SAINIK SCHOOL CHITTORGARH

AUTUMN VACATION HOLIDAY HOMEWORK

SUBJECT NAME: LIFE SKILLS & VALUE EDUCATION	
CLASS & SECTION: IX (All Sections)	**SUBJECT TEACHER NAME:** Pratibha Bishnoi

INSTRUCTIONS:
Submission Date: All holiday homework must be neatly completed and submitted in the first week after the vacation.
Presentation Matters: Use neat handwriting/typing and organize your work clearly. Use a file/folder if required.
Creativity Encouraged: You are welcome to use diagrams, coloured pens, charts, or pictures to make your work more attractive and informative.
Original Work: Try to do the work independently. Avoid copying from the internet or friends.
Daily Practice: Do a little every day instead of rushing at the last moment.

ASSIGNMENT:

Content 1 – Book/Film Review
Pick a book or film that shows **Teamwork** (for example, *Chak De India* or a *Panchatantra story*). Write a review in your own words. Mention the main story, characters, and the lessons about teamwork and cooperation that you learned.

Content 2 – Journal Writing
Write about one challenge you faced in studies or sports and how you overcame it.
Explain clearly what the challenge was, how you felt, what steps you took, and what you learned from the experience.

Be creative and honest in your work. You may also decorate your homework with drawings, slogans, or quotes.

SAINIK SCHOOL CHITTORGARH

AUTUMN VACATION HOLIDAY HOMEWORK

SUBJECT NAME – SOCIAL SCIENCE	
CLASS & SECTION: IX A,B,C	**SUBJECT TEACHER NAME: J S SHEKHAWAT & D SHARMA**

INSTRUCTIONS:

1. *Make a separate file for holiday homework.*
2. *All Questions are compulsory.*
3. *Draw neat & clean figures wherever required.*

ASSIGNMENT

INTERDISCIPLINARY PROJECT WORK – CLASS IX

Topic: Forest, Society and Colonialism

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1. Objectives

- To understand the relationship between forests, people, and colonial policies.
- To study how British colonialism affected forest societies and indigenous livelihoods.
- To explore the changes in forest management and conservation during the colonial period.
- To link environmental, social, and economic aspects across subjects.
- To develop research, analytical, and creative skills through project-based learning.

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2. Interdisciplinary Linkages

Subject	Integration Focus
Social Science (History)	Colonial forest policies, exploitation of forest resources, tribal revolts.
Geography	Mapping forest regions of India, vegetation types, climatic zones.
Economics	Role of forests in economy – resources, employment, sustainable use.
Science (Biology / Environmental Science)	Importance of forests in maintaining ecological balance and biodiversity.
English / Language	Report writing, creative writing, slogans, or essay on forest conservation.
Art / IT	Preparation of posters, charts, and digital presentations on forest protection.

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3. Suggested Subtopics (Students may choose any one or combine two):

1. Colonial Forest Policies and Their Impact on Tribal Communities
2. Role of Forests in the Indian Economy during Colonial Times
3. Resistance and Rebellion – The Story of Forest Communities (Baigas, Santhals, etc.)
4. British Scientific Forestry and Its Consequences
5. Forest Conservation and Sustainable Use in Modern India

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4. Project Work Guidelines

Each student will:

- Conduct **independent research** using textbooks, reference materials, and online sources.
- Prepare a **project file (15-20 pages)** handwritten.
- Include **maps, charts, drawings, or photographs** showing forest types or regions.
- Add a **case study** (e.g., Bastar, Java, or Indian Forest Act).
- Write a **short report or essay** connecting forest use, people's lives, and government policies.
- Present the project orally or through a short PowerPoint in class.

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5. Project File Format

1. **Cover Page** – Title, Name, Class, Roll No., Subject, School Name
2. **Acknowledgement**
3. **Objectives / Aims of the Project**
4. **Introduction** – Overview of forests and colonial rule
5. **Main Content / Research Work**
6. **Maps / Illustrations / Graphs / Photographs**
7. **Conclusion** – Summary and key learning
8. **Bibliography** – Books, websites, sources used

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7. Learning Outcomes

After completing this project, students will be able to:

- Explain the relationship between colonial policies and environmental changes.
- Describe how local communities adapted and resisted forest laws.
- Appreciate the importance of forests in economic and ecological systems.
- Connect history with geography, science, and economics through real-world examples.

