

CLASS IX

ENGLISH

1 Read English Newspaper daily.

 NOTE:

- Write the review and diary entries in the C.W. notebook.

.The novel will be assessed during Speaking Skills Assessment and marks will be awarded in Internal Assessment.

- Click coloured photographs while exploring interests /related to creative ventures and paste them in your C.W. notebook.

2. Read any one of the following novels during the summer break and write its review in about 150-200 words.

1. Gulliver's Travels.

Or

2. Three Men In A Boat

NOTE: BOOKS CAN BE VIEWED FROM THE GIVEN LINKS.

<https://www.gutenberg.org/files/308/308-h/308-h.htm>

<https://www.gutenberg.org/files/829/829-h/829-h.htm>

3. Work on a creative skill, habit, or personal goal during your summer break, and write a diary page at the end of summer break on how did it help you express yourself or become a better version of you.(100-120 words)

Hints:...fitness & outdoor activities like yoga, dance, biking...cooking and nutrition...reading and creative writing.. gardening.. music ...

4. Spend time making a positive impact on the environment or learning something exciting in science or technology this summer and write a diary entry about the experience.(100-120 words)

Hints: organising charity drives or environmental cleanups...teaching younger kids a skill....learning to code or build apps.. experimenting with robotics or 3D Printing.. creating digital content, video editing, podcasting, animation...

A SUMMER OF MATH DISCOVERY

Project based learning

TASK I

The Mystical Math Spiral: Unveiling Beauty in Irrational Numbers

- The Square Root Spiral also known as "Wheel of Theodorus"
- On an A3 size sheet of paper, accurately construct a Square Root Spiral. Start with a base unit length of 1 cm.
- Transform your constructed Square Root Spiral into an artistic masterpiece. Think about how the spiral's shape and increasing segments can be integrated into a creative drawing, painting, or collage.
- Ideas for Art Integration (Choose ONE or come up with your own idea)

Roll number 1 to 11

* Nature Theme: Turn the spiral into a shell, a flower, a cloud formation, or the tail of an animal (like the peacock in the reference image).

Roll number 12 to 21

* Abstract Art: Use different colors, textures, or patterns within each segment of the spiral to create an abstract design.

Roll number 22 to 31

* Architectural Design: Imagine the spiral as a blueprint for a building, a staircase, a park pathway, or a decorative element on a structure.

Roll number 31 onwards

* Mandala/Symmetry: Develop a symmetrical design around the spiral.

TASK II

•Roll number 1 to 16

1) Linear Equations : Budgeting for a School Trip

Project: Your class is planning a trip to a local science museum. You are part of the student committee tasked with creating a budget.

* Identify at least two main variables that affect the total cost (e.g., number of students, cost per student for entry, transport cost, food cost).

* Formulate a linear equation to represent the total cost of the trip based on the number of students.

* Create a table showing the total cost for different numbers of students (e.g., 20, 25, 30, 35 students).

* If the budget is ₹Y, determine the maximum number of students who can go on the trip without exceeding the budget.

* Create a graph showing the relationship between the number of students and the total cost. Mark the budget constraint on the graph.

*A budget report document with equations, tables, graphs, and clear explanations of the scenarios and conclusions.

•Roll number 17 to 30

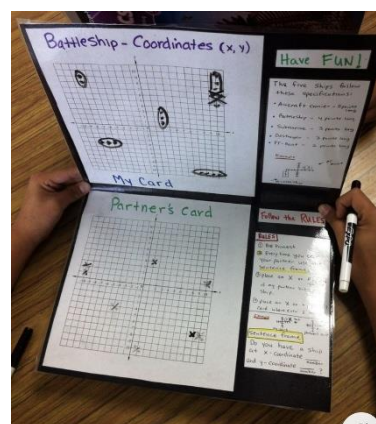
2) The Coordinate Path Game:

Concept: Design a simple, turn-based game played on a Cartesian plane using coordinates as movement instructions or targeting.

Game Idea: Brainstorm a simple game.

Examples:

- "Coordinate Hop": Players take turns giving a coordinate, and their piece moves to that point. The goal is to reach a designated "finish line" or collect "treasure points" while avoiding "danger points."
- "Quadrant Quest": Players roll a die (or draw cards) to determine which quadrant their next point must be in, trying to achieve a specific pattern or connect points across all four quadrants.
- "Geometric Shape Builder": Players take turns naming coordinates. When enough points are named, if they form a specific geometric shape (e.g., a square, triangle), the player who named the last point gets points.
- Game Board: Prepare a large graph paper as your game board. You can draw some starting points, obstacle areas, or target zones.
- * Provide your game board.
- * Present the complete rules and scoring system for your game.
- * Explain the mathematical concepts (e.g., plotting, quadrants, distance, specific lines) that are essential for playing and winning your game.



