

A vibrant illustration of a summer holiday scene. In the foreground, a wooden signpost with five directional arrows points to 'English', 'Physics', 'Chemistry', 'Maths', and 'Biology'. A winding asphalt road leads from the signpost towards a red and white vintage van parked on a green lawn. In the background, there are green hills, a tall evergreen tree, and a blue sky with white clouds and several birds flying. The overall style is bright and cheerful.

IT'S TIME FOR A SUMMER HOLIDAY!

LET'S MAKE THE MOST OF OUR SUMMER HOLIDAY BY
RELAXING BY THE POOL, READING OUR FAVORITE BOOKS,
AND INDULGING IN DELICIOUS SEASONAL FRUITS

CARMEL CONVENT SCHOOL

Holiday Homework(2025-26)
CLASS XI (SCIENCE STREAM)



SUMMER
HOLIDAYS
HOMEWORK

ENGLISH

General Instructions:

- Maintain a separate notebook or file for all your homework.
- Present your work neatly and creatively.
- Ensure originality in all your submissions.

Reading Challenge:

1 Pick one English novel (fiction, minimum 150 pages) that genuinely interests you and read it thoroughly.

Task: Write a book review (approx. 200–250 words). Include the title, author, a brief plot summary (no spoilers!), major characters, main themes, and your personal thoughts on the book. Would you recommend it and why?

Creative Writing Corner:

2.Option 1: Diary Entry: Write a diary entry (150–200 words) describing your most unforgettable summer vacation experience. Focus on your feelings and observations.

Option 2: Short Story Starter: Begin a short story (at least 200 words) with the line: "The old map, tucked away in the dusty attic, promised an adventure..." Develop the plot and characters from there.

Grammar Power-Up:

3.Tenses & Modals: Create 10 original sentences demonstrating correct usage of different tenses (e.g., Present Perfect, Past Continuous, Future Simple). Then, write another 10 sentences correctly using various modal verbs (e.g., can, could, might, must, should).

Error Correction: Find an article from a newspaper or online (minimum 200 words). Read it carefully and identify at least 5 grammatical errors (e.g., subject-verb agreement, articles, prepositions). Rewrite the sentences correctly.

Have a fantastic and productive summer!

CHEMISTRY

INVESTIGATORY PROJECT

1. Complete your investigatory project which you have been already allotted (except the observation part if you haven't performed your project).

PROJECT FILE SHOULD CONTAIN PAGES IN FOLLOWING ORDER:

- a. CERTIFICATE
- b. ACKNOWLEDGEMENT
- c. AIM OF PROJECT
- d. INTRODUCTION
- e. THEORY
- f. APPARATUS REQUIRED
- g. PROCEDURE
- h. OBSERVATION
- i. CONCLUSION
- j. PRECAUTION
- k. BIBLIOGRAPHY

**** STRICTLY ADHERE TO ABOVE MENTIONED ORDER**

2. Questions of CHAPTER 1 and 2 is hereby attached.

Theory Revision.

3. Prepare detailed notes on the chapter "Structure of Atom" (or equivalent). Include diagrams of atomic models (Bohr, Rutherford) and explain quantum numbers in your own words.

Problem Solving

4. Solve 10 questions on Mole Concept and Stoichiometry from your NCERT textbook. Focus on balancing chemical equations and calculating molar masses.

Research Task

5. Research the role of chemistry in everyday life (e.g., the chemistry of sunscreen or food preservation). Write a 200-word report on your findings.

6. All assignments should be done in separate register and copy of assignment sheet should be pasted.

7. Timely submission of assignment register is must.

PHYSICS

Chapter - 3

Motion in a Straight Line- Worksheet

Each question carries 3 marks

1) The position of an object moving along x-axis is given by $x = a + bt^2$ where $a = 8.5 \text{ m}$, $b = 2.5 \text{ m s}^{-2}$ and t is measured in seconds. What is its velocity at $t = 0 \text{ s}$ and $t = 2.0 \text{ s}$. What is the average velocity between $t = 2.0 \text{ s}$ and $t = 4.0 \text{ s}$?

2) A ball is thrown vertically upwards with a velocity of 20 m/s from the top of a multistorey building. The height of the point from where the ball is thrown is 25.0 m from the ground.

(a) How high will the ball rise? and (b) how long will it be before the ball hits the ground?

Take $g = 10 \text{ m s}^{-2}$.

3) A woman starts from her home at 9.00 am, walks with a speed of 5 km/h on a straight road up to her office 2.5 km away, stays at the office up to 5.00 pm, and returns home by an auto with a speed of 25 km/h . Choose suitable scales and plot the x-t graph of her motion.

