



BHAVDIYA PUBLIC SCHOOL AYODHYA
SUMMER VACATION (206-27)
CLASS-X

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 X.

8. Favourite Books / Movies / Inspirations

Mention favourites and what inspires you.

9. My School Journey

Memorable experiences, favourite teacher/subject, lessons learnt. Pictures to be used.

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).

II. TRAVEL BROCHURE (AII)

The children with the assigned roll numbers will prepare a travel brochure for the given states:

Roll Numbers 1–11: Goa

Roll Numbers 12–22: Assam

Roll Numbers 23 onwards: Karnataka

The brochure must include map, attractions, culture, cuisine, traditions, festivals, attire, travel tips, best time to visit 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 Board Examination**. Therefore, students must ensure timely submission and sincere effort in completing the work.

MATHS :-

Based on Chapters: Real Numbers, Polynomials & Pair of Linear Equations in Two Variables

PART A – SYLLABUS BASED WORK (50%)

Chapter 1: Real Numbers

1. Use Euclid's Division Algorithm to find the HCF of:

- 135 and 225
- 196 and 38220

2. Find the LCM and HCF of:

- 72 and 120
- 84 and 90

3. Check whether the following rational numbers have terminating or non-terminating recurring decimal expansions:

- $\frac{13}{250}$
- $\frac{29}{343}$
- $\frac{15}{160}$

4. Prove that $\sqrt{5}$ is irrational.

Chapter 2: Polynomials

1. Find the zeroes of:

- $x^2 - 7x + 10$
- $2x^2 - 5x - 3$
- $x^2 + 2x - 15$

2. Verify the relationship between zeroes and coefficients for:

$$x^2 - 8x + 12$$

3. Divide:

$$2x^3 + 3x^2 - 5x + 6 \text{ by } (x - 2)$$

4. Factorise:

- $x^2 - 16$
- $x^2 + 9x + 20$
- $3x^2 - 12x$

Chapter 3: Pair of Linear Equations in Two Variables

1. Solve graphically:

$$x + y = 6$$

$$x - y = 2$$

2. Solve by substitution method:

- $2x + y = 11$

- $x - y = 1$

3. Solve by elimination method:

- $3x + 2y = 11$

- $2x - y = 4$

4. Form a pair of linear equations from the following statement:

“The sum of two numbers is 15 and their difference is 3.”

PART B – INTERNAL ASSESSMENT PROJECT FILE (30%)

Project File Topics (Choose Any One)

Topic 1: Real Numbers in Daily Life

Prepare a project on the uses of real numbers in:

- Banking
- Measurements
- Sports statistics
- Population data
- Science and technology

Topic 2: Polynomial Art & Mathematical Patterns

Create artistic designs using:

- Polynomial identities
- Algebraic patterns
- Geometrical designs
- Symmetry

Topic 3: Pair of Linear Equations in Real Life

Prepare real-life situations based on pair of linear equations such as:

- Shopping bills
- Ticket booking
- Distance and speed
- Mobile recharge plans
- School canteen expenses

Guidelines for Project File

1. Use A4 size ruled/plain sheets.
2. Cover page should include:
 - Name
 - Class & Section
 - Roll Number
 - Topic Name
3. Include:
 - Introduction
 - Objectives
 - Mathematical Working
 - Observation
 - Conclusion
4. Use coloured pens, charts, and diagrams for better presentation.
5. Project should be handwritten and creative.

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

Activity 1: Family Budget Planning

Prepare a one-week family budget including:

- Grocery expenses
- Electricity bill
- Travel expenses
- Miscellaneous expenses

Then calculate:

- Total expenditure
- Average daily expenditure

Activity 2: Mathematics Around Us

Write any five real-life uses of:

- Real Numbers
- Polynomials
- Linear Equations

Instructions for Students

1. Complete all written work neatly in a separate notebook.
2. Internal Assessment Project File must be submitted properly decorated and arranged.
3. Use proper headings and margins.
4. Original and creative work will be appreciated.
5. Submit the holiday homework on the reopening day after vacation.

