



**BANYAN TREE SCHOOL**  
**HOLIDAY HOMEWORK (2026-27)**  
**CLASS X**

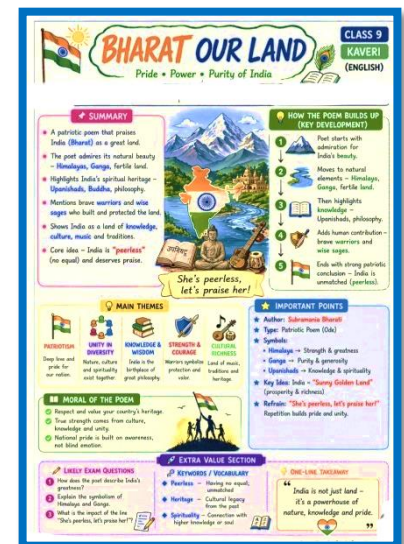
**SUBJECT: ENGLISH**

**RESEARCH WORK: MIND MAP**

Read the Poem, 'Bharat Our Land,' given in your English textbook. The poem written by the acclaimed author Subramania Bharati, highlights the rich culture, beauty, manuscripts and the great poets and warriors of India. It also emphasises on the fact that India is known as the 'cradle of the human race' and 'a land of profound spiritual wisdom.'

Use coloured A4-sized sheets, to discuss the statement keeping in mind the theme and to illustrate your favourite part from the poem.

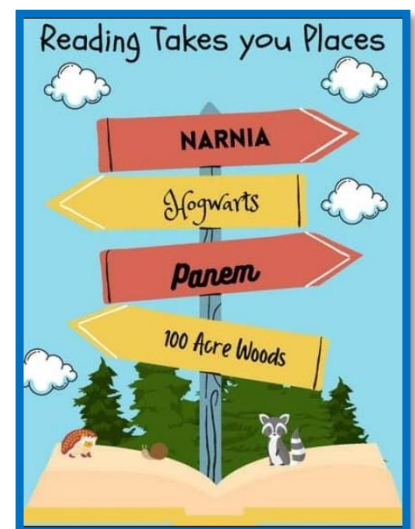
In addition, on an A3-sized sheet, draw a Mind Map, including the some important points about India, theme and tone of the poet, summary and learning outcome. Mention the name of the Author below the illustration.



**PROJECT WORK (PORTFOLIO):**

Read any two of the following books. Prepare a graphic vocabulary journal or a Pictionary with twenty new words you have learnt. Then, write each new word in it and draw or paste a picture of it. Also, write one synonym and antonym (if any) against it. In addition, draw a suitable book cover, mentioning the name of the story, the characters you liked, and what in the story inspired you the most.

- The Invisible Man by H. G. Wells
- The Diary of A Young Girl By Anne Frank
- Swami and Friends By R. K. Narayan
- The Railway Children by E. Nesbitt
- Three Men In A Boat by Jerome K. Jerome
- The Alchemist by Paulo Coelho



# ASSESSMENT RUBRIC

Please take a printout of the rubric Sheet for evaluation.

