

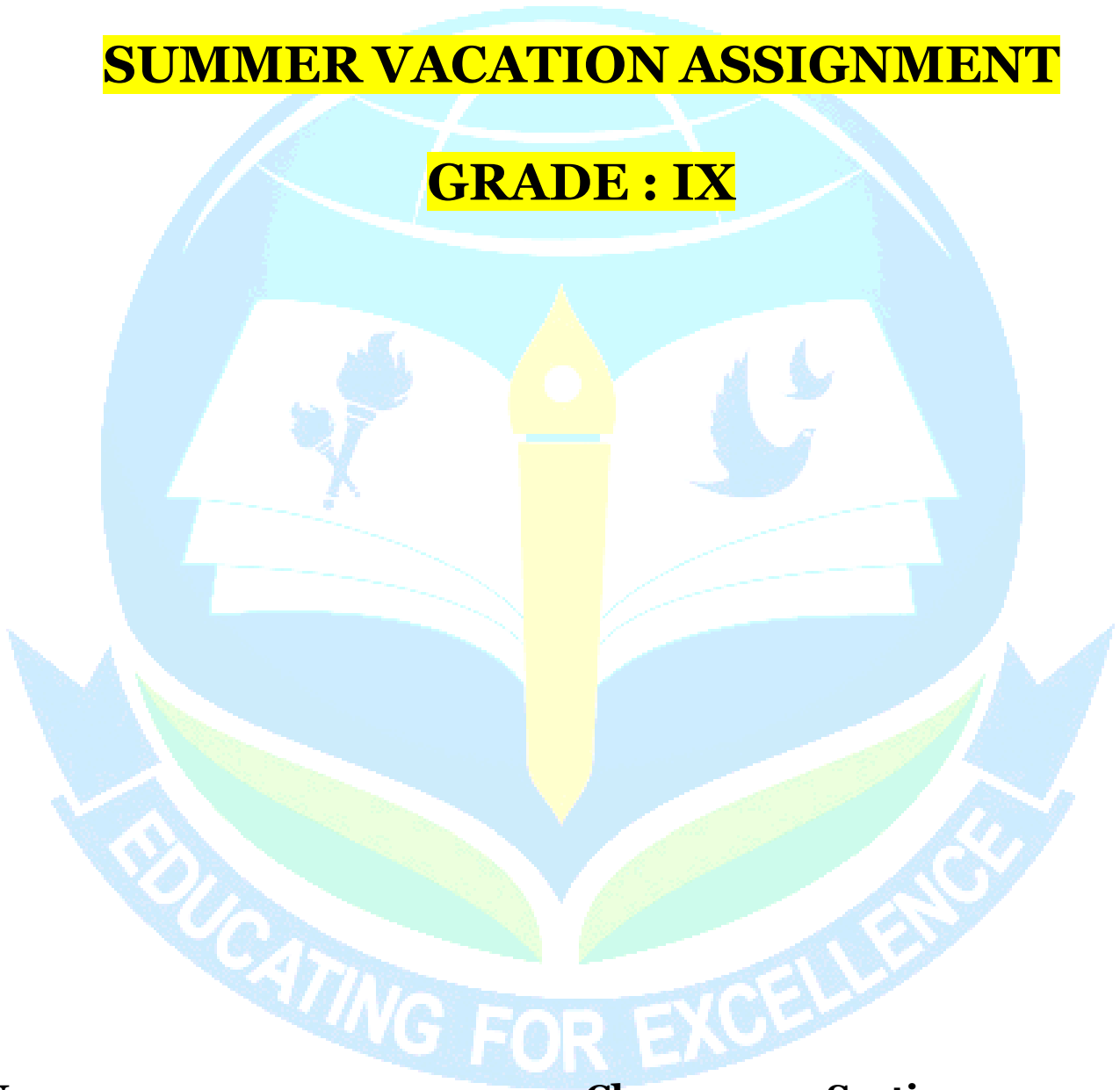


# ACADEMIC WORLD SCHOOL™ BEMETARA

SESSION: 2026-27

**SUMMER VACATION ASSIGNMENT**

**GRADE : IX**



Name \_\_\_\_\_ Class \_\_\_\_\_ Section \_\_\_\_\_



# ACADEMIC WORLD SCHOOL™ BEMETARA

**SESSION: 2026-27**

## **SUMMER VACATION ASSIGNMENT**

**GRADE: IX**

### **General Instructions:**

1. Write in a clear and legible handwriting.
2. Complete all the homework in a separate subject Summer Vacation Homework Notebook.
3. **DO NOT COPY AND PASTE FROM THE INTERNET.** (Assignment will be rejected)
4. In case of reference from the internet, you may:
  - A. Read the content from the internet, if you wish and paraphrase (Rewrite in your own words)
  - B. Mention the source of your information by providing the link from the internet for the verification by the teachers.
5. Marks awarded will be counted in the final scores at the end of the session.
6. The Summer Vacation HW will be submitted immediately upon arrival to school after Summer Vacation.
7. For any assignment related query do post your question on E-Mail Id of respective subject teacher. List of Subject Teacher's E-Mail ID attached.

### **Note for the Parents:**

**Parents are requested to guide his/her wards to complete their assignments honestly and submit by the due date.**

**SUBJECT: ENGLISH (LANGUAGE & LITERATURE- (184)**  
**GRADE: IX**

1. **Project Title: My Language Growth Portfolio**
2. **Objective:** To improve your English through vocabulary, grammar, creativity, and real-life observation.
3. **Project Structure**
4. **About Myself (1 page)**  
Family  
Hobbies  
Future goals
5. **My English Level (1 page)**  
Write 5–6 lines about:  
Can you speak English easily?  
What problems do you face?  
What do you want to improve?  
How are you planning to improve?
6. **Vocabulary Section**  
Write 15 new words  
For each word:  
Meaning  
One sentence  
One synonym
7. **Grammar Practice**  
Write 6 sentences:  
3 correct sentences  
3 incorrect sentences (and correct them)
8. **English Around Me**  
Write 5 examples of English from real life:  
