MODERN SCHOOL,VAISHALI

FROM PRINCIPAL DESK,

Dear Students and Parents, As we embark on the summer vacation, I want to remind you of the importance of continued learning and growth during this time away from school. To ensure that our students remain engaged and academically stimulated, we have assigned summer vacation homework for all classes. This homework is designed to reinforce concepts learned throughout the year and to prepare students for the upcoming academic term. I urge all students to approach their summer homework with diligence and responsibility. Completing these assignments will not only enhance your academic skills but also help you start the new school year on the right foot. Parents, your support in encouraging your children to complete their summer homework is invaluable. By working together, we can ensure that our students continue to thrive academically. Should you have any questions or concerns regarding the summer vacation homework, please do not hesitate to reach out to your child's teachers or the school administration.

"WISHING EVERYONE A PRODUCTIVE AND ENJOYABLE SUMMER BREAK…."

ENGLISH…..

Theme: Technology and Society : Navigating the Digital Age with Responsibility

As mandated by CBSE, the students have to prepare the following activities and a project for the internal assessment.

1. Art Integration Activities Theme - Technology and Society : Navigating the Digital Age with Responsibility

Prepare and submit two activities where you integrate art with your subject (anytopic/chapter/concept).

You can choose any two of the following activities and prepare your presentations:-

1.Posters
2. Brochure
3. Scrapbooks
4. Collages
5. Storyboards
6. Caricatures
7. Doodle art
8. Painting or Drawing

Be creative and innovative in the presentation of your ideas.

2. Project Work

Theme – The Resilience of Human Spirit

Topics Covered:

1. The Last Lesson
2. Lost Spring
3. Deep Water
4. Keeping Quiet
5. Indigo

6. The Enemy
7. The Third Level
8. The Tiger King
9. Journey to the end of the Earth
10. The Rattrap

Date of Submission:

INSTRUCTIONS

1. The project report must include the following:
a) Cover Page
b) Dedication
c) Acknowledgement
d) Certificate
e) Index
f) Aim/Objective
g) Material/Resources required
h) Hypothesis
i) Methodology/Procedure
j) Observations
k) Inferences
l) Conclusion
m) Application
n) Future Scope
o) Log table
p) References/ Bibliography
2. Any type of A4 size sheets can be used to prepare the project. The word limit is 800 to1000 words.
3. Relevant pictures, graphical representation and questionnaires must be a part of the project.
4. The Project must have a log table recording your weekly progress.
5. The project must be hand-written in a beautiful and cursive handwriting. You must take care of the aesthetics and presentation of the project keeping in mind the margins and proper spacing/indentation.
6. The project can be spiral-bound or filed neatly in a folder.

PHYSICS……..

1) Solve the example problems and the problems given in exercises of chapter 1, 2, 3 and 4 from NCERT book. Do this work in a 20-30 pages test notebook.

2) Write down all the formula along with their dimension formula as given in appendix of class XI and XII NCERT books. Do this work on A4 sheets and put the pages in a simple paper folder.

3) Practice all the derivations done in class in your class notebook under the heading "Derivations practice".

4) Make a project file on the allotted topic-
Roll no 1, 8, 15, 22, 29 of class XII A & roll no 1, 8 of class XII B :

To study various factors on which the internal resistance/EMF of a cell depends.

Roll no 2, 9, 16, 23, 30 of class XII A & roll no 2, 9 of class XII B :
To study the variations in current flowing in a circuit containing an LDR because of a variation in
(a) the power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the lamps at a fixed distance).
(b) the distance of an incandescent lamp (of fixed power) used to 'illuminate' the LDR.

Roll no 3, 10, 17, 24, 31 of class XII A & roll no 3, 10 of class XII B :
To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equiconvex lens (made from a glass of known refractive index) and an adjustable object needle.

Roll no 4, 11, 18, 25, 32 of class XII A & roll no 4, 11 of class XII B:
To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer.

Roll no 5, 13, 19, 26, 33 of class XII A & roll no 5 of class XII B:
To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids.

Roll no 6, 13, 20, 27, 34 of class XII A & roll no 6 of class XII B:
To estimate the charge induced on each one of the two identical Styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law.