4) A drunkard walking in a narrow lane takes 5 steps forward and 3 steps backward. followed again by 5 steps forward and 3 steps backward, and so on. Each step is 1 m long and requires 1 s . Plot the X-t graph of his motion. Determine graphically and otherwise how long the drunkard takes to fall in a pit 13 m away from the start.

5) A car moving along a straight highway with speed of 126 km/h is brought to a stop within a distance of 200 m . What is the retardation of the car (assumed uniform), and how long does it take for the car to stop?

6) Two trains A and B of length 400 m each are moving on two parallel tracks with a uniform speed of 72 km/h in the same direction, with A ahead of B. The driver of B decides to overtake A and accelerates by 1 m/s^2 . If after 50 s , the guard of B just brushes past the driver of A, what was the original distance between them?

7) On a two-lane road, car A is travelling with a speed of 36 km/h . Two cars B and C approach car A in opposite directions with a speed of 54 km/h each. At a certain instant, when the distance AB is equal to AC, both being 1 km , B decides to overtake A before C does. What minimum acceleration of car B is required to avoid an accident?

8) Two towns A and B are connected by a regular bus service with a bus leaving in either direction every T minutes. A man cycling with a speed of 20 km/h in the direction A to B notices that a bus goes past him every 18 min in the direction of his motion, and every 6 min in the opposite direction. What is the period T of the bus service and with what speed (assumed constant) do the buses ply on the road?

9) A player throws a ball upwards with an initial speed of 29.4 m/s .

(a) What is the direction of acceleration during the upward motion of the ball?

(b) What are the velocity and acceleration of the ball at the highest point of its motion?

(c) Choose the $x = 0 \text{ m}$ and $t = 0 \text{ s}$ to be the location and time of the ball at its highest point, vertically downward direction to be the positive direction of x-axis, and give the signs of position, velocity and acceleration of the ball during its upward, and downward motion.

(d) To what height does the ball rise and after how long does the ball return to the player's hands? (Take $g = 9.8 \text{ m/s}^2$ and neglect air resistance).

10) A man walks on a straight road from his home to a market 2.5 km away with a speed of 5 km h^{-1} . Finding the market closed, he instantly turns and walks back home with a speed of 7.5 km h^{-1} . What is the

(a) magnitude of average velocity, and

(b) average speed of the man over the interval of time (i) 0 to 30 min, (ii) 0 to 50 min, (iii) 0 to 40 min?

MATHS

1. Project (Art Integrated) :

Project on history of Mathematicians: It may include history of Indian mathematicians such as Aryabhata, Brahmgupta, Varahamihir, Sridhara, Bhaskaracharya, Ramanujan etc., and history of foreign mathematicians such as Cantor, Pythagoras, Thales, Euclid, Appollonius, Descartes, Fermat, Leibnitz, Euler, Fibonac, Gauss, Newton, etc.

2. Revise the whole syllabus that you have done in the class.

3. Write the activities on the lab manual that will be Shared in the group.

4. Solve the worksheets that will be shared later on .

BIOLOGY

Theory-Based Assignments

- *The Living World*:

- Describe the characteristics of living organisms, including growth, reproduction, and metabolism.
- Explain the concept of species and its importance in biology.

- *Biological Classification*:

- Explain the principles of classification, including the hierarchy of categories and the basis of classification.
- Describe the major taxonomic groups, including kingdoms, phyla, and classes.

- *Animal Kingdom*:

- Describe the characteristics and classification of different animal phyla, including Chordata, Arthropoda, and Mollusca.
- Explain the importance of body structure, symmetry, and embryonic development in animal classification.

- *Plant Kingdom*:

- Describe the characteristics and classification of different plant groups, including algae, bryophytes, pteridophytes, gymnosperms, and angiosperms.
- Explain the importance of plant morphology, anatomy, and embryology in plant classification.

Investigatory Project on any one of the following topics:

1. Study of Plant Diversity*: Investigate the diversity of plants in your local area, including their morphology, anatomy, and adaptations.
2. Classification of Animals*: Collect and classify different animal specimens, including insects, mollusks, or vertebrates.
3. Effect of Environmental Factors on Plant Growth*: Investigate how environmental factors, such as light, temperature, and water, affect plant growth and development.

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Presentation and Submission Guidelines

- Submit the assignments and project report in a neatly typed or handwritten format.
- Include diagrams, illustrations, and tables to support your answers and project findings.
- Ensure proper citation and referencing of sources used in the project.

Tips for Success

- Start working on the assignments and project early to avoid last-minute rush.
- Use reliable sources, including textbooks, online resources, and scientific journals.
- Seek guidance from teachers or mentors if needed.
- Showcase your creativity and critical thinking skills in the project and assignments.

Do self study of chapter "Morphology of flowering plant".

