



IMPERIAL HERITAGE SCHOOL

SECTOR-102, GURUGRAM

Holiday Homework

SESSION 2023-24

GRADE

XI

Science



"A vacation is what you take when you can no longer take what you've been taking."

—Earl Wilson.

Dear Parents

Greetings!

Vacation.....the word itself brings a huge, dazzling smile to the face of our children. Children and parents welcome this most-awaited time of the year with open arms. It is time for children and their loved ones to rejoice and rejuvenate and create memories together. Children choose to spend time in the company of friends and family and in pursuit of leisurely activities of interest and hobbies. With reasons plenty, the children look forward to these holidays.

Summer Vacation is the time for children to explore their interests and indulge in various activities and projects that would lead to their all-round development. We have designed the Holiday Homework in such a way that their creative and hidden talents surface and they will also be able to develop skills like relating, thinking, concluding, inferring etc. With a little creativity and an open mind, the possibilities for a fulfilling summer vacation are endless.

Summer vacations is a time to cherish, celebrate and renew lost habits and bonds. Connect with your child on a personal level and see the transformation within. As parents, you also need to unwind and relax. Do your favorite things and involve your child in them too. We hope that our children will thoroughly enjoy the vacation and make the most of this summer. As rightly said, a little bit of summer is what the whole year is all about.

"Instruction does much, but encouragement is everything."

Vital Suggestions for Summer Parenting:

- **Encourage your child to learn a new skill to add to their resume.**
- **Motivate your child to catch up on summer reading.**
- **Indulge your child in activities that can stimulate their creativity.**
- **Ask your child to clean up their digital presence and spend time with their loved ones.**
- **Help your child stay active and healthy by following a new fitness regime.**

Apart from getting involved in the learning process, we would request you to take out some time and involve your child in visiting some historical monuments, going for a nature walk, or some places of tourist attraction. This will help them to gain knowledge beyond books and could be used in the given homework.

"Don't be busy ...Be Productive"

Smart tips for students regarding 'Holiday Homework':

- **Be original in your work.**
- **Schedule your time for activities so that the work is completed with ease.**
- **Read the instructions for each subject carefully.**
- **Beautiful handwriting makes a good impression. Submit your work neatly.**
- **Present your assignments creatively.**
- **Take the help of your parents wherever and whenever necessary.**

Adding up the rubric to guide you for your holiday homework on which marks will be allotted.

Content	Presentation	Relevance	Creativity	Originality	On-time Submission
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Words of advice from my side for our students:

- Relax during the holidays and eat healthy food.
- Read books, magazines, and newspapers to enhance your vocabulary and stay updated with current affairs.
- Learn to grasp things from your surroundings and use them in your assignment completions during holiday homework.
- Get enough sleep and surround yourself with positivity and happiness.
- Engage your ward in well-being practices such as meditation, exercise, yoga, etc.
- Inculcate the habit of writing as it is essential for those who seek to rise above the ordinary.

Let us all feel the summer vibes with a poem written by Leslie Pinckney Hill...

SUMMER MAGIC

So many care to vex the day,
So many fears haunt the night,
My heart was all but weaned away
From every lure of old delight.

Then summer came, announced by June,
With beauty, miracle, and mirth.
She hung aloft the rounding moon,
She poured her sunshine on the earth,

She drove the sap and broke the bud,
She set the crimson rose afire.
She stirred again my sullen blood,
And waked in me a new desire.

Before my cottage door, she spread
The softest carpet nature weaves,
And deftly arched above my head
A canopy of shady leaves.

Her nights were dreams of jeweled skies,
Her days were bowers rife with song,
And many a scheme did she devise
To heal the hurt and soothe the wrong.

For on the hill or in the dell,
Or where the brook went leaping by
Or where the fields would surge and swell
With golden wheat or bearded rye.

Enjoy your summer vacation. May you all have an exciting summer full of cheer and fun.

