



DRONACHARYA
SR. SEC. SCHOOL MUBARIKPUR (JH)
AFFILIATED TO CBSE NEW DELHI, Aff No. 530945 |

Summer Holidays Homework

Class: - XII(Medical)

Dear Students,

As the summer sun rises higher and the days stretch longer, it's time to pause, reflect, and recharge. The months of May and June bring with them not just warmth, but also the perfect opportunity to reconnect—with ourselves, with our families, and with the world around us.

Let us remember: "A mind stretched by new experiences can never go back to its old dimensions." This summer, let curiosity lead you, compassion guide you, and creativity energize you.

As part of the Summer Holiday Engagement 2025, we encourage you to stay indoors during peak hours, remain hydrated, and take thoughtful care of the ecology and environment around you. Even small steps—like reducing plastic use, saving electricity, and caring for plants—can bring meaningful change.

This year's holiday homework is designed to nurture Social, Emotional, and Experiential Learning. Whether you're experimenting in the kitchen, helping out at home, writing in your journal, or diving into a book—know that each activity contributes to your growth.

Let this summer be more than just a break. Let it be a season of purposeful rest, joyful discovery, and mindful action.

I believe in your potential to make a difference and look forward to seeing your spirit shine through in every page of your work.

Stay safe, stay curious, and above all—stay kind.

Warm wishes,

Class Teacher

GENERAL INSTRUCTIONS

- Complete your homework in the given time period.
- Make a separate single notebook for all subjects.

English

. Reading and Writing

1. Newspaper Reading and Report Collection

- Read the newspaper daily with a special emphasis on school-based reports.
- Cut out at least 10 different newspaper reports and use them as a ready reference for report writing. Pay attention to the language used to get a fair idea of how reports must be written.

2. Letter Writing: Solve 6 letter writing assignments (3 of each type, letter to the editor & Application for job) from your BBC Compacta.

II. Reading and Comprehension

Solve 3 Unseen passages of TYPE 1, and 3 unseen passages of TYPE 2 from Module ONE in your BBC Compacta.

Type 1- passages to assess comprehension, interpretation, inference and vocabulary

Type 2- Case Based Factual Passage

III. Notice and Summaries

1. Notice Writing

- Solve any 5 Notice Writing Assignments from your BBC Compacta.

2. Summaries of Lessons

- Write brief summaries of the following lessons in 250-300 words:
 - "The Last Lesson"
 - "Deep Water"
 - "Lost Spring"

IV. Summaries, and Biographical Sketches

1. Summaries of Poems

- Write brief summaries of the following poems in 120-150 words:
 - "My Mother at Sixty Six"
 - "A Thing of Beauty"
 - "Keeping Quiet"

2. Biographical Sketches

- Write biographical sketches of the following poets:

- Robert Frost

- John Keats

V. Listening and Speaking Tasks (Throughout the Vacation)

Prepare a speech on any one of the given topics (in written format as well as be prepared to deliver it in class)

- Importance of Elder Members in a Family (in reference to the poem "My Mother at Sixty Six")

- Impact of Poverty and Societal Inequality on Childhood

- Themes of Trust and Kindness

- Prepare your points and be ready to discuss these topics with your classmates.

VI. Solve the Extract based questions from Module 5 of your BBC Compacta for the following chapters and poems :

1. The Last Lesson

2. Lost Spring

3. Deep Water

4. My Mother at Sixty six

5. Keeping Quiet

6. A Thing of Beauty

-General Instructions:

- Maintain a separate notebook for your holiday homework.

- Ensure that your work is neat and well-organized.

- Be prepared to discuss and share your work with your classmates when school reopens.

Physics

Concept Builder Notebook :- Prepare handwritten summary notes (5-6 pages per chapter) covering the following: Key definitions and laws (e.g., Coulomb's Law, Gauss's Law, Ohm's Law, Biot-Savart Law) Important formulas with SI units. Diagrams with proper labeling.

Flashcard Revision Kit:- Create a set of 25 flashcards to revise key concepts from the chapters: Chapters Covered: Electrostatics, Current Electricity, Magnetic Effect of Current, Magnetism Electromagnetic Induction (EMI) Alternating Current **Instructions** to Create Flashcards: **Material:** Use small index cards or cut A4 sheets into 4 equal parts. **Front Side:** Write a question, term, law, or formula name. **Back Side:** Write the answer, explanation, diagram, or derivation tip.

