

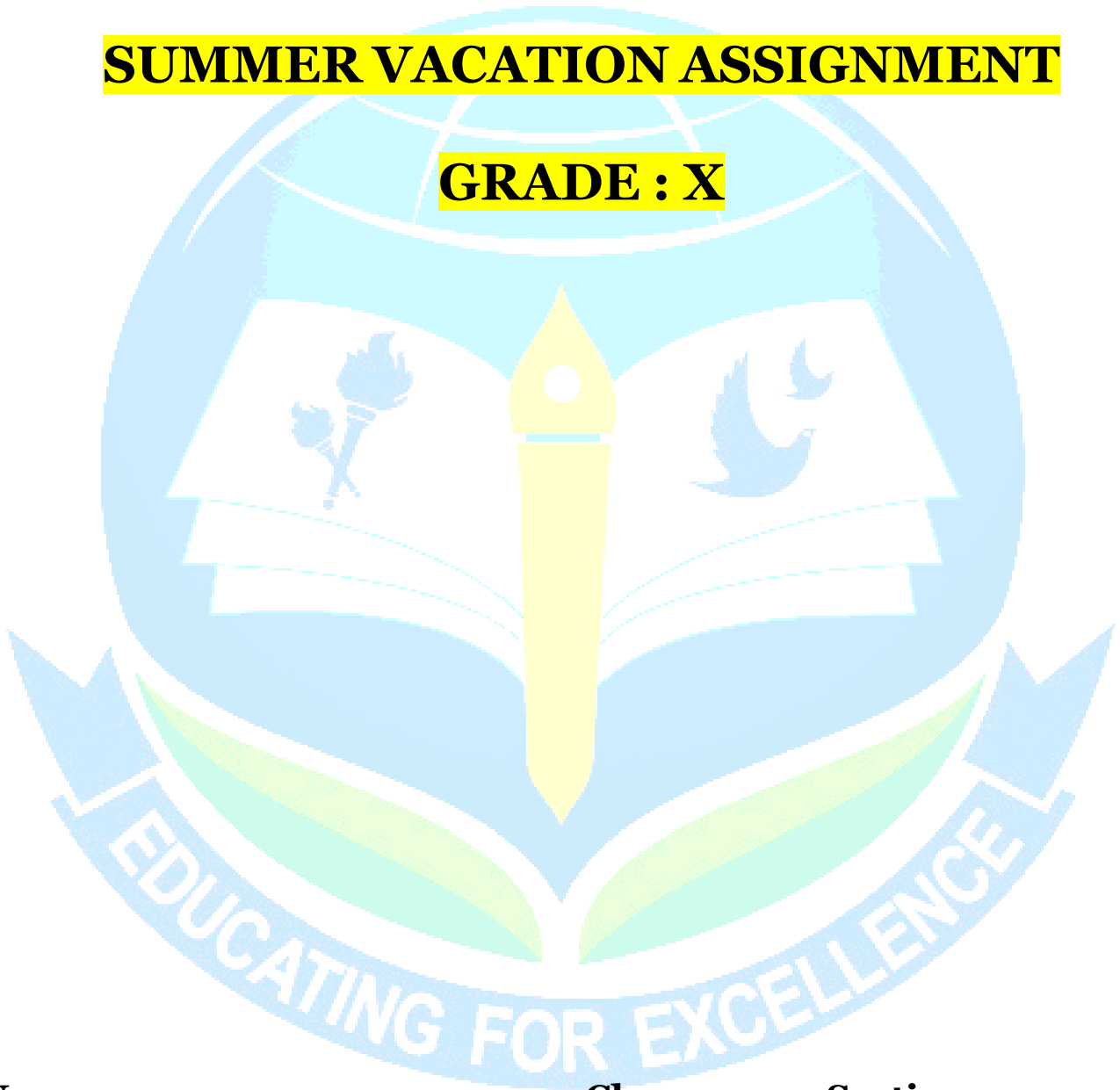


ACADEMIC WORLD SCHOOL™
BEMETARA

SESSION: 2026-27

SUMMER VACATION ASSIGNMENT

GRADE : X



Name _____ **Class** _____ **Section** _____



ACADEMIC WORLD SCHOOL™ BEMETARA

SESSION: 2026-27

SUMMER VACATION ASSIGNMENT

GRADE: X

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: X

1. **Project Title: Social Awareness Research File**
2. **Objective: To develop research, thinking, and writing skills.**
3. **Choose ONE Topic:**
Mobile Addiction
Social Media Impact
Importance of Mental Health
Time Management
4. **Introduction (1–2 pages)**
Explain the topic in your own words
5. **Causes (1–2 pages) ----** any topic you choose
6. **Effects (1–2 pages) ----** On students / society
7. **Survey Section**
Ask 5–10 people
Write 3 questions
Show answers in table format
8. **Findings (1 page)**
What did you understand from survey?
9. **Conclusion (1 page)**