Best Regards
Ms. Neelu Sharma
Principal

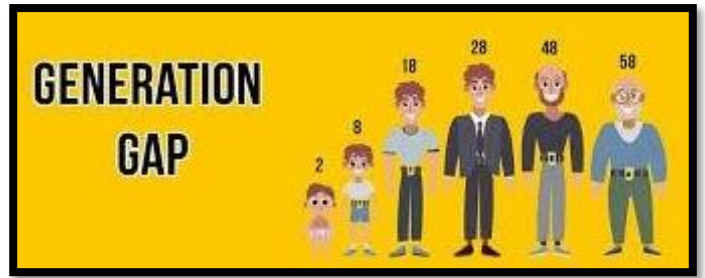
Happy Holidays

ENGLISH

Project Name – ASL-BASED PROJECT

Topic – Bridging the Generation Gap Integrated

Chapter – The Portrait of a Lady



Students will listen to podcasts/ interviews/radio or TV documentary on the given topic and do thorough research on the same. Prepare a report including surveys, statistical data, graphs etc. countering or agreeing with the speakers in 800 to 1000 words and submit.

Your project file should contain the following details:

1: Cover page

- Prepare a creative cover page giving relevant details of your project.

2: Index

- Make 3 columns – Serial no, topic, page no.

3: Statement of Purpose

- Write down at least five objectives of the given project.

4: Acknowledgement

- Sample to be provided by the teacher.

5: Certificate of Completion

- Sample to be provided by the teacher.

6: Action Plan

- Sample to be provided by the teacher.

7: Materials Used

- List down all the materials used by you in making the project.

8: Report

- Report to be written in approx.1000 words.

9: Student Reflections

- Share your views/conclusion on the given topic and write the learning outcomes.

10: Evidence of your report

- Photographs and other pieces of evidence of the research to be pasted.

11: Bibliography

- Pen down the sources from where the information was accessed.

Note:

1. Make a file of your choice with A4 size sheets only.
2. Sheets can be colorful or plain.
3. Presentation should be neat.
4. Project must showcase your creativity.

II. Student findings should be his/her original work.

Suggested Reading

‘The Invisible Man’ by H.G. Wells is a long reading text prescribed by CBSE for extensive study. Please find the link below for online reading. Write the summary of the novel in 120- 150 words and present it creatively with an illustration on A3 sheet. Happy Reading!

https://cbseacademic.nic.in/web_material/doc/novels/2_The%20Invisible%20Man,%20by%20H.G.%20Wells.pdf

PHYSICS

Investigatory Project

The investigatory project should contain the following points in proper order.

- Cover page
- Certificate
- Declaration
- Acknowledgement
- Index

Aim:

- Introduction
- Theory and principle
- Formula, Diagram
- Applications
- Conclusion
- Bibliography

S.N o.	Name of Student	Project topic
1.	Baani Sidhu	To study the formation of standing waves in strings and organ pipes.
2.	Naqi Ali	To study the Projectile motion and find its trajectory Time of flight, Maximum height, Horizontal range.
3.	Saundarya Bhatti	To study Pascal's law and its applications.
4.	Diya Sahay	To study the law of conservation of angular momentum and its applications.
5.	Saksham Swami	Study of the Qualitative Ideas of the Blackbody Radiation.
6.	Harshita Singh	To study the effect of detergent on surface tension of water.
7.	Hanshika Jindal	To study Bernoulli's theorem and its applications.
8.	Paridhi Sharma	To study S.H.M. and calculate expression for its time and Total Energy.
9.	Anant Sharma	To Study Hooke's Law and the three module of elasticity.

CHEMISTRY

Investigatory Project

S.No.	Name of Student	Project topic
1.	Baani Sidhu	Study of acidity of different samples of tea leaves.
2.	Naqi Ali	Study of acidity of fruit and vegetable juices.
3.	Saundarya Bhatti	Study of the methods of purification of water.
4.	Diya Sahay	Investigation of the foaming capacity of different washing soaps and the effect of the addition of Sodium Carbonate on it.
5.	Saksham Swami	Investigation of the foaming capacity of different washing soaps and the effect of the addition of Sodium Carbonate on it.
6.	Harshita Singh	Study of acidity of different samples of tea leaves.
7.	Hanshika Jindal	Study of the effect of Potassium Bisulphate as a food preservative under various conditions (temperature, concentration, time, etc.)

8.	Paridhi Sharma	Investigation of the foaming capacity of different washing soaps and the effect of the addition of Sodium carbonate on it.
9.	Anant Sharma	Study of acidity of fruit and vegetable juices.