BANYAN TREE SCHOOL, LODHI ROAD






SESSION 2026-27

## HOLIDAY HOMEWORK ASSESSMENT RUBRIC

CLASS IX

Student's Name: \_\_\_\_\_

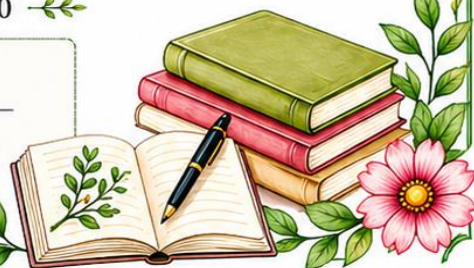
Class/Sec: \_\_\_\_\_

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)	Marks Awarded
 Analytical Skills	Deep understanding with strong analysis and insight	Good understanding with relevant analysis	Basic interpretation of ideas	Weak understanding with little analysis	___ /4
 Creativity & Presentation	Highly creative, visually engaging and well-organised	Good creativity and well-presented	Simple presentation with basic effort	Minimal creativity and effort	___ /4
 Content & Research	Well-researched with relevant examples and facts	Adequate research with some relevant information	Limited research and examples	Poor or copied content	___ /4
 Writing Skills	Fluent, coherent and grammatically correct	Good expression with minor errors	Noticeable errors in grammar and expression	Frequent errors and unclear expression	___ /4
 Task Completion	All tasks completed properly and on time	Most tasks completed	Some tasks incomplete	Many tasks missing	___ /4

Total Marks: \_\_\_ /20

Teacher's Remarks:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





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## SUBJECT: SCIENCE

### BIOLOGY

#### **Nutrition and Healthy Lifestyle**

##### **Objective**

The aim of this project is to help students understand the importance of balanced nutrition and healthy lifestyle choices in maintaining physical and mental well-being. Students will explore dietary habits, fitness routines, and preventive health measures, and present their findings creatively.

##### **Guidelines**

###### **1. Research Component**

- Study the concept of a balanced diet as per the Indian Council of Medical Research (ICMR) guidelines.
- Explore the role of macronutrients (carbohydrates, proteins, fats) and micronutrients (vitamins, minerals).
- Investigate the impact of lifestyle choices such as sleep, exercise, and hydration on overall health.

###### **2. Practical Component**

- Maintain a **7-day food diary** during the vacation, recording meals, snacks, and water intake.
- Track daily physical activity (walking, yoga, sports, etc.).
- Reflect on sleep patterns and screen time.

###### **3. Creative Component**

- Prepare a **poster or infographic** highlighting “10 Tips for a Healthy Lifestyle for Teenagers.”
- Design a **weekly meal plan** suitable for a Grade 10 student, ensuring balance and variety.
- Write a short essay (500–600 words) on “How Healthy Habits Shape Our Future.”

###### **4. Presentation**

- Compile the project in a neat folder with sections for research, diary, creative work, and essay.
- Include visuals, charts, or drawings wherever possible.
- Ensure proper references for any external sources used.

##### **Evaluation Criteria [5 marks]**

- **Content Accuracy** (1 marks): Correctness of nutritional information and lifestyle recommendations.

- **Creativity & Presentation** (2 marks): Visual appeal, originality, and clarity of ideas.
- **Practical Application** (1 marks): Effort in maintaining diary and meal plan.
- **Reflection & Critical Thinking** (1 marks): Insights drawn from personal observation and essay.

#### **Submission**

- Deadline: First week after reopening of school.
- Format: Handwritten or printed, with clear headings and organized sections.

### **PHYSICS**

#### **Choose any one project from the following topics:**

##### **1. Reflection in Architecture and Design**

- **Phenomenon:** Reflection of light.
- **Life Connection:** Mirrors in homes, periscopes, decorative designs, solar cookers.
- **Project Idea:** Build a simple periscope or solar cooker and explain how reflection principles are applied in daily life.

##### **2. Refraction in Everyday Objects**

- **Phenomenon:** Refraction of light.
- **Life Connection:** Lenses in spectacles, magnifying glasses, swimming pool depth illusion.
- **Project Idea:** Demonstrate refraction using water and glass, then connect it to vision correction and optical instruments.

##### **3. Scattering of Light and Sky Colors**

- **Phenomenon:** Scattering of light.
- **Life Connection:** Blue sky, red sunsets, hazy mornings.
- **Project Idea:** Collect photographs of sky colors at different times, explain scattering, and link to environmental conditions (pollution, dust).

#### **Instructions:**

- \*Project Report has to be handwritten.
- \* Report will consist of 12 to 15 pages (use A-4 Coloured Sheets).
- \*It must include a cover page and introduction.
- \* Use photographs (coloured/black and white/ self- drawn) wherever required.
- \* Acknowledgement, Certificate, Bibliography to be written but it does not count as a page in the project.

