

ST. THOMAS SCHOOL, SAHIBABAD
HOLIDAYS' HOME WORK 2025-26
CLASS X

INTERDISCIPLINARY THEME- GLOCAL! - "The global village"

Dear Students and Parents,

As the holiday season approaches, it's a great time to relax, spend quality moments with family, and stay engaged with learning in enjoyable and meaningful ways. This homework is intended to help you revisit, think deeply, and discover new ideas—without the pressure. Enjoy the journey, take your time, and come back recharged and ready to continue learning!

Wishing you all a wonderful and relaxing holiday!

Below are some general tips and instructions for completing the holiday homework. Please follow the guidelines enlisted below for the project work.

GENERAL INSTRUCTIONS:

- Arrange all subject sheets in single folder, except the social science. The social science project should be done in a separate folder.
- It must have a cover page.
- Label file with your name, class, section and roll number and title of your project **GLOCAL! - "The global village"**.
- Write **"Inter-Disciplinary Project"** above the title.
- Use colours according to the given colour code.

ENGLISH	HINDI/ SANSKRIT	MATHEMATICS	SCIENCE	SOCIAL STUDIES	COMPUTER
LIGHT BLUE	LIGHT YELLOW	LIGHT PURPLE	ORANGE	LIGHT GREEN	LIGHT PINK

- Pages should be arranged in the given sequence:

S. No.	SUBJECT	PAGE NO.
1.	Index	1
2.	Introduction	2
3.	Acknowledgement	3
4.	Bibliography	Last page of project

- Arrange your sheets subject wise, after acknowledgement.
- Submit your file to the respective class teacher
- Submission date is till 10th July.
- Revise PT – I syllabus for all subjects.

SUBJECT

English

TOPIC

Create a mini magazine on Consumer Rights with sections such as --

1. 'Know your Rights' (Educational articles)
2. 'Consumer of the Month' (A story of someone who stood up for their rights)
3. 'Tips for smart shopping' (Online & Offline)

4. 'Recent Consumer Scam to watch out for'

Hindi

सामाजिक समस्याओं से आप क्या समझते हैं ? (सामाजिक समस्याएँ क्या होती हैं?)
“सामाजिक समस्याओं के उन्मूलन में साहित्य की भूमिका” विषय पर अपने विचार प्रकट करते हुए १०० से १२० शब्दों में एक अनुच्छेद लिखें ।

Mathematics

A. Do the project on A4 sheets (to be kept in a folder)

To collect and analyse the data on height, weight and BMI of 10 people in your neighbourhood to understand health trends and raise awareness about social issues.

- Use the formula $BMI = \frac{\text{weight (in kg)}}{(\text{height (in m)})^2}$ to calculate the BMI of each neighbour.
- Arrange the data in a table. Calculate the mean and median BMI values.
- Create a histogram to represent the data.

B. Solve the following questions in a separate notebook.

- Two dice are rolled simultaneously. What is the probability that 6 will come up at least once?
- A card is drawn from a pack of 52 cards. What is the probability that the card is neither an ace nor a spade?
- Two customers Shyam and Ekta are visiting a particular shop in the same week (Tuesday to Saturday). Each is equally likely to visit the shop on any day as on another day. What is the probability that both will visit the shop on consecutive days?
- A box contains 125 shirts out of which 110 are good, 12 have minor defects and 3 have major defects. Ram will buy only those shirts which are good while Naveen will reject only those which have major defects. A shirt is taken at random from the box. Find the probability that (a) Ram will buy it (b) Naveen will buy it.
- An integer is chosen between 70 and 100. Find the probability that it is (a) a prime number (b) divisible by 7.
- If α and β are the zeroes of the polynomial $p(x)=2x^2+5x+k$ satisfying the relation, $\alpha^2 + \beta^2 + \alpha\beta = \frac{21}{4}$ then find the value of k.
- Find the zeroes of the quadratic polynomial $4\sqrt{3}x^2 + 5x - 2\sqrt{3}$ and verify the relationship between zeroes and coefficients of the polynomial.
- If α, β are the zeroes of the quadratic polynomial $p(x)=x^2 - 2x + 3$, find a quadratic polynomial whose zeroes are $\frac{\alpha-1}{\alpha+1}$, $\frac{\beta-1}{\beta+1}$.
- If α, β are the zeroes of the quadratic polynomial $p(x)=x^2 - 4x + 3$, then find the value of $\alpha^4\beta^2 + \alpha^2\beta^4$.
- Find a quadratic polynomial whose zeroes are $3 + \sqrt{2}$ and $3 - \sqrt{2}$.
- The LCM of two numbers is 14 times of their HCF. The sum of LCM and HCF is 600. If one number is 280, then find the other number.
- Three tankers contain 187L, 231L and 275L of petrol respectively. Find the capacity of the largest container that can measure the petrol of the three tankers exact number of times.
- Two brands of chocolates are available in packs of 24 and 15 respectively. If Riya wants to buy an equal number of chocolates of both kinds. What is the least number of boxes of each kind would Riya needs to buy?

