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**DAY PUBLIC SCHOOL SAMANA**  
**(SENIOR SECONDARY)**  
CBSE AFFILIATED-1630571



**SUMMER**

*Holidays*



**HOMEWORK**

**Session-2023-24**

**CLASS -XII**  
**SCIENCE**





## CIRCULAR FOR SUMMER VACATION

**Respected Parents**

**Namaskar / Sat Shri Akal**

Happiness is blossoming in the year. Long awaited Summer holidays are again ready to welcome you with their warm showers! Life needs to be balanced between fun and work. Summer Vacation give a chance for students to relax, visit friends and family, travel to see places and basically chill out enjoying those little pleasure of life which are left behind during the busy school routine. During holidays, leisure replaces work as a priority.

The Summer Break is scheduled from 01-06-2023 to 02-07-2023 for classes Nursery to 12<sup>th</sup> and school will reopen on 03-07-2023 (Monday) So, 31<sup>st</sup> May, 2023 will be the last working day for classes Nursery to 12<sup>th</sup>.

Besides relaxing, the students should keep in mind the execution of the assigned work in well planned manner. To ensure that the children have a constructive and rejuvenating holidays, some Holidays Homework & Project are given which will keep them active and observant. These assignments can be easily done by the children under your guidance. These will indeed provide an enjoyable learning experience to them.

➤ The School Office will remain open on all working days between 9:00 a.m. to 2:00 p.m. during the Summer Vacations.

➤ Here are some productive tips for the students to spend their holidays in a healthy manner.

### **Do's**

- ❖ Wake up early and develop a morning routine. Do yoga, meditation or just a brisk walk.
- ❖ Start learning a new skill like painting, dance, music or public speaking.
- ❖ Play games, sports and do a lot of physical activity, but only during the morning and evening hours.
- ❖ Help your parents in household chores and learn some useful skills.
- ❖ Carry on with the practice of wishing to elders by joining hands & touching their feet.
- ❖ All family members must try to take at least two meals together daily.
- ❖ Converse with your children in English.
- ❖ Encourage your child to develop the reading habit.
- ❖ Ensure that the choice of books he/she reads is purposeful while being entertaining.

## Don'ts

- ❖ Do not waste all your time to playing video games, mobile games & surfing on social networking sites.
- ❖ Don't go out during the hours of peak sunshine. Try some interesting indoor activities.
- ❖ Don't have junk food.
- ❖ Don't oversleep and do not let laziness take you over. Stay active during the vacation.

Above mentioned guidelines will help your child to become a smart and an active learner.

### **HAPPY FATHER'S DAY**

**“Father is a great shield that protects us from every trouble and save us. So, say to your father that you are the one of the most powerful protector for me and my family.”**

Father's Day is a celebration honoring fathers and celebrating fatherhood, paternal bonds, and the influence of fathers in society. To strengthen this bond, Let's celebrate **“FATHER'S DAY”** which falls on **18<sup>th</sup> June, 2023 (3<sup>rd</sup> Sunday)** this year. Prepare the complete detail about your father on colourful sheet and attach with Holidays Homework.

**Wishing you and your ward a very fruitful vacation ahead!**

### **Class Coordinators Contact Details**

Sr. No.	Name	Designation	Class	Contact
1.	Ms. Shifali Bhandari	PRT	Nursery to 2 <sup>nd</sup>	7973838484
2.	Ms. Silki Yadav	PRT	3 <sup>rd</sup> to 7 <sup>th</sup>	9779666609
3.	Ms. Simranjit Kaur Mr. Ramphal Mehla	TGT	8 <sup>th</sup> to 12 <sup>th</sup>	9878895857 9876097728

**Note** : If you have any query related to any subject, you can contact to nominated HODs.

### **Details of HODs :-**

<b><u>Sr. No.</u></b>	<b><u>Subjects</u></b>	<b><u>Classes</u> 3<sup>rd</sup> to 6<sup>th</sup></b>	<b><u>Classes</u> 7<sup>th</sup> to 10<sup>th</sup></b>
1.	English	Mr. Raja Robin (9988131114)	Ms. Sheetal Mohini (9465027093)
2.	Hindi & Sanskrit	Mr. Ganesh Prashad Bhatt (9997754817)	Ms. Anuradha Verma (8872117288)
3.	Punjabi	Ms. Jaspreet Kaur (7986651600)	Ms. Rajwinder Kaur (9478383064)
4.	Mathematics	Ms. Rishu Ghai (9780907117)	Mr. Damanpreet Singh (8264211149)
5.	Science	Ms. Anamika (8699509869)	Mr. Vineet Jood (7206531910) Mr. Mayank Sharma (7307027516)
6.	Social Science	Ms. Seema Rani (9465741012)	Ms. Rajni Rani (9780422755) Mr. Bittu Singh (9803506921)
7.	Computer	Mr. Nardeep Singh (9888372702)	Mr. Nardeep Singh (9888372702)
8.	Music & Dance	Ms Bindu Bala (7707806379)	Ms Bindu Bala (7707806379)
9.	Naitik Shiksha	Mr. Charanjot Singh (9877717098)	Mr. Charanjot Singh (9877717098)
10.	Physical Education	Mr. Ramphal Mehla (9876097728)	Mr. Ramphal Mehla (9876097728)
11.	General Knowledge	Mr. Karan Soni (6239320003)	Mr. Karan Soni (6239320003)