SAINIK SCHOOL CHITTORGARH

SUMMER VACATION HOLIDAY HOMEWORK

SUBJECT NAME	
CLASS & SECTION: IX A, B & C	**SUBJECT TEACHER NAME: MANISH JAIN & AMIT KUMAR JHA**

INSTRUCTIONS:

1. Use separate Note book for Mathematics.

2. Writing should be very neat and clean.

3. Do all work with date & day.

4. Introduce yourself (Name of cadet, School No, Class & Section)

5. Make any one project of your choice from the given topics.

ASSIGNMENT

CHAPTER 1: NUMBER SYSTEM

1. Find five rational numbers between 1 and 2.

2. Locate $\sqrt{7}$ on the number line.

3. Find the decimal expansions of 10/3, 7/8 and 1/7.

4. Visualise 3.765 on the number line, using successive magnification.

CHAPTER 2: POLYNOMIALS

5. Find the degree of the polynomial $3x^4-5x^3+2x-73x^4-5x^3+2x-7$.

6. Find the remainder when $x^3-3x+5x^3-3x+5$ is divided by $x-2x-2$.

7. Factorize the polynomial x^2-9x-9.

8. If $p(x)=2x^3-3x+1$, find $p(2)$.

CHAPTER 3: CO-ORDINATE GEOMETRY

9. Find the distance between the points A(3,4) and B(7,1).

10. Find the coordinates of the midpoint of the line segment joining points P(−1,2) and Q(3,6)

CHAPTER 4: LINEAR EQUATION IN TWO VARIABLES

11. Write any two linear equations in two variables.

12. Solve the system of equations: $x+y=7$

$x-y=1$

13. If a pair (x,y) satisfies the equations $2x+3y=12$ and $x-y=1$, find the values of x and y.

CHAPTER 5: INTRODUCTION TO EUCLID'S GEOMETRY

14. Define a point, line, and line segment.

15. Explain with a diagram: When are two lines said to be parallel?

16. State Euclid's first postulate.

CHAPTER 6: LINES AND ANGLES

17. If two lines intersect, what is the sum of the adjacent angles?

18. Define complementary angles.

19. Find the value of x if two angles are vertically opposite and one is $3x+10°$ and the other is $5x-2°$.

20. Explain the property of angles formed when a transversal intersects two parallel lines.

CHAPTER 7: TRIANGLES

21. What is the sum of the interior angles of a triangle?

22. Prove that the sum of any two sides of a triangle is greater than the third side.

23. Classify triangles based on their sides.

24. Find the third angle of a triangle if two angles are 50° and 60°.

25. Research and write the statement of Pythagoras theorem and mention one real-life application

PROJECT-WORK(ANY-ONE):

1. Number Systems – Spiral of Theodorus

Objective:

To represent irrational numbers geometrically and understand the concept of square roots.

Model Idea:

Make a spiral using right-angled triangles — each new triangle's hypotenuse represents √2, √3, √4, etc.

2. Polynomials – Geometric Verification of Algebraic Identities

Objective:

To verify algebraic identities like

$(a+b)^2=a^2+2ab+b^2$

and

$(a-b)^2=a^2-2ab+b^2$

using geometry.

Model Idea:

Create square-shaped cardboard models divided into smaller squares and rectangles showing the parts of the identity.

3. Coordinate Geometry – Cartesian Plane Model

Objective:

To understand the concept of x-axis, y-axis, and plotting points using coordinates.

Model Idea:

Make a 3D graph board using threads for axes and movable pins for points that can form geometric shapes like triangles or quadrilaterals.

4. Linear Equations in Two Variables – Graphical Representation

Objective:

To show how linear equations can be represented as straight lines on a graph.

Model Idea:

Use a large graph chart and colored strings or sticks to show two linear equations and their point of intersection as the solution.

5. Introduction to Euclid's Geometry – Postulates Model

Objective:

To understand Euclid's postulates and how they form the basis of geometry.

Model Idea:

Create a model demonstrating the postulates (like "a line can be drawn joining any two points") using thread, pins, and cardboard.

6. Lines and Angles – Angle Relationships

Objective:

To understand angle pairs like complementary, supplementary, vertically opposite, alternate interior, and corresponding angles.

