Holy Angel Public School, Almora

Class: 11th

Summer Vacation Home Assignments

General Instructions

- Complete all holiday homework neatly and sincerely
- Read newspapers, magazines, and subject-related books to enhance your knowledge.
- Any project or practical work should be completed as per the given guidelines.
- Use a separate notebook/file for each subject, if instructed by your teacher.
- The deadline for homework submission is **July 6, 2026**

Dear Parents and Students,

Summer vacation is a valuable time for both relaxation and meaningful learning. For students of **Class XI**, it is an important phase to strengthen their academic foundation, develop self-discipline, and prepare themselves for the advanced concepts and responsibilities of senior secondary education.

Dear Students, this is the perfect opportunity to revise the concepts taught in class, enhance your subject knowledge, and develop effective study habits. The holiday homework, projects, and worksheets have been thoughtfully designed to encourage independent learning, critical thinking, creativity, and consistent academic engagement while allowing you to enjoy your vacation.

Dear Parents, your encouragement, guidance, and support play a significant role in your child's academic growth and overall development. We request you to motivate your ward to maintain a balanced daily routine, complete the assigned work sincerely, and utilize the vacation productively.

The holiday homework, projects, and worksheets have been attached for your reference. Kindly go through them carefully and ensure that all the assigned work is completed neatly, accurately, and submitted on time after the summer vacation.

Let this summer vacation be a journey of learning, curiosity, exploration, and self-improvement. May it provide every student with new experiences, greater confidence, and a strong foundation for the academic year ahead.

Wishing all our students and parents a Happy, Healthy, Productive, and Enriching Summer Vacation!

For Any Query Please Contact

Class Teacher - Puja Pant

Contact No - 9456545776

English

Syllabus: *Hornbill + Snapshots*

Day 1–3: Writing Section (8 Marks)
Task 1: Notice Writing (4 Marks)
Your school is organizing a **Debate Competition** on the topic:
"Social Media: Boon or Bane"
Write a **notice in about 50 words** to inform the students of Classes XI and XII.
Include the following details:

- Name of the event
- Date: **25 July 2026**
- Time
- Venue
- Last date of registration

Marking Scheme

- Format – 1 Mark
- Content – 2 Marks
- Expression – 1 Mark

Task 2: Article Writing (4 Marks)
Write an article in **120–150 words** on the topic:
"Importance of Reading Newspapers for Students"
Marking Scheme

- Format – 1 Mark
- Content – 2 Marks
- Expression – 1 Mark

Day 4–7: Literature – Hornbill (8 Marks)
Task 3: Prose – *The Address* (4 Marks)
Answer the following questions in **60–70 words each**.
(a) How does the narrator's meeting with Mrs. S change her perspective on material things?
(b) Why is the story titled **"The Address"**? What does the address symbolize?

Task 4: Poem – *The Voice of the Rain* (4 Marks)
1. What does the rain call itself and why?
Answer in about 40 words. *(2 Marks)*
2.Find **any two examples of personification** from the poem. *(2 Marks)*

Day 8–10: Snapshots & Grammar (4 Marks)
Task 5: Snapshots – *The Summer of the Beautiful White Horse* (2 Marks)
Write **four values** shown by **Mourad** and **Aram** in the story, along with **one-line examples** for each.

1. ---
   Example: _____
2. ---
   Example: _____
3. ---
   Example: _____
4. ---
   Example: _____

Task 6: Grammar – Tenses & Clauses (2 Marks)

Fill in the blanks with the correct option.

