

**SOMERVILLE, SCHOOL, VASUNDHARA ENCLAVE**  
**Holiday Homework**  
**CLASS X (2025-2026)**

S.NO	SUBJECT	DETAILS
1.	ENGLISH	<ul style="list-style-type: none"><li>• Art Integrated Project and Worksheet</li></ul>
2.	HINDI	<ul style="list-style-type: none"><li>• Brochure Making activity and Revision worksheet</li></ul>
3.	MATHEMATICS	<ul style="list-style-type: none"><li>• Art Integrated Project &amp; Worksheet</li></ul>
4.	CHEMISTRY	<ul style="list-style-type: none"><li>• Art Integrated Project</li></ul>
	PHYSICS	<ul style="list-style-type: none"><li>• Worksheet</li></ul>
	BIOLOGY	<ul style="list-style-type: none"><li>• Worksheet</li></ul>
5.	SOCIAL SCIENCE	<ul style="list-style-type: none"><li>• CBSE Project (in a separate file) + Art Integrated Project</li></ul>
6.	SANSKRIT	<ul style="list-style-type: none"><li>• Worksheet</li></ul>
7	ARTIFICIAL INTELLIGENCE	<ul style="list-style-type: none"><li>• Art Integrated Project &amp; Practical File</li></ul>
8	INFORMATION TECHNOLOGY	<ul style="list-style-type: none"><li>• Art Integrated Project &amp; Worksheet</li></ul>

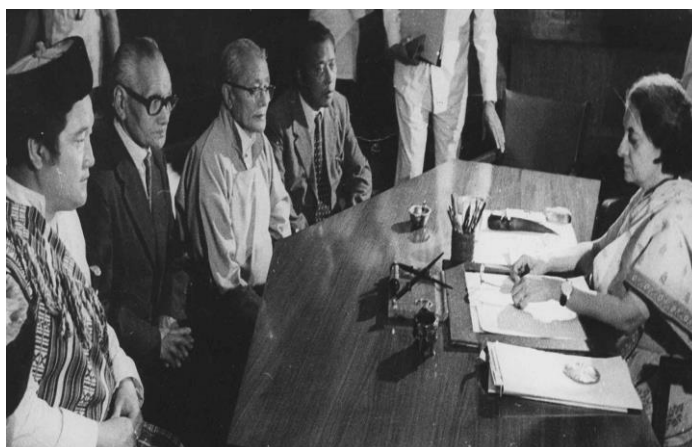
***General Instructions:***

- Attempt the Holiday Homework on A4 sized sheets.
- Write the name of the subjects and question numbers carefully.
- Compile the homework of all the subjects (except Social Science) in one file. Kindly note that Social Science project will be in a separate file.
- Include a cover page mentioning your name, roll number, class and section.

**The given report was published in The Hindustan Times on the front page of its May 10, 1973 edition.**

### **HT Archives: Pact paves way for a democratic set up in Sikkim**

By Prithvis Chakravarti, New Delhi



Sikkim's elected representatives will manage key portfolios under a new agreement, making the Chogyal a constitutional ruler with limited powers.

Sikkim's popularly elected representatives will administer law and order, finance, land revenue and economic development plans, according to the tripartite agreement between India, the Chogyal and the representatives of the State's three main political parties, the Janata Congress, the National Congress and the National Party that was signed in Gangtok last night. These portfolios, hitherto under the direct charge of the Chogyal, were a bone of contention between the hereditary ruler and the elected representatives under the diarchical constitutional arrangements replaced by the agreement.

The agreement, which was made public today (May 16, 1975), provides for a State Assembly elected on adult suffrage and an executive council responsible to the Assembly. The Chogyal, under the agreement, becomes a constitutional ruler with direct executive authority only over "the Palace establishment and the Sikkim Guards," the latter a 200-strong armed constabulary. India, according to the agreement assumes overall responsibility for Sikkim's good administration, communal harmony and economic and social development in addition to its "sole responsibility" for defence, territorial integrity of Sikkim and the conduct and regulation of external relations.

