



BCM School, Basant City, Ludhiana

"Every summer has a story — make yours full of discovery."

**Holidays
Homework
For
Std- IX (2025-26)**



English

Theme: "Explore. Imagine. Express."

Where language becomes your canvas, and imagination your brush!

Instructions:

- *Compile all tasks neatly in a creative file or folder.
- *Label each activity.
- *Ensure neatness and originality in your work.
- *Late submissions may not be accepted.

Section A: Reading Skills (from BBC Compacta)

- *Solve unseen passages (Classroom Assignment 1 to 3)

SECTION B: WRITING SKILLS

- *Creative Diary Writing (Practice Assignment 12 both)
- *Descriptive Paragraph Place (Practice Assignment 9 both)

SECTION C: LITERATURE CONNECTION

Textbook Assignment (Beehive & Moments)

- *Write the character sketches of any two characters from your literature textbook.
- *Choose any one poem from Beehive and explain the theme in your own words.
- *Pick 5 poetic devices and explain them with examples from the poem.

SECTION D: SPEAKING & LISTENING

Oral Presentation Practice

Prepare a 2-3 minutes speech on any one topic:

- *The Importance of Mental Health in Teenagers
- *Role of AI in Our Daily Lives
- *My Vision for India @2047
- *Why Reading Books Is Still Cool in the Digital Age?

SECTION E: CULTURAL COLLABORATION - NEW ADDITION

- ◆ Task: Prepare a vibrant collage titled:
A Cultural Mosaic: Andhra Pradesh and Punjab"

Include the following elements for each state:

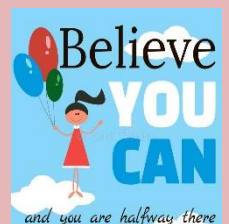
Locations of famous areas
Traditional attires and jewellery
Folk dances and celebrations
Food delicacies

Short captions (in English) explaining what each image represents

Use cut-outs, drawings, or digital tools (e.g., Canva, PicsArt, handmade work, etc.)

Presentation: You will present your collage in class (2-3 minutes)

Focus on cultural diversity, use descriptive language, and speak clearly.



Hindi

परियोजना कार्य-

1. भारत के प्रमुख वैज्ञानिकों की सूची बनाकर उनके कार्यों और योगदान का चित्र के साथ वर्णन कीजिए ।
2. किन्हीं तीन भक्त कवियों का जीवन परिचय और योगदान का चित्र के साथ वर्णन कीजिए।
3. बिजली संकट को लेकर दो व्यक्तियों के बीच बातचीत को लिखिए।
4. आपकी पासबुक खो गई है। इसकी सूचना देते हुए बैंक मैनेजर को ई-मेल लिखिए।
5. 'सच्ची मित्रता' विषय पर लघु कथा लिखिए।



Mathematics

- Solve the given assignment in your assignment notebook.
- Revise the syllabus covered in the month of April and May.
- Do the following activities in your practical notebook.

Activities

1. To make a square root spiral by using paper folding.
2. To verify the algebraic identity $(a+b)^3 = a^3 + b^3 + 3a^2b + 3ab^2$ geometrically by using sets of unit cubes.
3. To obtain the mirror image of a given geometrical figure with respect to x-axis and y-axis.
4. To obtain a linear equation and draw a graph which represents the linear equation $(ax+by+c=0)$
5. To verify that in a triangle, the line joining the mid points of any two sides is parallel to the third side and half of it by paper folding and pasting. (Mid Point Theorem)
6. To verify that the angle subtended by an arc at the centre of circle is double the angle subtended at any point on the remaining part of the circle, experimentally.
7. To show that the angles subtended the chord of a circle in the same segment are equal, experimentally.
8. To verify that angle in a semicircle is a right angle in a major segment is acute; angle in a minor segment is obtuse by paper folding.
 - **Make any one activity (of your choice) as an art integrated from above 8 activities on A4 sheet separately.**