1. She _____ to school daily. *(go / goes)*
2. If you study hard, you _____ pass. *(will / would)*
3. This is the boy who _____ my brother. *(is / are)*
4. I _____ my homework before my father came. *(had finished / finished)*

Physics

Units and Dimensions MCQs

Section A: Multiple Choice Questions (1 Mark Each)

Units and Dimensions

1. Which of the following is a derived physical quantity?
a) Length **b)** Mass **c)** Force **d)** Time

2. The dimensional formula of pressure is:
a) $[ML^{-1}T^{-2}]$ **b)** $[MLT^{-2}]$ **c)** $[M^0L^1T^{-1}]$ **d)** $[ML^2T^{-2}]$

3. Which of the following has the same dimensions as work?
a) Momentum **b)** Torque **c)** Impulse **d)** Power

4. The number of significant figures in 0.005060 is:
a) 3 **b)** 4 **c)** 5 **d)** 6

Motion in a Straight Line MCQs

5. The slope of a velocity-time graph gives:
a) Velocity **b)** Distance **c)** Acceleration **d)** Momentum

Multiple Choice Questions on Motion and Vectors

6. A body moving with constant velocity has:
a) Constant acceleration **b)** Zero acceleration **c)** Infinite acceleration **d)** Variable acceleration

7. The area under a velocity-time graph represents:
a) Velocity **b)** Acceleration **c)** Distance/Displacement **d)** Force

8. A scalar quantity among the following is:
a) Velocity **b)** Displacement c) Speed d) Acceleration

9. The angle between two perpendicular vectors is:
a) 0° **b)** 45° **c)** 90° **d)** 180°

10. The path of a projectile is:
a) Circular **b)** Elliptical **c)** Parabolic **d)** Straight

Topic Introduction

Motion in a Plane

Assertion-Reason Question Format and Example

Section B: Assertion–Reason Questions (1 Mark Each)

For each question choose:

A. Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
B. Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
C. Assertion is true but Reason is false.
D. Assertion is false but Reason is true.

11. **Assertion:** Every physical equation must be dimensionally correct.
Reason: Dimensions can be used to verify the correctness of equations.

12. **Assertion:** The displacement of a particle can be zero even when distance travelled is non-zero.
Reason: Displacement depends only on initial and final positions.

13. **Assertion:** Velocity is a vector quantity.
Reason: Velocity has both magnitude and direction.

14. **Assertion:** Two vectors of equal magnitude can have a resultant equal to either vector.
Reason: The angle between them can be 120°.

Physics Questions and Tasks

Section C: Short Answer Questions (2 Marks Each)

15. Distinguish between fundamental and derived quantities with examples.
16. State the principle of homogeneity of dimensions.
17. Find the dimensions of: **(a)** Gravitational constant **(b)** Power
18. Explain the difference between distance and displacement with a suitable example.
19. Draw velocity-time graphs for: Uniform motion Uniformly accelerated motion

Kinematics and Vector Fundamentals

20. A car accelerates uniformly from 10 m/s to 30 m/s in 5 s. Calculate its acceleration.
21. What is a vector? Give three examples from daily life.
22. Resolve a force of 20 N acting at 30° with the horizontal into its components.
23. Why is the motion of a projectile treated as a combination of two independent motions?
24. State the conditions under which two vectors have: Maximum resultant Minimum resultant

Mathematical Physics Principles

25. Explain significant figures and rounding off rules with suitable examples.
26. Derive the three equations of uniformly accelerated motion using a velocity-time graph.

Uniform Acceleration Problem

27. A train starts from rest and accelerates uniformly at 2 m/s^2 for 15 s. Find its final velocity. Distance travelled during this time. Draw the corresponding velocity-time graph.

Projectile Motion and Vector Analysis

28. Explain vector addition using the parallelogram law with a neat diagram.
29. Derive the expression for: Time of flight Maximum height Horizontal range of a projectile

Projectile Motion Calculations

30. A ball is projected with a speed of 20 m/s at an angle of 45° to the horizontal.
Calculate:

- **(a)** Time of flight
- **(b)** Maximum height
- (**c)** Horizontal range

Applications of Dimensional Analysis

31. Explain how dimensional analysis is used:

- **(a)** To check equations
- **(b)** To derive relations between quantities
- **(c)** To convert units

Advanced Concepts and Real-World Scenarios

Higher Order Thinking Questions (HOTS)

32. Why can dimensional analysis not determine numerical constants such as 2, π, etc.?
33. Why does a passenger in a moving bus appear at rest to another passenger but in motion to a person standing on the roadside?
34. A cricketer throws a ball at an angle instead of horizontally while fielding. Explain using projectile motion.
35. Why are roads on curved turns banked? Relate your answer to vector components of forces.
36. Explain why a football follows a curved trajectory during a long kick.