Roll no 7, 14, 21, 28 of class XII A & roll no 7 of class XII B:
To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor/(bulb) in a circuit fed up by an A.C. source of adjustable frequency.

CHEMISTRY.....

1)Roll number 1 ,9,17,25,33- Study of the presence of oxalate ions in guava fruit at different stages of ripening.

2) Roll number 2,10,18,26,34- Study of quantity of casein present in different samples of milk.

3) Roll number 3, 11,19,27-Preparation of soybean milk and its comparison with the natural milk with respect to curd formation, effect of temperature, etc.

4) Roll number 4 ,12,20,28-Study of the effect of Potassium Bisulphate as food preservative under various conditions (temperature, concentration, time, etc.)

5) Roll number 5,13,21,29-Study of digestion of starch by salivary amylase and effect of pH and temperature on it.

6) Roll number 6,14,22,30-Comparative study of the rate of fermentation of following materials: wheat flour, gram flour, potato juice, carrot juice, etc.

7) Roll number 7,15,23,31-Extraction of essential oils present in Saunf (aniseed), Ajwain (carom), Illaichi (cardamom).

8) Roll No.8 ,16, 24, 32-Study of common food adulterants in fat, oil, butter, sugar, turmeric power, chilli powder and pepper.

Revise
Ch-1 Solution,
Ch-2 Electrochemistry ,
Ch -3 Chemical kinetics and complete all assignments questions ,make these chapter mind map, and book mark for formula.

STANDARD MATHEMATICS...

1)Revise Bhapters 1,2,3,And 4 For Pre Mid Term Examination.
2) Make Mind Maps Of All Chapters (Unit Wise).
3) COMLETE LAB MANUAL AS DISCUSSED IN THE CLASS.

BIOLOGY.....

COMPLETE ALL THE RESEARCH WORK RELATED TO THE ALLOTTED TOPIC AND SUBMIT THE FINAL REPORT IN ROUGH ON 1ST JULY

S/NO	NAME OF THE STUDENT	TOPIC
01	ARMAN	Bioindicators of pollution
02	BHAVYA	Harmful effect of mobile radiation on human being
03	CHIRAG	Are finger prints hereditary
04	DEV	Study of gene therapy
05	DIVYANSHU	Genetic disease in plants
06	ISHIKA	Testing toxicity in marine plants using Daphnia
07	MANGAL	Immune system VS Microbial World
08	SAMRIDHI	Impact of agrochemical on nature
09	SRISHTI	Study of neurological development in human being
10	TANVI	Effect of diet on blood glucose
11	VAISHNAVI	Study of drug resistance in bacteria using antibiotics

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ECONOMICS

ASSIGNMENT-

Complete the assignment in the Economics Assignment note- Book for the month of April and May.

2)Project- Work Prepare Project Files as per the CBSE guidelines for Boards Examination on the topics discussed in the class. Include all the initial and ending pages as told.

3) Revise and prepare thoroughly with all the back exercises questions of the book of the syllabus completed till date

ACCOUNTANCY

A. Do all excercise questions in Accountancy notebook of:-

(1) Chapter-3, Change in Profit sharing ratio

(2) Chapter-4, Admission of a partner.

B. PREPARE PROJECT FILE AS PER THE CBSE GUIDELINES FOR BOARD EXAMINATION

* One Specific Project based on the financial statement analysis of a company covering any two aspect from the following:-

(1) Comparative ans Common Size Financial Statement.

(2) Accounting Ratio (at least 10 ratio)

(3) Segment Report

(4) Cash Flow Statement.

BUSINESS STUDIES (054)

Prepare a Project on the topic of :-

Project One: Elements of Business Environment.

Project Two: Principles of Management

Fayol's principles

1. Division of work.

2. Unity of command.

3. Unity of direction.

4. Scalar chain

5. Espirit de corps

6. Fair remuneration to all.

7. Order.

8. Equity.

9. Discipline

10. Subordination of individual interest to general interest.

11. Initiative.

12. Centralisation and decentralisation.

13. Stability of tenure.

OR

Scientific techniques of management.