Math's Assignment

1. Solve the following decimals in the form $\frac{p}{q}$.
(a) $0.3\bar{2}$ (b) $0.12\bar{3}$
2. Insert ten rational numbers between $\frac{-3}{11}$ and $\frac{8}{11}$
3. Represent $\sqrt{6}, \sqrt{7}, \sqrt{8}$ on the number line.
4. Evaluate:
(a) $\left(\frac{2}{11}\right)^4 \times \left(\frac{11}{3}\right)^2 \times \left(\frac{3}{2}\right)^3$ (b) $\left(\frac{64}{25}\right)^{\frac{-3}{2}}$

6. If both 'a' and 'b' are rational numbers, find the values of a and b.

(a) $\frac{3+\sqrt{7}}{3-\sqrt{7}} = a + b\sqrt{7}$

(b) $\frac{5+\sqrt{3}}{7-4\sqrt{3}} = 47a + \sqrt{3}b$

7. If $x = 2 + \sqrt{3}$, find the value of $x^2 + \frac{1}{x^2}$

8. Factorize: $p^6 - 512q^6$

9. Find the remainder when $p(y) = y^3 + y^2 + 2y + 3$ is divided by $y + 2$.

10. Find the value of a, if $x - a$ is a factor of $x^3 - a^2x + x + 2$.

11. Evaluate: $185 \times 185 - 115 \times 115$

12. Which of the following points lies on X-axis? Which on Y-axis?

A(0,2), B(5,6), C(-3,0), D(0,-3), E(0,4), F(6,0), G(3,0).

13. In which quadrant do the following points lie?

(a) (2,-1) (b) (-1,7) (c) (-2,-3) (d) (4,5)

14. Plot the points A(0,3), B(5,3), C(4,0) and D(-1,0) on the graph paper. Identity the figure ABCD and find whether the point (2,2) lies inside the figure or not?

15. Plot the points A(-3,3), B(3,-3), C(3,3), D(-3,3) in the Cartesian plane. Also, find the length of line segment AB.

"EVEN THE HARDEST
PUZZLES HAVE
A SOLUTION"



Social Science

1. CURRICULUM RELATED ACTIVITIES:

- Make a flow chart on Three estates on A-4 sized sheets (roll no. 1-10)
- Make a flow chart on Political system under constitution of 1791 (roll no. 11-20)
- Collage on democratic rights (roll no. 21-30)
- Make flash cards for any three physical feature of India (roll no. 30 onwards)

2. MAP WORK (common for all the students)

- Geography Chapter 1 (India: size and location)
- Geography Chapter 2 (Physical features of India)

3. ART-INTEGRATED PROJECT (common for all the students)

- Comparison of Punjab and Andhra Pradesh on the basis of the following points:
 - a) River b) Crops c) Soil d) Climate

Topics for PROJECT WORK:

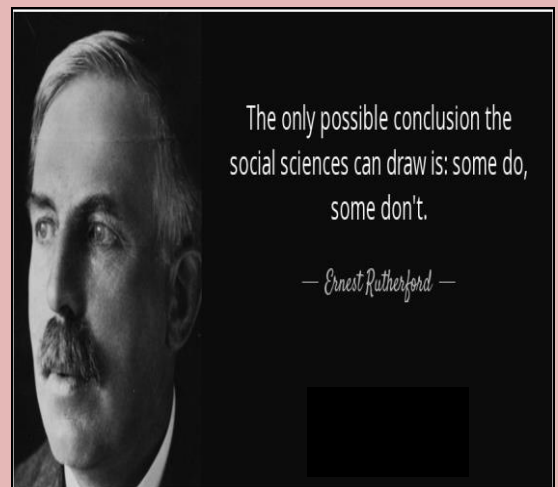
- Students will choose the topic according to their Roll No., those not according to the roll numbers will not be accepted.

