



BHAVDIYA PUBLIC SCHOOL AYODHYA
SUMMER VACATION HOMEWORK (2026-27)
CLASS-IX

ENGLISH

I. PORTFOLIO (As per CBSE Guidelines)

Objective: The portfolio is designed to encourage self-reflection, personality development, creativity, communication skills and experiential learning.

Instructions

Prepare the portfolio in PPT format (Hard Copies to be submitted too).

Use pictures/photographs on every page/slide.

Maintain neatness, creativity and proper sequencing.

Decorate with borders, captions, quotes and illustrations.

Suggested Portfolio Format (15–20 Slides/Pages)

1. Cover Page

Student's Name, Class & Section, Session(2026-27), School Name and a recent photograph.

2. About Me / Self Introduction

Who Am I? Include name, nickname, personality, uniqueness, life motto, with 2–3 pictures.

3. My Family

Family members, values learnt, favourite memory, with family photographs.

4. My Friends & Social Circle

Importance of friendship, closest friends, memorable moments, with pictures.

5. My Strengths & Weaknesses

Two-column format and how you are improving yourself.

6. My Interests & Hobbies

Reading, music, sports, art, travelling etc. with pictures.

7. My Achievements & Accomplishments

Academic, sports, competitions, certificates till Class IX.

8. Favourite Books / Movies / Inspirations

Mention favourites and what inspires you.

9. My School Journey

Memorable experiences, favourite teacher/subject, lessons learnt.

10. My Goals & Aspirations

Short-term and long-term goals, dream career.

11. My Role Model

Who inspires you and why.

12. Favourite Place / Travel Experience

A memorable trip or dream destination.

13. Life Lessons Learnt

5–7 important lessons.

14. Gratitude Page

People you are thankful for.

15. Reflection Page

The person I am today and aspire to become (150–200 words).

I. TRAVEL BROCHURE (AIL)

Arunachal Pradesh

Prepare a CBSE Art-Integrated Travel Brochure including map, tourist attractions, culture, traditions, cuisine, festivals, attire, best time to visit, travel tips and visuals.

Important Instruction

Students are instructed to prepare the above assignments **diligently, creatively, and with proper research**. Originality, neat presentation, and detailed work are expected. Kindly note that these assignments shall form an important part of the **Internal Assessment for the current year and then for the INTERNAL ASSESSMENT FOR BOARDS (CLASS X), the next year**. Therefore, students must ensure timely submission and sincere effort in completing the work.

MATHS

Based on Chapters: Number System & Polynomials

Theme: Arunachal Pradesh

Session: 2026–27

Objective

This holiday homework is designed to:

- Strengthen concepts of Number System and Polynomials
- Develop logical and analytical thinking
- Connect Mathematics with real-life situations
- Encourage creativity, research work, and independent learning

PART A – SYLLABUS BASED WORK (50%)

- Revision: Solve 10 questions in HW copy from each of the chapters The world of numbers and Introduction to linear Polynomials.

PART B – PROJECT & ACTIVITY WORK (30%)

Project Title: Mathematics in Arunachal Pradesh

Activity 1: Population Data Analysis

Collect the population data of any five districts of Arunachal Pradesh and:

- Arrange the numbers in ascending and descending order
- Identify the greatest and smallest population
- Write the numbers in standard form

Activity 2: Polynomial Art

Create artistic designs using polynomial identities and algebraic patterns.

Activity 3: Number Hunt

Find and paste/write:

- 10 rational numbers used in daily life
- 5 irrational numbers observed in mathematics/science

PART C – REAL LIFE LEARNING & PRACTICAL APPLICATION (20%)

Activity 4: Travel Budget Using Integers & Decimals

Prepare a trip budget to Arunachal Pradesh including:

- Travel cost
- Hotel charges

- Food expenses
- Shopping expenses

Calculate:

- Total expenditure
- Average expenditure per day

Activity 5: Polynomial in Daily Life

Write any five real-life situations where polynomials are used.

Instructions for Students

1. Complete the work neatly in a separate notebook/project file.
2. Use colours and creative presentation wherever required.
3. Draw proper margins and headings.
4. Do any one out of five activities & it should be handwritten.