1. Functional foremanship.

2. Standardisation and simplification of work.

3. Method study.

4. Motion Study.

5. Time Study.

6. Fatigue Study

7. Differential piece rate plan.

III. Project Three: Stock Exchange

IV. Project Four: Marketing

1. Adhesives

2. Air conditioners

3. Baby diapers

4. Bathing Soap

5. Bathroom cleaner

6. Bike

7. Blanket

8. Body Spray

9. Bread

10. Breakfast cereal

11. Butter
12. Camera
13. Car
14. Cheese spreads
15. Chocolate
16. Coffee
17. Cosmetology product
18. Crayons
19. Crockery
20. Cutlery
21. Cycle
22. DTH
23. Eraser
24. e-wash
25. Fairness cream
26. Fans
27. Fruit candy
28. Furniture
29. Hair Dye
30. Hair Oil
31. Infant dress
32. Inverter
33. Jams
34. Jeans
35. Jewellery
36. Kurti
37. Ladies bag
38. Ladies footwear
39. Learning Toys
40. Lipstick

41. Microwave oven

42. Mixers

43. Mobile

44. Moisturizer

45. Music player

46. Nail polish

47. Newspaper

48. Noodles

49. Pen

50. Pen drive

51. Pencil

52. Pickles

Or you can choose any other product according to your choice.

Presentation and Submission of Project Report

At the end of the stipulated term, each student will prepare and submit his/her project report.

Following essentials are required to be fulfilled for its preparation and submission.

1. The total length of the project will be of 25 to 30 pages.

2. The project should be handwritten.

3. The project should be presented in a neat folder.

4. The project report should be developed in the following sequence-

Cover page should include the title of the Project, student information, school and year.

List of contents.

Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).

Introduction.

Topic with suitable heading.

Planning and activities done during the project, if any.

Observations and findings of the visit.

Conclusions (summarized suggestions or findings, future scope of study).

Photographs (if any).

Appendix

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HISTORY

Complete the CBSE project with the topic finalised in class according to the following guidelines:

1.Complete the Synopsis of your selected Project Topic.

2. Mention the Need of the Study and Objective of the Study

3. Hypothesis

4. Content -Timeline, Maps, Mind maps, Pictures, etc. (Organization of Material/Data Present Material/Data)

5. Analysing the Material/Data for Conclusion

6. Draw the Relevant Conclusion

7. Bibliography

● Do thorough revision of PT Test syllabus.

● Complete all mapwork and assignments in the history register.

Prepare a Model of Mohenjodaro

Upper town

And Citadel

POLITICAL SCIENCE

Class will be divided into six groups with four / five students in each group of 4 students. .
PREPARE PROJECT FILE AS PER THE CBSE GUIDELINES FOR BOARD EXAMINATION

TOPIC ALLOTTED
1. END OF BIPOLRITY
2. CHALLENGES OF NATION BUILDING
3. SECURITY
4. NATIONAL ENERGENCY
5. ERA OF CONGRESS DOMINANCE
6. GLOBALIZATION
7. CONTEMPORARY SOUTH ASIA
8. INDIA PAKISTAN RELATION

GENERAL GUIDELINES: ● ● ● ● ● ●

The project is to be done on inter-leaf sheets. The total length of the project will be 20-25 pages. Students have to preserve the initial drafts of the project as well as any research papers that they may have used. Students have to be prepared to give a presentation of the project in the class.

The projects must be neat and well-presented and must be completely hand-written.

No whiteners to be used or written matter to be crossed out. In case of any mistakes, redo the sheet.

Do not number sheets or write dates unless so instructed. ·

Colour illustrations, maps, charts may be hand drawn or printed (if it is relevant for any aspect of your project) are welcome to make them look attractive.

B. Inculcate habit of reading newspaper and make short reports for further reference .

C. COMPLETE ASSIGNMENT WORK GIVEN ON ERP

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APPLIED MATHEMATICS

1) Revise chapters 1,2,3,4,5,and 6 for Pre – mid term examination.

2) Make mind maps of all the chapters.

3) Make Projects on the topics discussed in class.

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ENTREPRENEURSHIP

1) Prepare a project as per the guidance given in the class on the topic of market survey must attached questionaries with the specified questions and their respective answer as you have conducted a survey accordingly

2)Must revise chapter done in the class for class test.