**School Landline Contact No. s 01764-221815, 9878144815**

**E-Mail: [davsamana@gmail.com](mailto:davsamana@gmail.com), [davsamana@yahoo.com](mailto:davsamana@yahoo.com) Website: [www.davsamana.org](http://www.davsamana.org)**

**Principal Mohan Lal Sharma**





## Periodic syllabus

**Flamingo: Lesson 1 The Last Lesson**

**Poem : My Mother at Sixty Six**

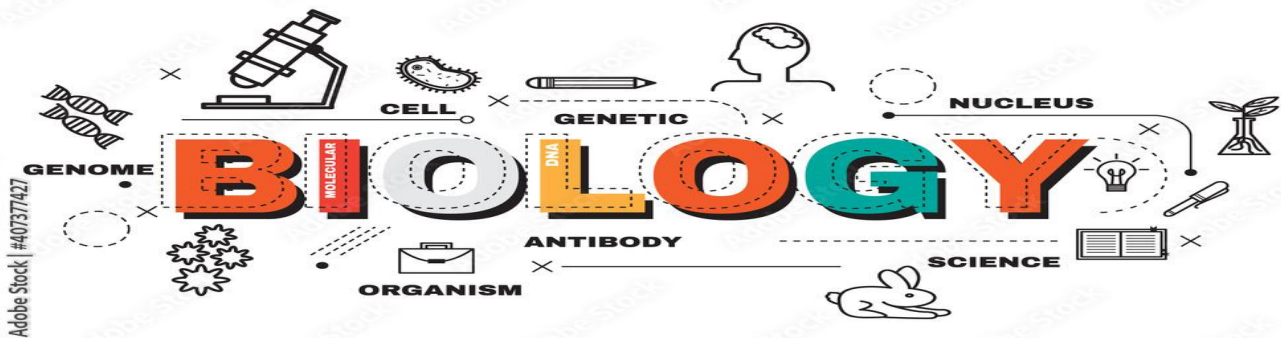
**Vistas: The Third Level**

Prepare Project on Indigo (Lesson Indigo)

### Instructions for Project:

1. Prepare project on Assignment Sheet.
2. Write description about Champaran Movement
3. Paste the pictures related to the movement.
4. Write Bio- Data on front page.

**Reading : Vistas Lesson The Enemy**



## **GENERAL INSTRUCTIONS FOR HOLIDAY HOMEWORK:-**

1. Learning work should be done thoroughly.
2. Use good quality pen pencil and eraser to maintain the tidiness in the practical notebook.
3. Practical work must be done in a very neat and presentable manner.
4. Diagrams should be well drawn by pencil. Use of colored pen/ pencil/ sketch is prohibited.
5. Diagram should be well labeled and properly Drawn.
6. Practice of chapters should be done from NCERT and reference book.

**A)-Learn the following Units for Periodic Test:**

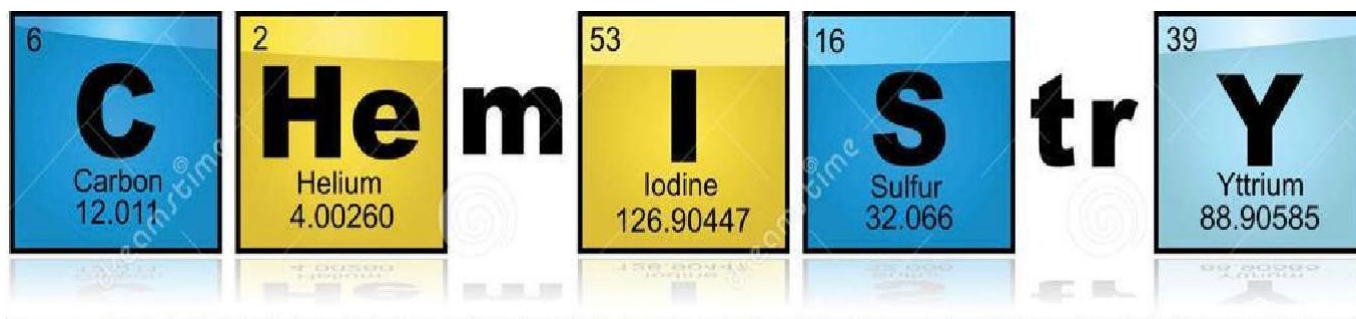
- 1- Sexual reproduction in flowering plants
- 2- Human reproduction

**B)- Make an investigatory project on any topic of your choice contains**

Cover page, Acknowledgement, Aim, Material required and content.