14. Prove that $\sqrt{p} + \sqrt{q}$ is an irrational number, where p and q are co-primes.
15. A circular field has a circumference of 360km. Three cyclists start together and cycle 48 km, 60km and 72 km a day, round the field. When will they meet again?
16. A person rowing a boat at the rate of 5 km/h in still water, takes thrice as much time in going 40 km upstream as in going 40 km downstream. Find the speed of the stream.
17. Draw the graph of the following pair of linear equations:
 $x + 3y = 6$ and $2x - 3y = 12$
18. The ratio of incomes of two friends Jasmine and Aman is 9:7 and the ratio of their expenditure is 4:3. If each of them saves ₹ 6000 per month, find their monthly incomes. Also, if each of them donates 2% of her/ his income to a charity working for old age destitute, find the resulting savings of each.
19. Solve: $152x - 378y = -74$, $-378x + 152y = -604$
20. There are two classrooms A and B with students. If 10 students are shifted from room A to room B, the resulting number of students in the two classrooms becomes equal. If 5 students are shifted from B to room A, the resulting number of students in room A becomes double the number of students left in room B. Find the original number of students in the two class rooms separately.

Science

The Plastic Puzzle

Imagine a world where single-use plastics no longer choke our oceans and landfills. Explore the impact of single-use plastics in food packaging and discover sustainable solutions.

Prepare a "Sustainable Packaging Report" on the given topic.

Social Science

Project work - Consumer Rights OR Social Issues OR Sustainable Development.

GENERAL INSTRUCTIONS:

- The Social Science project should be done in a separate folder.
Write "**Multi-Disciplinary Project**" above the title.
- Projects prepared should be made from eco-friendly products without incurring too much expenditure.
- **The Project Report should be handwritten.**
- **The class is divided into three groups:**

GROUP NO.	ROLL NO.	TOPIC
Group 1	1 to 10	Consumer Rights
Group 2	11 to 20	Social Issues
Group 3	21 to till last	Sustainable Development

Information Technology

Instructions

All practical's must be numbered and the title should be specified.

Right Side- (i) Title

Software- Features

Stepwise explanation of the project.

Left Side [plain page]- Paste the printout of the practical.

PRACTICAL 1: DESIGNING TEMPLATE

Design your letter pad on the Respect Earth, Embrace Sustainability. Save it as your template. Reset the default template as your letter pad.

PRACTICAL 2:

(A) Design a table on Sustainable Development Goal with functions. (Roll No. 1 to 17).

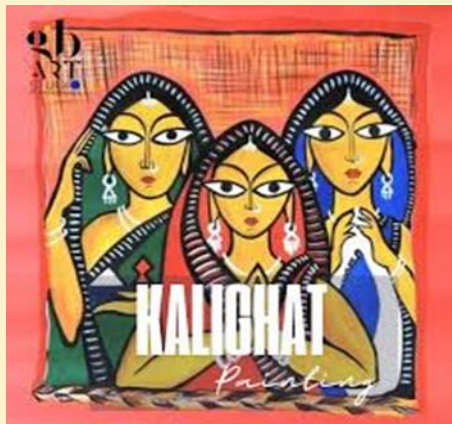
(B) Design a table on Desired outcomes of Sustainable Development. (Roll No. 17 to last).

PRACTICAL 3: POSITION THE IMAGE WITH TEXT

Write 10 to 15 lines about Artificial Intelligence for Sustainable Development and use a few pictures at relevant places. Add an image in the background like the watermark.

Art Education

Make a Kalighat/Jamini Roy painting on A2 size ivory sheet using acrylic colours.



Health & Physical Education

Question 1: Prepare a comprehensive file on two popular games, one indoor and one outdoor.

The file should include:

- Name and origin of the game
- Rules and regulations
- Equipment required
- Benefits of playing the game (physical and mental)
- Famous players/teams (if applicable)

Question 2: Cricket Championship Trophy

The ICC Cricket Championship Trophy 2025 is scheduled to take place soon. Research and answer the following questions:

- What is the format of the tournament?
- Which teams are participating?
- What are the different types of cricket balls used in the tournament?
- How does the points system work?

Question 3: Health Education

Explain the concept of "Physical Fitness" and its importance in our daily lives. Discuss the following aspects:

- Definition of physical fitness
- Components of physical fitness (cardiovascular endurance, muscular strength, flexibility, etc.)

- Benefits of regular physical activity (physical and mental)
- Simple exercises to improve physical fitness at home

Question 4: Model Making

Create a model of either a Ludo board or a Chess board using recycled materials. Ensure that your model is neat, colourful, and accurately represents the game.

Submission Guidelines

- All answers must be handwritten and submitted in a neat and organized format.
- The file prepared for Question 1 to 3 should be bound and have a cover page.