SOCIAL SCIENCE

SUBJECT	TOPICS	HOW TO DO	LEARNING OUTCOMES
HISTORY	<ul style="list-style-type: none"> • Introduction of Arunachal Pradesh: write a brief introduction including its History, traditions, food, about two famous tribe communities and its architecture (temples). • One UNESCO related heritage and some tourist places and about one freedom fighter. 	<p>Instructions:</p> <ul style="list-style-type: none"> • Complete the work neatly in an A4 file/project notebook. • Use coloured maps, picture and diagram wherever required. 	<ul style="list-style-type: none"> • Understand the history, traditions and architecture of Arunachal Pradesh. • Identify the UNESCO related heritage sites and the importance of its tourist places.
GEOGRAPHY	<ul style="list-style-type: none"> • Introduction of Arunachal Pradesh Write a brief introduction including: Location, Capital, Formation of the state • Political and Physical Map Work On an outline map of India: Mark Arunachal Pradesh, Mark neighbouring states and countries, Label the capital city Itanagar. • Geographical Features Write short notes on: Climate, Relief features, Natural vegetation, Wildlife, Important rivers. 	<p>Instructions:</p> <ul style="list-style-type: none"> • Complete the work neatly in an A4 file/project notebook. • Use coloured maps, pictures, and diagrams wherever required. • The project should be handwritten. • Decorate the cover page creatively. 	<ul style="list-style-type: none"> • Identify the geographical location of Arunachal Pradesh on the map of India. • Gain knowledge about the culture, traditions, festivals, tribes, and lifestyle of the people of Arunachal Pradesh. • Understand the tourism potential and strategic importance of Arunachal Pradesh for India.
CIVICS	<ul style="list-style-type: none"> • Introduction Write a short introduction about Arunachal Pradesh including: Capital city, Location, Importance of the state • Government and Administration Collect and write the following information 	<p>Instructions:</p> <ul style="list-style-type: none"> • Complete the work neatly in an A4 file/project notebook. • Use coloured maps, pictures, and 	<ul style="list-style-type: none"> • Learn about the state government and administrative system. • Identify important constitutional positions like Governor and Chief Minister.

	neatly: Name of the Governor ,Name of the Chief Minister ,Number of Districts ,Number of Seats in the Legislative Assembly • Paste pictures of: State Assembly , Chief Minister ,Governor , State map	diagrams wherever required. • The project should be handwritten. • Decorate the cover page creatively.	• Develop knowledge about the Legislative Assembly and districts of the state.
ECONOMICS	• Based on ' <i>Art & Integration</i> ' Compare & analyse the demography of Arunachal Pradesh and Uttar Pradesh as per Census -2011, using several indicators such as Birth Rate, Death Rate Literacy Rate IMR, and Sex Ratio etc. OR • Analyse the share of all three sectors-Primary, Secondary & Tertiary of Arunachal Pradesh in India's GDP for the year of 2023-24. • Important tools- Statistical Tables, Bar Diagrams, Pie Charts etc	• Complete the work neatly in an A4 file/project notebook. • The project should be handwritten. • Decorate the cover page creatively.	• Understand the concept of demography and economic development. • Develop the ability to interpret and analyse Census 2011 data . • Analyse the importance of the Primary, Secondary, and Tertiary sectors in economic growth. • Understand the role of government policies in improving literacy, health, and economic development.

Activate V

HINDI:

1. अपनी पाठ्यपुस्तक (गंगा) के किसी पसंदीदा कवि या लेखक (जैसे- प्रेमचंद, रैदास,) का एक सुंदर चित्र चिपकाएँ/बनाएँ और उनके जीवन, उनकी मुख्य रचनाओं तथा उनकी विशेषताओं के बारे में एक आकर्षक इन्फोग्राफिक कोलाज A 4 शीट पर बनाएं।
2. दो मित्रों के बीच "जाति-पाति का विरोध" विषय पर अपने विचार A4 सीट पर व्यक्त कीजिए।

SCIENCE

CHEMISTRY:-

Section A – Written Work

1. Learn and write the definitions of the following terms with one example each:
Matter
Atom
Molecule
Element
Compound
Mixture
Solution
Suspension
Colloid
2. Draw neat and labelled diagrams of:
Structure of an atom
Water cycle
Separation by filtration

Distillation setup

3. Write the differences between:
Physical and Chemical changes
Element and Compound
Homogeneous and Heterogeneous mixtures

4. Prepare a chart on:
“States of Matter in Daily Life”
OR
“Importance of Chemistry in Everyday Life”

Section B – Activity Based Work

1. Observe any 5 substances available at home and classify them as:
Solid
Liquid
Gas
2. Perform the following activity safely at home:
Mix sugar in water and observe:
Solute
Solvent
Solution
3. Write your observations in 5–6 lines.
Collect wrappers/labels of any 5 chemical products used at home (soap, toothpaste, detergent, shampoo etc.) and paste them in your notebook.

Section C – Creative Work

1. Make a colourful model/project on any one topic:
Structure of Atom
Water Purification
Separation of Mixtures
States of Matter
Prepare a chemistry slogan or poster on:
“Save Water”
“Science for Better Future”
“Chemistry Around Us”

Section D – Assignment Questions

1. Answer the following questions:
What is diffusion? Give two examples.
Why do gases exert pressure?
Define melting point and boiling point.
What is latent heat?
Explain evaporation with daily life examples.
What are the characteristics of particles of matter?
Differentiate between true solution, suspension and colloid.
Holiday Learning Task
Revise Chapters:
Matter in Our Surroundings
Is Matter Around Us Pure

Instructions:

Homework must be done neatly in a separate chemistry notebook/file.

Use blue/black pen only.

Submit the homework after summer vacation positively.