➤ NATURAL DISASTER

1. Floods (R. No- 1-4)
2. Landslide (5-8)
3. Earthquake (9-12)
4. Volcanic eruption (13-16)
5. Cloud burst (17-20)
6. Forest fire (21-24)

➤ MAN-MADE DISASTER

7. Nuclear explosion (25-28)
8. Industrial accident (29-32)
9. Pollution (33-36)
10. Cyber-attack (37-onwards)



FORMAT OF PROJECT:



B.C.M SCHOOL, BASANT CITY, PAKHOWAL ROAD, LUDHIANA

SOCIAL SCIENCE

PROJECT REPORT

SESSION - 2025 - 2026

'NAME OF THE TOPIC'

SUBMITTED TO:

SUBMITTED BY:

(NAME)

GRADE:

ROLL NO.

B.C.M SCHOOL, PAKHOWAL ROAD, BASANTCITY, LUDHIANA
DEPARTMENT OF SOCIAL SCIENCE

CERTIFICATE

This is to certify that _____ (name of student), a student of class IX has successfully conducted the report on the project _____ (topic of Project) under the guidance of (Subject Teacher) during the year 2025 - 2026.

Name of Examiner

Name of Subject Teacher

Signature of Examiner

Signature of Subject Teacher

ACKNOWLEDGEMENT

In the present world of competition there is a race of existence in which those who are having will to come forward , succeed. Project is like a bridge between theoretical and practical working. With this willingness I joined this particular project.

First of all ,I am grateful to The Almighty for establishing me to complete this project. I wish to express my sincere thanks to **Ms. Nidhi Jain (Principal) of BCM Sen. Sec. School, Basant City, Ludhiana)** for providing me with all necessary facilities.

I place on record, my sincere gratitude to **Ms. Aseem Sahota (Co- coordinator)** for her constant encouragement.

I also thank Ms. _____, Department of Social Science. I am extremely grateful and in debted to her for the expert, sincere and valuable guidance and encouragement extended to me.

I take this opportunity to record my sincere thanks to all the faculty members for their help and encouragement. I also thank my parents for their unceasing encouragement and support.

I also place on record my sense of gratitude to one and all who directly or indirectly helped me in this venture.

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- Subject Matter
- Add Pictures, Maps and Graph

Page No 19

- Summary

Page No 20

- Bibliography

SPECIAL NOTE: -

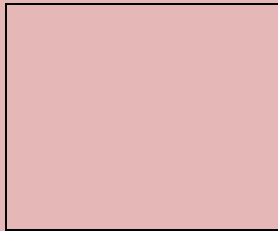
- ✓ The project should have a good presentation and creativity.
- ✓ Use single line assignment sheets for your project report.
- ✓ Use colored/glitter pens.
- ✓ Decorate your file cover also.