Model Idea:

Create a rotating arm model using cardboard strips joined by a paper fastener to show various angle pairs.

7. Triangles – Types and Properties of Triangles

Objective:

To explore types of triangles (by sides and angles) and verify properties like the sum of angles = 180°.

Model Idea:

Make 3D triangle models using sticks and paper labels showing isosceles, equilateral, right, and scalene triangles.

8. Triangles – Pythagoras Theorem Verification

Objective:

To verify the Pythagoras theorem:

$a^2+b^2=c^2$

for right-angled triangles.

Model Idea:

Make a right-angled triangle on cardboard with attached square flaps on each side to visually prove the theorem.

9. Triangles – Congruency Conditions (SSS, SAS, ASA, RHS)

Objective:

To understand the conditions under which two triangles are congruent.

Model Idea:

Create pairs of triangles using cardboard pieces with equal sides/angles to demonstrate different congruency rules.

10. Triangles – Areas of Triangles with Common Vertex or Base

Objective:

To explore how triangles with the same base and between the same parallels are equal in area.

Model Idea:

Draw and cut out paper triangles on a chart to show equal-area triangles using thread to representparallellines.

SAINIK SCHOOL CHITTORGARH

AUTUMN VACATION HOLIDAY HOMEWORK

INFORMATION	
SUBJECT NAME: HINDI	**CLASS & SECTION: IX – A, B, C**
SUBJECT TEACHER NAME: B K SINGH	
INSTRUCTIONS: सभी प्रश्न अनिवार्य है प्रश्नों को क्रमानुसार हल करें।	

ASSIGNMENT

क्षितिज भाग 1 एवं कृतिका भाग 1

प्रश्न 1. "रसखान के सवैए " पाठ का संदर्भ सहित व्याख्या कीजिए।

प्रश्न 2. मेरे संग की औरतें पाठ का सारांश लगभग 200 शब्दों में व्यक्त कीजिए।

प्रश्न 3. तीन औपचारिक एवं तीन अनौपचारिक पत्र लिखिए।

प्रश्न 4. निम्न विषय पर लघु कथा लेखन कीजिए।

(क) ईमानदार लकड़हारा

(ख) एकता में बल है।

(ग) प्यासा कौआ

(घ) परिश्रम का फल

प्रश्न 5. सेना के तीनों प्रारूप का परिचय देते हुए उनके महत्व पर प्रकाश डालिए।

SAINIK SCHOOL CHITTORGARH

SUMMER VACATION HOLIDAY HOMEWORK

COMPUTER SCIENCE (AI & ROBOTICS)

CLASS & SECTION: IX – A,B & C | **SUBJECT TEACHER NAME: Ms Leena Sharma**

- Complete all questions in a word document and mail on leenasharma3678@gmail.com
- The project must be submitted in soft copy on above mentioned mail ID.
- Submit your work during the vacation but follow last day of vacation as deadline of submission.
- Marks will be given for clarity, creativity, and understanding of the topic.
- Book Reference: https://cbseacademic.nic.in/web_material/Curriculum25/publication/secondary/417_AI_Handbook_Class9.pdf
- Project Learning Reference: https://datavizcatalogue.com/

CHAPTER 2: **AI Reflection, Project Cycle and Ethics**

1: How can AI be used as a tool to transform the world into a better place?

2. Can you list down a few applications in your smartphone that widely make use of computer vision?

3. Draw out the difference between the three domains of AI with respect to the types of data they use.

4. Identify the features and the domain of AI used in them:

5. What are the various stages of AI Project Cycle? Can you explain each with an example?

6. How is an AI project different from an IT project?

7. Explain the 4Ws problem canvas in problem scoping.

8. Why is there a need to use a Problem Statement Template during problem scoping?

9. What is Problem Scoping? What are the steps of Problem Scoping?

10. Who are the stakeholders in the problem scoping stage?

11. How will you differentiate between Training Data and Testing Data? Elaborate with examples.

12. Name various methods for collecting data. For each method, can you name at least one project in which you may use that method of data collection?

13. What must you keep in mind while collecting data so it is useful?

14. Imagine you are responsible to enable farmers from a village to take their produce to the market for sale. Can you draw a system map that encompasses all the steps and factors involved?

15. Name a few government websites from where you can get open-source data.

16. What is the significance of Data Exploration after you have acquired the data for the problem scoped? Explain with examples.

