



B.V.M. PUBLIC SCHOOL

GRADE: XII G

SUMMER BREAK HOLIDAYS HOMEWORK
(2025-26)



Dear Parents

Vacations are the most appropriate time for kids to refresh and rejuvenate themselves, to be creative and to learn new skills.

Children have ample energy, which should be channelized in the right direction to get the best out of them. We have designed holiday homework, keeping this in mind. It will build their confidence and new skills.

GENERAL INSTRUCTIONS:-

- ✓ *Eat healthy food daily and drink lots of water and juices.*
- ✓ *Read every day. Watch less TV/mobiles.*
- ✓ *Good manners are essential for success. Always respect your parents, grandparents, and all elders.*
- ✓ *Appreciate nature by taking long walks in a park or garden with your family and friends.*
- ✓ *Do your homework neatly and on your own.*
- ✓ *Revise the previous work.*

SUBJECT – CHEMISTRY

- Complete your Practical File and Project File as per instructions given below: -

TOPICS FOR PROJECT WORK (3 students max. choose one project):-

Scientific investigations involve laboratory testing and collecting information from other sources. Select any one topic from the suggested Projects given below: -

1. Study of the presence of oxalate ions in guava fruit at different stages of ripening.
2. Study the quantity of casein present in different milk samples.
3. Preparation of soybean milk and its comparison with the natural milk with respect to curd formation, effect of temperature, etc.
4. Study of the effect of Potassium Bisulphate as a food preservative under various conditions (temperature, concentration, time, etc.)
5. Study of the digestion of starch by salivary amylase and the effect of pH and temperature on it.
6. Comparative study of the rate of fermentation of the following materials: wheat flour, gram flour, potato juice, carrot juice, etc.
7. Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), and Illaichi (cardamom).
8. Study of common food adulterants in fat, oil, butter, sugar, turmeric powder, chilli powder and pepper.
9. Chemistry project on Electrochemical Cell.
10. Determination of the amount of acetic acid in vinegar.
11. Chemistry project on Biomolecules.

- 12.Determination of contents in cold drinks.
- 13.Analysis of Honey.
- 14.Check the ions present in toothpaste.
- 15.Preparation of Toilet Soaps.
- 16.Determining caffeine in tea samples.
- 17.Variation of conductance with temperature in electrolytes.
- 18.Preparation of soyabean milk.

SUBJECT- PHYSICS

#Revise the following chapters for UT

- Chapter 1 (Electrostatic charge and field)
- Chapter 2 (Electrostatic potential and capacitance)
- Chapter 3 (Electric Current)

DO FOLLOWING ACTIVITIES IN ACTIVITY FILE:

SECTION-A

1. To Assemble a Household Circuit Comprising Three Bulbs, Three (On/off) Switches, A Fuse, & A Power Source.
2. To assemble the components of a given electrical circuit.
3. To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order, and correct the circuit and also the circuit diagram.

SECTION-B

1. To observe refraction and lateral deviation (displacement) of a beam of light incident obliquely on a glass slab.
2. To observe diffraction of light due to thin slit between sharp edges of razor blade.
3. To study the Nature and Size of The Image Formed by A Convex Lens On A Screen by Using A Candle and A Screen (for different distances of the candle from the lens)

Make an investigatory project on any topic from the syllabus separate file.

Project includes

- A4-sized sheet
- 12-15 pages
- Introduction
- Certificate
- Declaration
- Acknowledgement
- index
- Aim of project
- Introduction
- Theory
- Conclusion
- Bibliography

SUBJECT: COMPUTER SCIENCE

Q1: How are open () function different from close () functions other than their functionality of

opening and closing file?

Q2: What role is played by file modes in file operations (Describe the various modes)?

Q3: WAP to count the words “to” and “the” present in a text file “Poem.txt”.

Q4: WAP to count and display the numbers of lines starting with alphabet ‘A’ present in a text

file “LINES.TXT”.

Q5: What is scope? What is the scope-resolving rule of Python?

Q6: What is the difference between local and global variables?

Q7: What is a recursive function? Write one advantage of recursive function.