The head of Sikkim's administration will be a Chief Executive who "shall be appointed by the Chogyal on the nomination of the Government of India" "The Chief Executive will preside over the meetings of the Executive Council.

The agreement also lays down that any difference of opinion between the Chief Executive and the Chogyal "shall be referred to the Political Officer in Sikkim, who shall obtain the advice of the Government of India, which shall be binding".

The "one man one vote" for the State Assembly, the agreement stipulates, should not lead to the domination of any single ethnic community. The provision evidently is intended to reassure the Bhutia, Lepcha and other ethnic minority groups against domination by Sikkimese of Nepali origin who constitute about 80% of the State's approximately three lakh population. The balance, it is said, is to be attained through a "parity" of seats in the Assembly between the majority community and the ethnic minority groups, but the details of the arrangement are still to be worked out by the three parties concerned.

There is also said to be an informal agreement among the parties concerned on the immediate appointment of an Advisory Council of eight to 10 popular representatives to discharge the State's executive functions, pending fresh elections in about six to eight months. Mr. B. S. Das, the Indian administrator, will head the Council.

The following is the text of the agreement: "Whereas the Chogyal and the people of Sikkim are convinced that their interest and the long-term interest of Sikkim as a whole call for:

- (i) the establishment of a fully responsible Government in Sikkim with a more democratic Constitution, the guarantee of fundamental rights, the rule of law, an independent judiciary, and greater legislative and executive powers for the elected representatives of the people;
- (ii) a system of elections based on adult suffrage which will give equitable representation to all sections of the people on the basis of the principle of one man one vote;
- (iii) the strengthening of Indo Sikkim co-operation and interrelationships."

## ENGLISH

### Art Integrated Project:

You are a news reporter and you recently travelled to Sikkim to interview the natives. You talked about the transformation of the state over the years. Present your findings in form of a photo album and a brief report.

### Worksheet:

1. Change the following as instructed:
  - a) Sikkim's elected representatives will manage key portfolios under a new agreement. (Future Continuous Tense)
  - b) The Chogyal, under the agreement, becomes a constitutional ruler with direct executive authority. (Simple Past Tense)
  - c) These portfolios, hitherto under the direct charge of the Chogyal, were a bone of contention between the hereditary ruler and the elected representatives. (Present Perfect Tense)
  - d) The details of the arrangement are to be worked out by the three parties concerned. (Present Continuous Tense)
2. Look for the meanings of the given words and construct sentences of your own.
  - a) pact
  - b) representative
  - c) contention
  - d) suffrage
  - e) equitable
3. Your city is hosting a cultural festival. Write an application in about 80-100 words to the Principal of your school, requesting an educational excursion to the exhibition hosted by the Sikkim Bhavan. You are Priya/Priyanshu Mehra of Blooming Buds Public School, Hisar.

## MATHEMATICS

### ➤ Art Integrated Project:

**Depict the following information about Sikkim in the form of a Bar Graph.**

#### Demography of Sikkim

- Collect the data (rural & urban population in percentage form) and present it in tabular form.
- Represent the same in the form of a bar graph.

❖ **NOTE: Prepare the assignment on A-4 size white sheets.**

❖ **Prepare the project on A-4 size white/coloured sheets.**

### ➤ WORKSHEET

Q1: Solve for x and y:  $37x + 43y = 123$ ,  $43x + 37y = 117$ .

Q2: Solve the following system of equations graphically for x and y :

$$3x + 2y = 12; 5x - 2y = 4.$$

Find the co-ordinates of the points where the lines meet the y-axis and find area of the triangle formed.

Q3: If the quadratic equation  $ax^2 + bx + c = 0$  has two real and equal roots, then find the value of c.

Q4: Two numbers are in the ratio 2: 3 and their LCM is 180. What is the HCF of these numbers?