HISTORY

Prepare Project on any one of the following topic: -

The Importance of Writing in Mesopotamian Civilization

(How writing developed and its uses in administration, trade, and literature).

2. Cultural Features of the Roman World from the Fourth to Seventh Centuries.

(Write about the architecture, painting, sculpture, laws and literature)

A) INTRODUCTORY PAGE

B) CERTIFICATE

C) ACKNOWLEDGEMENT

D) INDEX

E) INTRODUCTION

F) CONCLUSION

G) BIBLIOGRAPHY

H) TEACHER REMARK

(Assignment B)

Q.1) Why was trade so significant to the Mongols?

Q.2) Write in brief the composition of Mongol army?

Q.3) Write about the religious life of Mongol?

Q.4) When was Nishapur occupied by Genghis Khan? Why did he carry out terrible destruction here?

Q.5) Write any three causes for the defeat of the Mongol at the hands of Egyptian soldiers?

Q.6) Describe in your own words the conquest of Northern China by Genghis Khan?

HINDI

1. राजस्थान की रेतीली भूमि में पानी के स्रोत केवल वहां की जल समस्या का समाधान नहीं है बल्कि जमीनकी अतल गहराइयों में जीवन की पहचान है इस बात को सिद्ध करते हुए वहां के जल सब व्यवस्था परनिम्नलिखित बिंदुओं के आधार पर निबंध तैयार कीजिए। शब्द सीमा 200-250 तक)

- राजस्थान में जल की स्थिति
- जल के आंकड़े
- जल कम क्यों है
- सरकार के प्रयास
- लोगों की जागरूकता
- आज की स्थिति

INFORMATION PRACTICES

Instructions for Submission:

1. Draw Flowcharts

2. For each Python programming problem given in the homework, draw a neat and well-labeled flowchart using pencil and ruler. Use standard flowchart symbols.

Mention the logic clearly.

Label all input/output statements.

3. Write Python Code:

After drawing the flowchart, write the corresponding Python code neatly on ruled sheets.

Make sure the code is logically correct and properly indented.

Include comments where necessary to explain the code.

4. Use Assignment Sheets:

Do your work on A4-size ruled assignment sheets.

Use only blue or black ink for writing.

Flowcharts should be drawn in pencil.

5. Proper Organization:

Use a cover page with the following details:

Name of the student

Class and section

Roll number

Subject: Informatics Practices

Topic: Holiday Homework

Staple all the pages properly or submit in a soft binder.

6. Deadline for Submission:

Submit the homework on the first day after the holidays.

Late submissions will not be accepted unless there is a valid reason.

7. Neatness and Presentation:

Marks will be awarded for neatness, logical flow, correct syntax, and presentation.

Avoid overwriting and untidy work.

Task assigned:

Comparison of Numbers: Take four numbers entered by the user, compare them and take out the largest.

Simple Interest Calculator: Take Principal, time and rate from the user. Using Simple Interest $(SI) = (Principal \times Rate \times Time) / 100$ formula performs the task.

Calculator: Takes two numbers and an operator as input and performs the corresponding operation (addition, subtraction, multiplication, division).

Factorial: Calculates the factorial of a given number.

Fibonacci Series: Generates the Fibonacci sequence up to a specified number of terms.

Palindrome Check: Determines if a given string or number is a palindrome (reads the same backward as forward).

Prime Number Check: Checks if a given number is prime.

Leap Year Check: Determines if a given year is a leap year.

List and String Manipulation

List Operations: Programs involving adding, removing, searching, and sorting elements within a list.

String Operations: Programs to manipulate strings (e.g., converting to uppercase/lowercase, finding length, concatenating, extracting substrings).

Reverse String: Reverses a given string.

Looping and Conditional Statements:

Number Series: Programs to generate different number series (e.g., natural numbers, odd numbers, even numbers).

Pattern Printing: Prints various patterns using loops (e.g., triangles, squares, pyramids).

Sum of Series: Calculates the sum of a given series (e.g., sum of n natural numbers, sum of a geometric progression).

Prepare a presentation on any one of the topics listed below and share the link.

- Artificial Intelligence
- Robotics
- Big Data

PHYSIOLOGY

Q: Select three persons whom you most admire, either from real life or from history. Collect information about their contributions in their respective fields and identify the characteristics in their personality that have impressed you. Do you find any similarities? Prepare a comparative report.

*The project must not be less than 15 Pages.

*Paste Pictures and write proper details.

*Submission Date: First Day of reopening of School after the Holidays.

PHYSICAL EDUCATION

Draw any five yogasana on your practical note book.

Draw any one game of your choice on your practical note book.

MUSIC

1: Biography of any Jammu musician ?

2: Describe the culture and heritage of music in jammu & Kashmir

3: Describe traditional Music instruments used in J&k