Where you found it (shop, mobile, TV, etc.)  
Meaning in your own words
9. **Creative Writing**  
Choose ONE:  
Short Story OR  
Diary Entry
10. **Reflection (1 page)**  
What did you learn?  
What did you enjoy?

Follow the format of Cover page, Acknowledgement page , Index page, and checklist page pasted below

1. **Cover Page**  
**ENGLISH SUMMER VACATION ASSIGNMENT**  
Project Title: \_\_\_\_\_  
Name: \_\_\_\_\_  
Class & Section: \_\_\_\_\_  
Roll Number: \_\_\_\_\_  
School Name: \_\_\_\_\_  
Submitted to: \_\_\_\_\_

2. **Acknowledgement page**  
I would like to express my sincere gratitude to my English teacher for giving me this project and guiding me throughout.  
I also thank my parents and friends for their support and help in completing this work.  
This project helped me learn many new things and improve my English skills.

**3. Contents of the file**

1. Cover Page
2. Acknowledgement page
3. Index page
4. About Myself
5. My English Level
6. Vocabulary Section
7. Grammar Practice
8. English Around Me
9. Creative Writing
10. Reflection
11. Checklist page

**4. CHECKLIST page**

- I have used a FILE (SPIRAL BINDING)
- My project is HANDWRITTEN
- I have made a proper COVER PAGE
- I have included ACKNOWLEDGEMENT
- I have made an INDEX page
- I have followed all sections in correct order
- My handwriting is neat and readable
- I have maintained margins
- I have used colors only for headings
- I have not copied from internet/friends
- I have written in my own words
- I have completed all parts of the project
- My project is clean and well-presented

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शिक्षा सत्र : 2026-27

कक्षा : IX

विषय : हिंदी

## पोर्टफोलियो



विद्यार्थी फोटो

शिक्षक का नाम श्री \_\_\_\_\_

विद्यार्थी का नाम \_\_\_\_\_

कक्षा,वर्ग \_\_\_\_\_

## 1- विद्यार्थी की सूचना

- छात्र / छात्रा का नाम : -----
- जन्म तिथि :-----
- उम्र :-----
- कक्षा व वर्ग :-----
- अनुक्रमांक संख्या :-----
- विद्यालय का नाम :-----
- विद्यालय में प्रवेश संख्या :-----
- विद्यालय में प्रवेश वर्ष :-----
- विद्यार्थी की ऊँचाई :-----
- विद्यार्थी का वजन :-----
- रक्त समूह :-----