**This project report will go in your portfolio file for CBSE Internal Assessment.**

**SUBMISSION DATE OF THE PROJECT – 08/07/202**

### **CHEMISTRY**

**DEAR STUDENTS!** Summer vacations brings a good time to plunge into the sea of imagination and creativity So, let's get ready to learn something new every day and explore more.

**Know your Food !**

## **ACTIVITY**

### **Estimating pH of Common Substances**

- **Title:** *Explore Acids, Bases and Neutral Substances Around You!*
- 

#### **Objective:**

To **estimate the pH** of household substances using **pH paper** or **universal indicator** and determine whether they are **acidic, basic, or neutral**.

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#### **Requirements (to be arranged at home):**

- pH paper / universal indicator (available at medical or science stores)
- Test tubes or clean small transparent containers (like medicine cups)
- Samples of the following:
  - Lemon juice
  - Sodium bicarbonate solution (baking soda + water)
  - Tap water
  - Coffee solution
  - Aerated drink (Coke, Pepsi, etc.)
  - Saliva (before and after meal)
  - Tomato juice
  - Antacid (e.g., Digene)

#### **Procedure:**

1. Collect the samples listed above.
2. Pour **3–4 drops** of each sample into separate labeled test tubes or containers (Label them A, B, C...).
3. Observe if any sample has an obvious colour before testing.
4. Dip a **pH paper** strip or add **1 drop of universal indicator** to each sample.
5. Observe the **colour change**.
6. Match the resulting colour with the **pH chart** provided with your indicator.
7. Record the **approximate pH value** and determine if the substance is **acidic, basic, or neutral**.

#### **Observation Table:**

Item	Sample Name	Colour of pH Paper	Approximate pH Value	Nature (Acidic/Basic/Neutral)
A				
B				
C				
D				
E				
F				
G				

**Critical Thinking Questions:**

1. Which of the tested substances is the most acidic and which is the most basic?
2. Did the pH of saliva change after a meal? Why might this happen?
3. Why do you think antacids are basic in nature?
4. What role does pH play in food preservation and digestion?

**SUBJECT: MATHEMATICS**

**GENERAL INSTRUCTIONS:**

- Holiday Homework must be done in a very neat and presentable manner.
- Homework will be assessed on the basis of creativity, presentation, completion of all questions, and proper indexing of work.
- Avoid cutting and overwriting.
- Creativity and originality of work will be appreciated.
- Read the instructions carefully and submit the work accordingly.
- Rubrics for each activity are attached at the end.

**ART INTEGRATED PROJECT:**

## EXPLORE GEOMETRY THROUGH STRING - *Making Math Come to Life with String Art*

Create a String Art Design using thread by either weaving on a black base or using nails/pins. The design should show how mathematics (geometry) can be used to create patterns and artistic designs. Your work should clearly show the use of shapes, patterns, symmetry, or angles.

### Instructions:

#### Part A: Create the String Art

- Use thread with either:  
Weaving method (paper/cardboard),  
OR  
Nail/pin method (board/cardboard)
- Create a neat and creative geometric design

#### Part B: Project File (Written Work)

- Cover Page
- Acknowledgement,
- Index
- Your Design
  - Pattern used
  - Process (steps)
  - Concept used
- Real-life use
- Self-Reflection
- Bibliography

Criteria	Excellent (4–5 Marks)	Good (3–4 Marks)	Satisfactory (2-3 Marks)	Needs Improvement (0–1 Mark)	Marks Allotted
<b>Design</b>	Very creative and attractive	Good design	Simple design	Incomplete / very basic	_____ /5
<b>Use of Geometry</b>	Clear use of concepts (shapes/symmetry)	Some concepts used	Limited use	No clear concept	_____ /5
<b>Explanation</b>	Clear and complete	Mostly clear	Partially explained	Not clear	_____ /5
<b>Neatness</b>	Very neat and well-presented	Minor errors	Some untidiness	Untidy	_____ /5
<b>Viva</b>	Confident and correct explanation	Some hesitation	Limited understanding	Unable to explain	_____ /5

