

CLASS IX
HOLIDAY HOMEWORK (2025-26)

ENGLISH

☐ TASK 1

- Select 10 newspaper articles

Choose articles from various sections, such as news, editorials, or feature stories. (YOU CAN TAKE HELP FROM NIE ONLINE EDITION)

- Read each article carefully and analyze the content, structure, and language used.
- Paste these articles and rewrite each article in your own words, highlighting the main points and key takeaways.
- Identify and highlight new vocabulary words from each article and write its meaning separately.

☐ TASK 2

Based on the story from your literature reader 'The Dog Named Duke'

Duke played a vital role in Chuck's recovery by providing emotional support, motivation, and encouragement. He helped Chuck regain his physical strength and confidence.

- Write an essay in 120-150 words discussing the role of pets in stress relief and emotional well-being. Consider the following points:
 - The emotional bond between humans and pets
 - The ways pets can reduce stress and anxiety
 - Personal experiences or observations of pets providing comfort and support
- Imagine you are Duke. Write a diary entry describing your experiences with Chuck during his recovery.
- Design a poster highlighting the benefits of having pets as companions and stress busters.

P.S - This work should be done in separate scrap file.

विषय - हिन्दी

विद्यालय पत्रिका के लिए अपनी कल्पना के आधार पर एक कहानी , कविता या कोई स्वरचित लेख लिखें। (A4 size sheet में करें)

नीचे लिखे अनुक्रमांक (Roll number) अनुसार विद्यार्थी A4 साइज की शीट्स पर एक परियोजना तैयार कीजिए.

(१) महादेवी वर्मा - जीवन व साहित्यिक योगदान (१-१० अनुक्रमांक)

(२) रहीम - व्यक्तिगत जीवन व साहित्यिक योगदान (११-२० अनुक्रमांक)

(३) हिन्दी समाचार पत्रों के नाम बताओ व समाचारपत्र का जीवन में महत्व विषय पर अनुच्छेद लिखिए (२१-३० अनुक्रमांक)

(४) यदि आपने किसी पर्यटन स्थल की यात्रा की है तो उसकी जानकारी जैसे लोकप्रिय स्थल, खान-पान व वहाँ की संस्कृति को विवरणिका (Brochure) द्वारा प्रस्तुत करें। (३० से अंतिम अनुक्रमांक तक)

विषय-संस्कृतं

निर्देशा :

1. परियोजना कार्य की भाषा संस्कृत होनी चाहिए ।
2. परियोजना कार्य को आकर्षक बनाने के लिए चित्रों का प्रयोग किया जा सकता है ।
3. अंतर्जाल (internet) पर उपलब्ध सामग्री का प्रयोग किया जा सकता है
4. सभी कार्यों को A-4 साइज sheet पर करें ।
5. आंतरिक मूल्यांकन हेतु प्रदत्त कार्यों को करना अनिवार्य है ।

1 अनुच्छेद लेखनं

क) अधोलिखित विषयान् अधिकृत्य संस्कृतभाषायां सचित्रं पञ्च वाक्यानि लिखत

*अध्ययनस्य महत्वं

*योगः कर्मसु कौशलं

*योगः अनुशासनं च

ख) विद्यालयपत्रिकायै संस्कृत -लेख -लेखनं (केवलं एकमेव) (निम्नलिखित में से किसी एक विषय पर या अपनी रुचि के अनुसार किसी भी एक सार्थक विषय पर विद्यालय पत्रिका के लिए संस्कृत में लेख लिखें)

*महाराणा प्रतापः ; महिला स्वतंत्रता सेनानी ; मम प्रियः लेखकः ; अटलबिहारी वाजपेयी ; मम प्रियः

वैज्ञानिकः (कविता ,श्लोकः ,कथा)

2. परियोजनाकार्यम्

रमणीयःकश्मीर- प्रदेशस्य विशेषता सरलसंस्कृतभाषायां चित्र सहितं लिखत I(Sanskrit -tourist - brochure बनाएं या फ़ाइल में बनाएं)

(संस्कृतिः,भोजनं .नृत्य ,लोकगीतं मुख्य व्यवसायः राजधानी ,राष्ट्रीयपशुः,परिवहन साधनानि च)

3.पाठ : द्वितीयः ‘पाथेयं’इत्यस्य पाठस्य श्लोकत्रयं स्मरणं कुरुत ।

लिखित कार्य

1.शब्दरूपाणि लिखत -वानर,राम .रमा ,नदी साधु ।

2.धातु रूपाणि - दा ,पृच्छ , रक्ष् (पञ्चसु लकारेषु)

MATHEMATICS

PROJECT WORK

1)Prepare 2-D models of “pairs of triangles to explain the congruence rules” of triangles.

