

**ROYAL OAK INTERNATIONAL SCHOOL**  
SR. SEC. CBSE AFFILIATED-531174

# HOLIDAY HOMEWORK

**2026-27**

**| Class: XI**



 New Palam Vihar, Sector 110, Dwarka Expressway, Gurugram, Haryana  
 8010019161, 9312209420, 93184 10106  
 roisggn@gmail.com  
 [www.royaloakinternationalschool.co.in](http://www.royaloakinternationalschool.co.in)

## **Dear Parents,**

As the summer break begins, your role changes from supervisor to mentor. Summer vacation is a critical bridge for consolidating complex academic concepts and developing advanced self-regulation skills.

We request your support in helping them establish a balanced daily routine that accommodates rigorous self-study, research-based project work, and essential downtime. Please encourage independent research and critical thinking, refraining from direct intervention in their assignments. Your strategic guidance will help them build the maturity, accountability, and academic stamina required for the upcoming session and future competitive challenges.

Thank you for your continued cooperation and support.

## **Instructions for the students:**

1. Systematically review all syllabus topics covered in April and May to secure your foundations.
2. Ensure all subject assignments and practical files strictly adhere to the provided marking schemes.
3. Set weekly micro-deadlines across the break to prevent a last-minute rush and low-quality submissions.
4. Execute all research, data collection, and project work independently to build genuine concept mastery.
5. Use diverse academic resources, case studies, and critical problem-solving to elevate your assignment quality.
6. Focus on innovative presentation and unique insights, ensuring your work is entirely free from plagiarism.
7. Maintain an impeccably neat, structured, and professional format suitable for senior-school board evaluations.
8. Dedicate your free time to exploring career interests, reading advanced literature, or learning new technical skills.
9. Manage your screen time intentionally, prioritize physical fitness, and maintain a healthy summer sleep cycle.

**Wishing you a productive and enjoyable holiday season!**

**Regards**

**TEAM ROIS**

Please note the following:

- Summer vacations will commence from 25<sup>th</sup> May, 2026 till 30<sup>th</sup> June, 2026, both days inclusive.
- The school will re-open on 1<sup>st</sup> July, 2026(Wednesday)
- Schedule for the submission of HHW is as follows :

English/P.Ed	:	02/07/2026 (Thursday)
Hindi/Chem./Accounts	:	03/07/2026 (Friday)
Maths/Sociology/Bio.	:	06/07/2026 (Monday)
P.Sci./B.Std	:	07/07/2026 (Tuesday)
His/Eco./CS	:	08/07/2026 (Wednesday)
Phy./IP/F&N	:	09/07/2026 (Thursday)

- ❖ Summer HHW 5 marks will be added as an Activity marks in Term - I  
Wishing you all a very fruitful and enjoyable vacations.



## State: Madhya Pradesh



Madhya Pradesh sits at the geographical heart of India. It is famous for ancient UNESCO World Heritage sites. The state features historic temples, stupas, and prehistoric caves. Sacred rivers like the Narmada flow through spiritual towns. Dense national parks protect a thriving Royal Bengal Tiger population. Vibrant Gond and Bhil tribal arts enrich local culture. Famous handloom silks showcase the region's deep artistic roots.

### **ENGLISH:**

1. You are Kamal / Kamla. You are deeply concerned about the rapid destruction of forests and wildlife in Madhya Pradesh, especially around famous national parks like Kanha National Park and Bandhavgarh National Park. Write an article in about 120–150 words for a national newspaper on the topic: “Protecting the Green Heart of India”
2. Madhya Pradesh is famous for its rich culture, historical monuments and tourist places such as Khajuraho Temples and Sanchi Stupa. Write an article in about 120–150 words on the topic: “Tourism in Madhya Pradesh: A Gateway to India’s Heritage”
3. Your school in Bhopal is organising a campaign to spread awareness about saving rivers and keeping the Narmada River clean. Design an attractive poster in about 50 words highlighting the importance of water conservation and cleanliness. Include slogan, date, venue and attractive visuals/messages.