Q5: For what value of p will the following system of equations have no solution?

$$(2p - 1)x + (p - 1)y = 2p + 1; y + 3x - 1 = 0$$

Q6 : Find the number of natural numbers between 101 and 999 which are divisible by both 2 and 5.

Q7: Determine the A.P whose 5<sup>th</sup> term is 19 and the difference of the 8<sup>th</sup> term and the 13<sup>th</sup> term is 20. Also write first four terms of A.P.

Q8: Find the greatest number of 6 digits exactly divisible by 24, 15 and 36.

Q9: The sum of two-digit number and the number formed by interchanging the digits is 132. If 12 is added to the number, the new number becomes 5 times the sum of the digits. Find the number.

## CHEMISTRY

### Art Integrated Project

Explore the chemical composition of Teesta River water in the Sikkim region and the methods used to obtain potable water by using the knowledge of electrolytic decomposition of water.

- **Submit an activity with a neat diagram on an A4 sized sheet.**
- **Also mention the methods used to make water potable.**

## PHYSICS

### WORKSHEET

1. A ray of light travelling in air enters obliquely into water. Does the light ray bend towards or away from the normal? Why?
2. Under what condition will a glass lens placed in a transparent liquid become invisible?
3. Draw a ray diagram and also state the nature of the image formed by a concave mirror when the object is placed at the centre of curvature.
4. Identify the nature of spherical mirror or of lens in the following cases, and draw ray diagrams for each case.
  - (a) When an object is placed between the mirror and its focus, the image formed is erect, enlarged and behind it.
  - (b) When an object is placed at 2F of the lens, the image formed is diminished, erect, and on the same side of the lens as that of the object.
5. At what distance should an object be placed from a convex lens of focal length 18cm to obtain an image at 24cm from it on the other side. What will be the magnification produced in this case?
6. The refractive index of a dense flint glass is 1.65 and for alcohol it is 1.36 with respect to air. Find the refractive index of dense flint glass with respect to alcohol.
7. An object is placed at 60 cm from a convex mirror where the magnification produced is  $\frac{1}{2}$ . Where should the object be placed to get a magnification of  $\frac{1}{3}$ ?

## BIOLOGY

### WORKSHEET

1. What are enzymes? Mention the name and function of various enzymes involved in digestion.
2. Differentiate between the following:
  - (a) photosynthesis and respiration
  - (b) aerobic and anaerobic respiration
  - (c) transpiration and translocation.
3. Draw a well labelled diagram of the heart and mention the function of i) aorta ii) pericardium iii) pulmonary vein and artery.

4. With the help of a diagram (human respiratory system), discuss the role of alveoli in the exchange of gases.
5. Design an activity to demonstrate the process of transpiration.
6. Draw a labelled diagram of nephron and write the function of Bowman's capsule, glomerulus and collecting duct.
7. Discuss the role of lymph in humans.

## **SOCIAL SCIENCE**

**CBSE PROJECT WORK: This is a mandatory project by CBSE. Kindly note that that the Social Science project will be in a separate file.**

### **General Instructions:**

1. The Project should be handwritten, on an A4 size sheet.
2. It should be summed up in 10-15 pages.
3. It should be well- researched and well - illustrated.
4. The project must have a Title/ Cover page, Index, Acknowledgement, Topic - wise Headings and Sub-Headings, Conclusion and Bibliography.
5. It must include relevant pictures, news clippings, facts and figures.

**OBJECTIVE:** The overall objective of the project work is to help students gain an insight and pragmatic understanding of the theme and see all the Social Science disciplines from an interdisciplinary perspective. It should also help in enhancing the life skills of the students.