Mind Map Creation :- Make a mind map on one of the following topics (A4 size, colored): Magnetic effect of current , Current Electricity, Alternating Current. Include: Definitions, Laws, Formulae, Diagrams, Practical examples. Use branches and arrows to show relationships. Add icons, keywords, and visual elements to make it appealing and easy to revise.

Electricity Consumption Audit:- Make a table of at least 5 home appliances. For each list: Power rating , Hours used per day. Total energy consumed in a week. Calculate the total cost using Rs. 6/unit

Poster – AC vs DC :- Make a visually engaging poster comparing Alternating Current (AC) and Direct Current (DC). Include: Definitions, Graphs of variation with time, Applications , Sources (batteries vs power supply)

“ Revise whole syllabus for a test after summer Vacations”

Chemistry

1. Handwritten Notes of All 4 Chapters

✍ Prepare notes chapter-wise in your Chemistry notebook:

Write definitions, laws, and key formulas

Include solved numericals where needed (especially for Solutions and Electrochemistry)

Make reaction charts for Haloalkanes & d-block

Draw important diagrams (like conductivity cell, galvanic cell, etc.)

✓ Use highlighters or colored pens to make key points stand out.

2. Make One Informative Chart or Model (Choose Any One)

You may choose:

Chart of types of solutions with examples

Electrochemical series or cell diagram (Galvanic cell)

Reactions of Haloalkanes in flowchart form

Electronic configuration of d- and f-block with periodic table placement

Use simple materials: cardboard, color pens, chart paper, etc.

3. Solve Practice Questions

Solve the following in your notebook (mention question + full answer):

10 numericals from "Solutions" (based on molarity, molality, Raoult's law)

5 numericals from "Electrochemistry"

5 Intext/NCERT-based questions each from d & f block and Haloalkanes

☐ Total: 30 important board-style questions.

☐ 4. Prepare 10 Short Questions and Answers from Each Chapter

☐ Write in simple language, using your own words:

These questions may be used for a quiz/test after vacation.

Class 12th chemistry Assignment

Multiple Choice Questions (MCQs)

1. Which of the following will show maximum elevation in boiling point?

- A) 1 molal NaCl
- B) 1 molal urea
- C) 1 molal glucose
- D) 1 molal BaCl₂

2. The unit of molality is:

- A) mol/L
- B) mol/kg
- C) mol/m³
- D) mole

3. Which of the following is not a colligative property?

- A) Osmotic pressure
- B) Depression in freezing point
- C) Elevation in boiling point
- D) Enthalpy of vaporization

4. Which law relates vapour pressure of a solution to the mole fraction of solvent?

- A) Raoult's Law
- B) Henry's Law
- C) Dalton's Law
- D) Boyle's Law

5. The molar conductivity of a strong electrolyte:

- A) Decreases with dilution
- B) Increases with dilution
- C) Remains constant
- D) First increases then decreases

6. Which of the following is used as a reference electrode?

- A) Zinc electrode
- B) Calomel electrode
- C) Copper electrode
- D) Silver electrode

7. Electrolysis of aqueous NaCl solution gives:

- A) Na
- B) NaOH and Cl₂
- C) H₂ and NaOH
- D) NaOH and O₂

8. Which of the following haloalkanes undergo SN1 reaction most readily?

- A) CH₃Br
- B) C₂H₅Br
- C) (CH₃)₃CBr
- D) CH₃CH₂CH₂Br

9. The best method to prepare alkyl fluorides is:

- A) Halogenation
- B) Finkelstein reaction
- C) Swarts reaction
- D) Kolbe's reaction

10. What is the IUPAC name of $\text{CH}_3\text{CHBrCH}_2\text{CH}_3$?

- A) 1-bromobutane
- B) 2-bromobutane
- C) 3-bromobutane
- D) Butyl bromide

11. Define molality and mole fraction. Write their units.

12. State Henry's Law and its significance in soft drinks and scuba diving.

13. Calculate the mass of urea required to be dissolved in 500 g of water to lower the freezing point by 2 K. ($K_f = 1.86 \text{ K kg mol}^{-1}$)

14. Define the term 'abnormal molar mass' with reference to colligative properties.

15. What is the effect of temperature on conductivity and molar conductivity?

16. Differentiate between electrolytic cell and galvanic cell (any 3 points).

17. Define cell constant and write its SI unit.

18. Write the Nernst equation for a cell and explain the terms involved.

19. What is Kohlrausch's Law? State its two applications.

20. How is chlorobenzene prepared from aniline? Name the reaction involved.

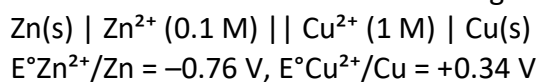
21. What is Raoult's Law? Derive the expression for the total vapour pressure of a binary solution.

