

S T. JOSEPH'S SCHOOL, MAHARAJGANJ
SESSION 2024-25



HOLIDAY HOMEWORK-CLASS XII(MATHS)

INTRODUCTION

Holiday is the time that we all eagerly wait for. We all make plans to enjoy, to relax and to empower ourselves during these gala days. This summer vacation, the Holiday Homework designed by the school is a medium for the students to achieve the motto of “Fun and Learn”. The activities based assignments will foster curiosity, develop creativity, enhance knowledge and instill the joy of learning among the students.

Here are a few tasks for you to complete during the vacation. Do remember to complete the given tasks after reading them carefully.

MATHEMATICS

LONG ANSWER TYPE QUESTIONS

1. If $A = \{1, 2, 3, 4\}$, define relations on A which have properties of being: (a) reflexive, transitive but not symmetric (b) symmetric but neither reflexive nor transitive (c) reflexive, symmetric and transitive.
2. Find the range of the following functions given by
$$(x) = \frac{x + 2x^2 + 1}{2}$$
$$x - 8x + 12$$
3. Find the domain and Range of the function $\frac{1}{\sqrt{x-5}}$
4. Find the values of x which satisfy the equation
$$\sin^{-1} x + \sin^{-1} (1-x) = \cos^{-1} x$$
5. Given $A = \{2, 3, 4\}$, $B = \{2, 5, 6, 7\}$. Construct an example of each of the following: (a) an injective mapping from A to B (b) a mapping from A to B which is not injective (c) a mapping from B to A .

ACTIVITIES

ACTIVITY: Make Graphs of every inverse trigonometric function on graphpapers and define its domain and range

PHYSICS

1. Lab manual work

a) From section A of lab manual , complete experiment no. 1 and 2

b) From activity section , complete activity 1

2. Project work on any one the topics allotted in classroom/school Whatsapp group

3. Make a separate copy of 200 pages and complete exercises of NCERT chapter 1 and 2

PHYSICAL EDUCATION

Question.1

As the sports captain of your school, you are involved in the selection of students for participating in District Zone matches subsequently.-List out the criteria you will employ for Selection of individual Games/Sports.

Question.2

-Art Integrated Activity.

Your school is organizing an inter -school football tournament. As a member of the announcement, publicity and record committee, prepare an attractive poster to invite participants from different schools

CHEMISTRY

1. Write down the previous year question (1-50) and their solutions of chapter 1 (haloalkanes& haloarenes) from the given PDF.

2. Prepare a chart of-

a. Daniel cell

b. Electrochemical series

c. Lead storage battery

d. Crystal field splitting of tetrahedral and octahedral complex.

3. Prepare a project file on any one of the following-Carbohydrate, protein, vitamins, nucleic acid, amines, alcohol, haloalkanes and haloarenes.

ENGLISH

- I. 1st four unseen passages given in the English Workbook to be solved in the space provided.

II. ENGLISH PROJECT

CONTENT OF THE PROJECT FILE:

The project file should include the following:

Cover page, with the title of the project, school details and details of the student Certificate of Completion under the guidance of the teacher

Objectives of the topic

Essay/report should be written in 800-1000 words.

Student reflections (the new learning experience/outcome achieved after completing the project)

Photographs that capture positive learning experience of the students (collages/pics from various online sources) can be pasted.

List of Resources/Bibliography (Last page of the project file)

INSTRUCTIONS:

Listen to podcasts, documentaries, interviews etc. on the given topics.

Do a thorough research on the topic assigned.

Prepare a report/essay in about 800-1000 words describing the topic/issue/ giving your own opinion/ suggestions/measures/ viewpoints/its impact on people/your learning experience.

The project should be neat, legible, with an emphasis on quality of content, accuracy of information, creative expression, proper sequencing and relevance as per the assigned topic.

Use coloured practical sheets.

Plagiarism is strictly prohibited.

Select any one of the given topics for your English Project.

CHILD LABOUR IN INDIA

“Child labour perpetuates poverty, unemployment, illiteracy, population growth and other social problems.” Kailash Satyarthi

You have studied the lesson ‘Lost Spring’ by Anees Jung. It deals with child labour in India. Based on your understanding of the lesson and the problem it mentions, make a project titled ‘**CHILD LABOUR IN INDIA**’

Include the following sub-headings:

Causes of child labour

Effects on the social environment

Laws on child labour

National child labour policies & schemes

Prevention and elimination of child labour

Industries employing children- Make a case study (800-1000 words) on any 1 industry that employs child labour. Furnish all relevant details and statistics. Attach 3-4 pictures.

SAY NO TO WAR

“An eye for an eye only ends up making the whole world blind.”

Mahatma Gandhi

You have studied the lesson ‘The Last Lesson’ by Alphonse Daudet. It deals with war and the long-lasting effects it has on the society at large. Based on your understanding of the lesson and the problem it mentions, make a project titled ‘SAY NO TO WAR’

Include the following sub-headings:

Definition of war

Effects on social, economic environment

Cost, in terms of money and lives

Important international treaties

Prevention and elimination of wars

Any 1 war – Make a case study (800 - 1000 words) and furnish all details and statistics. Attach 3-4 pictures.