• आधार संख्या :-----

## 2-पारिवारिक सूचना

• माता का नाम :-----

• पेशा :-----

• संपर्क मो. न. :-----

• पिता का नाम :-----

• पेशा :-----

• संपर्क मो. न. :-----

• भाई-बहन की संख्या :-----

• घर का पता :-----  
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• परिवार के सदस्यों की संख्या:-----

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### 3- छात्र / छात्रा के अपने जवाब

1. आपको किन चीजों से ज्यादा लगाव है?

उत्तर- -----

2. आपका प्रिय खेल कौन-सा है?

उत्तर- -----

3. आपको किस चीज से ज्यादा डर लगता है?

उत्तर- -----

4. अपने घनिष्ठ मित्र का नाम लिखिए-

उत्तर- -----

5. आपको अपने मित्र के कौन-से गुण अच्छे लगते हैं?

उत्तर- -----

6. आपके प्रिय महापुरुष कौन है?

उत्तर- -----

7. आप भविष्य में क्या बनना चाहते हैं?

उत्तर- -----

8. अपने पसंदीदा पुस्तक के नाम लिखिए-





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6-भगत सिंह, नेताजी सुभाषचंद्र बोस,अब्दुल कलाम, भीमराव आम्बेडकर, महावीर स्वामी,गुरुनानक देव जी या महात्मा बुद्ध में से किसी एक का चित्र लगाकर उनके बारे में 150 शब्दों में लिखिए-



7- हिंदी के दस लेखक या दस कवियों के नाम और उनकी दो-दो रचनाएँ लिखिए-

कवि / लेखक का नाम

रचना / लेख

1.

2.

3.

4.

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

**8- भारत के 10 दर्शनीय स्थल और उसके राज्यों के नाम लिखिए-**

दर्शनीय स्थल का नाम

राज्य का नाम

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

EDUCATING FOR EXCELLENCE

4.

5.

6.

7.

8.

9.

10.

9- किसी दर्शनीय स्थल में घूमने गए थे,उसका वर्णन लगभग 200 शब्दों में कीजिये-

EDUCATING FOR EXCELLENCE



10- आने वाले बीस वर्षों में हमारा भारत देश विकास के किस ऊँचाइयों तक पहुँच सकता है? कल्पना करते हुए 200 शब्दों में अपने विचार लिखिए-

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11- एक सुविचार लिखिए-

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छात्र / छात्रा का हस्ताक्षर :