17. What do you think is the relevance of Data Visualization in AI? List any five graphs used for data visualization.

18. How is Data Exploration different from Data Acquisition? Use an example to explain at least one Data Visualization technique.

19. What are the various stages of the AI Project Cycle? Explain each with examples.

20. What is Artificial Intelligence? Give an example where AI is used in day-to-day life.

21. How is Machine Learning related to Artificial Intelligence?

22. Compare and contrast Rule-based and Learning-based approach in AI modeling indicating clearly when each of these may be used.

23. What is Evaluation? What are various Model evaluation techniques?

24. Why is model evaluation important in AI projects?

25. What do you understand by the terms True Positive and False Positive?

26. Does modeling mean creating an AI model?

27. Can we use AI on mobile phones?

28. What is deployment in the context of an AI project cycle?

29. Why is deployment an important phase in the AI project cycle?

30. What are some common challenges in deploying AI models?

31. Differentiate between Ethics and Moral with suitable examples.

32. Define principles of AI.

33. Explain Data privacy.

34. Craft a description of how considerations for inclusivity are addressed during the development of AI models.

35. Write Major Issues around AI Ethics.

PROJECT WORK:

Title: *Learn Data Visualization Techniques*

Learn with following reference: https://datavizcatalogue.com/

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AUTUMN VACATION HOLIDAY HOMEWORK

SUBJECT NAME	
CLASS & SECTION: IX	**SUBJECT TEACHER NAME: Mr GYANESHWAR SINGH**
INSTRUCTIONS: Write the balanced chemical equations if possible in the question.	

ASSIGNMENT

CHAPTER 1: Matter in our surroundings

1. Write an activity to show that the rate of diffusion of liquids decreases with increase in density of the liquids.

2. Describe an activity to determine the boiling point of water and melting point of ice.

CHAPTER 2: Is matter around us pure?

1. How will you separate the components of a mixture containing two miscible liquids ? Give experimental details.

2. Describe the various steps involved in the purification of water for city water supply.

PROJECT WORK: Complete the project file on the topic assigned to the cadets individually in the class.

Note: Kindly allocate the required number of questions.*

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AUTUMN VACATION HOLIDAY HOMEWORK : 2025-26

INFORMATION	
SUBJECT NAME: BIOLOGY	**CLASS & SECTION: IX A,B,C**
SUBJECT TEACHER NAME: BHUPENDRA BIHARI VYAS	
INSTRUCTIONS: Questions given are based upon HIGH ORDER THINKING SKILLS. Attempt all the questions. Prepare a separate notebook for the same.	

ASSIGNMENT
1. Explain the functions of plastids and why their absence would prevent plant life.
2. Why is the inner membrane of mitochondria folded?
3. Name the cell organelle that lacks a membrane and where it is prepared.
4. What is the difference between the genes and chromosomes?
5. Where are the essential proteins and lipids for the cell membrane manufactured?
6. Why is the cell called the structural and functional unit of life?
7. Explain the process of osmosis and give an example of a situation where it occurs.
8. How does amoeba obtain its food?
9. Why is the plasma membrane called a selectively permeable membrane?
10. When do chromatin fibers organize themselves into chromosomes?
11. Why are plant cells more rigid than animal cells?
12. Explain how a cell organelle detoxifies poisons and drugs?
13. What is the reason for the difference in physical appearance of raisins kept in plain water versus a concentrated sugar solution?
14. How is a bacterial cell different from an onion peel cell?
15. Why do plants have more dead tissues compared to animals?
16. Why is blood considered both a connective tissue and a fluid?
17. Why are striated muscles also called voluntary muscles?
18. If a plant's apical meristem is removed, what will happen to its growth?
19. Why do neurons have long extensions (axons and dendrites)?
20. Explain why the epidermis of plants has no intercellular spaces.

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AUTUMN VACATION HOLIDAY HOMEWORK

SCIENCE-PHYSICS	
CLASS & SECTION: IX A, B,C	**SUBJECT TEACHER NAME: ANURAG SHARMA**

INSTRUCTIONS:

1. **Conceptual Questions** must be answered in a **separate Science notebook or copy**.
2. Write answers in **neat and legible handwriting**.
3. **Project Work** should be completed in a **chart .**
4. **Submission Date:** The **first day after the autumn vacation**. No late submissions will be accepted.
5. Be sincere and creative with your work — it will be evaluated.