Creativity and presentation will be appreciated.

BIOLOGY:-

Chapter: The Fundamental Unit of Life

Theme: Arunachal Pradesh

Section A: Subjective Questions

1. Define cell and explain why it is called the fundamental unit of life.
2. Differentiate between prokaryotic and eukaryotic cells with two examples each.
3. Draw and label a plant cell and an animal cell.
4. Write the structure and functions of the plasma membrane.
5. Explain the role of the cell wall in plant cells.
6. Describe the structure and functions of the nucleus.
7. What is cytoplasm? Name the cell organelles found in it.

Section B: Activity-Based

Prepare a fact sheet on five medicinal plants found in Arunachal Pradesh and mention which cell organelles help plants make and store useful substances.

Section C: Hands-on Activities

Make a 3D model of a cell using clay or waste materials and label all organelles.

Presentation Guidelines

- Submit the work in a separate Biology holiday homework file.
- Use coloured diagrams and proper labeling.
- Mention your name, class, and section on the cover page.

PHYSICS:

Chapter: Exploration of Motion

Theme: Arunachal Pradesh

This homework is designed to strengthen conceptual understanding of motion through real-life situations from Arunachal Pradesh. Distribution: 50% Subjective, 30% Activity-Based, 20% Hands-on Learning.

SECTION A: SUBJECTIVE QUESTIONS (50%)

- Q1. Explain with examples from Arunachal Pradesh: distance, displacement, speed, velocity, and acceleration.
- Q2. Differentiate between scalar and vector quantities with at least three examples.
- Q3. A rescue vehicle travels from Itanagar to Tawang (448 km) in 14 hours including halts. If actual driving time is 11.2 hours, calculate (a) average speed including halts and (b) average speed excluding halts.
- Q4. A vehicle starts from rest and accelerates uniformly at 1.8 m/s^2 for 20 s on a mountain road. Find final velocity and distance travelled.
- Q5. A bus moving at 25 m/s applies brakes and stops in 8 s. Calculate retardation and distance covered.
- Q6. State all three equations of motion.

Q7. The slope of a distance-time graph is 12 m/s. What does it represent? How does the slope change in a velocity-time graph?

Q8. A tourist trekker walks 3 km east and then 4 km north. Find distance and displacement.

Q9. Draw and interpret (a) uniform motion, (b) accelerated motion, and (c) retarded motion on velocity-time graphs.

Q10. Why is non-uniform motion more common on hilly roads of Arunachal Pradesh?

SECTION B: ACTIVITY-BASED TASKS (30%)

Activity 1. Prepare a scaled route map of Arunachal Pradesh marking Itanagar, Ziro, Bomdila, Tawang, and Pasighat. Mention approximate distances and estimate travel time at an average speed of 40 km/h.

Activity 2. Create a comparative chart showing why vehicles accelerate, decelerate, and stop more frequently on mountainous roads.

Activity 3. Collect data for any five tourist destinations of Arunachal Pradesh and frame one numerical problem on motion for each.

Activity 4. Design a concept poster titled 'Motion Through the Mountains' including formulas, graphs, and applications.

SECTION C: HANDS-ON LEARNING (20%)

Hands-on Task 1. Perform a ramp experiment using a toy car. Measure distance covered after 1 s, 2 s, 3 s, 4 s and plot a distance-time graph.

Hands-on Task 2. Use a stopwatch to record your walking speed over 20 m. Repeat three times and calculate average speed.

Hands-on Task 3. Take a short video of a moving bicycle or toy car and analyze whether the motion is uniform or non-uniform.

Observation Table for Ramp Experiment

Time (s)	Distance (m)	Speed (m/s)	Remarks
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BONUS CHALLENGE

The Border Roads Organisation is constructing a road segment in Arunachal Pradesh. Write a report (150–200 words) explaining how understanding motion helps in planning safe mountain roads.

Prepared as per CBSE guidelines with Arunachal Pradesh integrated theme.

ARTIFICIAL INTELLIGENCE:-

Theme: Arunachal Pradesh

Prepare a creative Art-Integrated Project based on the culture, traditions, lifestyle, or technology of Arunachal Pradesh by connecting it with the following topics:

- Communication Skills
- Artificial Intelligence (AI)
- Project Guidelines

Suggested Ideas:

- Communication methods used by people of Arunachal Pradesh
- Role of technology and AI in preserving culture and traditions
- Smart tourism in Arunachal Pradesh using AI
- Ethical use of technology in tribal and cultural communities

Presentation Ideas:

- Students may prepare any one of the following:
- Scrapbook
- Creative Chart
- Project File
- Poster Presentation
- Collage Art
- Handmade Model with labels

Instructions:

- Use A4 sheets or chart papers.
- Add drawings, paintings, maps, traditional art, and pictures of Arunachal Pradesh.
- Make the project colorful, neat, and creative.
- Mention the connection between AI and Arunachal Pradesh clearly.
- Creativity and presentation will be appreciated.