Learning Outcomes

Students will be able to:

- Apply mathematical concepts in practical life
- Improve logical reasoning and analytical skills
- Develop creativity and presentation skills
- Understand project-based learning and research work

HINDI:-

1. कभी आपको पारंपरिक रामलीला अथवा राम कथा की नाटक प्रस्तुति देखने का अवसर मिला होगा -राम लक्ष्मण -परशुराम- संवाद' के आधार पर अपने अनुभव को शब्दों में लिखिए।
2. बालगोबिन भगत के व्यक्तित्व और कृतित्व पर एक प्रोजेक्ट बनाइए।

SCIENCE

CHEMISTRY:-

Section A – Written Assignment

1. Answer the following questions neatly:

- What is a chemical reaction? Give two examples.
- What is rancidity? How can it be prevented?
- Why does tooth decay occur?
- What are indicators? Name any two natural indicators.

Section B – Practice Work

1. Learn and write:

A. Chemical equations (balanced)

- Magnesium + Oxygen → Magnesium oxide
- Zinc + Hydrochloric acid → Zinc chloride + Hydrogen
- Iron + Copper sulphate → Iron sulphate + Copper
- Sodium sulphate + Barium chloride → Barium sulphate + Sodium chloride

Section C – Activity Based Homework

Activity 1

1. Observe any 5 chemical changes taking place around you in daily life and write:

Observation

Name of reaction

Activity 2

1. Test the nature of the following substances using turmeric/litmus:

Lemon juice

Soap solution

Baking soda solution

Vinegar

Shampoo

Write your observations in tabular form.

Section D – Creative Work

1. Prepare any one of the following:

- Model of pH scale
- Chart on “Metals and Non-Metals”
- Poster on “Save Environment through Chemistry”
- Working model of water purification

BIOLOGY:-

Activity Work

Activity 1 – Investigatory Project

Prepare a project file on any one topic:

1. Effects of Junk Food on Health
2. Communicable Diseases

3.Importance of Blood Donation

4.Medicinal Plants

5.Balanced Diet and Nutrition

Project should include:

Introduction

Objectives

Observation

Conclusion

Pictures/Diagrams

Bibliography

Section A

1. Define nutrition.
2. Name the pigment present in green plants that absorbs sunlight.
3. What is the function of stomata?
4. Which enzyme is present in saliva?
5. Name the respiratory pigment in human blood.
6. What is the basic unit of the kidney?
7. Differentiate between aerobic and anaerobic respiration in one point.
8. Name the blood vessel that carries oxygenated blood from lungs to heart.
9. What is transpiration?
10. Which part of the alimentary canal absorbs digested food?

Section B

1. Explain the process of photosynthesis with the help of a balanced equation.
2. Write any two differences between arteries and veins.
3. Why is the small intestine considered the main site of digestion and absorption?
4. Explain the role of alveoli in respiration.
5. State two functions of the human excretory system.

PHYSICS:-

General Instructions

Complete all work in a separate Physics homework notebook/file.

Maintain neatness and proper presentation.

Draw labelled diagrams wherever required.

All activities must be done creatively.

Homework will be assessed on creativity, accuracy, practical approach, and timely submission.

SECTION – A

NCERT Reading & Concept Building

Chapter 1: Light – Reflection and Refraction

Write short notes on:

Laws of reflection

Concave and convex mirrors

Mirror formula

Magnification

Uses of spherical mirrors

SECTION – B

Numerical Practice

Solve the following numericals with proper formula, substitution, calculation and unit.

Light

An object is placed 20 cm in front of a concave mirror of focal length 15 cm. Find image distance.

SECTION – C

Activity 1

Perform the following experiment at home:

Observe image formation using a spoon/mirror.

Write observations in 100 words

SECTION – D

Competency Based Assignment

Answer the following application-based questions:

Why are rear-view mirrors in vehicles convex mirrors?

SECTION – E

Creative & Research Work

Project Work (Any One)

Energy conservation at home

Applications of solar energy

Role of electricity in modern life

Instructions:

Minimum 5 pages

Include diagrams/pictures

Add conclusion and learning outcome

SECTION – F

Formula Revision Chart

Prepare a colourful chart containing all important Physics formulas of:

COLLEGE SIMPLIFIED +2

HOLIDAY PRACTICE TARGET

✓Read NCERT daily for 30 minutes

✓Solve 5 numericals daily

✓Revise formulas weekly

✓Practice ray diagrams regularly

Submission Date:

First working day after summer vacation.