The project report should comprise of minimum 10-12 pages:

- First page of the project should display the Name of the topic

Name:

School Name:

Submitted by:

Submitted to:

- Second page - Acknowledgment
- Third page- Certification by the Internal Examiner
- Fourth page- Index of the Project
- Last page-Bibliography

References for Investigatory

Project:

NCERT Chemistry Book, Pradeep's New Course Chemistry,

Wikipedia, Comprehensive chemistry lab manual.

BIOLOGY

ACTIVITY 1: INVESTIGATORY PROJECT

Make a detailed *project on 'Chronic Obstructive Pulmonary Disease (COPD)'* providing key facts and information on the pointers: causes, general and advanced symptoms, how lungs are affected, airway obstruction, connection with cigarettes smoking and irritants, risk, and complications, diagnosis, treatment and management, COPD and diet, the link between COPD and cancer.

You also need to throw light on the symptoms of the disease.

Note:

- Make a file of your choice with A4 size sheets only (sheets can be colorful or plain).
- Use illustrative pictures (printout or drawing) and data wherever necessary to make the project informative.
- The project should include the following:
 - Cover page
 - Acknowledgments
 - Bibliography

ACTIVITY 2: ART INTEGRATED PROJECT

In this activity, students are required to make a detailed *poster (using chart paper)* on 'Five Kingdom Classification' incorporating flow charts, drawings/ pictures of underlying organisms mentioning their characteristic traits/features.

MATH

A. Attempt any one of the following two projects.

- **SETS**
- **RELATIONS AND FUNCTIONS**

Guidelines to be followed for the project:

- Title
- Definition and types
- Objectives
- Content and investigation
- Your personal view
- Represent with graphs and pictures.
- References

B. NCERT: Do all examples of Chapters 1 and 2

NCERT Exemplar and other reference books: Do 5 questions daily from the NCERT exemplar on above topics

Where to do?

In practice notebook

COMPUTER SCIENCE

Create a Chatbot in Python which can help farmers by giving suggestions to improve their Crop productivity and support SDG Goal 2 and 12.

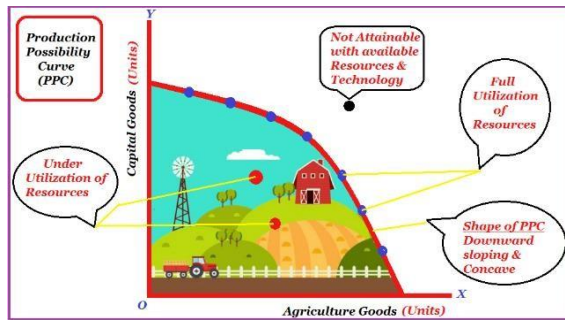


ECONOMICS

Suggestive List of Projects (Choose any one of the projects given below and investigate the same.)

1. Effect on PPC due to various government policies
2. Invisible Hand (Adam Smith)
3. Opportunity Cost as an Economic Tool (taking real-life situations)
4. Solar Energy, a Cost-Effective Comparison with Conventional Energy Sources

1. Effect on PPC due to various government policies.



The students need to research on the following points:

- a) Meaning of PPC
- b) The shifts and rotation of PPC
- c) The effect on PPC due to
 - i. Demonetizations
 - ii. Clean India Mission
 - iii. Skill India Mission
 - iv. Massive unemployment
 - v. Digital Mission
 - vi. PM Ujjwala Yojana
 - vii. Sarva Sikhsha Abhiyan etc.

2. Invisible Hand (Adam Smith)



The students can talk about:

- a) The meaning of Invisible hand in Economics.
- b) How it works.
- c) Who was Adam Smith?
- d) Why is it important?
- e) How is this concept used today?
- f) Real world examples etc.

3. Opportunity Cost as an Economic Tool (taking real life situations)

The students can talk about the:

- a) Meaning of Opportunity Cost
- b) How it is calculated
- c) Is Opportunity Cost real?
- d) Real life examples
- e) Different types of Costs (like those that can be seen and unseen etc.)
- f) Opportunity Cost Vs Sunk Cost
- g) Opportunity Cost Vs Risk etc.