Practical Exploration of Mechanics (10 marks)

Activity: Mechanics Around Us
"Physics of Everyday Motion"
Objective:

To study the application of mechanics in daily life.

Materials Required:
Smartphone, Measuring tape, Stopwatch, Notebook
Activity Options and Descriptions
Choose any ONE of the following activities:

Activity A: Motion of a Bicycle	Activity B: Projectile Motion in Sports	Activity C: Motion Analysis Using Mobile Camera
• Measure a straight path of about 20 m.	• Observe a basketball shot, cricket throw, football kick, or water fountain.	• Record a toy car or moving ball.
• Ride a bicycle at nearly constant speed.	• Take photographs/video frames.	• Note its position at equal time intervals.
• Record the time taken.	• Identify the projectile path.	• Prepare a table of distance and time.
• Calculate speed.	• Draw the trajectory.	• Calculate average speed.
• Repeat three times and find average speed.	• Explain:	• Comment on whether the motion is uniform or non-uniform.
• Plot a distance-time graph.	• Horizontal motion	
	• Vertical motion • Effect of gravity	

Standard Report Structure and Bonus Challenge

Activity Report Format:
Title, Aim, Materials Used, Observations (Table), Calculations, Graph, Result, Real-life Applications, Photographs, Conclusion.

Challenge Task (Optional – 10 Bonus Marks)
Project Overview and Examples

Design a simple infographic or poster titled:
"Mechanics in My Daily Life"
Include at least five examples such as:

- Riding a bicycle
- Throwing a ball
- Elevator motion
- Moving vehicles
- Sports activities
- Motion of drones

Creative Application of Physics Concepts
Use diagrams, photographs, and physics concepts from the three chapters.
This task encourages creativity and real-world application of Physics.

CHEMISTRY

Section A: Multiple Choice Questions (MCQs)

Q1. The number of significant figures in 0.00450 is:

a) 2 **b)** 3 **c)** 4 **d)** 5

Q2. Which quantum number determines the shape of an orbital?

a) Principal quantum number (n) **b)** Azimuthal quantum number (l)
c) Magnetic quantum number (m) **d)** Spin quantum number (s)

Q3.Which element has the highest electron affinity among the following?

a) Na **b)** Mg **c)** Cl **d)** Al

Section B: Assertion–Reason Questions

Q4. **Assertion (A):** Isotopes of an element have identical chemical properties.
Reason (R): Isotopes have the same atomic number and electronic configuration.

a) Both A and R are true and R is the correct explanation.
b) Both A and R are true but R is not the correct explanation.
c) A is true but R is false.
d) A is false but R is true.

Q5. **Assertion (A):** Atomic radius generally decreases across a period.
Reason (R): Effective nuclear charge increases from left to right across a period.

a) Both A and R are true and R is the correct explanation.
b) Both A and R are true but R is not the correct explanation.
c) A is true but R is false.
d) A is false but R is true.

Section C: Short Answer Questions

Q6. Differentiate between empirical formula and molecular formula with one example.
Q7. State any three postulates of Bohr's atomic model.
Q8. What are isobars? Give two examples.
Q9. Why does ionization enthalpy generally increase across a period?

Section D: Concept-Based Questions

Q10. An element has atomic number 17.
Answer the following:

a) Write its electronic configuration.
b) Identify the period and group.
c) Is it a metal or non-metal?
d) Name the element.

