

Lt. Col. MEHAR LITTLE ANGELS SR. SEC. SCHOOL
SUMMER HOLIDAY HOMEWORK
CLASS IX (2026-27)
ENGLISH

General Instructions

1. The holiday homework must be submitted in an A3 size folder.
2. Q1, Q2, Q4, Q5 and Q6 must be done in a separate file using A4 size sheets.
3. The file should include:
 - (a) Cover Page (with Name, Class, Section, Subject)
 - (b) Index Page
4. Maintain neat handwriting, proper headings, and creativity.
5. Use colours, pictures, and borders wherever required.

Q1. Interview Activity (Experiential Learning)

Interview any one person (parent, grandparent, or teacher).

Topic: “Life Before Technology”

Write:

- (a) 5 meaningful questions
- (b) A short summary of their answers (in your own words)

Q2. Reflection Writing (Life Skills)

Write two short reflections:

- (a) What did you learn during the holidays?
- (b) How can you improve your communication skills?

Q3. Advertisement Design (Creative Task)

Create an advertisement on A3 size sheet for:

An eco-friendly product OR

“No Mobile Day” campaign

Include:

- (a) Catchy slogan
- (b) Creative visuals/drawings

(C) Short message

Q4. Sound-Based Story Writing

Listen carefully to sounds around you (fan, traffic, birds, etc.).

(a) Write a creative story based only on sounds.

Do not describe visuals

Use imagination and descriptive language

Q5. Real-Life Activity (Experiential Task)

Do any one activity:

Help someone

or

Stay offline for a day

or

Wake up early and follow a routine

Write your experience:

(a) What you did?

(b) How you felt?

(c) What you learned?

Q6. Creativity Task

Create any one:

A crossword puzzle

OR

At least 5 riddles

हिंदी

1) निम्नलिखित कार्य एक स्कैप फ़ाइल में कीजिए- (फ़ाइल को रोचक व आकर्षक बनाएँ।)

1) 'गंगा' पुस्तक के गद्य खंड के पाठ 'दो बैलों की कथा' में से कोई 5-5 संज्ञा, सर्वनाम, विशेषण तथा क्रिया शब्द छांट करके उनकी सूची बनाएँ।

2) 'दो बैलों की कथा' पाठ के आधार पर हीरा और मोती का चित्र बनाकर निम्नलिखित कार्य करें-

i) हीरा और मोती की 5-5 विशेषताएँ लिखिए।

ii) हीरा और मोती जब वापस घर लौट आए, तब उनके बीच क्या बातचीत हुई होगी, इसे संवाद के रूप में लिखिए।

iii) 'दो बैलों की कथा' कहानी से कोई 3 गद्यांश लिखकर उन पर रंगीन पेन से विराम-चिह्न लगाएँ।

iv) हीरा और मोती के खो जाने पर झूरी द्वारा क्या विज्ञापन निकाला गया होगा, सोचें और विज्ञापन बनाएँ।

v) कहानी का नया अंत लिखिए।

3) निम्नलिखित विषयों में से किसी एक विषय पर भाषण लिखें तथा प्रतियोगिता के लिए कंठस्थ करें।

क) भारत का मंगल अभियान

ख) बाल - श्रम : एक अभिशाप

ग) प्रदूषण की समस्या - उत्तरदायी कौन ?

घ) स्वतंत्रता आंदोलन

4) एक रोचक कविता लिखें व उसे प्रतियोगिता के लिए कंठस्थ करें। (कविता स्वरचित भी हो सकती है)

2) 'मुंशी प्रेमचंद' पर एक फ़ाइल में आकर्षक पोर्टफोलियो (निवेश-पत्र) तैयार करें, जिसमें उनके जीवन से संबंधित निम्नलिखित सचित्र जानकारी हो।

प्रथम पृष्ठ पर - हिन्दी 'निवेश पत्र' तथा अपना नाम, कक्षा व अनुक्रमांक लिखें।

द्वितीय पृष्ठ पर - लेखक 'मुंशी प्रेमचंद' लिखें।

तृतीय पृष्ठ पर - प्रमाण-पत्र लिखें।

चतुर्थ पृष्ठ पर - अनुक्रमणिका (विषय-सूची) लिखें।

अनुक्रमणिका में निम्नलिखित विषय लिखें तथा उसी के अनुसार फ़ाइल में आकर्षक कार्य करें--

1) व्यक्तिगत जानकारी

2) पारिवारिक जानकारी

3) शैक्षणिक जानकारी

4) वैवाहिक जानकारी

5) विशिष्ट उपलब्धियाँ

6) पाठ में आपको क्या अच्छा लगा और क्यों?