Punjabi

- 1.ਆਪਣੀ ਪਾਠ ਪੁਸਤਕ ਵਿੱਚ ਦਰਜ ਇਕਾਂਗੀ ਸਿਰਜਣਾ ਨੂੰ ਧਿਆਨ ਪੂਰਵਕ ਪੜ੍ਹੋ ਤੇ ਉਸ ਵਿਚੋਂ ਸਮਾਜ ਨੂੰ ਜੋ ਸੇਧ ਦੇਣ ਲਈ ਜੋ ਸਿੱਖਿਆ ਮਿਲਦੀ ਹੈ ਉਸ ਬਾਰੇ ਲਿਖੋ।
- 2.ਆਪਣੀ ਵਿਆਕਰਣ ਪੁਸਤਕ ਵਿੱਚੋਂ ਏ ਤੇ ਸ ਨਾਲ ਸਬੰਧਿਤ ਦਸ-ਦਸ ਮੁਹਾਵਰੇ ਲਿਖੋ।
3. ਆਪਣੇ ਸਕੂਲ ਮੈਗਜ਼ੀਨ ਲਈ 'ਮਿਹਨਤ' ਵਿਸ਼ੇ ਨੂੰ ਦਰਸਾਉਂਦੀ ਕਹਾਣੀ ਲਿਖੋ।
4. ਆਪਣੀ ਵਿਆਕਰਣ ਪੁਸਤਕ ਵਿੱਚੋਂ ਵਿਰੋਧੀ ਸ਼ਬਦ, ਲਿੰਗ ਬਦਲੇ, ਸ਼ਬਦ ਸੁੱਧੀ ਤੇ ਵਿਸਮਿਕ ਪੜ੍ਹੋ ਤੇ ਯਾਦ ਕਰੋ।
5. ਪੰਜਾਬ ਤੇ ਆਂਧਰਾ ਪ੍ਰਦੇਸ਼ ਦੇ ਪਹਿਰਾਵੇ ਨੂੰ ਦਰਸਾਉਂਦਾ ਪੋਜੈਕਟ ਬਣਾਓ। (R.NO.1-10)
ਪੰਜਾਬ ਤੇ ਆਂਧਰਾ ਪ੍ਰਦੇਸ਼ ਦੇ ਖਾਣਪੀਣ ਨੂੰ ਦਰਸਾਉਂਦਾ ਪੋਜੈਕਟ ਬਣਾਓ। (R.NO.11-20)
ਪੰਜਾਬ ਤੇ ਆਂਧਰਾ ਪ੍ਰਦੇਸ਼ ਦੇ ਗੀਤ ਸੰਗੀਤ ਨੂੰ ਦਰਸਾਉਂਦਾ ਪੋਜੈਕਟ ਬਣਾਓ। (R.NO.21-30)
ਪੰਜਾਬ ਤੇ ਆਂਧਰਾ ਪ੍ਰਦੇਸ਼ ਦੇ ਨਾਚ ਨੂੰ ਦਰਸਾਉਂਦਾ ਪੋਜੈਕਟ ਬਣਾਓ। (R.NO.31-40)

6. ਪੰਜਾਬੀ ਪੋਰਟਫੋਲਿਓ

- 1.ਸਕੂਲ ਯੂਨੀਫਾਰਮ ਵਿੱਚ ਤਸਵੀਰ ਚਿਪਕਾ ਕੇ ਆਪਣਾ ਨਾਂ ਲਿਖੋ।



- 2.ਜਨਮ ਮਿਤੀ :-.....
- 3.ਜਮਾਤ ਸੈਕਸ਼ਨ :-
- 4.ਰੋਲ ਨੰਬਰ :-.....
- 5.ਸਕੂਲ ਦਾ ਨਾਂ :-.....
- 6.ਕੱਦ :-.....
- 7.ਸਕੂਲ ਦਾਖਲਾ ਨੰਬਰ :-.....
- 8.ਬਲੱਡ ਗਰੁੱਪ :-.....
- 9.ਅਧਾਰ ਨੰਬਰ :-.....
- 10.ਪਿਤਾ ਦਾ ਨਾਮ :-.....

11.ਮਾਤਾ ਦਾ ਨਾਮ :-.....

12.ਫੋਨ ਨੰਬਰ :-.....

13.ਪਰਿਵਾਰਕ ਮੈਂਬਰਾਂ ਦੀ ਗਿਣਤੀ :-.....

14.ਘਰ ਦਾ ਪਤਾ :-.....

.....
15.ਮੈਂ ਇਹ ਪਸੰਦ ਕਰਦਾ ਹਾਂ :-.....

16.ਮੈਂ ਇਹ ਪਸੰਦ ਨਹੀਂ ਕਰਦਾ ਹਾਂ :-.....

17.ਮੇਰੀ ਤਾਕਤ :-.....

18.ਮੇਰੀ ਕਮਜ਼ੋਰੀ :-.....

19.ਮੇਰੀ ਮਨਪਸੰਦ ਖੇਡ :-.....

20.ਮੇਰਾ ਸੌਂਕ :-.....

21.ਮਾਤਾ-ਪਿਤਾ ਬਾਰੇ :-.....

22.ਮੇਰੀ ਜ਼ਿੰਦਗੀ ਦਾ ਉਦੇਸ਼ :-.....