2) Prepare the nets of 3-D models of **cube and cuboid** & find formulas for LSA, TSA and VOLUME of these shapes.

3)Prepare models of **cylinder and cone** of same height and radius and verify the the relation between their volumes.

ASSIGNMENT

1)CLASSIFY THE FOLLOWING INTO RATIONAL (OR) IRRATIONAL NUMBERS WITH JUSTIFICATION:

$\frac{\sqrt{12}}{\sqrt{3}}$ b) 0.1416161616.... c)0.401400140001..... d) $3-\sqrt{2}$
e) $\frac{\sqrt{28}}{\sqrt{343}}$

2)EXPRESS THE FOLLOWING IN p/q FORM:

a) 0.12333.... b) 0.1343434..... c) 5.2222.....

d) 0.404040.....

3) RATIONALISE THE DENOMINATOR OF THE FOLLOWING:

a) $\frac{2}{3\sqrt{3}}$ b) $\frac{16}{\sqrt{41}-5}$ c) $\frac{\sqrt{6}}{\sqrt{2}-\sqrt{3}}$ d) $\frac{3\sqrt{5}+\sqrt{3}}{\sqrt{5}-\sqrt{3}}$ e) $\frac{4\sqrt{3}+5\sqrt{2}}{\sqrt{48}+\sqrt{18}}$

4) FIND THE VALUES OF **a** AND **b** IN EACH OF THE FOLLOWING:

a) $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a-b\sqrt{3}$ b) $\frac{7+\sqrt{5}}{7-\sqrt{5}} - \frac{7-\sqrt{5}}{7+\sqrt{5}} = a+b\sqrt{5}$

5) FIND THREE RATIONAL NUMBERS BETWEEN:

a) 0.1 AND 0.11 b) $\frac{1}{4}$ AND $\frac{1}{5}$ c) $-\frac{2}{5}$ AND $\frac{1}{2}$

6) FIND ONE RATIONAL NUMBER AND ONE IRRATIONAL NUMBER BETWEEN:

a) $\frac{1}{3}$ AND $\frac{1}{2}$ b) $\sqrt{2}$ AND $\sqrt{3}$ c) 0.0001 AND 0.001

7) WITHOUT ACTUAL DIVISION, DETERMINE THE TYPE OF DECIMAL EXPANSION THE FOLLOWING NUMBERS WILL HAVE, STATE REASON IN SUPPORT OF YOUR ANSWERS.

a) $\frac{36}{25}$ b) $\frac{1}{8}$ c) $\frac{1}{13}$ d) $\frac{3}{56}$


8) LOCATE $\sqrt{2}$, $\sqrt{5}$, $\sqrt{10}$ AND $\sqrt{17}$ ON THE NUMBER LINE. JUSTIFY AND GIVE APPROXIMATE DECIMAL VALUE.

9) SIMPLIFY THE FOLLOWING:

a) $\frac{\sqrt{24}}{8} + \frac{\sqrt{54}}{9}$ b) $\sqrt{45} - 3\sqrt{20} + 4\sqrt{5}$ c) $3\sqrt{3} + 2\sqrt{27} + \frac{7}{\sqrt{3}}$

d) $\sqrt[4]{81} - 8\sqrt[3]{216} + 15\sqrt[5]{32} + \sqrt{225}$

10) SIMPLIFY THE FOLLOWING:

a) $\frac{8^{1/3} \times 16^{1/3}}{32^{-1/3}}$ b)  c) $(3/5)^4 (8/5)^{-12} (32/5)^6$

d) $\frac{4}{(216)^{-2/3}} + \frac{1}{(256)^{-3/4}} + \frac{2}{(243)^{-1/5}}$

11) IF $\sqrt{2} = 1.414$ AND $\sqrt{3} = 1.732$, THEN FIND THE VALUE OF:

$\frac{4}{3\sqrt{3}-2\sqrt{2}} + \frac{3}{3\sqrt{3}+2\sqrt{2}}$

NOTE: 1) 1 & 2 activities of project work are to be done in the maths lab file.