**Note:** Do it in your notebook

**HINDI:**

कबीरदास और मुंशी प्रेमचंद जी पर परियोजना फाइल तैयार करें।

1. नाम व संक्षिप्त जीवन परिचय: जन्म, स्थान, माता-पिता, शिक्षा और मृत्यु।
2. प्रमुख कृतियाँ: उनके काव्य संग्रह, प्रसिद्ध कविताएँ, उपन्यास, कहानी-संग्रह, नाटक या निबंध।
3. काव्यगत विशेषताएँ: भाषा-शैली, रस, छंद, अलंकार, लेखन की मुख्य विचारधारा, और भाषा की बनावट।
4. किसी एक प्रसिद्ध कृति का संक्षिप्त वर्णन करें।

**STANDARD MATH:**

General Instructions:

1. Do Holiday HW in separate note book (give heading SUMMER VACATION HW).
2. Complete all the activity in activity file .

I . Complete the chapters 1,2 , 3 at least two times from Xamida in separate note book.

**II. To do the following activities using creative ideas:**

Activity -1 To find the number of subsets of a given set and verify that if a set has n number of

elements, then the total number of subsets is  $2^n$ .

Activity -2 To verify that for two sets A and B,  $n(A \times B) = pq$  and the total number of relations from A to B is  $2^{pq}$ , where  $n(A) = p$  and  $n(B) = q$ .

Activity -3 To represent set theoretic operations using Venn diagrams.

Activity -4 To verify distributive law for three given non-empty sets A, B and C, that is,  $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$

Activity -5

To verify the relation between the degree measure and radian measure a function.

Activity - 6

To plot the graphs of  $\sin x$ ,  $\sin 2x$ ,  $2 \sin x$  and  $\sin \frac{x}{2}$  using the same coordinate axes on the same graph paper .

NOTE : - Do maths holiday homework in separate register.

**APPLIED MATH:**

Ch-1 to 6 : Do practice from M. L. Aggarwal in your regular notebook.

**PHYSICS:**

Solve NCERT Exemplar for the chapters

Ch 1 Unit and dimension

Ch 2 Motion in one dimension

\*Prepare the Investigation Project Report on the assigned topic.

### **CHEMISTRY:**

- Solve NCERT Exemplar questions of **Some basic concepts of chemistry.**
- Synopsis of investigatory project is to be prepared.

Note: In synopsis aim, material required and detailed procedure is to be written. Students need to prepare synopsis using A-4 size white sheets without lines and all the sheets are to be attached in a file. [You can take help of internet while selecting the project for synopsis]

#### **Assignment on Mole Concept**

1. How many molecules of water are there in 54 g of H<sub>2</sub>O?
2. Calculate the mass of  $6.022 \times 10^{23}$  molecule of NH<sub>4</sub>Cl ?
3. Calculate the mass of  $12.044 \times 10^{23}$  Oxygen atoms.
4. How many atoms of hydrogen are there in 36 g of NH<sub>4</sub>?
5. Calculate the number of hydrogen atoms in 1 mole of H<sub>2</sub>.
6. Calculate the number of Cu atoms in 0.3175 g of Cu.
7. Calculate the number of molecules in 22.4 litres of CH<sub>4</sub> gas at NTP.
- 8 a. Find the volume of 1 g of H<sub>2</sub> gas in litres at N.T.P  
b. Find the volume of 20g H<sub>2</sub> at NTP.  
c. What is the volume occupied by  $6.022 \times 10^{23}$  molecules of any gas at NTP?
9. An atom of some element Y weighs  $6.644 \times 10^{-23}$  g. Calculate the number of gram-atoms in 40 kg of it.
10. Find the number of moles and number of atoms of H and S in 10 mole of H<sub>2</sub>S.
11. Calculate the number of atoms of each element in 245 g of KClO<sub>3</sub>?
12. If a mole were to contain  $1 \times 10^{24}$  particles, what would be the mass of
  - (i) one mole of oxygen
  - (ii) a single oxygen molecule?
13. Calculate the standard molar volume of oxygen gas. The density of O<sub>2</sub> gas at NTP is 1.429 g/L
14. Calculate how many methane molecules and how many carbon and hydrogen atoms are there in 25 g of Methane?
15. Calculate the number of moles of Ca, C and oxygen atoms and its mass in 200 g of CaCO<sub>3</sub>.
16. Calculate the total number of electrons present in 3.2 g of CH<sub>4</sub>.
17. How much Calcium is in the amount of Ca(NO<sub>3</sub>)<sub>2</sub> that contains 20.0g of Nitrogen?
18. State the number of atoms in 1 g atom of Aluminium?
19. How many molecules are there in 1.624 gm Ferric chloride(FeCl<sub>3</sub>)?
20. What is the mass of 1 Ammonia Molecule ?