Q11. Calculate the number of protons, neutrons and electrons present in an atom of Na^+ And Fe^{2+}

Section E: Case-Based Question

Q12. A student observes the following elements:

Na, Mg, Al, Si, P, S, Cl

He notices that their atomic size decreases gradually from Na to Cl.
Answer the following:

a) What is this trend called?
b) Why does atomic size decrease across a period?
c) Which element among these has the highest ionization enthalpy?
d) Which element is most reactive among the non-metals listed?

Section F: HOTS (Higher Order Thinking Skills)

Q13. Carbon has atomic number 6 and Silicon has atomic number 14.
Both belong to the same group of the periodic table.
Despite this, diamond (carbon) is extremely hard whereas silicon is comparatively softer.
Using your knowledge of atomic structure and periodicity, explain this difference.

Q14. A student says:
"Since isotopes have different mass numbers, they should have different chemical properties."
Do you agree with this statement?
Justify your answer with proper reasoning.

Section G: Long Answer Question

Q15. Explain the modern periodic law.

Discuss the following periodic trends:

Atomic Radius
Ionization Enthalpy
Electron Gain Enthalpy
Electronegativity
Support your answer with suitable examples.

MINI PROJECT ACTIVITY

- "Periodic Table Around Me"
- Chemistry is all around us!
- Identify any 15 objects used in your daily life and find the major element present in them.
- Prepare a table:
  - Object
  - Element Present
  - Symbol

Use

Eg. Aluminium Foil-, Al, Food Packaging

MATHEMATICS

(To be done in separate Notebook)

NCERT: **(i)** Chapters – 1, 2 & 3. Practice all solved Examples

(ii) Do write the summary given in last page of each Chapter and learn [NCERT]

NCERT Exemplar: Practice - Objective Type Questions, Short Answer Type Questions and Long Answer Type Questions of Chapter 1, 2 and 3

Note : Refer your Class group for NCERT Exemplar Problems : Chapter -1, 2 and 3

Important Instructions: Timeline for submission of Summer Break Assignments is 06.07.2026.

Biology

Instructions

1. Prepare an **Investigatory Project** on the topics assigned by your teacher.
2. Complete **all NCERT questions** (including diagrams wherever required) from the chapters that have been taught in class.

Submission Guidelines

- Complete the work neatly and systematically.
- Draw and label all required diagrams clearly.
- Write answers in your own handwriting.
- Submit the homework on the date specified by the school..

Economics

Topic: "How Economics Influences Our Daily Life"

Instructions:

Prepare a **handwritten project (15–20 pages)** covering the following sections:

1. Cover Page
2. Certificate
3. Acknowledgement
4. Index
5. Introduction

6. Meaning and Importance of Economics
7. Difference between Microeconomics and Macroeconomics
8. Positive Economics vs. Normative Economics
9. Central Problems of an Economy
10. Production Possibility Curve (PPC)
11. Opportunity Cost (with daily-life examples)
12. Basic Economic Activities
13. Circular Flow of Income (include a simple diagram)
14. Conclusion
15. Learning Outcomes
16. Bibliography

Business studies (054)

1.Select any one cooperative society and analyze the following aspects—

- **a.** Objective of formation.
- **b.** Nature and size of business.
- **c.** Number of members and their role.
- **d.** Evolution or history of society.
- **e.** Benefits of society to its members.
- **f.** Control and management of society.

2.Prepare flow chart and Mind map from chapter 3 and chapter 4

3.Write about PSUs (Public Sector units)Exist in India.

4.Revision work.