MATHEMATICS

1. Do five activities based on quadrilateral in lab manual file (given on pages 49 to 61)
2. Make portfolio on the following topics-
 - (i) Quadrilateral, their types, properties of each type and theorem based on quadrilaterals (roll no. 1 to 15)
 - (ii) Triangles, its types on basis of sides and measures, properties of triangles and Pythagoras theorem (roll no. 16 to 30)
 - (iii) Circle, its parts, concept of pi and theorems based on circle. (roll no. 31 onwards)

3. ASSIGNMENT

1. Prove that $\sqrt{5}$ is irrational. (*Hint: Use contradiction method*)
2. Rationalize the denominator:
 - a) $\frac{1}{\sqrt{3}}$
 - b) $\frac{5}{2+\sqrt{3}}$
3. Simplify:
 - a) $(\sqrt{5} + \sqrt{2})^2$
 - b) $(\sqrt{7} - \sqrt{3})(\sqrt{7} + \sqrt{3})$
4. Express as a single power:
 - a) $2^3 \times 2^5 \div 2^4$
 - b) $(3^2)^3 \times 3^{-2}$
5. Without actual division, state whether $\frac{343}{125}$ will have a terminating decimal or not.
6. Factorise:
 - a) $x^2 - 9$
 - b) $3x^2 - 12x$
 - c) $x^2 + 7x + 10$
7. Simplify using identities: 98^2
8. If $a + b = 10$ and $ab = 21$, find:
 - a) $a^2 + b^2$
 - b) $(a - b)^2$

9. Solve:

$$\frac{3x - 2}{5} = \frac{2x + 3}{3}$$

10. A number is increased by 5 and then doubled to give 26. Find the number.
11. The sum of two consecutive integers is 35. Find the integers.
12. The perimeter of a rectangle is 64 cm. Its length is 4 cm more than twice its breadth. Find its dimensions.
13. In a triangle, two angles are equal and the third angle is 40° . Find all angles.
14. If a transversal cuts two parallel lines and one angle is 65° , find all corresponding and alternate angles.

15. If the exterior angle of a triangle is 120° and one interior opposite angle is 50° , find the other.

16. A rectangular field is 50 m long and 30 m wide. Find:

a) Area

b) Cost of fencing at ₹10 per metre

17. A cube and a cuboid have equal volumes.

If cube side = 4 cm, find dimensions of cuboid (given length = 8 cm, breadth = 2 cm).

18. Find the area of a path 2 m wide running around a square field of side 20 m.

19. If $x + \frac{1}{x} = 5$, find $x^2 + \frac{1}{x^2}$

20. The sides of a triangle are in the ratio 3: 4: 5. If perimeter is 48 cm, find the sides.

21. Without solving, say whether the equation has solution:

$$2(x + 3) = 2x + 8$$

22. If the diagonals of a quadrilateral bisect each other, what type of quadrilateral is it?

23. Simplify:

a) $3x + 5x - 2x$

b) $7a - 3a + 4$ justify.

24. (i) Express $0.\bar{3}$ in the form $\frac{p}{q}$

(ii) Convert $0.\bar{27}$ into $\frac{p}{q}$

(iii) Express $0.1\bar{26}$ as a fraction

25. Express $\sqrt{4.6}$ on the number line.

(Assignment is to be done in separate thin register)

SCIENCE

BIOLOGY

Chapter 2: The Building block of Life – Cell

Part A – Creative Tasks

1. **Cell Comic Strip:** Create a comic strip showing the “life of a cell” where organelles are characters with specific roles (e.g., mitochondria as the powerhouse, nucleus as the boss) (Roll no 1-15).
2. **Design Flip book of Cell organelles (Roll no 16-30).**

3. **Cell Diary Entry:** Write a diary entry from the perspective of a cell describing its daily activities and interactions with other cell (Roll no 31-47).

