nic.in/web_material/Manuals/Math_Grade10_V2.pdf

https://cbseacademic.nic.in/web_material/Manuals/Mathematics_10Vol3.pdf

SCIENCE

PART A

1. **ART INTEGRATED PROJECT (Portfolio) (5 Marks)**

Content- 2 Marks

Creativity- 2 Marks

Timely submission- 1 Mark

Poster Activity: Sikkim's Eco-Friendly Initiatives: Design a poster highlighting Sikkim's efforts to become an organic state, including its use of renewable energy and waste management practices.

PART B

1. Complete the given assignments in your registers based on Balancing of Chemical equations, in-text NCERT questions, numerals and diagrams from the following chapters.

 i) Chapter 1- Chemical reactions and equations

 Chapter 2- Acids, bases, and salts

 ii) Chapter 9- Light: Reflection and Refraction

iii) Chapter 5- Life Processes

2. **Multiple Assessment (5 Marks)**

Content - 2 marks

Creativity - 2 Marks

Timely submission - 1 Mark

Poster Making
Topic -"One Earth, One Chance: Science for Sustainability"
– Human actions and scientific solutions to protect the planet.

3. Subject Enrichment Activity (5 Marks)

Correctness - 2 marks

Neatness - 2 Marks

Timely submission - 1 Mark

Completion of Physics, Chemistry, and Biology Practical files as per instructions

SOCIAL SCIENCE
I)Prepare a travel brochure of Sikkim.
Suggested subtopics/templates:
1. Places to see
2. Best months to visit
3. Food to eat
4. Culture/Geography/History

The following are the guidelines for the project:-
1. The project report can be handwritten, and credit will be awarded to original drawings, illustrations, and creative use of materials.
2. The handwritten brochure will be presented neatly on A4-sized sheets.

Rubrics-
Content-2 marks
Creativity-2 marks
Timely submission-1 mark

II) Prepare a CBSE project file on the following topics :(Subject Enrichment activity)

Roll numbers 1 to 15- Consumer Awareness

Roll numbers 16 to 30- Social Issues

Roll number 31 onward- Sustainable development

Instructions :

1. The total length of the project report should not be more than 20 pages of an A4-sized sheet.

2. The project report should be handwritten, and credit will be awarded for original drawings, illustrations, and creative use of eco-friendly material.

3. The project report should be presented in a neatly bound, simple folder.

4. The project report should be developed and presented in this order

a) **Cover page** showing project title, student information, school, and year.

b) **List of contents** with page numbers.

c) **Certificate page**

d) **Acknowledgement** (acknowledging the institution, offices, and libraries visited and persons who have helped).

e) **Chapters** with relevant headings.

f) **Summary and conclusions** based on findings.

g) **Bibliography**: should have the Title, author, publisher and if a website the name of the website with the specific website link which has been used.

(Johnson, Mary Anne. "How to Bake the Perfect Souffle." *Food Network*, Television Food Network, 20 February 2013, www.foodnetwork.com/article/perfect_souffle.)(Smith, John Jacob Jingleheimer. *Wu Xia and the Art of Scooter Maintenance,* Springer, 2003.)

h) The project will be internally assessed.

Rubrics-

Content- 2 marks

Creativity- 2 marks

Presentation-1 mark

III) **Interdisciplinary Project (Multiple Assessment)**

Make a PowerPoint Presentation keeping in mind the following points-

a) Concept of the Bretton Woods system of globalization

b) Three Bretton Woods Institutions
c) Discuss the reasons for the end of the Bretton Woods system.
d) How did the end of Bretton Woods lead to the beginning of Globalisation?
e) Concept of Globalization
f) Study the impact of globalization on the Indian economy.
g) Explain the role of Waterways and Airways in the globalization of India.
h) Number of slides - 15
i) Group participation - 4 /5 students
j) Attach Annexure V to your PowerPoint