22. Define osmotic pressure. Derive an expression to relate osmotic pressure with molar mass of solute.

23. Derive the relationship between degree of dissociation (α) and van't Hoff factor (i). How does it affect colligative properties?

24. Describe the construction and working of a Daniel cell with appropriate reactions at anode and cathode.

25. Calculate the EMF of the following cell at 298 K:



26. Explain how conductivity and molar conductivity vary with dilution for strong and weak electrolytes.

	27. Explain SN1 and SN2 mechanisms with suitable examples. 28. Describe the Swarts reaction and Finkelstein reaction. Write balanced equations. 29. How will you prepare the following haloalkanes? a) $\text{CH}_3\text{CH}_2\text{Br}$ from alcohol b) $\text{CH}_3\text{CH}_2\text{Cl}$ from alkene c) $\text{C}_6\text{H}_5\text{Cl}$ from benzene Write chemical equations. 30. Give reasons: a) Alkyl halides are more reactive towards nucleophilic substitution than aryl halides. b) Aryl halides do not undergo SN1 or SN2 easily. c) Tertiary alkyl halides undergo SN1 reaction more easily than primary.
Biology	1). Make an investigatory project or assignment on any topic from Unit-1 & 2. But the project should be research based including latest findings and data and pictures/diagrams. 2). Survey 10 people (family, neighbors, friends) and record visible genetic traits such as earlobe type, tongue rolling, dimples, handedness, etc. Create a bar graph or pie chart showing the distribution of these traits. Conclude with a short analysis about dominant/recessive traits. 3). Design a pedigree chart based on a fictional or real family inheritance pattern for a genetic disorder (e.g., hemophilia, color blindness). Create questions based on your chart for your classmates to solve. 4). Create a rotating 3D model of DNA structure using cardboard, straws, beads, etc., to demonstrate base-pairing and helical nature. 5). Title: "Case Study: Reproductive Health in India" Conduct a small research project on any one issue related to reproductive health in India (e.g., contraceptive awareness, menstrual hygiene, infertility, STDs). Include data, real-world examples, and solutions. 6). Prepare Mindmaps of all the chapters from Unit-1 & 2 mention only key points and topics of the particular chapter.
Music	1.Music : Learn and write in fair NB. The topics are : Alankar , Kan Meend khatka Murki Gamak 2.Make a chart on any Musical instrument

खेलों में योजना'

1. योजना का अर्थ एवं उद्देश्य
 2. विभिन्न प्रकार की समितियाँ व उनकी जिम्मेदारियाँ
 3. टूर्नामेंट्स-नॉक आउट, लीग या राउंड रोबिन एवं कॉम्बिनेशन
 4. फिक्स्चर तैयार करने की विधि- नॉक आउट (बाई व सीडिंग तथा लीग)
 5. साइक्लिक तथा -स्टेयरकेस
 6. इंटरम्युरल्स व एक्सट्राम्युरल्स (आंतरिक व बाह्य) अर्थ उद्देश्य व इसका महत्व
 7. विशिष्ट खेल कार्यक्रम (खेल दिवस स्वास्थ्य दौड़ रन फॉर फन विशेष कारन के लिए दौड़ व एकता के लिए दौड़)
2. साहसिक खेल तथा नेतृत्व प्रशिक्षण
1. साहसिक खेलों का अर्थ एवं उद्देश्य
 2. गतिविधियों क्रियाकलापों के प्रकार
 3. क्रियाकलापों के लिए आवश्यक सामग्री एवं सुरक्षा उपाय
 4. प्राकृतिक संसाधनों की पहचान एवं प्रयोग
 5. पर्यावरण संरक्षण
 6. शारीरिक शिक्षा द्वारा नेताओं का सृजन

पूरे पाठ्यक्रम का पुनरावलोकन करें