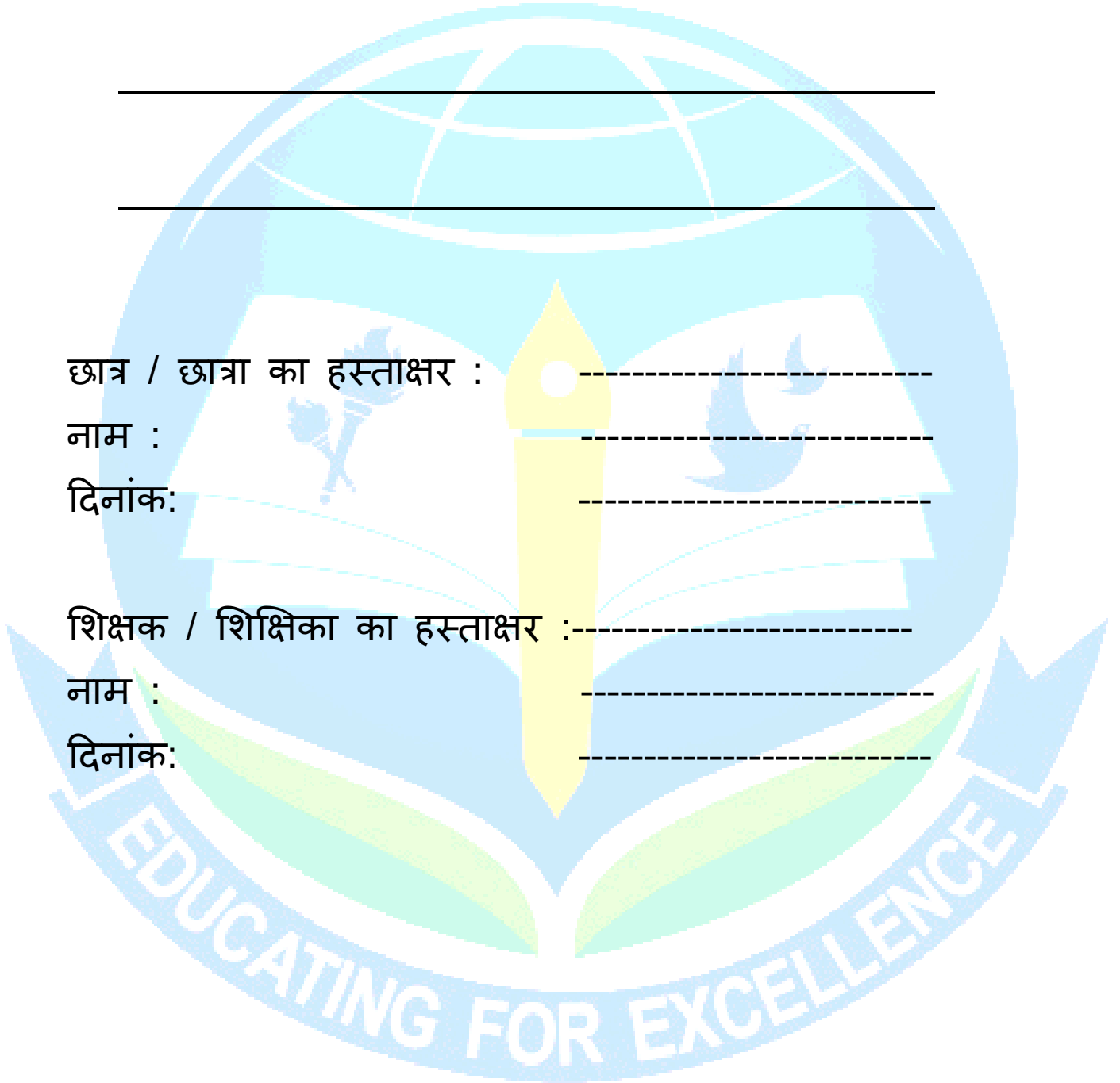
नाम :

दिनांक:

शिक्षक / शिक्षिका का हस्ताक्षर :

नाम :

दिनांक:



# SUBJECT : MATHEMATICS (041)

## GRADE : IX

### 1. To be done in Project File.

#### Subject Enrichment Activity:

Development of Number Systems with their needs.

#### Contents to be included:

(i) Introduction

- What is a number system?
- Why do we need numbers in daily life (counting, measuring, trading, etc.)?
- Brief idea: How number systems evolved over time

(ii) Explain why new types of numbers were introduced (Include **real-life examples**):

- Need for zero → to represent “nothing”
- Negative numbers → for losses, temperature below 0
- Fractions → for parts (like half, quarter)
- Irrational numbers → for exact measurements (like diagonal of a square)
- Natural numbers
- Integers
- Whole numbers

### 2. To be done in Math lab manual.

**Activity 1:** To construct a square root spiral.

**Activity 2:** To verify the algebraic identity  $(a + b)^2 = a^2 + 2ab + b^2$

**Activity 3:** To find the values of abscissae and ordinates of various points given in a cartesian plane.

**Activity 4:** To verify experimentally that if two lines intersect, then (i) the vertically opposite angles are equal (ii) the sum of two adjacent angles is  $180^\circ$  (iii) the sum of all the four angles is  $360^\circ$ .

**Activity 5:** To verify exterior angle property of a triangle.

<https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/classIXtoX/mathematics/lm402.pdf>

<https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/classIXtoX/mathematics/lm401.pdf>

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# SUBJECT: SCIENCE (086)

## GRADE: IX

### SECTION A (BIOLOGY)

#### 1. SCIENCE MODEL

**AIM-**To prepare an innovative science model and file for exhibition.

#### **INSTRUCTIONS TO BE FOLLOWED BY STUDENTS.**

##### **Participation:**

1. Students must participate individually or in a group (maximum 4 members).
2. Even in a group, each student must prepare their own project file individually.