## **BIOLOGY:**

### General Instructions

- Complete all work neatly in a separate Biology Holiday Homework file.
- Use blue/black pen only.
- Draw neat and labeled diagrams wherever required.
- Maintain proper index and page numbers.
- Project work should be handwritten and creative.

### PART A – PROJECT WORK

Topic: “Biodiversity and Medicinal Plants of Madhya Pradesh”

Project Guidelines:

Prepare a project file of 35–40 pages on the above topic.

The Project Must Include:

1. Cover Page
2. Index
3. Acknowledgement
4. Certificate
5. Introduction
6. Main Content
7. Annexure
8. Bibliography

Main Content Topics:

- Biodiversity of Madhya Pradesh
- Forests and Wildlife
- National Parks
- Medicinal Plants – Tulsi, Neem, Aloe vera, Ashwagandha, Amla
- Uses of Medicinal Plants
- Tribal Knowledge and Herbal Medicine
- Conservation of Biodiversity

### PART B – CASE STUDY BASED QUESTIONS

Chapter 14 – Breathing and Exchange of Gases

Case Study:

Rohan is a 16-year-old boy who feels tired while playing football. He often faces breathing difficulty and coughs continuously due to air pollution and smoking habits.

Questions:

1. Which organs are mainly affected in Rohan’s body?
2. Name the tiny air sacs where exchange of gases occurs.
3. Which gas is transported by haemoglobin?
4. Mention one harmful effect of smoking on lungs.
5. Suggest two ways to improve respiratory health.

Chapter 15 – Body Fluids and Circulation

### Case Study:

A patient was admitted to the hospital due to low haemoglobin levels and weakness. The doctor advised iron-rich food and blood tests.

### Questions:

1. Which blood component contains haemoglobin?
2. Name the pigment responsible for oxygen transport.
3. What is anaemia?
4. Name two iron-rich foods.
5. Why is blood called connective tissue?

### Chapter 16 – Digestion and Absorption

#### Case Study:

Aman regularly eats junk food and drinks very little water. He often suffers from indigestion and constipation.

### Questions:

1. Which organ is mainly responsible for digestion and absorption?
2. What is constipation?
3. Name the finger-like projections present in the small intestine.
4. Which digestive juice is produced by the liver?
5. Suggest two healthy food habits for Aman.

### Chapter 17 – Excretory Products and Their Elimination

#### Case Study:

A person suffering from kidney failure undergoes dialysis twice a week. Doctors advised him to drink adequate water and maintain a healthy diet.

### Questions:

1. Which organ has failed in this patient?
2. What is dialysis?
3. Name the structural and functional unit of kidney.
4. Which nitrogenous waste is mainly excreted in humans?
5. Mention two ways to keep kidneys healthy.

### PART C – ACTIVITY

1. Make any one model using waste materials: Heart, Lungs and Kidney

### PART D – ONE MARK QUESTIONS (MCQ)

#### Prepare:

- 20 one-mark questions from each chapter:
  - Chapter 14
  - Chapter 15
  - Chapter 16
  - Chapter 17

Submit in typed hard copy format.

Submission Instructions

- Homework file should be neat and decorated.
- All diagrams must be labeled.
- Use A4 size sheets for project work.
- Submit after summer vacation.

## **COMPUTER SCIENCE:**

### **1. Pixel Art Animation**

Create a GIF animation related to “Technological Advancements in Madhya Pradesh” using Piskelapp or any other free app. Use pixel art to represent iconic landmarks of Madhya Pradesh, such as the **Sanchi Stupa**, **Gwalior Fort**, or the **temples of Khajuraho**, and animate their features to show a blend of heritage and modern technology.

### **2. Python Program Development**

Develop a Python program that fulfills the following two requirements:

**Rainfall Calculator:** Calculates the total rainfall received over a specified period in Madhya Pradesh using fictional data for regions like Bhopal, Indore, or Pachmarhi.

**Farm Dimensions Calculator:** Inputs the length and breadth of a farm in **Malwa** (or any region in Madhya Pradesh) and computes its total area and perimeter.

## **INFORMATICS PRACTICES:**

### **1. Mini Project: Contact List Management**

Develop a small Python program that takes input from the user to manage a simple Contact List for local communities or farmers in Madhya Pradesh (saving names and phone numbers).

**Save contacts:** Store the names and phone numbers inside a Python list and display the complete contact list.

**Update contacts:** Add more contacts to the existing list and print the updated version.

### **2. Digital Poster Creation**

Design a digital poster promoting the use of computers and technology to improve education in rural schools across Madhya Pradesh.