Part B – Competency-Based Tasks

1. **Case Study:** A scientist discovers a new organism. How would you determine whether its cells are prokaryotic or eukaryotic? Write the steps and reasoning.
2. **Compare & Contrast:** Prepare a table comparing plant and animal cells in terms of structure and function.
3. **Problem-Solving:** If the mitochondria of a cell stop functioning, what immediate effects will it have on the organism? Suggest possible adaptations or consequences.

Part C – Build Your Concept

1. Revise Chapter- 2 Complete.
2. Solve the given assignment in Biology Notebook.

PHYSICS

Q1. An athlete completes one round of a circular track of diameter 200m in 40s.

- i) Calculate the distance covered and the displacement at the end of 2 minutes 20 seconds.
- ii) Explain why displacement is different from distance in this scenario.

Q2. Draw a distance-time graph for a body at rest, a body moving with uniform speed, and a body moving with non-uniform speed.

- i) What does the slope of a Distance-Time graph represent?
- ii) What does the area under a Velocity-Time graph represent?

Q3. A bus starting from rest moves with a uniform acceleration of 0.1 m/s^2 for 2 minutes. Find (a) the speed acquired, and (b) the distance travelled.

Q4. A stone is thrown vertically upward with a velocity of 5 m/s. If the acceleration of the stone during its motion is 10 m/s^2 in the downward direction, what will be the height attained by the stone and how much time will it take to reach there?

Q5. For any three days during your holidays, record the motion of a vehicle (car, bus, or scooter) during a short trip. Create a table with the following columns:

- 1) Time interval (every 2 minutes)
- 2) Odometer reading (Distance)
- 3) Speedometer reading (Instantaneous Speed)

Task: Plot a Distance-Time graph based on your collected data. Identify sections where the motion was uniform and where it was non-uniform (due to traffic or turns).

Q6.Real-World Acceleration

Observe and list three examples from your daily life for each of the following:

Positive Acceleration (Speeding up)

- 1) Negative Acceleration/Retardation (Slowing down)
- 2) Zero Acceleration (Constant velocity)

Creative Project (Choose ONE)

- 1) Working Model: Create a simple "Newton's Cradle" or a balloon-powered car to demonstrate acceleration and motion. Write a one-page report on the physics behind it.
- 2) Infographic: Create a colourful A4-sized poster explaining the three equations of motion ($v = u + at$, $s = ut + \frac{1}{2}at^2$, and $v^2 = u^2 + 2as$) with a real-life example for each.
- 3) Safety Analysis: Research why cars are equipped with airbags and seatbelts. Explain the role of "inertia" and "change in velocity" during a sudden stop.

CHEMISTRY

Prepare a "Product Label Analysis Portfolio" by collecting labels of at least 10 daily-use products (such as juice, shampoo, toothpaste, milk, soft drink, etc.). Identify and list the ingredients mentioned on each label and classify each product as a homogeneous or heterogeneous mixture. Present your work neatly with proper headings, observations, and a conclusion.

Example-Milk

- i) Ingredients: Fat, water, proteins
- ii) Type of Mixture: Colloid (Heterogeneous)
- iii) Reason: Tiny particles of fat are dispersed

(a) Use a coloured A4 file or scrapbook

- i) Keep one product per page
- ii) Paste real labels or cut-outs

(b) Page Format

- i) Product Name: ____
- ii) Ingredients: ____
- iii) Type of Mixture: ____
- iv) Reason: ____

(c) Conclusion Page

Write 4–5 lines about:

i) What you learned

ii) How mixtures are present in daily life

(d) Add a cover page design

(e) Include a “Did You Know?” fact on each page

SOCIAL SCIENCE

This project helps us understand the world around us. Through weather observation, environmental awareness, study of ancient civilisation, and current affairs, we learn how nature, history, and democracy are connected in our daily lives. It also helps us become more responsible, informed, and aware citizens.”