**C)-Write the following experiment in practical file : -**

- 1-Prepare a temporary Mount to observe Pollen germination.
- 2-Study the plant population density by quadrat method.
- 3-Study the plant population frequency by quadrat method.
- 4-Prepare a temporary Mount of onion root tip to study Mitosis.
- 5-Isolate DNA from available plant material such as spinach, green pea seeds, papaya etc



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- Diagram should be well labelled and properly drawn.
- Practice of chapters should be done from Reference book.
- Maintain an index of the contents of your practical record.

**A. Learn the following Units for Periodic Test:**

























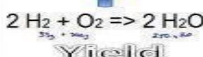

- Chapter 1: Solutions
- Chapter 2 : Electrochemistry

**Do practice of numericals of Chapter 3 Chemical Kinetics.**

**Prepare Practical File of Following Experiments :**

- Preparation of one lyophilic and one lyophobic sol.  
Lyophilic sol - starch, egg albumin and gum.  
Lyophobic sol - aluminium hydroxide, ferric hydroxide, arsenous sulphide
  - Effect of concentration and temperature on the rate of reaction between sodium thiosulphate and hydrochloric acid .
  - Enthalpy of neutralization of strong acid (HCl) and strong base (NaOH)
  - Variation of cell potential in  $Zn/Zn^{2+}/Cu^{2+}/Cu$  with change in concentration of electrolytes ( $CuSO_4$  or  $ZnSO_4$  ) at room temperature.
  - Separation of pigments from extracts of leaves and flowers by paper chromatography and determination of  $R_f$  values.
  - Preparation of double salt of ferrous ammonium sulphate or potash alum.
  - Preparation of Organic Compounds : Acetanilide
  - Test for the Functional Groups Present in Organic Compounds:  
Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (primary) groups
  - Characteristic Tests of Carbohydrates, Fats and Proteins in Pure Samples and Their Detection in Given Food Stuffs.
  - Determination of Concentration/Molarity of  $KMnO_4$  Solution by Titrating it against a Standard Solution of –
    - Oxalic acid
    - (ii) Ferrous ammonium sulphate
- J. Qualitative Analysis**  
Determination of one cation and one anion in a given salt.  
Cations -  $Pb^{2+}$ ,  $Cu^{2+}$ ,  $As^{3+}$ ,  $Al^{3+}$ ,  $Fe^{3+}$ ,  $Mn^{2+}$ ,  $Zn^{2+}$ ,  $Ni^{2+}$ ,  $Ca^{2+}$ ,  $Sr^{2+}$ ,  $Ba^{2+}$ ,  $Mg^{2+}$ ,  $NH_4$   
Anions:  $(CO_3)^{2-}$ ,  $S^{2-}$ ,  $(NO_2)^{-}$ ,  $(SO_4)^{2-}$ ,  $Cl^-$ ,  $Br^-$
- (b) Detection of nitrogen, sulphur, chlorine, in organic compounds.

# CHEMISTRY Alphabet

<b>A</b> Acid 	<b>B</b> Base 	<b>C</b> Catalyst 	<b>D</b> Distillate 	<b>E</b> Electron 	<b>F</b> Formula 
<b>G</b> Galvanizing 	<b>H</b> Halogens 	<b>I</b> Isomer 	<b>J</b> Joule 	<b>K</b> Ketones 	<b>L</b> Litmus 
<b>M</b> Mole 	<b>N</b> Nucleus 	<b>O</b> Octet 	<b>P</b> Polymer 	<b>Q</b> Quinone 	<b>R</b> Reaction 
<b>S</b> Solution 	<b>T</b> Test tube 	<b>U</b> UV light 	<b>V</b> Valence 	<b>W</b> Wave 	<b>X</b> Xanthene 
<b>Y</b> $2\text{H}_2 + \text{O}_2 \Rightarrow 2\text{H}_2\text{O}$ Yield 	<b>Z</b> Zeolites 				



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3. Practical work must be done in a very neat and presentable manner.
4. Diagram should be well drawn by pencil. Use of colored pen/pencil/sketch is prohibited.
5. Diagram should be well labeled and properly drawn.
6. Practice of chapters should be done from Reference book.
7. Maintain an index of the contents of your practical record.

### A. Write the following experiments in Practical file

#### SECTION-A

1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
2. To find resistance of a given wire / standard resistor using metre bridge.
3. To verify the laws of combination (series) of resistances using a metre bridge.
4. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.