10. **Suggestions / Solutions (1 page)**
11. **My learnings**

Follow the format of Cover page, Acknowledgement, Index page, checklist 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. Introduction |
| 5. Causes | 6. Effects |
| 7. Survey | 8. Findings |
| 9. Conclusion | 10. Suggestions |
| 11. My Learning | 12. Checklist page |

12. **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 but rephrased it
- I have written in my own words
- I have completed all parts of the project
- My project is clean and well-presented

शिक्षा सत्र : 2026-27

कक्षा : X

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 :-----

• परिवार के सदस्यों की संख्या:-----

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 हैं?

उत्तर- -----

7. आप भविष्य में क्या बनना चाहते हैं?

उत्तर- -----

8. अपने पसंदीदा पुस्तक के नाम लिखिए-

उत्तर-

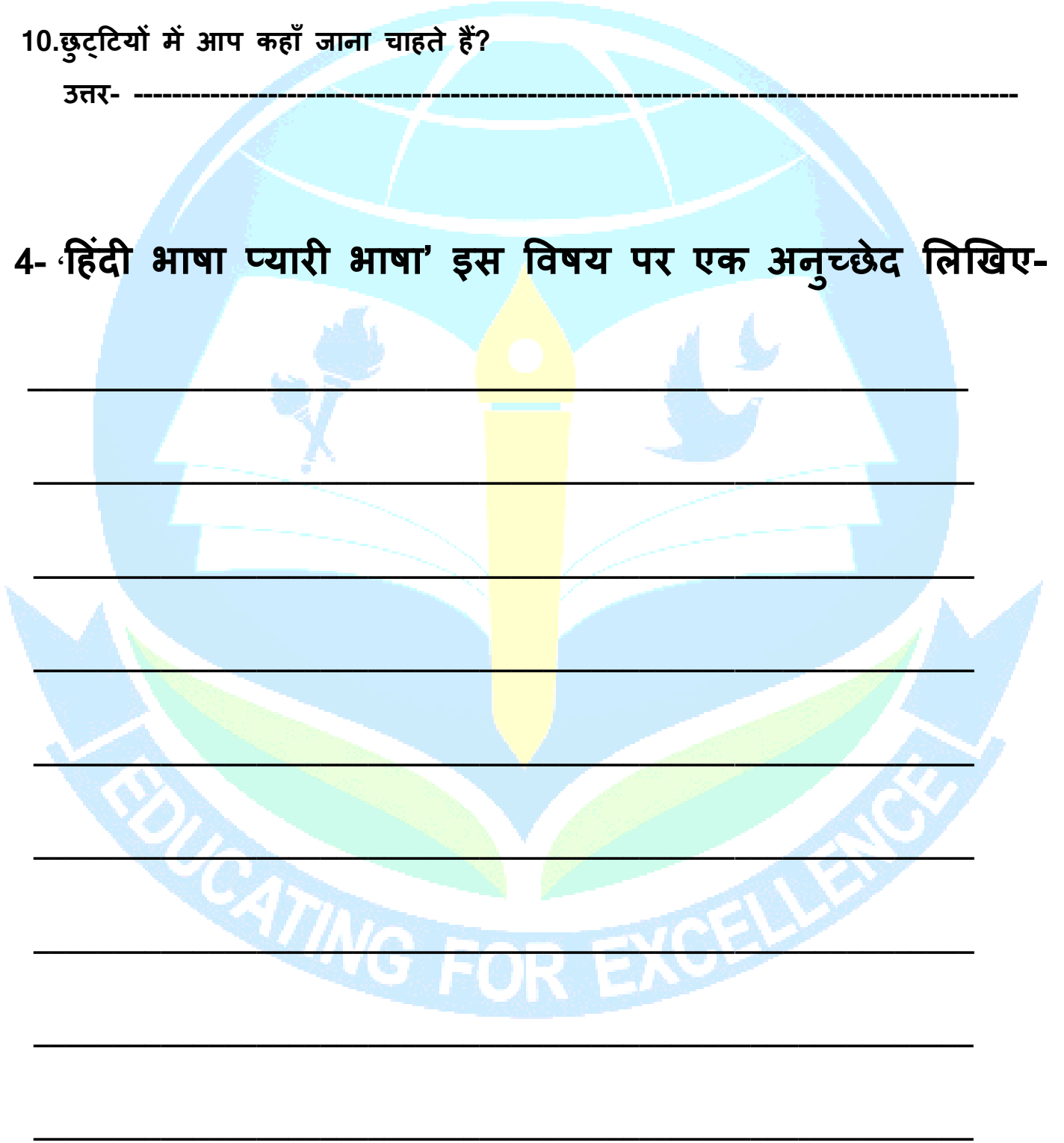
9. आपका शौक क्या है?