#### Reference Video Link:

<https://youtu.be/evLABV75jhY>

<https://youtu.be/VU7FheVEPSs>

## PROJECT 2: MATH PODCAST OR VIDEO

1. Create a podcast episode or a video on a specific topic from class X Mathematics syllabus.
2. Present the topic in an engaging and interactive manner, explaining concepts, providing examples and solving problems.
3. Incorporate visuals, animations or props to enhance the presentation.

### **ACTIVITY 1: DESIGN A MATHEMATICAL NEWSPAPER**

Create a Mathematical Cultural Newspaper comparing Delhi with any one Indian state of your choice. The project should highlight culture—festivals, food, dress, art—and show how mathematics is present through patterns, symmetry, and shapes. Present your work creatively in a 4-page A3 newspaper with informative and fun sections.

#### **Design a mathematical newspaper A – 3 SIZE which includes**

##### **Page 1: Front Page (Introduction & Comparison)**

- Give a creative name to your newspaper
- Write a short introduction of:
  - Delhi
  - Your chosen state
- Add a comparison table with pictures based on:
  - Festivals
  - Dances
  - Music
  - Food
  - Traditional Dress

##### **Page 2: Relation between Mathematics and Art forms of these two states.**

Show how mathematics is seen in Delhi and your chosen state:

- Patterns in clothes, monuments, or art
- Symmetry in rangoli, buildings, or designs
- Shapes used in decorations or dance formations

##### **Page 3: Fun with Maths**

- Crossword
- Riddle
- Puzzle (count shapes / find symmetry)
- Quiz questions

##### **Page 4: Creative Section**

- Short Article: *“Mathematics in Our Culture”*
- Poem on math and culture
- Report: *“My Journey Through This Project”*

**Also, give the appropriate name for the newspaper (Newspaper should have minimum 4 page)**

**SUBJECT: SOCIAL SCIENCE**

**HISTORY**

## 1. Assignment: The "Modern Allegory" Project

**Goal:** To understand how abstract ideas like "Liberty" or "Nation" are turned into human figures (like Marianne or Germania), and to create a modern version for India.

### Step-by-Step Instructions:

1. **Research (Step 1):** Re-read the section "Visualizing the Nation" in Chapter 1. Look at the symbols used for **Germania** (the oak leaves for heroism, the sword for readiness to fight, the olive branch for peace).
2. **Concept Building (Step 2):** Think about **India in 2026**. What are our current strengths or values? (e.g., Digital technology, Space exploration, Unity in diversity, Environmental protection).
3. **Drawing (Step 3):** On an A4 sheet, draw a human figure (an allegory) that represents India today.
  - *Example:* Instead of a sword, she might hold a satellite; instead of a crown of leaves, she might wear a symbol of the Ashoka Chakra or a digital circuit pattern.
4. **The "Symbolism Key" (Step 4):** On the back of the drawing, make a table with two columns: "**Symbol used**" and "**What it represents.**" Explain at least 4 symbols in detail.

## 2. Assignment: Print Culture & The Ukiyo-e Connection

**Goal:** To explore how "Print Culture" was not just books but also art that traveled from Japan to Europe, changing history.