•Roll number 30 onwards

3) From Round to Rectangle: A Journey to πr^2

Design and build a working model that demonstrates how the area of a circle can be conceptually linked to the area of a rectangle. Your model should involve transforming a circle (or its parts) into a shape that approximates a rectangle. By showing this transformation, explain how the dimensions of your "rectangle" relate to the radius and circumference of the original circle, thus leading to the formula for the area of a circle.

Reference link <https://youtube.com/shorts/zlixCtl1pfE?si=xB99hYjTfPULz7AU>

SCIENCE

Holiday Homework – Science (Grade IX)

Summer Break Assignment

Session 2025-26

“Science is simply the word we use to describe a method of organizing our curiosity.” — Tim Minchin

Holiday homework is not a burden, but an opportunity to explore, discover, and learn beyond the classroom.
Happy learning!

Instructions for Students:

- The homework is divided according to Roll Numbers.
- Complete the given tasks neatly in your science notebook.
- Add pictures, diagrams, flowcharts, and relevant data wherever possible.
- Creativity and originality will be appreciated.
- Submission Date: First Week after Re-opening.
- **BIOLOGY**

Topic-Wise Assignment:

Roll Numbers 1-15: Eutrophication

1. Define eutrophication. Explain the process with the help of a neat labeled diagram.
2. Research and present two real-life case studies (Indian or global) where eutrophication has affected aquatic life.
3. List down causes, harmful effects, and preventive measures of eutrophication in points.
4. Prepare a mind map showing the role of human activities in eutrophication.

Roll Numbers 16-30: Composite Fish Culture

1. What is composite fish culture? Explain its method with the help of a well-labeled diagram.
2. Discuss the advantages and limitations of composite fish culture.
3. Name at least 5 species of fish used in composite fish culture in India and describe their importance.
4. Suggest eco-friendly practices to improve fish production sustainably.

Roll Numbers 31-45: Vermi-Composting:

1. Define vermi-composting. Describe its process with illustrations.
2. Explain the role of earthworms in the vermi-composting process.
3. Write a brief note on how vermi-composting helps in solid waste management and sustainable agriculture.
4. Design a simple model/project plan for setting up a vermi-composting unit at home or School

Assessment Criteria:

Parameters	Marks
Content Accuracy	2
Presentation & Creativity	2

Use of Diagrams & Pictures	2
Research & Originality	2
Timely Submission	2
Total	10

CHEMISTRY

Project Title:

"Exploring Purity: Investigating the Composition of Everyday Substances"

Objective:

To understand and differentiate between pure substances and mixtures by examining common household materials, and to classify them based on their composition.

Learning Outcomes:

Students will be able to:

Define and identify pure substances and mixtures.

Distinguish between elements, compounds, and mixtures

Relate theoretical knowledge to practical, real-world examples.

Materials Required:

Common substances (salt, sugar, tap water, milk, cooking oil, sand, etc

Procedure:

1. Collection: Gather samples of 8–10 everyday substances (liquid and solid).
2. Observation & Classification: Note physical appearance and classify each as:
Pure substance (element or compound)
Mixture (homogeneous or heterogeneous)
3. Documentation: Record the methods, observations, results, and inferences.
4. Presentation:

Create a report or presentation.

Include pictures of experiments, tabulated data, and conclusions.

Design a poster or chart to explain findings.

Extension (Optional):

Students can explore how the purity of substances affects their use in industries (e.g., water purification,)

