ST. THOMAS SCHOOL, SAHIBABAD HOLIDAYS' HOME WORK 2025-26 CLASS IX 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 | ENGLISH HINDI/ SANSKRIT | | MATHEMATICS SCIENCE | | 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 TOPIC

English Imagine yourself as a natural calamity (e.g. flood, earthquake, tsunami etc.) and prepare a monologue in which you address people, suggesting how they can prepare themselves for your arrival or how they might prevent you from coming.

| Hindi | बाढ़ जैसी प्राकृतिक आपदाएं मानव समाज को किन-किन रूपों में प्रभावित करती हैं ? किन्हीं दो आपदाओं का वर्णन करते हुए उनसे बचने के उपाय लिखें । | | | |
|-------------|---|--|--|--|
| Sanskrit | 'सूक्तिमौक्तिकं' पाठ से किन्हीं चार सूक्तियों को सुन्दर लिखावट में A4 शीट पर लिखें तथा बोर्डर को सुन्दर फूल पत्तियों की आकृतियों से सजाएँ । | | | |
| Mathematics | I. Do the project on A4 size sheets (to be kept in the folder). Disaster management is a comprehensive process focused on minimizing the impact of natural or human-made disasters by preparing for, responding to and recovering from them. Prepare data showing the date of occurrence and magnitude of 8 major earthquakes in the year 2025. Draw a line graph to represent the data. | | | |
| | II. Solve the following questions in a separate notebook. 1. Find the value of $(625)^{25\%}$ | | | |
| | 1. Find the value of $(625)^{-676}$ 2. Arrange in ascending order: $\sqrt[3]{2} \cdot \sqrt[4]{2} \cdot \sqrt[12]{32}$ 3. If $a = 1 + \sqrt{7}$, find the value of $\frac{-6}{a}$. 4. Express the following numbers in the form $\frac{p}{q}$. | | | |
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| | | | | |
| | (i) $5.\overline{05}$ (ii) $2.4\overline{89}$ (iii) $0.\overline{83}$ | | | |
| | 5. Write two rational and two irrational numbers between $\sqrt{5}$ and $\sqrt{6}$. | | | |
| | 6. Simplify: $\frac{(36)^{\frac{3}{2}} \times (243)^{\frac{3}{5}}}{(16)^{\frac{5}{4}} \times (1000)^{\frac{4}{3}}}$ | | | |
| | 7. Simplify: $\left(\frac{125}{512}\right)^{-\frac{2}{3}}$ | | | |
| | 8. Simplify: $((\sqrt{3} - \sqrt{5})^2)$ | | | |
| | 9. Find the values of a and b if, a + b√15 = √5 + √3 / √5 - √3 10. Which of the following is not a polynomial? Give reason. x + 1, 2x² + 5x, x + 1/x, √x + 2 11. √2 is a polynomial. State true or false. Give reason. 12. Factorize x⁴ - 3x² + 2. | | | |
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| | | | | |
| | | | | |
| | 13. Factorize: $5(3x + y)^2 + 6(3x + y) - 8$ | | | |
| | 14. If $x^2 + \frac{1}{x^2} = 14$, find $x^3 + \frac{1}{x^3}$ | | | |
| | 15. Simplify: $(x + y)^3 - (x - y)^3 - 6y(x^2 - y^2)$ | | | |
| | 16. Find the remainder when $x^3 - 5x^2 + 4x - 3$ is divided by (x-2). 17. Evaluate (998) ³ using suitable identity. | | | |
| | 18. Find the value of a, such that the polynomial $x^4 + ax^3 - 7x^2 - 8x + 12$ is exactly divisible by $x + 2$. | | | |
| | 19. Let R_1 and R_2 be the remainders when the polynomials $x^3 + 2x^2 - 5ax - 7$ and $x^3 + ax^2 - 12x + 6$ are divided by $x + 2$ and $x + 1$ respectively. If $2R_1 - R_2 = 7$, find the value of a. | | | |
| | 20. Factorize: $(p - q)^3 + (q - r)^3 + (r - p)^3$ | | | |
| | 21. Factorize: $x^{12} - y^{12}$. 22. Determine whether (2x+5) is a factor of $p(x) = 6x^2 + 17x + 5$? | | | |
| | | | | |

23. Write three possible set of values for the dimensions of a cuboid whose volume is given by $y^3 + 8y^2 + 17y + 10$ where y is a natural number.

24. Find the square root of $(x^2 + 4x + 4)(x^2 + 6x + 9)$

25. Write the degree of a zero polynomial.

26. If
$$f(t) = 4t^2 - 3t + 6$$
, find $f\binom{2}{3} + f(-5)$

27. \angle AOB and \angle BOC are adjacent angles such that \angle AOB: \angle BOC = 3: 4. If \angle AOC = 140°, find the measures of \angle AOB and \angle BOC.

28. In the given figure, $\| \| \underline{n} \| \underline{n}, \angle BIH \equiv 40^\circ$, $\angle MDJ = 120^\circ$, find x.



29. Two lines p and q are perpendicular to the same line r. Prove that lines p and q are parallel to each other.

30. Two lines AB and CD intersect at 0. OE is a ray such that $\angle BOE = 80^{\circ}$. If $\angle BOD = 30^{\circ}$, find $\angle EOC$.

Science Disease Detective Report

Task: Pick a disease (e.g., Malaria, Tuberculosis, Diabetes). Prepare a "Detective Case File" covering:

- 1. Symptoms and causes.
- 2. Mode of transmission
- 3. Prevention and cure
- 4. Impact on society and economy
- 5. Recent statistics and case studies
 - Real-life case study or newspaper clipping
 - Creative Add-on: Design it like a police file or investigation journal.

<u>TOPICS: Project work - Cloud Burst, Flash Floods, Avalanche & Forest</u> <u>Fires</u>

GENERAL INSTRUCTIONS:

- > The Social Science project should be done in a separate folder.
- > Write **"Multi-Disciplinary Project"** above the title.
- > The Project Report should be handwritten.

The class is divided into **four** groups:

| Group No. | Group No | Topic |
|-----------|-------------|------------------|
| Group 1 | 1 to 8 | Cloud BurstFlash |
| Group 2 | 9 to 16 | Floods |
| Group 3 | 17 to 24 | Avalanche |
| Group 4 | 25 till end | Forest Fires |

Information Technology PRACTICAL 1:

Social

Science

Create a well-formatted table on Disaster Management using MS Word / Libre office Writer.

PRACTICAL 2:

Prepare a report on Disaster Management Strategies in India using Ms Word / Libre office Writer.

PRACTICAL 3:

Implementing Mail Merge

You are part of a team organizing a Disaster Management Awareness Program in your city. You need to send personalized invitation letters to 5 local residents using Libre office Writer.

Make a Gond painting on A3 size canvas board using acrylic colours.

Art Education



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.

- Q.1 to 3 should be done in one single file. The file prepared for Q.1 to 3 should be bound and have a cover page.