24. ਕੋਈ ਵੀ ਕਵਿਤਾ, ਕਹਾਣੀ, ਪਾਠ, ਇਕਾਂਗੀ ਤੁਹਾਨੂੰ ਪਸੰਦ ਹੈ, ਉਹ ਤੁਹਾਨੂੰ ਕਿਉਂ ਪਸੰਦ ਹੈ ਬਾਰੇ ਲਿਖੋ।

.....
.....



Science

Physics

• Do the following activities in your lab manual.

ACTIVITIES

1. Verification of the Laws of reflection of sound.
2. Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder.
3. Establishing the relation between the loss in weight of a solid when fully immersed in Tap water
Strongly salty water with the weight of water displaced by it by taking at least two different solids.
4. Determination of the speed of a pulse propagated through a stretched string/slinky (helical spring).

Complete the following assignment:

1. What would be acceleration of a body if its velocity -time graph is a line parallel to the time axis?
2. Does the speedometer of a car measure its average speed?
3. A body is moving with a velocity of 10 meter per second. If the motion is uniform, what will be the velocity after 10 seconds?
4. What does the odometer of an automobile measure?
5. Distinguish between speed and velocity.
6. What are the uses of distance time graph?
7. An athlete completes one round of a circular track of diameter 200m in 40 seconds, what will be the distance covered and the displacement at the end of 2 minutes and 20 seconds?
8. Prove all the three equations of motion by graphical method.
9. A train starting from a railway station and moving with uniform acceleration attains a speed of 40 kilometers per hour in 10 minutes. Find its acceleration.
10. When will you say a body is in (i) uniform acceleration (ii) non uniform acceleration?
11. What is the nature of the distance- time graph for uniform and non uniform motion of an object?
12. A racing car has a uniform acceleration of 4 m/s^2 . What distance will it cover in 10 second after start?

Activity Chart making:

Prepare the chart and explain the given topic with proper diagram and illustrations.

1. Make the graph of velocity and time for uniform accelerated motion and derivation of all equations of motion on chart paper.

Project:

1. Make a working model for uniform circular motion.

Real life experienced based problem:

Have you ever experienced that the train in which you are sitting appears to move while it is at rest? Share your experience.

• **Solve all the In-text questions and exercise questions of motion chapter in your holiday's homework notebook.**

Chemistry

1. Complete your lab manual.
2. Write a report and observation on the following experiments. Share pictures along with the report.
Difference between Homogenous and heterogeneous mixtures by using household materials (water, sugar, salt, sand, soil, oil etc.)
3. Research presentation: research and present on a real world application on chemistry.

Biology

I. Read the e-comic on the topic 'Why do we fall ill?' Note down your reflections on A4 sheet . PDF of the e-comic will be shared in the class group.

II. Complete Lab Manual. Experiments to be written in Lab manual are:

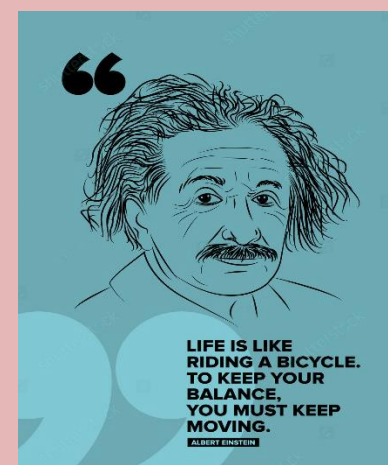
- (a) Preparation of stained temporary mounts of (i) Onion peel, (ii) Human cheek cells & to record observations and draw their labelled diagrams.
- (b) Identification of Parenchyma, Collenchyma and Sclerenchyma tissues in plants, striped, smooth and cardiac muscle fibers and nerve cells in animals, from prepared slides. Draw their labelled diagrams.