उत्तर-

10. छुट्टियों में आप कहाँ जाना चाहते हैं?

उत्तर-

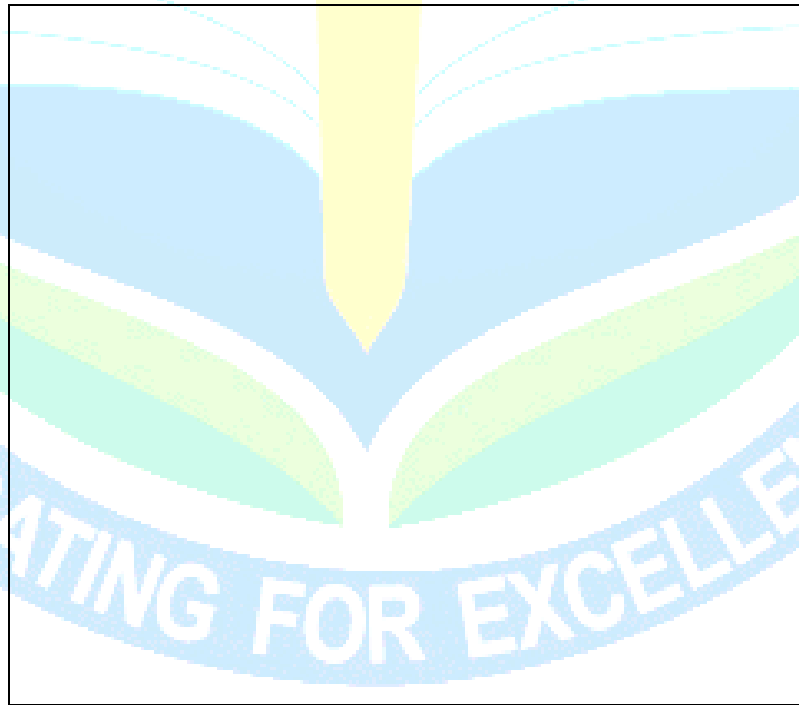
4- 'हिंदी भाषा प्यारी भाषा' इस विषय पर एक अनुच्छेद लिखिए-



5- विश्व में बढ़ते विनाशकारी युद्ध को कैसे रोका जा सकता है?
इस विषय पर लगभग 150 शब्दों में अपने विचार लिखिए-

EDUCATING FOR EXCELLENCE

6- अपने आदरणीय माता-पिता का चित्र लगाकर उनके विषय में लगभग 100 शब्दों में लिखिए-



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

कवि / लेखक का नाम

दो रचनाएँ / दो लेख

1.

2.

3.