Project Work

1. Climate Study Project

Observe the weather in your area for 10 days and note the daily temperature and weather condition. You can present the data in a bar graph or line graph. After that, write a short reflection on how weather affects our daily life, such as clothing, travel, mood, health, and outdoor activities. Climate change has already started affecting daily life through higher costs, droughts, and floods.

2. Environmental Awareness Activity

Prepare a poster or short report on either climate change or water conservation. Include five practical solutions that people can follow in daily life, such as saving water at home, using rainwater, or reducing waste. Simple steps like drip irrigation, mulching, and rainwater collection can help conserve water effectively.

3. Heritage Study

Research one ancient civilisation: Harappan, Egyptian, or Mesopotamian. In your project, include its lifestyle, economy, and architecture. If you choose the Harappan civilisation, you can mention its planned cities, baked brick houses, drainage systems, and public baths. Add pictures, sketches, or drawings to make the work attractive.

4. Current Affairs Scrapbook

Collect five newspaper articles or news clippings related to elections, government, or rights. For each article, write a short summary and explain how it is connected to democracy. Elections are important because they allow citizens to choose their representatives, but democracy also depends on the rule of law and human rights.

Format to be Followed:-

- i) Cover page.
- ii) Index.
- iii) Climate study with table, graph, and short analysis.
- iv) Environmental awareness poster/report with 5 solutions.
- v) Heritage study with facts and pictures.
- vi) Current affairs scrapbook with 5 articles and reflections.
- vii) Conclusion.

Closing line

“Through this project, I learned that responsible living, respect for heritage, and awareness of current issues are all part of being an informed citizen.”

5. 1. Make a poster on A3 size sheet on any one of the following topics

- a. central problems of an economy
- b. Problem of choice
- c. opportunity cost
- d. Types of economic system

INFORMATION TECHNOLOGY

DIGITAL DOCUMENTATION

- 1. Draft a leave application for three days to your class teacher in word processor.
- 2. Create a timetable of your class in landscape mode and apply the following formatting effects in Libre Office Writer:
 - a. Merge cells
 - b. Add an image and colour to a cell
 - c. Apply page colour and table border colour/designs
- 3. Create posters using shapes, images, different styles, page colour, and borders:
 - a. Any top 5 Indian entrepreneurs.
 - b. Artificial Intelligence Tools.
 - c. Book Cover.
 - d. Any two of the following: Independence Day, Diwali festival, New Year card, Summer Camp, or birthday party invitation using any software with your own creative ideas.

DIGITAL PRESENTATION

1. Prepare a power point presentation on Artificial Intelligence.
2. Prepare a power point presentation on the following topics according to your roll number:
 - a. Roll No. 1–20: Cyber Security and Threats
 - b. Roll No. 21 onwards: Famous personalities in the IT sector

Note: Your presentation should include at least 15 – 18 slides and must use the following features:

Animations and custom animations, Slide transitions, Images, Tables, WordArt, SmartArt, Different font families, Charts

Note: Bring your work in a clear bag.

MEAL PLANNING

Prepare a detailed project report on Meal Planning (approximately 15 pages). The project should include the following:

1. Types of Nutrients, covering:
 - a. Sources
 - b. Functions
 - c. Deficiency Diseases
2. Sugar-Free Diet, including its importance and benefits.

ART & CRAFT

1. Best Out of Waste Sculpture

Create a 3D model using waste materials like plastic bottles, newspapers, and cardboard. Theme: Save Environment. Add a short description explaining your idea and materials used.

2. Madhubani Painting

Make a Madhubani painting on an A3 sheet using sketch pens or colors. Include traditional patterns and write 4–5 lines about this art form.

3. Paper Flower Craft (8–10 inches)

Create a large decorative paper flower of size 8–10 inches using colored paper. You can use folding, cutting, and layering techniques. Paste it on a base sheet and decorate neatly. Write 3–4 lines about the process.