Annexure V

Presentation Template By the students of Class X

Name of the Student:	
Members of Team:	
Class X: Section:	Date of Submission:
Topics of IDP:	
Title of the Project:	
Objectives:	
Process adopted: Ex. Surveys / Interviews / Research work/ Observation/ Story based Presentation/ Art integration/ Quiz/ Debate/ role play/ viva,/group discussion,/visual expression/ interactive bulletin boards/ gallery walks/ exit cards/ concept maps/ peer assessment/ art integration /Self-assessment/integration of technology etc.	
Evidence: Photos, Excerpts from Interviews, observations, Videos, Research References, etc.	
Overall presentation: Link of PPT, shared documents, can be digital/handwritten, as per the convenience of the school.	

Acknowledgement:		
References;(websites , books, newspaper etc)		
Reflections:		

Rubrics-

Content- 2 marks

Creativity- 2 marks

Presentation- 1 mark

ARTIFICIAL INTELLIGENCE

1. **Topic:** Exploring AI Through Google AI Experiments (To be done in the Practical File)
   Tool Explored: Semantris

   ✅ **Sample Student Submission:**

   - **Tool Name**: Semantris
   - **What does it do?**
     It's a word association game where you type a word related to a given word or phrase, and AI predicts the closest match based on how language is used in real conversations and books.
   - **AI Domain:** Natural Language Processing (NLP)
   - **What I Did:**
     - I played Arcade mode.
     - When I saw the word "Ocean", I typed "water" or "sea" to help the AI guess better
     - I noticed that specific or commonly associated words gave better results.
     - The game became faster with time, which made it more fun and challenging.
   - **Screenshot:**
     (Attach a screenshot showing your score or a part of your gameplay)

- **What I Learned**:
  I learned how AI understands relationships between words.
  It taught me that AI models learn language by reading and predicting from large datasets.
  This resembles how AI is used in smart assistants like Google Assistant or Siri.

📤 **Submission Format:**

Students should submit a 1-page report for the tool explored using Google AI Experiment in their activity file, including: (sample report given as above)

- Tool Name
- What it does (2–3 lines)
- AI Domain
- Your experience using it (4–5 lines)
- 1 Screenshot from the tool
- A short reflection on what you learned
2. **Complete the following questions in your notebook.**
   a. The state of Sikkim wants to promote eco-friendly tourism while preserving its natural biodiversity. The government faces challenges in balancing tourism growth with environmental protection. Use the 4W Canvas to identify stakeholders, the issue, where it occurs, and how AI can support sustainable tourism development..
   b. A collaborative project between Delhi and Sikkim aims to monitor air quality and environmental health across both regions to address climate challenges. Use the 4W Canvas to identify who benefits, what problem is being solved, where it applies, and how AI could be used to improve environmental monitoring.

   (refer to the document shared on the school eye for 4 W canvas

3. Complete the Assignment for Unit 2 as shared on SchoolEye.

MUSIC

1. Project–File   (05 Marks)

- Writing in notation the musical compositions of all Ragas prescribed in the
syllabus.
- Identifying the Tala of musical compositions.
- Drawing and labelling the various parts of any percussion instrument.

- Description and writing the notation of all prescribed Talas with Layakaris
(Thah, Dugun, Tigun, Chaugun).
- Identifying and interviewing any neighbourhood artists.

2. Project Work

Suggestive Topics

Interrelationship of the following:

- Music and Religion

- Music and Cinema

- Music and Electronic Media

- Devotional aspects in Music

- Inter-relationship of Arts (Music, Dance or Theatre, or Visual Arts)

Students may choose any one of the above topics or any other topic for the project in consultation with the teacher.

- Draw a picture of musical instruments like Tabla, Dholak, sitar, and harmonium.
- Learn one patriotic song & one prayer (itni sakti hume dena data/subah sawere**)**
- Prepare a chart showing the Sikkim dance and instruments.