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

8- भारत के 10 प्रसिद्ध व्यक्ति और उनके कार्य लिखिए-

प्रसिद्ध व्यक्ति का नाम

उनके कार्य का नाम

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

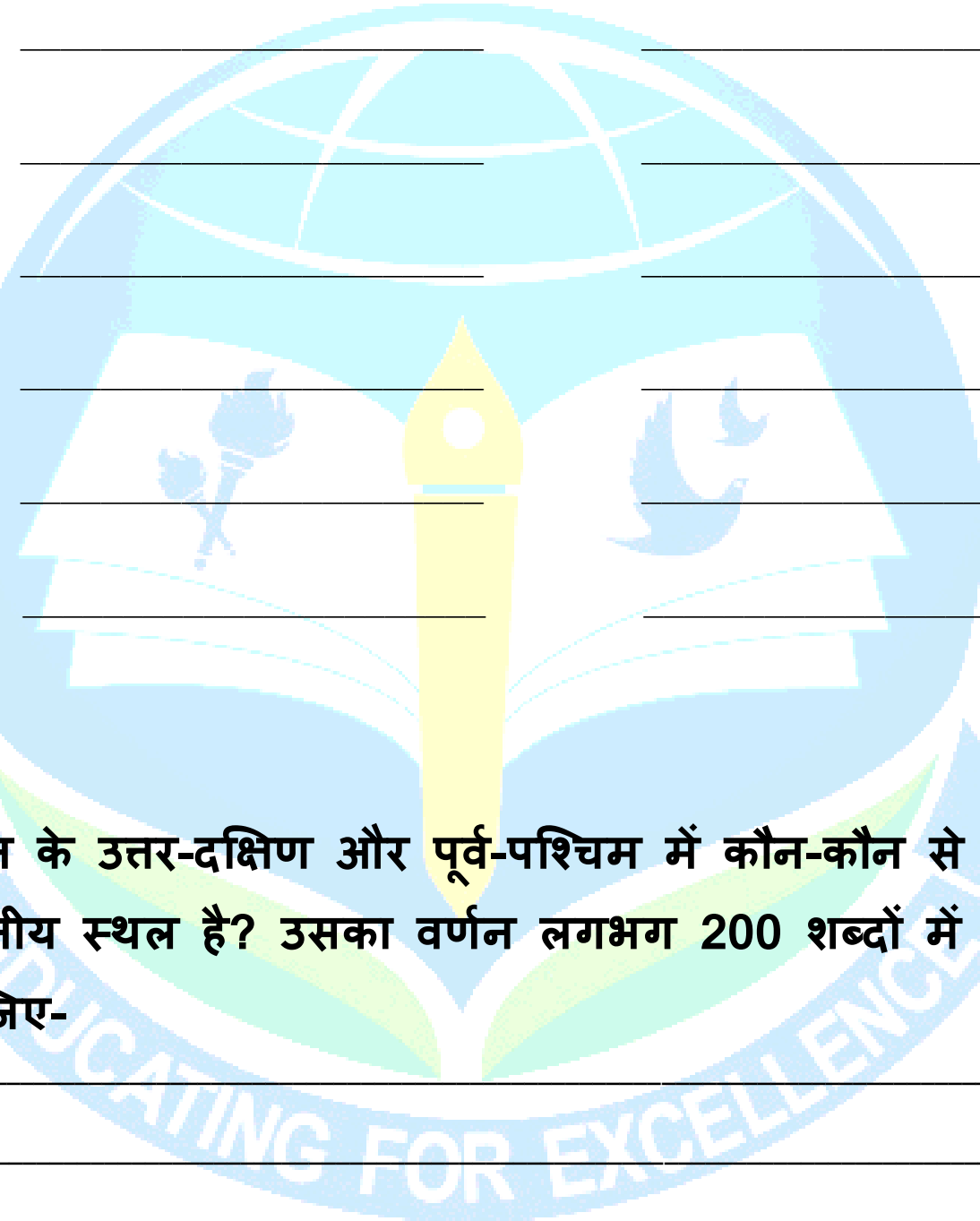
7. _____

8. _____