#### SECTION-B

1. To find the value of  $v$  for different values of  $u$  in case of a concave mirror and to find the focal length.
2. To find the focal length of a convex lens by plotting graphs between  $u$  and  $v$  or between  $1/u$  and  $1/v$ .





- To determine refractive index of a glass slab using a travelling microscope.
- To draw the I-V characteristic curve for a p-n junction diode in forward bias and reverse bias.

**A. Learn the following Units for Periodic Test:**

Unit-I: Electrostatics

Unit-II: Current Electricity

Prepare Key Notes of Unit – III : Magnetism & Magnetic matter.

Blank page/ Plane page	Ruled page
Use pencil Only	Use pen Only
Date..... Expt.	Date..... Expt.
No.....	No.....
Aim	Aim
Material required	Material required
Diagram	Procedure
Observations	Results



- Do practice of below given **Chapters for Periodic Test 1** to be conducted after summer holidays:

**Chapter 3: Matrices**

**Chapter 4: Determinants**

**Chapter 1: Relations and Functions**

- Project work:- Model Related to Types of Functions**

- Lab Activities:-**

- To verify that the relation R in the set L of all lines in a plane, defined by  $R = \{(l, m) : l \perp m\}$  is symmetric but neither reflexive nor transitive.
- To verify that the relation R in the set L of all lines in a plane, defined by  $R = \{(l, m) : l \parallel m\}$  is an equivalence relation.
- To demonstrate a function which is not one-one but is onto.
- To demonstrate a function which is one-one but not onto.
- To draw the graph of  $\sin^{-1} x$ , using the graph of  $\sin x$  and demonstrate the concept of mirror reflection (about the line  $y = x$ ).
- To explore the principal value of the function  $\sin^{-1} x$  using a unit circle.
- To sketch the graphs of  $a^x$  and  $\log_a x$ ,  $a > 0$ ,  $a \neq 1$  and to examine that they are mirror images of each other.

- To establish a relationship between common logarithm (to the base 10) and natural logarithm (to the base e) of the number x.
- To find analytically the limit of a function  $f(x)$  at  $x = c$  and also to check the continuity of the function at that point.
- To verify that for a function  $f$  to be continuous at given point  $x_0$ ,  $\Delta y = |f(x_0 + \Delta x) - f(x_0)|$  is arbitrarily small provided  $\Delta x$  is sufficiently small.



### General Instruction :-

1. Get up early in the morning.
2. Do Morning & Evening walk daily.
3. Do regular warming exercise in morning & evening for physical fitness.
4. Do yogic exercise daily. Duration of yogic exercise maximum 30 minutes.
5. Take proper balance diet for good health.
6. Take care of your health.

### A. Project Work – prepare a yoga file & Game File.

1. Draw the pictures of below mentioned Yogasana and write down the procedure & benefits of any five Yogasana.
  - \*.Tadasana ; Padamasana ; Bhujangasana ; Chakar asana ; Dhanurasana ; sarvangasana.Vajrasana ,Halasana.

### A. Revise the following Chapters for Periodic test:

**Chapter 1: Management in sports.**

**Chapter 2: Women & Sports.**

**Chapter 3: Yoga & Lifestyle.**



**Write Following Programs and Revise all April and May month syllabus of Computer Science.**

1. Python program to check whether the given number is even or not.
2. Python program to convert the temperature in degree centigrade to Fahrenheit

3. Python program to find out the average of a set of integers
4. Python program to find the average of 10 numbers using while loop
5. Python program to display the sum of n numbers using a list
6. Python program to display the average of given number using function with argument.
7. Python program to display the square of given number using return type.
8. Python program to display the concept of Exception Handling with try and except statement.
9. Python program to read a file named "article.txt", count and print total alphabets in the file?
10. Python program to read a file named "article.txt", count and print the following:  
(i) length of the file(total characters in file) (ii) total alphabets  
(iii) Total upper case alphabets (iv) Total lower case alphabets  
(v) Total digits (vi) Total spaces  
(vii) Total special characters

## **CREATIVE WORK**

### **Prepare Charts on -**

- Roll No. 1 to 4 - July Month Value Education Topic
- Roll No. 5 to 8 - August Month Value Education Topic
- Roll No. 9 to 12 - September Month Value Education Topic
- Roll No. 13 to 16- October Month Value Education Topic
- Roll No. 17 to 20- November Month Value Education Topic
- Roll No. 21 to 24 - December Month Value Education Topic
- Roll No. 25 to 28 - January Month Value Education Topic
- Roll No. 29 to 32 - February Month Value Education Topic
- Roll No. 33 to 36 - March Month Value Education Topic
- Roll No. 37 to 40 - Invitation Card
- Roll No. 41 to 44 - Good Thoughts
- Roll No. 45 to 48- Handmade Folder
- Roll No. 49 onwards - Make Frills for Board Decoration

**NOTE-** Month wise Value Education Topics are mentioned in your Study Plan.