- Revise chapter no 3 and chapter no 4 for PT -2

Accountancy (055)

Q1 : Prepare accounting equation on the basis of the following:

(a) Harsha started business with cash Rs 2,00,000
(b) Purchased goods from Naman for cash Rs 40,000
(c) Sold goods to Bhanu costing Rs 10,000/- Rs 12,000
(d) Bought furniture on credit Rs 7,000

Q2 : Prepare accounting equation from the following:

(a) Kunal started business with cash 2,50,000
(b) He purchased furniture for cash 35,000
(c) He paid commission 2,000
(d) He purchases goods on credit 40,000
(e) He sold goods (costing Rs 20,000) for cash 26,000

Q3 : Mohit has the following transactions, prepare accounting equation:

(a) Business started with cash 1,75,000
(b) Purchased goods from Rohit 50,000
(c) Sales goods on credit to Manish (Costing Rs 17,500) 20,000
(d) Purchased furniture for office use 10,000
(e) Cash paid to Rohit in full settlement 48,500
(f) Cash received from Manish 20,000
(g) Rent paid 1,000
(h) Cash withdrew for personal use 3,000

Q4 : Rohit has the following transactions:

(a) Commenced business with cash 1,50,000
(b) Purchased machinery on credit 40,000
(c) Purchased goods for cash 20,000
(d) Purchased car for personal use 80,000
(e) Paid to creditors in full settlement 38,000
(f) Sold goods for cash costing Rs 5,000 4,500
(g) Paid rent 1,000
(h) Commission received in advance 2,000

Q5 : Use accounting equation to show the effect of the following transactions of M/s Royal Traders:

(a) Started business with cash 1,20,000
(b) Purchased goods for cash 10,000
(c) Rent received 5,000
(d) Salary outstanding 2,000
(e) Prepaid Insurance 1,000
(f) Received interest 700
(g) Sold goods for cash (costing Rs 5,000) 7,000
(h) Goods destroyed by fire 500

2.Write any 20 Basic Accounting terms and Rules of debit and credit.

3.Revision work

- Revise chapter Generally Accepted Accounting principles
- Accounting Equation and Rules of debit and credit for PT-2

Political Science and History

10-day homework for Chapter 1: Constitution: Why and How?* from Indian Constitution at Work. If you need Political Theory book instead, tell me.

Day 1: Why a Constitution

- Read pp. 1-4. Write 5 functions of a constitution in your own words. Then list 3 problems India faced in 1947 that a constitution had to solve.

Day 2: Authority of a Constitution*

- Define: Constituent Assembly, Drafting Committee, Objectives Resolution. Answer: Why do we accept the authority of a constitution made 70+ years ago? 80 words.

Day 3: How Was It Made?

- Make a timeline: Dec 1946 → Nov 1949 → Jan 1950. For each date, write 1 line on what happened. Who was the chairman of the Drafting Committee?

Day 4: Composition of Constituent Assembly*

Make a table:

Feature Details

- Total members
- Women members Name any 2
- Representation method
- Use pp. 8-10.

Day 5: Objectives Resolution*

- Read Nehru's Objectives Resolution. Pick 3 keywords from it and explain why they matter today. Example: sovereign, justice, equality.

Day 6: Debate – Constitution Borrowed or Indian?*

- List 3 features "borrowed" and 3 features that were "original Indian responses". Conclude in 2 lines: Was our constitution a copy?

Day 7: Map/Poster Activity*

- Draw India's map and mark the states that had representation in the Constituent Assembly but are not states today. Ex: Hyderabad, Mysore. Label any 4.

Day 8: Key People*

- Flashcards for 5 people: Dr. B.R. Ambedkar, Rajendra Prasad, B.N. Rau, K.M. Munshi, Sarojini Naidu. Write 1 contribution of each to the constitution.

Day 9: Case Study – Basic Structure*

- In 50 words: What does "the constitution is a living document" mean? Give 1 example of an amendment that shows this.

Revision day 10

- History- complete note of chapter 1st with map work.

Computer Science (083)

Unit 3 — Society, Law and Ethics Class: XI

Day 1: June 22| Digital Footprints & Netizenship

Focus: Understanding your permanent digital trail and responsible online communication.

Syllabus Reference (Computer Science Book Sumita Arora): Digital Footprints, Digital Society and Netizen: net etiquettes, communication etiquettes, social media etiquettes

Homework Questions:

1. What is a Digital Footprint? Differentiate between active and passive digital footprints with an example of each.
2. Define what it means to be a good Netizen.
3. List three essential social media etiquettes every student should practice to maintain a positive online presence.

