



NOIDA INTERNATIONAL PUBLIC SCHOOL

Dear Class 12 Students,

Welcome to your final summer break as school students! This year is a tremendous milestone, bringing with it the excitement of your senior year and the vital preparation for your upcoming CBSE board exams.

We know that the pressure of Class 12 can sometimes feel overwhelming. While it is essential to stay consistent with your studies and syllabus, we want to gently remind you that your mental health and physical well-being are your greatest assets. A stressed mind cannot learn efficiently. Take this vacation to genuinely recharge—pursue your hobbies, spend quality time with your family, and make sure to get plenty of rest.

The holiday homework compiled for you is designed to be more than just repetitive writing. It includes case studies, practical files, and analytical projects that will deepen your understanding of the concepts and prepare you for the competency-based questions in your board exams.

A Few Tips for a Productive Break:

- **Consistent Revision:** Dedicate a small, fixed portion of your day to review what has been taught so far.
- **Mindful Breaks:** Step away from your screens. Practice mindfulness, yoga, or simply go for a walk to decompress.
- **Stay Curious:** Read extensively beyond your textbooks to build your vocabulary and critical thinking skills.

We believe in your potential and are here to support you every step of the way. Return from this break refreshed, motivated, and ready to conquer your senior year!

Wishing you a joyful, balanced, and productive summer holiday!

Warm regards,☐

NIPS

Physics

1. Prepare an investigatory project on a selected topic. You may choose any one of the following suggested topics for the investigatory project:
 - (a) Study of factors affecting the internal resistance/EMF of a cell.
 - (b) Study of current variation in an LDR circuit due to changes in lamp power and distance.
 - (c) Determination of refractive indices of water and transparent oil using a lens and plane mirror.
 - (d) Study of the relation between input and output voltage with respect to the number of turns in a transformer.
 - (e) Study of the dependence of the angle of deviation on the angle of incidence using a hollow prism.
 - (f) Estimation of charge on Styrofoam (or pith) balls using Coulomb's law.
 - (g) Study of factors affecting the self-inductance of a coil in an A.C. circuit.
 - (h) Study of the Earth's magnetic field using a compass needle and tangent galvanometer.
2. Complete lab manual work.
3. Complete the question bank provided on the ERP in a separate notebook.
4. Prepare UT-1 syllabus.

Chemistry

1. Do investigatory project on the selected topic.
 - a) Study of quantity of casein present in different samples of milk.
 - b) Study of the presence of oxalate ions in guava fruit at different stages of ripening.
 - c) study of effect of potassium bisulphate as food preservatives under various conditions.
 - d) comparative study of the rate of fermentation of following materials: wheat flour, potato juice, carrot juice etc.
2. Complete lab manual work of chemistry titration topic.
3. Complete 15 interconversion reactions based on haloalkanes and haloarenes topic.

Biology

1. Collect data and make first draft of investigatory project on the topic selected by you. for example – Biodiversity and conservation, microbes in human welfare, gene therapy etc.
2. Make PPT for the project.
3. Complete first ten practicals in your lab manual.

Standard Mathematics

1. Project Work

Title – Relations and Functions

Suggested Topics

A) Equivalence Relations using real-life examples

B) Types of Functions:

(i) One-One

(ii) Onto

(iii) Bijective

C) Graphs of inverse trigonometric functions.

D) Principal value branches.

E) Domain and range visualization.

Activities

- a) Arrow diagrams
 - b) Mapping charts
 - c) Graph plotting on graph paper.
2. **Make a Formula Handbook :** Prepare a chapter-wise formula handbook for all chapters.
 3. **Complete the Question Bank :** Complete the question bank provided on the ERP in notebook.
 4. **Complete Lab Manual Work:** Complete your lab manual work.

