

Gyan Sthaly public school Jhansi

Class 12th

Holiday Homework

*MONTH OF JUNE BROUGHT LONG, HOT DAYS
AND NOW WE HAVE OUR SUMMER HOLIDAYS
SCHOOL IS CLOSED AND NO SET RULES
WAKING UP LATE AND GOING TO POOL.
LITTLE HOMEWORK, EASY TO BE DONE
PLAYING WITH FRIENDS AND LOTS OF FUN,
BEAUTIFUL TIME COMES ONCE IN A YEAR,
SUMMER HOLIDAYS ARE BEST DAYS EVER!!*

Biology

an investigatory file on any given topic of your interest .(Use cardboard file)

-Assisted reproductive technology (ART)

Its principles, application, types and other benefits.

-Contraception (explore its principles and how it is useful to prevent overpopulation and various methods)

-Genetic disorder (explore the causes, inheritance patterns, and potential treatment)

-DNA fingerprinting (explore the principles and applications in forensic science, paternity test and in other fields)

-Cancer research (investigate the causes, diagnosis and treatment of different types of cancer)

-Drug abuse (explore neurological and physiological effects of drug addiction and its impact of an individual and society)

-Environment issue (investigate the effect of pollution, deforestation and other environmental problems on biodiversity and ecosystem.)

-Recombinant DNA technology (its uses, principles and applications)

General instructions.

TITLE PAGES

Cover page (use black chart paper)

#Certificate

#Acknowledgement

#Index

#Project (elements as mentioned in the report format)

#References/Bibliography

Maths

1.Applications of Calculus in Real Life

Topics Covered: Rate of change, optimization, area under curves.

Example: Maximizing profit/minimizing cost in a business model or calculating the trajectory of a thrown object.

2. Probability in Daily Life

Explore real-life scenarios such as:

Weather prediction.

Traffic flow analysis.

Game theory (cards, dice, etc.).

Insurance and risk management.

3. Linear Programming

Study how businesses optimize resources using linear programming.

Example: A bakery optimizing production of two products within limited labor and materials.

4. Matrices in Real-World Applications

Application areas:

Computer graphics.

Economics.

Social network analysis.

5. Statistics and Data Analysis

Collect real-world data (e.g., rainfall over years, student scores, or COVID-19 data).

Chemistry

PROJECT

Scientific investigations involving laboratory testing and collecting information from other sources A

few suggested Projects.

- Study of the presence of oxalate ions in guava fruit at different stages of ripening.
- Study of quantity of casein present in different samples of milk.
- Preparation of soybean milk and its comparison with the natural milk with respect to curd formation, effect of temperature, etc.
- Study of the effect of Potassium Bisulphate as food preservative under various conditions (temperature, concentration, time, etc.)
- Study of digestion of starch by salivary amylase and effect of pH and temperature on it.
- Comparative study of the rate of fermentation of following materials: wheat flour, gram flour, potato juice, carrot juice, etc.
- Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Illaichi (cardamom).
- Study of common food adulterants in fat, oil, butter, sugar, turmeric power, chilli powder and pepper.

Commerce Business Studies

Make a project file on Consumer Protection Act.
Project should have at least 10 cases (Consumer Protection).

Physics

Electric charge and field and its application OR Gauss law and its application (make a project on ax4 size plane sheets)

Computer:

1. Read the following chapters from text book:
 - a. Python Revision Tour – I
 - b. Python Revision Tour – II
 - c. User Defined Functions
 - d. Python Modules and Libraries
2. Complete the exercise and assignment questions of the above mentioned chapters from book.
3. Revise the theoretical concepts of programming
4. Prepare all chapters for Unit Test I
5. Read the Chapter Networking and Concepts which will be started after summer break.
6. Plan for the topic of the project, group members in the project and submit the same after summer break.
7. Prepare Activity/Practical file containing 5 questions each from following topics:
 - a. Conditional Programming and Iterative Programming
 - b. Lists, Tuples and Dictionary
 - c. User defined functions

ENGLISH CORE

READING AND WRITING

1. Practice comprehension passage and note making passages (any five) from your Goyal's assignments.
2. Write Notices on the following occasions (three each category)
 - a. Tours
 - b. Sports
 - c. Cultural /extra – curricular activities
 - d. Lost & found

- e. Appeals
- 3. Draft advertisements on the following topics (three of each category)
 - a. Situation vacant
 - b. Situation wanted
 - c. Sale and purchase
 - d. Lost & found
 - e. Matrimonial
- 4. Draft posters to create awareness on the following topics:
 - a. Measures and prevention of covid 19
 - b. Prevention of drug abuse
 - c. Violence against women
 - d. Fire safety and prevention
- 5. Write formal letters on the following topics (three of each category)
 - a. Complaint
 - b. Editor
 - c. Placing order
 - d. Enquiry
 - e. Job application
- 6. Write articles on the following topics word-limit 150-200)
 - a. My vision of future India
 - b. Digital education in India
 - c. Women safety in India
 - d. 50- years of earth day