Q8: Write a Python function that checks whether a passed string is a palindrome or not.

Q9: Write a user-defined function countH () in Python that display the number of lines starting with H

In the file “Para.txt”.

Q10: Write a function countmy() in Python to read the text file “Data.txt” and count the number of

times “my” occurs in the file.

Q11: Write a program that copies a text file “source.txt” onto “target.txt”, barring the lines starting

with a “@” sign.

Q12: Write a method display words () in Python to read lines from a text file Poem.txt “, and display

those words which are less than 4 characters.

SUBJECT: MATHEMATICS

1. Write 8 different mathematical activities.
2. Prepare a project on the daily life application of the following topics.
 - a) Matrices and Determinants. (RNO. 1-4)
 - b) Application of derivatives (RNO. 5-8)
 - c) Application of integration (RNO. 9-12)
 - d) Application of differential equations (RNO. 13-16)
 - e) Application of vectors and three dimensions (RNO. 17-20)
 - f) Application of Linear Programming (RNO. 21-22)
 - g) Application of Probability (RNO. 23-30)

Date of submission

1.7.25 to 4.7.25

SUBJECT: PHYSICAL EDUCATION

Learn ch- 1 to 3

Practical file

Practical-1 SAI Khelo India fitness test in school (in textbook ch-6)

Practical-2 Write the procedure, benefit, & Contradiction of any 2 asanas from each lifestyle disease.

Practical-3 Write fundamentals of any one IOA recognised team game of your choice (Baseball, Handball, Football, Kabaddi, cricket, etc.) write history,

fundamental skills, rules and regulations, awardees/ famous personality terminology.

SUBJECT: ENGLISH

ENGLISH PROJECT

1. MARKING SCHEME

- The project consists of **10 MARKS**.
- Out of which, **5 MARKS** will be allotted for the **PROJECT FILE**, and the remaining **5 MARKS** for the **VIVA** based on the file.
- The **viva** will be conducted by the **EXTERNAL EXAMINER**
- **Submission Date: 01 July 2025.**

2. CONTENT OF THE PROJECT FILE:

The project file may include the following:

- **Cover page**, with the title of the project, school details and details of the student (**sample will be sent**)
- **Certificate of Completion** under the guidance of the teacher (**sample will be sent**)
- **Objectives** of the topic
- **Action Plan** for the completion of assigned tasks (**steps involved in doing the project**)
- The 800-1000 words essay/report
- Student reflections (**what new learning experience/outcome you have achieved after completing the project**)
- If possible, **photographs** that capture positive learning experience of the students (**collages/pics from various online sources**)
- **List of Resources/Bibliography** (**Last page of the project file**)

3. TOPICS:

INSTRUCTIONS:

- ✓ Refer to the links of the videos attached with each topic (You can also select different videos available on YouTube, relevant to your topic)
- ✓ Listen to these 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
- ✓ You can also state the name of various speakers/people (in the given documentaries/video links), quote them and express their viewpoints
- ✓ The project should be neat, legible, with an emphasis on quality of content, accuracy of information, creative expression, proper sequencing and should be relevant as per your assigned topic
- ✓ PROJECT TO BE TYPED ON A4 SHEET.
- ✓ No repetition or copying of project work would be accepted.
- ✓ Please don't share your work with anyone. If the External examiner points out any repetition or copying of the project, the consequences would be severe.
- ✓ No marks will be awarded for a casual approach to completing the project
- ✓ There are 15 topics. Topics are distributed Roll-No Wise
- ✓ Roll no 16 will get topic no 1 and so on...

Given below is a list of some suggestive topics for the project.