ASSIGNMENT

1. Define sound produced?
2. Explain the nature of sound waves. Are they longitudinal or transverse?
3. What is the speed of sound in air? How does temperature affect it?
4. What is the difference between pitch and loudness? How are they related to frequency and amplitude?
5. What do you understand by the terms ultrasonic, infrasonic, and audible sound? Give examples.
6. Describe an experiment to show that sound requires a medium for propagation.
7. Define work. When is work said to be done? Give examples where work is done and not done.
8. Write the formula for work done and state its SI unit.
9. Define kinetic energy and potential energy. Write their formulas.
10. What is the law of conservation of energy? Explain with an example.
11. Describe different forms of energy with two examples each.

12. Explain the difference between renewable and non-renewable energy sources with examples.

13. What is power? Write its formula and unit.

14. How is energy converted from one form to another? Give two examples.

15. Calculate the work done when a force of 10 N moves an object by 5 meters in the direction of the force.

Project work :

"Prepare a chart/flow-diagram on Work, Energy & Power showing the key concepts in a clear, organized way. Your chart must include and connect the following items:

- Definition of Work (scientific)
- Conditions for doing work (force, displacement, direction) – positive, negative, zero work
- Unit of work
- Definition of Energy; forms of energy (kinetic, potential, mechanical, heat, chemical, etc.)
- Formulae: kinetic energy, potential energy, work-energy theorem
- Law of Conservation of Energy
- Definition of Power; formula and unit
- Different units (watt, kilowatt, horsepower) and commercial unit of energy (kilowatt-hour)
- Relationships among work, energy & power (how are they connected)

Note:* Be honest with your work.

- Handwriting, presentation, and effort will be taken into account while evaluating.
- Enjoy your holidays, stay safe, and keep learning!

Happy holidays!

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HOLIDAYHOMEWORK (AUTUMN BREAK) 2025-26

INFORMATION	
SUBJECT: English	**CLASS&SECTION: IXA,B and C**
SUBJECTTEACHER:JAYANTI SAXENA	

INSTRUCTIONS:

1. The holiday homework will be considered as your English project work.
2. The marks awarded for this will be counted towards Internal –assessment.
3. Project will be done in a file (plastic strip file with A4 sheet may also be used) Q2 and Q3.
4 . Note-book of at least 100 pages Q1, Q4 , Q5 and Q6.
4. On page 1: write -English Project Work, name, class, roll number, topic etc.

ENGLISH PROJECT WORK

NAME:
CLASS: SECTION
SCHOOL NUMBER:
HOUSE:

5. Last page of the project will carry the following certificate

CERTIFICATE

This is to certify that I_____ OF Class _____. Have done the English project work on my own. It is my own original work as per the guidelines provided by _____(Name of the teacher).

Signature
Name:

ASSIGNMENT

Subject:English

Reading Activity

Q1.Read –a) The Hindu b) Watch the Wion News c) Read magazines like- Frontline

Learn at least 10 words daily and use it in sentences of your own. Do come prepared with two hundred words and sentences written in a separate note-book of at least 100 pages.

Creative -writing

Q2.PORTFOLIO: PREPARE A PORTFOLIO WITH THE FOLLOWING – (Prepare a file with A4 size sheets)

- **Introduction (1 Page each)**
- **My strengths (1 Page each)**
- **I need to improve on… (1 Page each)**
- **My achievements (1 Page each)**
- **I have participated in… (1 Page each)**
- **The books I have read (1 Page each)**
- **The book I wish to read (1 Page each)**

Q3.Write two book reviews of the books which you will read during Autumn vacation

Q4..Write five Diary Entries anddevelop Fivestories on different situations and beginnings .
Q5. You have just read poems(a) The Lake Isle of Innisfree (b) A Legend of The northland,write theme /Central Idea , Summary of the poems and Meanings of words.
Q6.. Questionnaire Making :(i)Prepare 15 multiple choice questions from the story a)A Truly Beautiful Mind (b) My Childhood
Q7. Complete the sessions from 5 to 15 of Words Worth Work Book Module -7 based on four language skills LSRW .
.The deadline for submission of the above work is 5 Nov, 2025 within the subject period.