2) 3rd activity of project work is to prepare 3 dimensional models and paste them on a chart paper along with a table of their LSA, TSA & VOLUME formulas of these shapes.

3) Assignment questions are supposed to be done in maths register itself.

PHYSICS

Project Work- Create setup to demonstrate **laws of reflection** using laser pointers, mirrors, and protractors. You can test angles of incidence and reflection.

- Write its construction and working in a separate file on A4 sheets.
- Also paste the pictures of it in your project file.

NOTE: Do the assignment **neatly** in your Physics register.

Q1. Are rest and motion absolute or relative terms ? Explain.

Q2. Can the displacement be greater than the distance travelled by an object ?

Q3. Can a body have constant speed but variable velocity ? Give an example of it .

Q4. Slope of a velocity - time graph gives _____.

Q5. Give an example of a body which may appear to be moving for one person and stationary for the other.

Q6. A bus decreases its speed from 72 km/h to 54 km/h in 10 seconds. Find the acceleration of the bus.

Q7. What do you understand by instantaneous velocity ?

Q8. Draw a velocity time graph of a stone thrown vertically upwards and then coming downwards after attaining the maximum height.

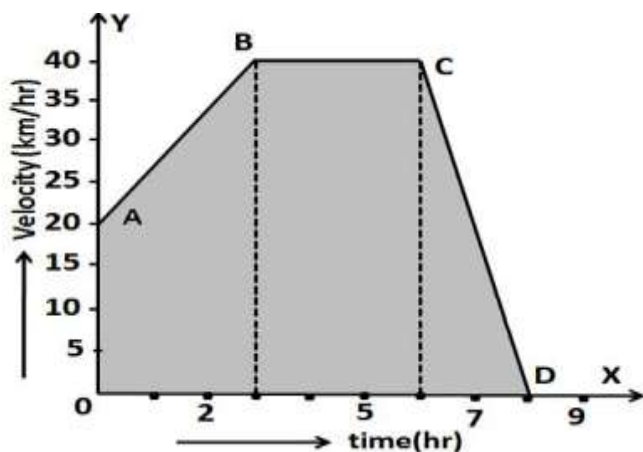
Q9. A body travels a distance of 15m from A to B and then moves a distance of 20m at right angles to AB. Calculate the total distance travelled and the displacement.

Q10. A train starting from the 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.

Q11. Define the following terms:

- (i) Uniform motion and Non uniform motion
- (ii) Average speed
- (iii) Acceleration
- (iv) Uniform Acceleration
- (v) Uniform Circular Motion
- (vi) Displacement

Q12. The graph given below is the velocity-time graph for a moving body. Find (i) velocity of the body at point C (ii) acceleration acting on the body between A and B (iii) acceleration acting on the body between B and C.



Q13. Derive second and third equation of motion algebraically.

Q14. Draw velocity time and distance time graphs for uniform motion.

Q15. A motorcyclist riding motorcycle A who is travelling at 36 km/h applies the brakes and stops the motorcycle in 10 s. Another motorcyclist of motorcycle B who is travelling at 18 km/h applies the breaks and stops the motorcycle in 20s. Plot speed-time graph for the two motorcycles. Which of the two motorcycles traveled farther before it comes to a stop ?