9. _____

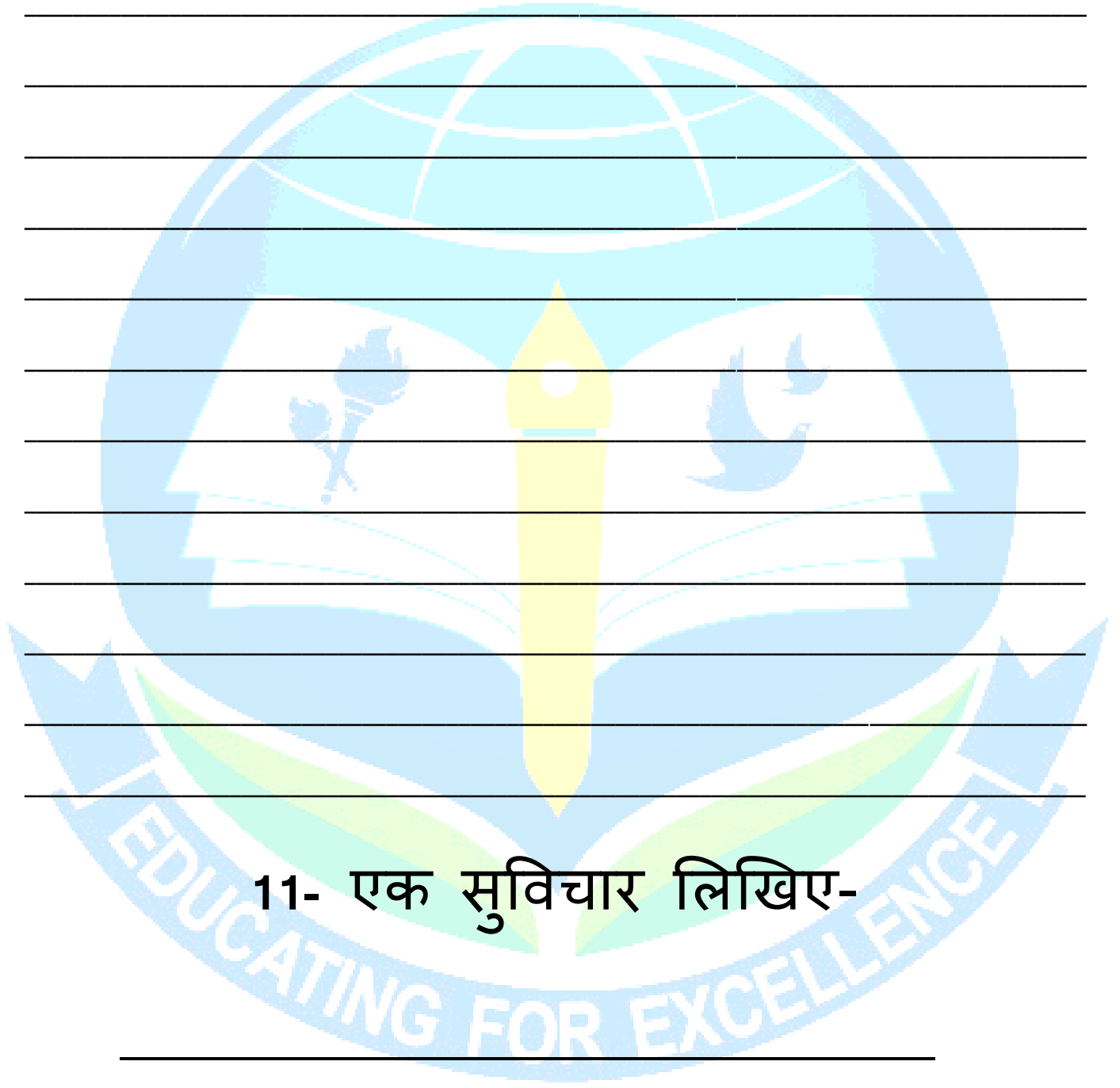
10. _____

9- भारत के उत्तर-दक्षिण और पूर्व-पश्चिम में कौन-कौन से दर्शनीय स्थल हैं? उसका वर्णन लगभग 200 शब्दों में कीजिए-





10- भारत के विकास में हिंदी भाषा का क्या योगदान रहा है? लगभग 200 शब्दों में अपने विचार लिखिए-