PHYSICS

Q1. Observe the following graph and answer the question that follow

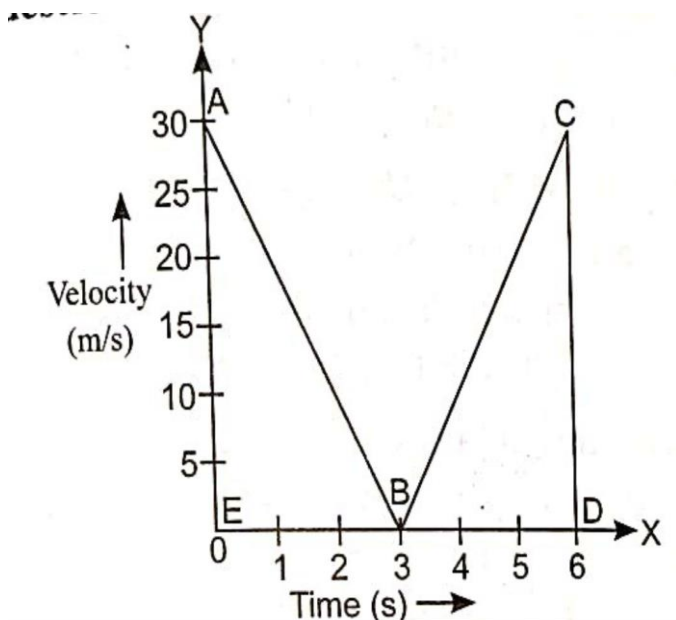
A) Find the retardation of the body from A to B.

B) Compare the acceleration from A to B with acceleration from B to C.

© What type of motion can you predict from the above graph?

Or

© Find the total distance and displacement of the body.



Q2. Observe the following velocity-time graph of a body in motion and answer the questions that follow.

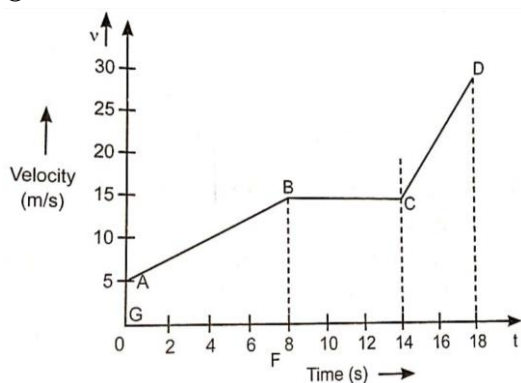
(a) Calculate the acceleration of the body from C to D.

(b) What is the displacement of the body from $t=8\text{ s}$ to $t=14\text{ s}$?

(c) What is the displacement of the body in the first 8 seconds of the motion?

Or

©



What is the difference between acceleration from A to B and from C to D?

Q3. A body travels a distance of 15 m from A to B and then moves a distance of 20 m at right angles to AB. Calculate the total distance travelled and the displacement. (35m, 25m)

Q4. A particle is moving in a circle of diameter 5 m. Calculate the distance covered and the displacement when it completes 3 revolutions. ($15 \times 22/7\text{ m}$, 0)

Q5. A car travels along a straight line for first half time with speed 40 km/h and the second half time with speed 60 km/h. Find the average speed of the car. (50 km/hr)

Q6. A body starts to slide over horizontal surface with an initial velocity of 0.5 m/s. Due to friction, its velocity decreases at the rate of 0.05 m/s^2 . How much time will it take for the body to stop. (10s)

Q7. A train starting from rest moves with a uniform acceleration of 0.2 m/s^2 for 5 minutes. Calculate the speed acquired and the distance travelled in this time. (60 m/s, 9 km)

Q8. A bus was moving with a speed of 54 km/h. On applying brakes, it stopped in 8 seconds. Calculate the acceleration and the distance travelled before stopping (-1.875 m/s², 60.2 m)

Q9. A motor cycle moving with a speed of 5 m/s is subjected to an acceleration of 0.2 m/s^2 . Calculate the speed of the motor cycle after 10 seconds, and the distance travelled in this time. (7 m/s, 60 m)

Q10. Calculate the speed of tip of second's hand of watch of length 1.5 cm (0.16 cm/s)

SOCIAL SCIENCE

HOLIDAYS' HOMEWORK FOR GRADE IX

***NOTE:** Lesson No. 4 of History- 'Forest Society and Colonialism' and Lesson No. 5 of Geography- 'Natural Vegetation and Wildlife' have to be covered under an **Interdisciplinary Project**. As per CBSE directions, participation of every student in the same is **mandatory**. The topics are to be prepared under the following headings during the summer vacation (This holidays homework should be submitted by 21st July 2025).

1) Forestry under the Pre-Colonial Period- This should include: -

(a) Types of Natural Vegetation found in India (to be shown through maps and slides).