Day 2: June 23 | Data Protection & Intellectual Property Rights

Focus: Legal protections for creative and intellectual creations.

Syllabus Reference (Computer Science Book Sumita Arora): Data Protection: Intellectual property rights (copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trademark infringement)

Homework Questions:

1. Define Intellectual Property Rights (IPR). Explain the distinct differences between a Copyright, a Patent, and a Trademark.
2. What is Plagiarism? Suggest two ways a student can completely avoid it while preparing an academic project.
3. Distinguish between copyright infringement and trademark infringement using real-world scenarios.

Day 3: June 24 | Open Source & Licensing

Focus: How software resources are shared and legally licensed globally.

Syllabus Reference (Computer Science Book Sumita Arora): open source software and licensing (Creative Commons, GPL and Apache)

Homework Questions:

1. What is Open Source Software? How does it differ conceptually from proprietary software?
2. Explain the purpose of a Creative Commons license. Where is it most commonly applied?
3. Briefly define the core terms/permissions associated with the GPL (General Public License) and the Apache License.

Day 4: June 25 | Cyber Crime (Part 1)

Focus: Recognizing illegal malicious activities targeting digital environments.

Syllabus Reference (Computer Science Book Sumita Arora): Cyber Crime: definition, hacking, eavesdropping, phishing and fraud emails

Homework Questions:

1. Formally define Cyber Crime.
2. What is Phishing? Describe how a cybercriminal uses fraud emails to compromise personal banking details.
3. Explain the network security threat known as Eavesdropping and how it differs from active Hacking.

Day 5: June 26 | Cyber Crime (Part 2) & Malware

Focus: Digital harassment, extortion techniques, and destructive software.

Syllabus Reference (Computer Science Book Sumita Arora): ransomware, cyber trolls, cyber bullying, Malware: viruses, trojans, adware

Homework Questions:

1. What is Ransomware? How does it restrict a user's access to their own system, and what is typically demanded?
2. Distinguish between Cyber Bullying and Cyber Trolling. What initial actions should a student take if targeted?
3. Differentiate between a Computer Virus and a Trojan Horse based on how they infect a computer system. What is the main intent of Adware?

Day 6: June 27 | Cyber Safety & The IT Act

Focus: Best practices for web browsing and legal remedies under Indian law.

Syllabus Reference (Computer Science Book Sumita Arora): Cyber safety: safely browsing the web, identity protection, confidentiality, Information Technology Act (IT Act)

Homework Questions:

1. List four critical guidelines for safely browsing the web on public networks.
2. What is Identity Theft? How does practicing user confidentiality help ensure robust identity protection online?
3. What is the Information Technology Act (IT Act)? Why was this legislative framework established in India?

Day 7: June 28 | E-Waste Management

Focus: Environmental accountability regarding redundant electronic equipment.

Syllabus Reference (Computer Science Book Sumita Arora): E-waste management: proper disposal of used electronic gadgets

Homework Questions:

1. What is E-waste? Why is the informal or improper disposal of used electronic gadgets hazardous to health and the environment?
2. Outline three ecologically sustainable methods for the proper disposal and management of household electronic waste.

Day 8: June 29 | Technology and Society

Focus: Ethical dimensions of equity, accessibility, and inclusivity in technology.

Syllabus Reference (Computer Science Book Sumita Arora): Technology and society: Gender and disability issues while teaching and using computers

Homework Questions:

1. Discuss the major gender issues regarding access to and participation in STEM/Computer Science education. How can schools bridge this gap?
2. What challenges do individuals with disabilities face when learning or using computers?
3. Suggest two assistive technologies or digital design adjustments that make computer laboratories more inclusive for differently-abled students.

Words of Inspiration

"Ethics is knowing the difference between what you have a right to do and what is right to do." — Potter Stewart