Q16. A car is moving with a velocity of 30 m/s. In the next 10 seconds, it comes to a stop. Its acceleration is:

- A) $+3 \text{ m/s}^2$
- B) -3 m/s^2
- C) 0.3 m/s^2
- D) -0.3 m/s^2

17. Displacement can be:

- A) Only positive
- B) Only negative
- C) Zero, positive, or negative
- D) Always greater than distance

18. Which graph best represents an object at rest?

- A) Sloping line on distance-time graph
- B) Horizontal line on distance-time graph
- C) Curved line on velocity-time graph
- D) Sloping line on velocity-time graph

19. A body starts from rest and gains a speed of 20 m/s in 4 seconds. The acceleration is:

- A) 5 m/s^2
- B) 4 m/s^2
- C) 80 m/s^2
- D) 0.2 m/s^2

20. What type of motion does a freely falling object have (neglecting air resistance)?

- A) Uniform motion
- B) Uniform acceleration
- C) Non-uniform acceleration
- D) Circular motion

CHEMISTRY

GENERAL INSTRUCTIONS:

- Both Parts should be done in the Chemistry Assignment Register.
- Assignments should be submitted on 14th July 2025.

PART 1: Make a life strip of the following world-renowned Chemists highlighting their achievements and their contributions in the field of Chemistry. Paste pictures and present the life strip innovatively.

List of Chemists to choose from: (Any **5** of the following)

✓ Mario Molina	✓ Dmitri Mendeleev
✓ Alessandro Volta	✓ Jöns Jacob Berzelius
✓ Harold Clayton Urey	✓ Marie Curie
✓ William Francis Giaque	✓ Ernest Rutherford
✓ Willard Frank Libby	✓ Rosalind Franklin
✓ John Dalton	✓ Alfred Nobel

PART 2: Assignment from Chapter 1 – Matter in our Surroundings.

1. When sugar is added to water, there is no increase in the volume. Which characteristic property of matter is illustrated by this observation?
2. A piece of chalk can be broken into small particles by hammering it but a piece of iron cannot be broken into small particles by hammering. Which characteristic property of matter is illustrated by this observation?
3. Name the process by which a drop of ink spreads in a beaker of water.
4. Explain how the following factors affect the rate of diffusion:-
 - a) Temperature
 - b) Kinetic Energy of particles
 - c) Density of the substance

5. What is the physical state of water at:
a) 0°C b) 25°C c) 100°C d) 250°C
6. Why is solid carbon dioxide called dry ice?
7. Ice at 0°C is more effective at cooling than water at 0°C . Explain.
8. Give reasons for the following:-
 - a) Naphthalene balls kept in stored clothes in our homes, disappear over a period of time.
 - b) Perspiration or sweating keep our bodies cool on a hot day.
 - c) A desert cooler, cools better on hot and dry day than on a rainy day.
 - d) The back of our palm feels cool when it is moistened with alcohol.
 - e) Gases highly compressible whereas solids are incompressible.
 - f) Water kept in an earthen pot becomes cool during summers.
 - g) Sponge is a solid but can be compressed.
 - h) Doctors advise to put strips of wet cloth on the forehead of a person having a high fever.
9. If the back of your hand is moistened with alcohol, you will find it rapidly becomes dry. Why is it that while it is drying, your hand feels cool?
10. When a crystal of copper sulphate is placed at the bottom of a beaker containing water, the water slowly turns blue. Why?
11. Jar A contains a red-brown gas and Jar B contains a colourless gas. The two gas jars are separated by a glass plate placed between them. What will happen when the glass plate between the two jars is pulled away? What name is given to the phenomenon which takes place?
12. The process of evaporation and boiling involve the change of state from liquid to gas but still they are different from each other. Justify.
13. What is the significance of boiling point & melting point of a substance?
14. Arrange in the order indicated for solid, liquid and gas.
 - a) Effect of pressure
 - b) Empty spaces in the particles
 - c) Tendency to flow
 - d) Thermal expansion/expansion due to heat
15. Which of the following diffuses faster: Honey, Sugar, Nitrogen gas
16. Why does the temperature of a substance remain constant during its melting point or boiling point?
17. What property of butane is utilized when it is supplied as L.P.G.?
18. Why does ice float on water?