##### **Model Guidelines:**

- The model can be Working Model (preferred) **OR** Prototype / Static Model.

##### **-THEME FOR SCIENCE EXHIBITION MODEL-**

Students strictly have to choose from the topic given below.

1. Health and hygiene
2. Emerging technologies
3. Waste management
4. Sustainable development
5. Conservation of environment (air, water, soil)
6. Alternative source of energy
7. Robotics and A.I application

#### **NOTE- PROJECT FILE IS COMPULSORY FOR EACH MEMBER OF THE GROUP**

##### **1. Title Page:-** Project Title

- Student Name
- Class & Section
- Roll Number

##### **2. Objective:-** Clearly state the aim of your project.

##### **3. Materials Required:-** List all materials used in making the model.

##### **4. Principle:-** Explain the scientific concept/law behind your model.

##### **5. Working / Procedure:-** Step-by-step explanation of how your model works.

##### **6. Applications in Society:-** Explain where and how this concept/model is used in real life.

##### **7. Diagram / Photos:-** Draw a neat labeled diagram OR paste clear photos of your model.

##### **8. Conclusion:-** Summarize what you learned from the project

#### **NOTE- PROJECT FILE IS COMPULSORY FOR EACH MEMBER OF THE GROUP REFER TO THIS PICTURE. ONLY REPORT FILE IS ALLOWED**



#### 2. PRACTICAL WORK

##### Instructions to be followed:

- Write all the below list of experiments in the **BIOLOGY Laboratory Manual**.
- Experiments must be written on rule lining page and diagrams must be drawn on white sheets only.

1. Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells & to record observations and draw their labeled diagrams.
2. Identification of Parenchyma, Collenchyma and Sclerenchyma tissues in plants, striped, smooth and cardiac muscle fibers and nerve cells in animals, from prepared slides. Draw their labeled diagrams.

### SECTION - B (CHEMISTRY)

#### GENERAL INSTRUCTIONS:

1. Write all the experiments listed below in the Chemistry Laboratory Manual Notebook.
2. Experiments must be written in rule lining page and diagrams must be drawn in white sheets
3. Write all the experiments in neat and clean handwriting without overwriting.
4. Follow the proper format (aim, materials, theory, procedure, observation, result and precautions)
5. Maintain the index properly with correct date and page number.

#### **EXPERIMENT-1**

##### **AIM**

##### **To prepare**

- a) a true solution of common salt, sugar and alum
- b) a suspension of soil, chalk powder and fine sand in water
- c) a colloidal of starch in water and egg albumin in water and distinguish between these on the basis of transparency, filtration criterion, stability

#### **EXPERIMENT-2**

##### **AIM**

##### **To prepare**

- a) a mixture
- b) a compound  
using iron filings and sulphur powder and distinguish between these on the basis of:
  - i. appearance i.e., homogeneity and heterogeneity
  - ii. behavior towards a magnet
  - iii. behavior towards carbon disulphide as a solvent.
  - iv. effect of heat.

#### **EXPERIMENT-3**

#### **D. Verification of the law of conservation of mass in a chemical reaction**

### SECTION C (PHYSICS)

**MAKE ONE POSTER ON ANY OF THE GIVEN TOPICS .**

**Approx. Size (30 x 20 inch)**

1. Appliances and machines that use the principle of Reflection of Sound to work.
2. Appliances and machines that make use of the ultrasonic waves
3. Pictures of the Simple machines that use the principle of effort fulcrum load (All 3 kinds).
4. Renewable and nonrenewable energy.
5. Applications of Newton's Laws of motion with illustrations.

|                                    |                 |          |
|------------------------------------|-----------------|----------|
| <b>Approx. Size (30 x 20 inch)</b> | <b>Content-</b> | <b>2</b> |
| <b>Idea and creation</b>           |                 | <b>2</b> |
| <b>Explanation-</b>                |                 | <b>1</b> |

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# SUBJECT: SOCIAL SCIENCE (087)

## GRADE : IX

### Summer Assignment Questions –

#### A) Art Integrated Project – Summer Vacation Assignment

##### Project Title: Two Beautiful Worlds

##### General Instructions (Read Carefully)

- a) This is an individual project to be done neatly on A4 sheets or a project file.
- b) Use colors, maps, drawings, and creativity to make your work attractive.
- c) Write in clear and neat handwriting.
- d) Include a cover page with your Name, Class, Section, Subject, and Project Title.
- e) Support your answers with diagrams, maps, and pictures wherever required.
- f) Do not copy directly—write in your own words.
- g) Submit the project after summer vacation on the given date.