## **PROJECT THEME**

### **Consumer Awareness or Social Issues or Sustainable Development**

**NOTE:** Every student has to compulsorily undertake any **ONE** out of the following three suggested topics for the purpose of the project:

### **Suggested topics:**

1. **Consumer Awareness-** Consumer Exploitation- Why and How? Consumer Movements, Consumer Rights, Duties of Consumers (Jago Grahak Jago)
2. **Social Issues-** Unemployment, Gender Equality, Illiteracy, Safety and Well-being of the Citizens, Social Evils like Dowry, Female Foeticide, Child Marriage etc.
3. **Sustainable Development:** Students will choose any one Sustainable Development Goal (SDGs) given by the UNO where you can contribute as an individual in society.  
- Meaning/ Introduction, Need, Present Status of India, Ways to Conserve – Govt. Efforts, Under SDG Plan and Role of Students, Conclusion.

## Art Integrated Project

To commemorate the 50 years of Sikkim as a state of India, draw a timeline on an A4 sheet, showing the journey of Sikkim from an independent monarchy to becoming the 22nd State of India in 1975.

Highlight at least 3 major events or developments during this period. Also include key historical facts and cultural symbols of Sikkim.

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**NOTE: Hindi and Sanskrit HHW pdf files are sent in two separate attachments.**

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## INFORMATION TECHNOLOGY

**ART INTEGRATED PROJECT:** Use LibreOffice Impress to create a presentation on ‘The Chogyal’ – monarchs of the former kingdom of Sikkim. The presentation should be of 5- 10 slides. Bring a printout with 4 slides on each page.

### WORKSHEET

- Revise Unit -I Digital Documentation. Complete assignment sheet.
  - Read Unit I ES Communication skills
  - Attempt the following questions in writer and bring the printouts.
  - Explain the styles given in the Styles and Formatting Window for writer and paste the screenshot of the window also.
  - Write the steps to create a new style in Open Office Writer.
- .....

## ARTIFICIAL INTELLIGENCE

**ART INTEGRATED PROJECT:** Use AI to create a PPT on ‘The Chogyal’ – monarchs of the former kingdom of Sikkim. The PPT should be of 5- 10 slides. Bring a printout with 4 slides on each page.

### PRACTICAL FILE:

- Do the Python Programs given below, on either Jupyter or Python IDLE and take the print out of the code of each program with their output for the Report file.

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# **Practical File**

## **Artificial Intelligence**

### **Class10**

**Somerville School**  
**Vasundhara Enclave**

#### **Student's Detail**

**NAME:**

**ROLL No.:**

**CLASS-SECTION:**

## Index

Sr.No.	Assignment	Sign												
1	To calculate Area and Perimeter of a rectangle.													
2.	Input a number and check if the number is positive, negative or zero and display an appropriate message.													
3.	Program to check if a person can vote or not.													
4.	<div>A tours and travels company charges their customer as per the following criteria according to customer category. Write a program to print the charges according to Category entered.</div> <table><tr><th>Category</th><th>Charges</th></tr><tr><td>A</td><td>18000</td></tr><tr><td>B</td><td>15000</td></tr><tr><td>C</td><td>12000</td></tr><tr><td>D</td><td>10000</td></tr></table>	Category	Charges	A	18000	B	15000	C	12000	D	10000			
Category	Charges													
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B	15000													
C	12000													
D	10000													
5.	<div>Write a program to input Appraisal score, Old Salary implement an increment to the employees based on their appraisal score given in the following table. Print the new salary as Old salary+Increment</div> <table><tr><th>Appraisal Score</th><th>Rate of Increment</th></tr><tr><td>0-10</td><td>3%</td></tr><tr><td>11-30</td><td>5%</td></tr><tr><td>31-50</td><td>8%</td></tr><tr><td>51-80</td><td>10%</td></tr><tr><td>81-100</td><td>15%</td></tr></table>	Appraisal Score	Rate of Increment	0-10	3%	11-30	5%	31-50	8%	51-80	10%	81-100	15%	
Appraisal Score	Rate of Increment													
0-10	3%													
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31-50	8%													
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81-100	15%													
6.	Write a program to print a multiplication table of entered number. (Use For loop)													

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