4. Solar Energy, a Cost-Effective Comparison with Conventional Energy Sources

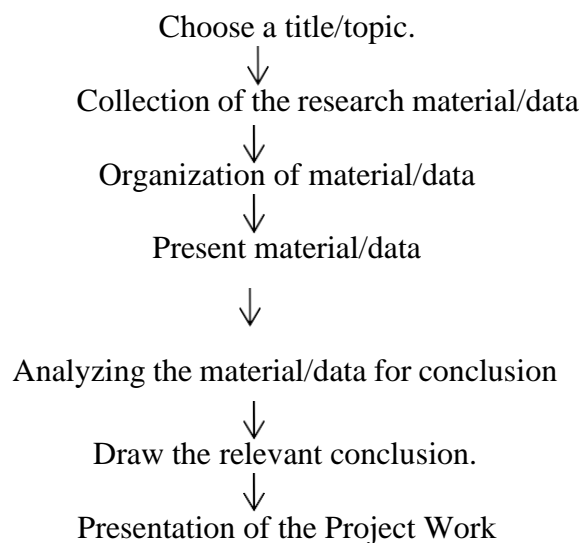


The students can talk about the:

- What is solar energy?
- Types and Uses of solar energy
- Its various causes and consequences
- Its advantages and disadvantages
- Analysis of energy system in India
- Is solar power good for the long term or short term?
- Case Studies etc.

Scope of the project:

Learners may work upon the following lines as a suggested flow chart:



Expected Checklist:

- Introduction of topic/title.
- Identifying the causes, consequences, and/or remedies.
- Various stakeholders and the effect on each of them.
- Advantages and disadvantages of situations or issues identified.
- Short-term and long-term implications of economic strategies suggested during research.
- Validity, reliability, appropriateness, and relevance of data used for research work and for presentation in the project file.
- Presentation and writing that is succinct and coherent in the project file.
- Citation of the materials referred to in the file in footnotes, resources section, bibliography etc.

PSYCHOLOGY

1. Contact a psychologist amongst several professionals in the field, who fits into one of the categories and interview the person. Have a list of questions prepared beforehand. Possible questions could be:
 - (i) What kind of qualifications or skills is necessary for your job?
 - (ii) Which college/university would you recommend for the study of this discipline?
 - (iii) Are there many jobs available today in your area of work?
 - (iv) What would a typical day at work be like for you?
 - (v) What motivated you to enter this line of work?

Write a report of your interview and include your specific reactions. Submit the report to your teacher.

2. Research and find out case studies or real-life examples which support a biological basis of human behavior.g., how damage in a particular part of the brain can affect human behavior?

Research report to be made on A4 sheets compiled into a file and submitted.

3. Either create a podcast or interview adolescents about some of their behavioral changes that have happened to them in the recent past. Find out why they did so and how do they feel about it?
4. Conduct a survey on Vygotsky's view on the human mind- how the mind is a joint cultural, construction and emerges because of interaction between children and adults.

Record your observation and make a report on an A4 sheet.

PHYSICAL EDUCATION

INSTRUCTIONS:

- 1) These projects need to be done on an A4 size sheet.
- 2) You can take Plain or Colored Sheets.
- 3) These need to be compiled in a single file.

TOPICS:

- 1) Draw a labeled diagram of the 400 Mt track and field with computations.
- 2) Compute the value of BMI of a family in the neighborhood and present it graphically. (Take at least 10 responses)
- 3) Draw a labeled diagram of the field and equipment of any one game/sport of your choice (Games/Sports list: - Athletics, Archery, Badminton, Boxing, Chess, Judo, Shooting, Skating, Swimming, Taekwondo, and Basketball).
 - a) Write about the game's equipment. Draw or paste pictures of the same.
- 4) Make a list of the current National Awardees in Sports and write the details about all the awards.
- 5) Explain in detail any five asanas for improving concentration. Draw or paste pictures of the same.

SEWA PROJECT

Kindly refer to ERP for Sewa Project. It is a compulsory PE project for the Grade XI students.

Link for SEWA document:

https://docs.google.com/document/d/1P8YtdVDWlhvhZcOfaTmqoUCwbblzQIN/edit?usp=share_link&oid=111668732126106798009&rtpof=true&sd=true