English

1. Prepare a project on any one of the following topics:

1. The Importance of Digital Literacy
2. Social Media: Boon or Bane for Teenagers
3. Artificial Intelligence in Daily Life
4. Importance of Reading Books in the Age of Reels
5. Should Exams Be the Only Way to Judge Students
6. Plastic Ban: Necessity or Inconvenience
7. Mental Health is as Important as Physical Health
8. The Plight of the Elderly/Care of the Elderly: Understanding the loneliness and insecurities of old age (Fear of separation with reference to the poem Mother at Sixty Six)
9. Importance of Mother Tongue/Language Chauvinism: A deeper look at linguistic issues (based on The Last Lesson)

2. Write the answers of the Question Bank given on ERP in a separate notebook.

3. Revise UT-1 syllabus.

Hindi

1. किन्हीं दो प्राचीन कवि व नवीन कवि के बारे में विस्तार से लिखिए।
2. किन्हीं दो प्राचीन लेखक व नवीन लेखक के बारे में विस्तार से लिखिए।
3. अंतरा - देवसेना का गीत, कार्लेनिया का गीत (काव्य), सरोज स्मृति (काव्य), प्रेम घन की छाया 'स्मृति' (गद्य)।
4. अंतराल - सूरदास की झोपड़ी।
5. विभिन्न माध्यमों के लिए लेखन (व्याकरण)।
6. समस्त क्वेश्चन बैंक, वर्कशीट अपनी उत्तर पुस्तिका में करें तथा समस्त कार्य को याद करें।

नोट: प्रश्न 1 एवं 2 A4 शीट पर लिखकर प्रोजेक्ट फाइल तैयार कीजिए।

Physical Education

Instructions

1. Write neatly in a separate notebook/file.
2. Use diagrams wherever required.
3. Submit after vacation.
4. Do all work in your own handwriting.

Section A – Project Work

Q1. Prepare a project file on any ONE topic:

1. Yoga and its importance in daily life
2. Physical fitness and wellness
3. Balanced diet for athletes
4. Women participation in sports

☞ Include: Introduction, Benefits, Diagram/Pictures, Conclusion

Section B – Activity Work

Q2. Daily Fitness Record (Minimum 10 Days)

Make a table and record: Date, Activity (Running/Yoga/Exercise), Duration (Minutes)

Section C – Written Work (20 Marks)

Very Short Questions

1. What is endurance?
2. Define flexibility.
3. What is BMI?
4. Name one asana for stress relief.
5. What is balanced diet?

Short Answer Questions (3×5 = 15 Marks)

1. Explain the importance of physical fitness.
2. Write any three benefits of yoga.
3. Describe components of fitness.
4. Explain the role of diet in sports performance.
5. What are warming-up exercises?

Section D – Practical/Skill Work (10 Marks)

Q4. Perform and write steps of any 3 Yoga Asanas:

Tadasana

Bhujangasana

Vrikshasana

☞ Include: Steps, Benefits, Precautions

Bonus (Optional – 5 Marks)

Participate in any sports activity during holidays.

Attach a photo or write your experience (5–6 lines).

Home Science

Project Work (Any One)

1. Planning any five messages for nutrition, health and life skills using different modes of communication for different focal groups.

2. Market Survey of Five Processed Foods:

Collect packets/wrappers or pictures of any five processed foods and paste them in the file.

Hand Sewing Work

4 Handkerchiefs –

Baste (Kaccha)

Blind Stitch (Chor Silai)

Hemming (Turpai)

Backstitch (Bakhiya)

1 Tie and Dye Handkerchief

Flash Cards Activity

Prepare flash cards based on any one Government Scheme.

Minimum 8 cards (Size 10" × 8").

Diet Chart

Prepare a diet chart for adolescents (yourself).

Information Technology

1. Write down the seven factors affecting perspectives in communication.
2. Mention the 7C's of effective communication.
3. How can we speak confidently in public using 3Ps method?
4. What are the elements of communication? Also draw a communication cycle showing all the elements of communication.
5. What is verbal communication? Differentiate between verbal and non-verbal communication. Write their advantages and disadvantages.
6. What is DBMS? What are various operations performed by Database?
7. What are limitations of using DBMS?
8. What do you mean by domain constraint?
9. Differentiate between DBMS and RDBMS.

Data Science

1. What do you mean by Data Governance? Explain.
2. What is Exploratory Data Analysis (EDA)?
3. Univariate and Multivariate Analysis.
4. What is meant by Evaluation Metrics? Explain.
5. What are the importance of Data Governance?

Note: Prepare and learn your notes for UT-1.