### Step-by-Step Instructions:

1. **The Artist (Step 1):** Research **Kitagawa Utamaro**. Note down three facts about his style (e.g., his focus on daily life or his use of bold outlines).
2. **The Art Style (Step 2):** Find an image of a **Ukiyo-e** (Japanese Woodblock print). Sketch a simplified version of it in your notebook. Focus on the *flat colors* and the *thick outlines*.
3. **The Historical Link (Step 3):** Write a short report (1 page) explaining the "Japonism" movement on a4 page.
  - Explain how these prints reached Europe (often as wrapping paper for tea!).
  - Mention how famous European painters (like **Van Gogh** or **Monet**) copied this style because it was so different from traditional European painting.
4. **Reflection (Step 4):** Answer this question: *"How did mass-printing these artworks in Japan help make art something common people could own, rather than just the rich?"* (do it on A4 page)

## 3. Academic Revision: Chapter 1 Only

- **Reading:** Thoroughly read **Chapter 1: The Rise of Nationalism in Europe**.
- **Workbook/Booklet:** Complete the questions from booklet which will be shared for **Chapter 1 only** in your Question-Answer notebook.
- **Test Prep:** Be prepared for a focused **Class Test on Chapter 1** on the first day school reopens.

## 4. Movie: Watch "Gandhi" (1982) or "Les Misérables" (2012) or Sardar Udham Singh.

- Write a two-page report.
- *Task:* Find **one scene** that shows people using a flag or a song to feel like they belong to a nation. Describe that scene in detail.

**Note:** All work should be handwritten. The focus is on **creativity** and **critical thinking** rather than just copying from the textbook/ internet.

## **GEOGRAPHY**

### GENERAL INSTRUCTIONS:

- Complete all work neatly in a separate notebook/file
- Use maps, colors, and diagrams wherever required
- Submit on the first day after holidays
- Maintain proper presentation and handwriting

### **WORKSHEET (WRITTEN WORK)**

#### . Resources and Development

- Define resource and explain its types
- Explain sustainable development with examples
- Why is resource planning important in India?

#### . Soil Resources

- Name and explain major soil types in India
- Mention characteristics and crops grown in each

#### . Water Resources

- Why is water conservation important?
- Suggest any 5 methods to conserve water

#### Short Answer Questions

- What is land degradation?
- What are renewable and non-renewable resources?
- What is sustainable development?

### MAP WORK

#### 1. Water Resources

Locate and label:

- Salal
- Bhakra Nangal
- Hirakud
- Tehri
- Nagarjun Sagar
- Rana Pratap Sagar
- Tungabhadra
- Sardar Sarovar

### PROJECT WORK (PPT)

Topic: Sustainable Development

**Instructions:**

- Prepare a PowerPoint Presentation (10–12 slides)

Content to Include:

1. Meaning of Sustainable Development
2. Importance
3. Need for Resource Conservation
4. Examples (India & World)
5. Role of Individuals
6. Government Initiatives
7. Conclusion

Design Guidelines:

- Use images, charts, and bullet points
- Keep slides neat and not overcrowded

**ACTIVITY – POSTER MAKING**

Topic: Save Resources for a Sustainable Future

Instructions:

- Make a creative poster on any one of the following themes:
  - o Save Water
  - o Save Soil
  - o Sustainable Development
  - o Conservation of Resources

Guidelines:

- Use A4 or chart paper
- Include slogans, drawings, and colors
- Keep the message clear and impactful
- Use minimum text, more visuals

Suggested Slogans:

- “Save Today, Survive Tomorrow”
- “Every Drop Counts”
- “Conserve Resources, Conserve Future”
- “Go Green, Keep it Clean”

**POL SCIENCE****General Instructions:**

1. Complete the work neatly in an A4 size file/folder.
2. Use blue/black pen and maintain proper headings.
3. Paste relevant pictures, newspaper cuttings, maps, charts wherever required.
4. Mention Name, Class, Section, Roll Number on the cover page.