III. Solve the given assignment in your Biology Notebook.

Assignment

1. If a cell loses its selective permeability, what consequences will it face? Justify your answer with the role of the plasma membrane.
2. Why is the nucleus called the 'brain' of the cell? How would a cell behave if the nucleus is removed?
3. Imagine a cell without mitochondria and lysosomes. Predict and explain what changes you would observe in its functioning.
4. Why do plant cells have a rigid cell wall while animal cells do not? Discuss in context of structural support and surroundings.
5. Analyze how vacuoles help in maintaining turgor pressure and the survival of plant cells in dry conditions.
6. If ribosomes in a cell stop functioning, how will it affect the entire organism? Explain the chain of consequences.

7. Explain how the functions of endoplasmic reticulum and Golgi apparatus are interlinked in protein transport.
8. You observe two cells under a microscope: one with a large central vacuole and another without. Predict which is a plant cell and why.
9. Why are cells in multicellular organisms specialized? Compare this with unicellular organisms.
10. What role do plastids play in plant survival and development? Predict the impact of absence of chromoplasts in fruits.
11. Why are meristematic tissues always actively dividing? Explain how this helps in plant growth and regeneration.
12. Compare the location and function of apical, lateral, and intercalary meristems. How does each type contribute uniquely to plant development?
13. If lateral meristem in a plant is damaged, how will it affect plant growth? Support with reasoning.
14. Draw a labeled diagram of a plant stem showing apical, lateral, and intercalary meristematic tissues. Explain the function of each part in your diagram.
15. Why are meristematic cells small, with dense cytoplasm and large nuclei? Relate their structure to their function.
16. A student claims that intercalary meristem is found only at the base of the stem. Is this true? Correct the misconception with appropriate examples.
17. Why do meristematic tissues not have intercellular spaces, unlike permanent tissues? Evaluate the significance.
18. Suggest a reason why cells of meristematic tissues do not contain vacuoles. What function does this serve in cell division?
19. If a plant is pruned regularly (cutting the apex), it becomes bushier. Explain the role of meristematic tissues in this process.
20. How does the location of meristematic tissue influence the overall shape and form of a plant? Analyze with examples of different plants.



ARTIFICIAL INTELLIGENCE

1. Define AI in your own words.
2. List and describe any 5 AI applications you have interacted with.
3. Mention which domain of AI each application belongs to:
 - Natural Language Processing (NLP)
 - Computer Vision (CV)
 - Statistical Data for AI

Play the following three AI-based games and answer the questions:

Game 1: Rock, Paper, Scissors - <https://next.rockpaperscissors.ai/>

- a) What strategy did AI use?
- b) What did you learn about Data for AI from this game?

Game 2: Semantris - <https://research.google.com/semantris/>

- a) How does AI understand your words?
- b) What did you learn about Natural Language Processing?

Game 3: Quick, Draw - <https://quickdraw.withgoogle.com/>

- a) Was the AI able to guess your drawings?
- b) What did you learn about Computer Vision?

4. Task: Choose one problem you observe around you and plan an AI project to solve it.
 - Write your project title.
 - Explain briefly all stages of AI Project cycle of your problem.

Example Project: "Detecting food waste in school cafeteria using AI cameras."

5. Read the Scenario:

You are a teacher and want to save time checking essays. You find an AI tool that automatically grades and gives feedback. You are unsure whether to use it.

Answer the following:

- Would you use the AI tool? Why or why not?
- What are two advantages and two disadvantages of using AI in this case?
- How can we ensure the AI grading tool is fair and ethical?

6. Complete the table below based on the domains of AI:

Application	AI Domain	Reason
Chatbot in an e-commerce app		
Face Unlock in smartphones		
Google Maps suggestions		

7. Aman wants to buy a new computer. What components should he look for, and how will ICT tools help in his studies?

8. WAP in python :

- To calculate Area and Perimeter of a rectangle
- To calculate Area of a triangle with Base and Height
- To calculating average marks of 3 subjects
- To calculate discounted amount with discount %
- To calculate Surface Area and Volume of a Cuboid