19. Why does a gas fill a vessel completely in which it is kept?
 20. Latent heat of vaporization of liquid A is 100 J/Kg and liquid B is 150 J/Kg. which liquid can produce more cooling effect and why?
 21. Melting points of two substances A and B are 280 K and 320 K. Are these substances in the liquid form at room temperature? Justify your answer.
 22. Explain how the following factors affect the rate of evaporation of a liquid:-
 - a) Temperature of the liquid
 - b) Windspeed
 - c) Area of the exposed surface
 - d) Moisture content in the air
 23. What produces more severe burns, boiling water or steam? Explain Why?
 24. Convert the following to °F and K:-
 - a) 35°C
 - b) 50°C
 - c) 100°C
 25. Convert the following to °C:-
 - a) 343 K
 - b) 589 K
 - c) 273 K
 - d) 98.4°F
 - e) 108°F
-

BIOLOGY

GENERAL INSTRUCTIONS

1. Make the project about 20–25 pages long.
2. The project carries 5 marks, which will be added to the internal assessment.
3. A poem, slogan, or poster should be included within the mentioned pages in the project file.
4. The project can be spiral bound or submitted in a regular file.
5. Make the project as creative and informative as possible.
6. Try to include plenty of pictures, mind maps, flowcharts, and tables.
7. Projects submitted after the specified date will not be evaluated.

PROJECT: HEALTH AND DISEASES

Objective:

To understand the causes of illness, types of diseases, prevention methods, and the importance of health and hygiene.

Project Structure:**1. Introduction**

- What is health?
- Definition of disease.
- Difference between being healthy and diseased.

2. Causes of Diseases

- Immediate causes (bacteria, viruses, etc.)
- Contributory causes (poor diet, lack of exercise, pollution, etc.)
- Create a mind map showing various causes of diseases.

3. Types of Diseases

- Acute vs. Chronic diseases
- Infectious vs. Non-infectious diseases (Include examples, causes, and effects on the body.)
- Make a table comparing different types of diseases (Name, Type, Cause, Duration, and Prevention)

4. Infectious Agents

- Bacteria, Viruses, Fungi, Protozoa, Worms. (Paste or draw pictures of each type of infectious agent with one disease caused by each.)

5. Prevention of Diseases

- Personal hygiene
- Public health and sanitation
- Vaccination and immunity
- Balanced diet and regular exercise

6. Case Study

Choose one disease [e.g., malaria, tuberculosis, or COVID-19, Polio {Pulse Polio Programmes}]

Write about:

- History
- Cause
- Symptoms
- Prevention
- Treatment Activity: Interview a doctor or do online research and write 5 interesting facts.

7. Conclusion

- What did you learn?
- Why is health important?
- How can students help spread awareness?

8. Creative Additions

- A short poem or slogan on staying healthy.

OR

- Create a poster on "Ways to Prevent Diseases"

Biology assignment

Fundamental unit of life

GENERAL INSTRUCTIONS:

- The assignment should be done in the BIOLOGY register.
- Questions to be written in black and answers to be written in blue.
- Practical's
- to be written in practical file
- The assignment should be submitted on 5th July 2025

Q1. Fill in the blanks: -

(a) New cells are formed from

(b) Movement of water molecules from their higher concentration to their lower concentration through a semi- permeable membrane is called.....

- (c) The functional components of cell are..... ,..... &..... .
- (d) Protoplasm has two parts- &
- (e) Nucleus, mitochondria & plastids have their own..... & ribosomes.
- (f) The shrinkage or contraction of the contents of the cell away from the cell wall is known as
- (g) The process by which Amoeba can engulf a food particle is
- (h) is the manufacture of lipids required for making cell membrane?
- (i) A cell that lacks nuclear membrane is called acell & the nuclear region is called nucleoid.
- (j) Movement of materials in & out of the cell takes place by &

Q2. What is the advantage of multicellularity over unicellularity ?

Q3. What are the chromosomes made up of?

Q4. A cell placed in a solution swells up. What kind of solution is it? Why does it happen?

Q5. Why are lysosomes known as “suicidal bags”?

Q6 . Why is the nucleus so significant in a cell?

Q7. Give the major functions of the following cell organelles-

- (a) Endoplasmic reticulum-
- (b) Golgi apparatus-
- (c) Mitochondria-
- (d) Ribosomes-
- (e) Golgi Apparatus-
- (f) Lysosomes-

Q8. Who discovered the following-

- CELL
- NUCLEUS
- GOLGI BODIES
- CELL THEORY

Q9. Name the smallest and largest known cell.

Q10 a) Explain how do cell walls permit the cells of fungi to withstand very dilute external media without bursting.

b) Why does the skin of your fingers shrink when you wash clothes for a long time?