5. Submit the homework after summer vacation.
6. Original and creative work will be appreciated.

### **Topic: Democratic Politics – Class X**

#### **Section A – Project Work (Compulsory)**

Project Title: Power Sharing in India

Prepare a detailed project file covering:

1. Meaning of Power Sharing
2. Why power sharing is desirable
3. Forms of power sharing
4. Belgium Model of accommodation
5. Sri Lanka Majoritarianism
6. Power sharing in India
7. Role of coalition governments
8. Conclusion – Importance of unity in diversity

#### **Section B – Map Work**

Mark and label on political map of India:

1. All States and Union Territories
2. Capitals of 10 major states
3. Areas with linguistic diversity
4. Jammu & Kashmir
5. Delhi

#### **Section C – Worksheet**

1. What is power sharing?
2. Why is power sharing good for democracy?
3. Explain the Belgian model.
4. Why did conflict arise in Sri Lanka?
5. What is federalism?
6. Differentiate between unitary and federal government.
7. What is decentralisation?
8. What is the role of Panchayati Raj?
9. What are political parties?
10. Why are elections important?

#### **Section D – Case Study / Current Affairs**

Collect any 3 newspaper articles related to elections, government policies, parliament debates, women participation in politics, or local government issues. Paste and write 50-word summary each.

#### **Section E – Creative Activity**

Make any **one**:

1. Poster on Save Democracy
2. Slogan writing on Voting Rights

3. Collage on Unity in Diversity
4. Chart on Levels of Government in India

### **Section F – Viva Preparation**

**Learn:** Democracy, Federalism, Coalition, Constitution, Franchise, Decentralisation, Legislature, Executive, Judiciary, Secularism

### **Reflection Section**

How can young citizens strengthen democracy?

### **Teacher's Note**

*Neat presentation, originality, and timely submission will carry marks.*

## **SUBJECT: ARTIFICIAL INTELLIGENCE**

**Theme: "AI for Social Good"**

**"AI-Based Solution for a Real-Life Problem"**

### **STEP 1: PROBLEM IDENTIFICATION**

Choose **ONE problem** from your surroundings:

- Waste management
- Traffic congestion
- Water wastage
- School-related issue
- Health awareness

 Write:

- What is the problem?
  - Why is it important to solve?
- 

### **STEP 2: APPLY AI PROJECT CYCLE**

#### **1. Problem Scoping**


- Define goal
  - Identify stakeholders
- 

#### **2. Data Acquisition**

- What data is needed?

Examples:

- Images
- Survey data
- Numbers

 Create a small **data table**

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### 3. Data Exploration

- Identify patterns
  - Write 3 observations
- 

### 4. Modelling





- Suggest AI solution  
Examples:
  - Image recognition
  - Chatbot
  - Prediction system
- 

### 5. Evaluation

- How will you check if your solution works?
- 

## **STEP 3: PROJECT PRESENTATION**

Students can choose ANY format:

-  File (written project)
  -  PPT (10–12 slides)
  -  Video explanation (2–3 mins)
  -  Chart / Model
- 

## **STEP 4: CREATIVE INTEGRATION**


 **Add ANY TWO:**

- Poster: “AI for Better Future”
  - Comic Strip: AI helping humans
  - Infographic on AI uses
  - Slogan writing (5 slogans)
- 

## **STEP 5: FIELD ACTIVITY**

 **Survey Task**


- Take responses from **5 people**
- Ask:
  - Do you use AI?
  - Where do you see AI in daily life?

 Present in table/graph

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## **STEP 6: REFLECTION**

Write (100–120 words):

 *“How AI can improve my community”*

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## **PROJECT FILE FORMAT**

1. Cover Page
2. Certificate
3. Acknowledgement
4. Index
5. Main Content
6. Survey Analysis
7. Creativity Section
8. Conclusion

### **SUBJECT: PAT**

**Make one project file on the following topics:-**

1. Choose any one topic from Employability Skills.
2. Choose any one topic from Subject specific skills.

**Make Practical File on the following topics :-**

1. Make one skill development session on volleyball or Basketball.
2. Prepare one assessment report and provide feedback.
3. Plan one Free play Activity for early year children and explain the effective steps.
4. Make a report of the equipment's for early years children with their name.