1. MENTAL HEALTH DURING COVID TIMES:

Links for reference:

[https://www.youtube.com/watch?v=xzNMA
BRELPg](https://www.youtube.com/watch?v=xzNMA BRELPg)

[https://www.youtube.com/watch?v=CVvGv
oMRUhk](https://www.youtube.com/watch?v=CVvGvoMRUhk)

[https://www.youtube.com/watch?v=UE_H9
QhGktE](https://www.youtube.com/watch?v=UE_H9QhGktE)

2. BIOTERRORISM (BIOWAR & BIO WEAPONS):

Links for reference:

<https://youtu.be/Faftnz8cg7E>
<https://youtu.be/b6NI97v2buc>
https://youtu.be/6Af6b_wyiwl

3. DRUG ABUSE, DRUG TRAFFICKING & ADDICTION:

Links for reference:

<https://youtu.be/pzhD2MyeIbY>
<https://youtu.be/b6Dte96WdqM>
<https://youtu.be/lwP9H9qTuUY>

4. CYBER CRIME AND SECURITY:

Links for reference:

<https://youtu.be/AVBlvtEthtc>
<https://youtu.be/DpjoZGOONiQ>
https://youtu.be/1A3sQO_bQ_E

5. ONLINE AND OFFLINE TEACHING DURING COVID:

(Due to COVID, education industry has seen many new startups, discuss how this has affected many in positive and negative way)

Links for reference:

<https://youtu.be/8FKR35OidyU>
https://youtu.be/PVM3_0_nKSI
<https://youtu.be/7XyvN5dPTxE>

6. PATRIARCHY AND FEMALE SUBJUGATION:

Links for reference:

<https://youtu.be/R0LXAC2PXuU>
<https://youtu.be/MRfDzznfEOU>
<https://youtu.be/H-9fTS5cAiA>

7. NATIONWIDE LOCKDOWN HAS LED A DENT ON ECONOMY (Discuss in detail)

Links for reference:

<https://youtu.be/NbvrG1FR1X0>

<https://youtu.be/9ndmW5RLhPg>

<https://youtu.be/JmGfqusjxeo>

8. MOB LYNCHING:

Links for reference:

<https://dai.ly/x7gg8sz>

https://youtu.be/Jox_CYvitGU

<https://economictimes.indiatimes.com/news/politics-and-nation/government-sets-up-4-member-committee-to-suggest-measures-to-deal-with-moblynching/videoshow/65107450.cms>

9. GENERATION GAP:

Links for reference:

<https://youtu.be/IEqX4QhMj3k>

<https://youtu.be/uEd6dhOegn4>

<https://youtu.be/p656FvLHupY>

10. SOCIAL NETWORKING PLATFORMS: IS SOCIAL MEDIA AN EFFECTIVE TOOL FOR QUICK AND CONVENIENT COMMUNICATION, OR IS IT JUST A SOPHISTICATED MEANS FOR STALKING PEOPLE?

Links for reference:

<https://youtu.be/ABOgsV2XTEk>

<https://www.intelligencesquaredus.org/?jwsourc=cl>

https://www.ted.com/talks/cal_newport_why_you_should_quit_social_media

11. DO YOU THINK THE SIGHTINGS OF UFOS ARE TRUSTWORTHY? DO ALIENS REALLY EXIST?

Links for reference:

<https://youtu.be/ZBtMbBPzqHY>

<https://youtu.be/30r45P1JFys>

<https://youtu.be/EVBCLAaflaw>

12. SHOULD ANIMAL TESTING BE BANNED?

Links for reference:

<https://youtu.be/G393z8s8nFY>

<https://youtu.be/FfRQDgu6pX4>

<https://youtu.be/Mo25wUKNySg>

13. CLIMATE CHANGE IS THE GREATEST THREAT FACING HUMANITY TODAY:

Links for reference:

<https://youtu.be/vy3gMVGwjuc>

https://youtu.be/cl4Uv9_7KJE

<https://youtu.be/ViboIJvWqiw>

14. VIOLENT VIDEO GAMES SHOULD BE BANNED:

Links for reference:

https://youtu.be/uaf_Xjz6Mxs

<https://youtu.be/vxUeDliBYMY>

<https://youtu.be/gv1SsYeKXXE>

15. THE DEVELOPMENT OF ARTIFICIAL INTELLIGENCE WILL HELP HUMANITY:

Links for reference:

<https://youtu.be/wTbrk0suwbg>

<https://youtu.be/-orTIDWqBN0>