11- एक सुविचार लिखिए-

छात्र / छात्रा का हस्ताक्षर : -----

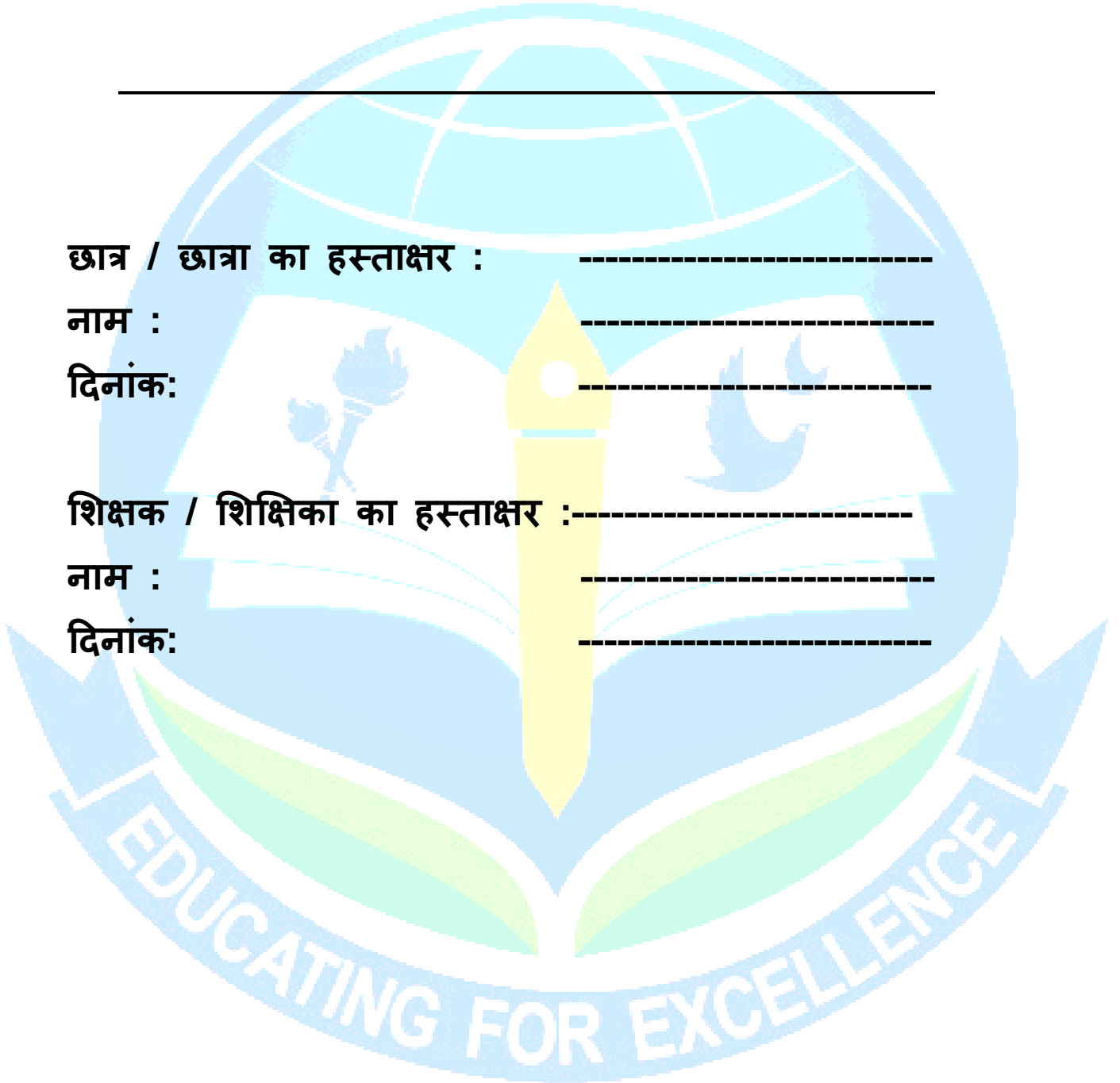
नाम : -----

दिनांक: -----

शिक्षक / शिक्षिका का हस्ताक्षर :-----

नाम : -----

दिनांक: -----



SUBJECT : MATHEMATICS (041)

GRADE : X

1. To be done in Project File:

Subject Enrichment Activity:

Activity Title: “Decode the Quadratic!”

Objectives:

- Draw the graphs of the following polynomials on graph papers (use one graph paper for one polynomial) and hence, identify their zeros.

$$f_1(x) = x^2 - 2x - 8, f_2(x) = 2 - 2x - x^2, f_3(x) = x^2 - 6x + 9,$$

$$f_4(x) = -4x^2 + 4x - 1, f_5(x) = 2x^2 - 4x + 5, f_6(x) = -3x^2 + 2x - 1$$

2. To be done in Math lab manual.

Activity 1: To verify the conditions of consistency/ inconsistency for a pair of linear equations in two variables by graphical method.

Activity 2: To establish a formula for the sum of first n-terms of an Arithmetic Progression.