(b) Importance of Forests (To be shown through charts and collage). **(Roll No. 1-6)**

2) What is Deforestation? Why Deforestation under the Colonial Period? – This is to be shown using charts, collage, albums, flash cards and brochures. **(Roll No. 7-12)**

3) Impact of Deforestation on Ecological Balance- to be shown through charts, collage, albums, flash cards and brochures. **(Roll No. 13-18)**

4) Different Forest Acts and Bastar Rebellion- This should include location of Bastar, why the rebellion took place, course of the rebellion and its consequences (to be shown through charts and collage). **(Roll No. 19-24)**

5) Colonial Forestry in Java- to be shown through charts, collage and brochures. **(Roll No. 25-30)**

6) Impact of World Wars on Deforestation- to be shown through charts. **(Roll No. 31-36)**

7) Wildlife- This should include the following: -

(a) Wildlife Sanctuaries and National Parks in India (to be shown through maps).

(b) Diversity found in fauna and massive killing of animals in India during the colonial period (to be shown through charts). **(Roll No. 37 onwards)**

Disaster Management

(Mandatory for all students)

Topic: India-Pakistan War-2025 (Man Made Disaster)

1. Origin: Tension between two states.

2. Pehlgam: Immediate escalation.

3. Response: Operation Sindoor.

4. Ammunition: India-Pakistan

- Aircrafts

- Artillery

- Drones

- Missiles

Write a brief account with the help of pictures.

5. Cyber Warfare

- Fake News

- Propaganda

- Misinformation

6. Collaboration: Indian Air Force/Indian Army/Indian Navy

7. Execution of Operation Sindoor (War)

8. Role of Indian Air Defence System

9. Conclusion/Way forward

Note: Write a brief account of each subtopic with the help of pictures. Add pictures of Affected areas/High Alert states.

Show the location of LOC/POK/Militant Areas on the political map of India.

PUNJABI

Holiday's HW(2025-26) Class- 9th

1 ' ਮੇਰੇ ਸੁਪਨਿਆਂ ਦਾ ਕੈਰੀਅਰ' ਵਿਸ਼ੇ 'ਤੇ ਆਪਣੇ ਵਿਚਾਰ ਲਿਖੋ।

2 ਲੇਖ ਰਚਨਾ (Essay Writing)

ਹੇਠ ਲਿਖੇ ਵਿਸ਼ਿਆਂ ਵਿੱਚੋਂ ਕਿਸੇ ਇੱਕ ਵਿਸ਼ੇ 'ਤੇ 150-200 ਸ਼ਬਦਾਂ ਦਾ ਲੇਖ ਲਿਖੋ:

1. ਪੰਜਾਬ ਦੀ ਸੱਭਿਆਚਾਰਕ ਵਿਰਾਸਤ

2. ਵਾਤਾਵਰਣ ਸੁਰੱਖਿਆ ਦੀ ਮਹੱਤਤਾ

3. ਵਿਗਿਆਨਕ ਖੇਤਰ ਵਿੱਚ ਭਾਰਤ ਦੀ ਤਰੱਕੀ

3 ਸ਼ੇਸ਼ਲ ਮੀਡੀਆ ਦੀ ਤਾਕਤ: ਕਿਵੇਂ ਲੋਕ ਆਪਣੇ ਵਿਚਾਰ, ਕਾਰੋਬਾਰ ਅਤੇ ਕਲਾ ਨੂੰ ਦੁਨੀਆਂ ਤੱਕ ਪਹੁੰਚਾਉਂਦੇ ਹਨ, ਨੂੰ

ਦਰਸਾਉਂਦਾ ਕੋਲਾਜ ਤਿਆਰ ਕਰੋ।

ਨੋਟ: ਕੋਲਾਜ ਵਿੱਚ ਤੁਸੀਂ ਕੱਟ ਕੇ ਚਿੱਤਰ, ਲੇਗੋ, ਸਲੇਗਨ ਅਤੇ

ਕਾਵਿ-ਪੰਕਤੀਆਂ ਸ਼ਾਮਲ ਕਰ ਸਕਦੇ ਹੋ। ਇਸ ਨੂੰ ਆਕਰਸ਼ਕ, ਰੰਗ-ਬਿਰੰਗਾ ਅਤੇ ਜਾਣਕਾਰੀ ਭਰਪੂਰ ਬਣਾਓ।

ARTIFICIAL INTELLIGENCE

1. Make a PPT on "Introduction to Artificial Intelligence" (8 to 10 slides)
2. Make a PPT on" AI in Entertainment" (8 to 10) slides
3. Survey Assignment: "AI Use in My Home"

Interview 3–5 family members

Ask them where they see AI in daily life.

Make a report or pie chart

Note: The H.W is to be submitted in a folder as it is part of the Practical file.