SOCIAL SCIENCE:

SUBJECT	TOPICS	HOW TO DO
HISTORY	<ul style="list-style-type: none"> • Introduction of Arunachal Pradesh Write a brief introduction including: Location, Historical sites. * Complete the practical file for the Internal Examination (viva). Topics are given below. Choose any one. <ol style="list-style-type: none"> 1. Unification of Germany. 2. Unification of Italy. 3. The Civil Code 1804 4. The Ages of Revolutions: 1830-1848 5. Friedrich Sorrieu and his Painting. 	Instructions: <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.
GEOGRAPHY	Part A – National Highways Write in detail about: <ul style="list-style-type: none"> • Golden Quadrilateral • North-South Corridor. • East-West Corridor For each topic, write at least 5 important points , including: <ul style="list-style-type: none"> • Route and connecting cities. • Importance for trade and transportation. • Economic significance. • States covered. • Role in national development. Part B – Major Ports and International Airports Write about the major ports of India with at least 5 points each . Include: <ul style="list-style-type: none"> • Location • Importance in trade. • Type of port and airport. • Goods handled. • Special features 	<ul style="list-style-type: none"> • Use A4 size sheets only. • Project work should be neat and well-presented. • Paste relevant pictures/maps related to highways, ports, and airports. • Use a lace file for submission. • Maintain proper headings and subheadings. • Use blue/black pen for writing. • Draw and label maps wherever required.
ECONOMICS	Prepare a project on Consumer Rights, including functions and structure of consumer court. Also add on three consumer court's judgement at District consumer court, State consumer court & Central consumer court	News Paper Cuttings related to judgements of consumer forum, Statistical data etc.
CIVICS	<ol style="list-style-type: none"> 1. Draw the table of national parties and state parties in India along with their <ol style="list-style-type: none"> 1. Founding dates 2. Origin 3. Party logo 4. members in lok sabha 5. Name of the party leaders 6. slogan or manifesto 	Do it in fair copy only

COMPUTER:

Vocational AI Topics:

- Revisiting AI Project Cycle
- Revisiting AI, ML & DL
- Ethical Framework of AI

Students have to prepare a creative project file/chart/model based on any **TWO** of the following topics.

Project Topics

1. AI Project Cycle in Real Life

Prepare a creative project on:

“How AI Project Cycle is used in Real Life”

Include:

- Problem Scoping

- Data Acquisition
- Data Exploration
- Modelling
- Evaluation

Use a real-life example such as:

- Smart Attendance System
- Weather Prediction
- AI in Healthcare
- Smart Traffic Management

2. Difference between AI, ML & DL

Prepare a creative chart/project file showing:

“Artificial Intelligence vs Machine Learning vs Deep Learning”

Include:

- Definitions
- Features
- Real-life examples
- Comparison table
- Applications in daily life

Add diagrams, pictures, and flowcharts.

3. Ethical Framework of AI

Prepare a creative project on:

“Responsible and Ethical Use of Artificial Intelligence”

Include:

- Privacy
- Fairness
- Bias in AI
- Safety & Security
- Responsible Use of Technology

Students may also add:

- AI advantages and disadvantages
- Real-life ethical issues related to AI

4. AI around Us

Prepare a scrapbook/chart/model showing:

“Applications of AI in Daily Life”

Examples:

- Face Recognition
- Recommendation Systems
- Chatbots

- Self-driving Cars
- Smart Assistants

Also explain which part uses AI, ML, or DL.

Instructions:

- Use A4 sheets, chart papers, scrapbook, or project files.
- Make the work colourful, neat, and creative.
- Add pictures, drawings, diagrams, and headings.
- Handwritten work is compulsory.
- Projects will be included in internal assessment/project evaluation.

संस्कृत भाषा

प्रश्न १. पुस्तकालयस्य चित्रं रचयित्वा मञ्जूषात् पदानि आधृत्य पंच वाक्यानि संस्कृते लिखत।

मञ्जूषा - पुस्तकानि, जनाः, चित्रं, समाचार पत्रम्, पठन्ति, अत्र, अनेकानि, छात्रः, अपि, ग्रंथपालौ।

प्रश्न २. "जलस्य महत्वं" इति विषये पंच वाक्यानि संस्कृते लिखत।

प्रश्न ३. निर्धारित पाठ्यक्रमानुसारेण पठित प्रत्ययाः, उदाहरणेन स्पष्टं कुरुत।

प्रश्न ४. "अरुणाचल प्रदेशस्य" प्रमुखान् उत्सवान् पर्यटन पर्यटन स्थलान् च उल्लेखं हिन्दी/ संस्कृत भाषायाम् लिखत।

निर्देश - उपरोक्त सर्वे कार्यः A-4 स्फोरक पत्रे लिखत।