Activity 3: To verify the distance formula by graphical method.

Activity 4: To establish the criteria for similarity of two triangles.

Activity 5: To verify Basic Proportionality Theorem (Thales theorem).

3. Solve the attached Worksheet based on Chapter 1 and Chapter 2 (to be solved in fair notebook).

<https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/classIXtoX/mathematics/lelm406.pdf>

<https://ncert.nic.in/pdf/publication/sciencelaboratorymanuals/classIXtoX/mathematics/lelm405.pdf>

EDUCATING FOR EXCELLENCE

SUBJECT: SCIENCE (086)
GRADE : X

SECTION-A (BIOLOGY)

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 technology
3. Waste management
4. Sustainable development
5. Conservation of environment (air, water, soil)
6. Alternative source of energy
7. Robotics and A.I application

PROJECT FILE- it should contain

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



SECTION – B (PRACTICALS)

Instructions to follow:

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

List of Experiments

1. Preparing a temporary mount of a leaf peel to show stomata.
2. Experimentally show that carbon dioxide is given out during respiration.
3. Studying (a) binary fission in Amoeba, and (b) budding in yeast and Hydra with the help of prepared slides.
4. Identification of the different parts of an embryo of a dicot seed (pea, gram or red kidney bean).

SECTION-B (CHEMISTRY)

CHEMISTRY PRACTICALS

GENERAL INSTRUCTIONS:

1. Write all the experiments listed 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

PH Measurement:

AIM

Finding the pH of the following samples by using pH paper/universal indicator:

- (i) Dilute hydrochloric acid
- (ii) Dilute NaOH solution
- (iii) Dilute ethanoic acid solution
- (iv) Lemon juice
- (v) Water
- (vi) Dilute hydrogen carbonate solution

EXPERIMENT-2

Properties of Acids and Bases:

AIM

Studying the properties of acids and bases (HCl & NaOH) on the basis of their reaction with:

- a) Litmus solution (Blue/red)
- b) Zinc metal
- c) Solid sodium carbonate

EXPERIMENT-3

Types of Chemical Reactions:

AIM

Performing and observing the following reactions and classify them into:

- A. Combination reaction
- B. Decomposition reaction
- C. Displacement reaction

D. Double displacement reaction

- (i) Action of water on quicklime
- (ii) Action of heat on ferrous sulphate crystals
- (iii) Iron nails kept in copper sulphate solution
- (iv) Reaction between sodium sulphate and barium chloride solutions

EXPERIMENT-4

Reactivity Series of Metals

AIM

Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions:

- i) $\text{ZnSO}_4(\text{aq})$
- ii) $\text{FeSO}_4(\text{aq})$
- iii) $\text{CuSO}_4(\text{aq})$
- iv) $\text{Al}_2(\text{SO}_4)_3(\text{aq})$

Arranging Zn, Fe, Cu and Al (metals) in decreasing order of reactivity based on the above result.

SECTION-C (PHYSICS)

Instructions to follow:

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

List of experiments for class X physics

1. To determine the focal length of a
 - a) Concave mirror
 - b) Convex lens by obtaining the image of a distant object.
2. To trace the path of a ray of light, passing through a rectangular glass slab, for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the results.
3. To study the dependence of current (I) on the potential difference (V) across a resistor and determine its resistance. Also plot a graph between V and I.
4. To determine the equivalent resistance of two resistors when connected in series.
5. To determine the equivalent resistance of two resistors when connected in parallel.

SUBJECT: SOCIAL SCIENCE (087)

GRADE : X

Summer Assignment Questions –

A) Art Integrated Project – Summer Vacation Assignment

Project Title: Two Beautiful Worlds

General Instructions (Read Carefully)

- This is an individual project to be done neatly on A4 sheets or a project file.
- Use colors, maps, drawings, and creativity to make your work attractive.
- Write in clear and neat handwriting.
- Include a cover page with your Name, Class, Section, Subject, and Project Title.
- Support your answers with diagrams, maps, and pictures wherever required.
- Do not copy directly—write in your own words.
- 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?

SUBJECT: ARTIFICIAL INTELLIGENCE (417)

GRADE : X

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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3		LIPI BASU	lipi.basu@academicworld.co.in
4		SOUMYA RANJAN NANAK	soumya.nayak@academicworld.co.in