IP HOLIDAY HOMEWORK

Instructions:

- Attempt all questions.
- You are encouraged to use Python with the Pandas library to solve these problems. Show your code and the output wherever applicable.
- Feel free to explore different ways to arrive at the solution.

Part 1: Pandas Series

1. **Creating Series:**

- Create a Pandas Series named fruits containing the following data: "Apple", "Banana", "Orange", "Grapes", "Mango". Let the index be the numbers 1 to 5.
- Create another Pandas Series named prices with the corresponding prices: 50, 20, 30, 40, 60. Let the index be the same as the fruits Series.
- Create a Pandas Series named stock with the following data and custom index:

{'Apple': 100, 'Banana': 150, 'Orange': 80, 'Kiwi': 120}

-
-

2. **Accessing Elements:**
   - From the fruits Series, retrieve the fruit at index 3.
   - From the prices Series, retrieve the price of "Orange" (if you created it with the same index as fruits). If you used a numerical index, retrieve the price at the index corresponding to "Orange".
   - From the stock Series, retrieve the stock quantity of "Kiwi".
3. **Series Operations:**
   - Multiply all the prices in the prices Series by 1.10 (to account for a 10% increase). Display the resulting Series.
   - Check if the fruit "Strawberry" exists in the fruits Series.
   - Add a new fruit "Pineapple" with a price of 70 to both the fruits and prices Series (make sure the indices align appropriately if you're combining them later).
4. **Filtering and Boolean Indexing:**
   - From the prices Series, find the prices that are greater than 45.
   - From the fruits Series, find the fruits whose name starts with the letter 'A'. (Hint: You might need to convert the Series to strings first).

Part 2: Pandas DataFrame

5. **Creating DataFrames:**
   - Create a Pandas DataFrame named student_data from the following dictionary:
   - {
   - 'Name': ['Alice', 'Bob', 'Charlie', 'David', 'Eve'],
   - 'Math': [90, 85, 78, 92, 88],
   - 'Science': [88, 92, 80, 85, 95],
   - 'English': [82, 78, 95, 88, 90]
   - }
6. Create another DataFrame named city_data from the following list of dictionaries:

[

{'City': 'Delhi', 'Population': 20000000, 'Temperature': 35},

{'City': 'Mumbai', 'Population': 18000000, 'Temperature': 32},

{'City': 'Kolkata', 'Population': 15000000, 'Temperature': 33}

]**Accessing Data in DataFrames:**

- From the student_data DataFrame, display the 'Name' column.
- Display the first three rows of the student_data DataFrame.
- Display the 'Math' and 'Science' scores for 'Charlie'.
- From the city_data DataFrame, display the 'City' and 'Temperature' columns.

DataFrame Operations:

- Add a new column named 'Total Marks' to the student_data DataFrame, which is the sum of 'Math', 'Science', and 'English' scores for each student.
- Calculate the average 'Math' score of all students.
- Find the city with the highest population in the city_data DataFrame.

Filtering and Boolean Indexing in DataFrames:

- From the student_data DataFrame, display the rows of students who scored more than 85 in 'Science'.
- From the city_data DataFrame, display the cities where the temperature is above 32 degrees Celsius.
- From the student_data DataFrame, display the names of students who scored above 80 in both 'Math' and 'English'.

Handling Missing Values (Introduction):

- Consider the following DataFrame with some missing values:

```
import pandas as pd

data = {'A': [1, 2, None, 4], 'B': [5, None, 7, 8], 'C': [9, 10, 11, None]}

df_missing = pd.DataFrame(data)

print(df_missing)
```

1.Write a brief explanation of what missing values (NaN) represent in Pandas.

2.Use the .isnull() method on df_missing to show the boolean mask of missing values.

A.Revise:

1. Rajasthani miniature painting
2. Pahari miniature painting
3. Mughal miniature painting

B. 1. Coloured landscape
2. Figure composition

PHYSICAL EDUCATION

1) Practical I - Yoga Define any Yoga Aasan with diagram

2)Practical II - Basketball Explain basketball

3)Practical III - Athletics

4)Practical IV- Volley ball

5)Practical V- Badminton