Q11. What does ATP stands for?

Q12. Where are the genes located?

Q13. What is membrane biogenesis?

Q14. What is DNA? Where is it found?

Q15 . Which cell organelle is called as kitchen of cell?

GEOGRAPHY

PROJECT WORK

Prepare a project file on ANY ONE of the following topic.

1. NATURAL DISASTERS - Earthquakes, landslides, avalanches, tsunامي.
2. MANMADE DISASTERS - Accidents, fire, nuclear disasters.
3. BIOLOGICAL DISASTERS - Pandemic (COVID 19)

- a. Details of any one disaster.
- b. List down do's and don'ts.
- c. List few actions to be taken in your school and home to reduce vulnerability to the disasters.
- d. Collect data , latest news, pictures of the disaster .
- e. Plan measures and strategies to create awareness in your school, locality and for the community.

Students can take interviews/meetings from various local authorities and organizations like the Disaster Management Authorities, Relief, Rehabilitation and the Disaster Management Departments of the States, Office of the District Magistrate/ Deputy Commissioners, Fire Service, Police, Civil Defense etc. in the area where the schools are located to support their project work.

Note : You can select any other disaster other than mentioned above.

ART HOLIDAY HOMEWORK

Madhubani painting

1-Make a Madhubani painting related to everyday life style of Madhubani village people.



Veer Gatha project

- 2- Make a portrait of any gallantry award winner
Or
- 3- Draw a portrait of Subhash Chandra Bose

SUGGESTED READING (LIBRARY) CLASSES IX AND X

Dear Parents, The vacations have begun and it's a great time for children to relax and explore the magical world of stories. Reading during the holidays can be both fun and meaningful. Let's motivate our children to read interesting books and folktales from our rich culture and tradition.

This will not only improve their language skills but also help them develop a lifelong love for reading. Stories also teach values, spark imagination and make children more creative.

Some of the suggested readings are:

- Books by Agatha Christie
- The Great Automatic Grammatizator and Other Stories – Roald Dahl

Podcast Project: *Voices on Books*

Theme :

We live in a digital era where voices travel farther than ever before.

This summer, let's blend the magic of books with the power of technology.

Podcasting is the new storytelling!

So why not bring stories, memories, and bookish conversations to life through your own podcast?

Let's explore the world of books in a brand-new way — one voice at a time.

Objective

This summer, step into the shoes of a **young podcaster!**

Interview parents, grandparents, neighbors, or booksellers and record a short podcast (3–5 minutes) about their **reading experiences and book love.**

Instructions:

1. Choose 2–3 people to interview (family, friends, strangers, or bookstore staff).
2. Ask them a few questions from the list below (or create your own).
3. Record your conversation using your phone or other devices
4. Begin your podcast with a short intro: your name, class, and what your podcast is about.
5. Add a closing reflection: What did you learn? Which answer surprised you?

6. Submit your file (via email at **lpsseniiorlibrary@gmail.com** or whatsapp to class group).
-

Suggested Questions:

You can add your own questions..

General Book Questions:

- What's the first book you remember reading?
 - Which book made you cry or laugh the most?
 - If you could live in any book world, which one would it be?
 - Have you ever judged a book by its cover—and were you right?
 - Which author do you admire the most and why?
 - If your life were a book, what would the title be?
 - Which book would you gift to someone and why?
-

Childhood Reading Memories:

- Did anyone read stories to you when you were young?
 - What bedtime stories do you still remember?
 - Was there a book you were obsessed with as a child?
 - What was the school library like when you were young?
-

Book Habits and Opinions:

- Do you prefer physical books, eBooks, or audiobooks?
 - How do you choose which book to read next?
 - Do you ever read the ending first?
 - What makes you stop reading a book halfway?
-

Books & Life:

- Has a book ever helped you through a tough time?
- Did a book ever change your opinion about something?
- Can reading make someone a better person?
- Which book taught you something unforgettable?

For Booksellers or Store Staff:

- What's the most asked-for book these days?
- Which genre is most popular among kids/teens?
- What's your personal favorite book in the store?
- Have you ever recommended a book that someone came back to thank you for?
- Are fewer people buying books now, or more?