**Visuals:** Use sample images representing rural classrooms, digital tablets, and students in Madhya Pradesh.

**Content:** Include persuasive slogans in English or Hindi focusing on digital literacy (e.g., “*Digital MP, Educated MP*”).

## **FOOD AND NUTRITION:**

Choose any ONE activity:

- Prepare a healthy dish at home and write:
- Ingredients used
- Method of preparation
- Nutritional value

OR

Make a poster on:

- Eat Healthy, Stay Healthy
- Say No to Junk Food
- Food Safety and Hygiene

**ACCOUNTS:**

- (i) Do all the Miscellaneous/Additional questions of Accounting Equation in separate notebook.
- (ii) Do all the Miscellaneous/Additional questions of Journal in Accounting equation.
- (iii) Collect the various source document and paste in the separate notebook.

**BUSINESS STUDIES:**

1. Prepare a collage showing different types of business activities.
2. Make a chart on "Forms of Business Organisation."
3. Collect and paste 5 advertisements from newspapers/magazines and identify:
  - Product
  - Target customers
  - Marketing technique used

**ECONOMICS:**

Do all the HOTS question and answers of Chapter-1 and Chapter-2 (Micro Economics) and Chapter-1 HOTS questions and answers Chapter-1 (statistics) in separate Notebook.

**SOCIOLOGY:**

1. Prepare a poster on literacy in Madhya Pradesh .
2. Project Work Prepare a PROJECT FILE which should be handwritten consisting of 25-30 A4 size sheets.

The project file should be prepared in the following sequence-

- Cover page should include the title of the Project, student information school and year
- Certificate
- Acknowledgement
- Index
- Introduction of topic/title & Statement of purpose/Need and objective of the study
- Hypothesis/Research question
- Review of literature
- Presentation of evidence

- Methodology
- Questionnaire
- Data collection
- Significance and relevance of the topic
- Challenges encountered by conducting the research
- Content analysis and its relevance in the current scenario
- Conclusion
- Limitation
- Bibliography
- Annexures and overall presentation
- Project must be made presentable with the help of images, graphs, pie-charts, diagrams etc.
- Different forms of Art must be included/may be integrated in the project work.

List of Suggested Topics:

Students can select any one topic from the below mentioned topics-

- Mental health stigma and impact
- violence against women
- impact of peer pressure on school children
- Joint family-is it eroding in India
- Impact of social media on our society
- Family structure and child behavior
- Cyber crime and security
- Social inequality and Social exclusion
- Family and Kinship
- Globalisation and Mass Media
- Impact of Westernisation on people
- Domestic violence
- Is Marriage as an institution collapsing in India
- Status of education in low income group Indian society
- Gender inequality in workplace
- Role of Youth in contemplating gender
- Changes in the village as a self-sustaining entity
- Development and Ecological Sustainability

### **POLITICAL SCIENCE:**

Theme: Comparative Governance – Haryana & Madhya Pradesh

Project Work (8–12pages)

Prepare a comparative study of Haryana and Madhya Pradesh covering:

- a. Introduction: Location, capital, basic profile
- b. Political Structure: CM, Governor, Vidhan Sabha

Party System: Major political parties & recent elections (brief)

c. Government Policies: Any one scheme from each state

Local Governance: Panchayati Raj system

Instructions:

- Neat and well-organised file
- Use map/table/diagram
- Relevant Information

### **HISTORY:**

❖ **Make a project file on the following topics in a beautifully covered files as per as CBSE guidelines .**

<b>ROLL NO.</b>	<b>TOPICS</b>
1 to 4	Ancient History in depth : Mesopotamia
5 to 8	Greek Philosophy and city state
9 to 12	Contribution of Rome Civilization
13 to 16	History of Abornies : America
17 to 20	Facets of Modernization : China/Japan/Korea
21 onwards	Piecing together the past of Genghis Khan

Must begin the project by including the following parameters (more than 32 pages) :

- Front information (School name, academic year, Project title and roll no)
- Beautiful creative Cover page
- List of content with page number (index).
- Certificate
- Acknowledgement ( giving credit to those who helped you in this project)
- Project overview ( brief idea about the project )
- Content sheet ( 10 to 12 pages with relevant photographs with maps )
- Conclusion

❖ **Prepare a poster on the local political situations of Madhya Pradesh .**

### **PHYSICAL EDUCATION:**

- History of yoga
- Any five Yogasana with their procedure, benefits & contraindication mention in practical file