#### Project Questions / Tasks

##### 1. Map Work (Art + Geography)

Draw an outline map of India and:

Color Chhattisgarh in Green (showing forests and land).

Color Gujrat in Blue (showing water bodies and coastline).

Label both states clearly.

Add a small legend (key) for colors used.

##### 2. Nature and Environment (Art + Science)

Draw and describe:

One forest scene of Chhattisgarh

One backwater/coastal scene of Gujrat

Write 4–5 lines explaining how nature is important in both states.

##### 3. Culture and Lifestyle (Art + Social Science)

Compare the culture of both states by drawing and explaining:

Traditional dress

Food habits

Festivals

Write at least 5 points of comparison.

##### 4. Dance and Art Forms (Art Integration)

Draw or paste pictures of:

One famous dance form of Chhattisgarh

One famous dance form of Gujrat

Write 3–4 lines about each.

##### 5. Creative Writing (English Integration)

Imagine you visited both states. Write a short paragraph (80–100 words) on: ☞ “My Journey from Forests of Chhattisgarh to Backwaters of Gujrat”

##### 6. Sustainable Living (EVS Integration)

Write 5 points on:

How people in both states protect nature

What we can learn from them to protect our environment

## 7. Art Activity (Creative Work)

Create one of the following:

A poster showing “Two Beautiful Worlds”

**OR**

A collage using pictures of both states

## B) Project Title: Green Guardian

### 1. Basic Understanding

What do you understand by the term “Green Guardian”?

Why is it important to protect the environment today?

### 2. Waste Management

How is waste managed in India, United Kingdom, Japan, and South Africa?

What are the different methods of waste segregation followed in these countries?

Which country do you think has the most effective waste management system? Why?

### 3. Cleanliness Practices

What types of cleanliness drives are conducted in these countries?

How do citizens participate in keeping their surroundings clean?

What can we learn from these practices?

### 4. Tree Protection

What rules or laws are followed to protect trees in these countries?

Why is tree protection important for the environment?

How can we help in protecting trees in our locality?

### 5. Comparison-Based Question

Compare the eco-practices of the four countries.

→ What are the similarities and differences?

### 6. Application-Based Questions

Which eco-practices can be applied in your local area?

How can you become a Green Guardian in your daily life?

### 7. Opinion / Conclusion

In your opinion, which country is doing the best work in environmental protection? Give reasons.

What steps should be taken to make our surroundings cleaner and greener?

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# **SUBJECT: ARTIFICIAL INTELLIGENCE (417)**

## **GRADE : IX**

### **1. QR Green Trail: Discover Our Plants**

Students will explore the school campus and identify various plants.

#### **Task Details:**

- Record **botanical names** of at least 02 plants.
- Write **2–3 unique facts** about each plant.
- Create a **QR Code** for each plant linking to a digital document (Google Doc / PDF).
- Design a **Digital Plant Trail** using these QR codes.

#### **Additional Task:**

Prepare **Information Sheets** on unique plants from:

- India
- United Kingdom
- Japan
- South Africa

Each sheet should include:

- Common name & botanical name
- Origin
- Special features / uses
- Interesting facts

#### **Learning Outcome:**

Integration of Biology + Technology + Environmental Awareness.

### **2. Decoding Digital Dilemmas through Digital Posters**

Students will work in small groups.

#### **Task Details:**

- Choose one topic:
  - Cyberbullying
  - Online Consent
  - Fake News / Misinformation
- Research how these issues are handled in:
  - India
  - United Kingdom
  - Japan
  - United States
- Compare global practices with Indian context.

#### **Final Submission:**

- Create a **Digital Poster** including:
  - Problem explanation
  - Global comparison
  - Suggested solutions
  - Ethical message

**Tools Suggested:** Canva, PowerPoint, Google Slides

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