HOLIDAY HOME WORK
CLASS-X
SESSION-2025-26

On the Theme
"EGALITARIANISM"

"Holiday homework is not a burden, it's a bridge between yesterday's learning and tomorrow's success."

General Guidelines for Holiday Homework

Objective:

To reinforce concepts learned in class, encourage self-learning, creativity, and responsibility, while ensuring students enjoy their holidays.

1. Time Management

- **Create a daily timetable allocating 1–2 hours for holiday homework**
- **Avoid last-minute rush — spread the work evenly across the break.**

2. Quality Over Quantity

- **Focus on neatness, originality, and effort.**
- **Avoid copying from the internet or peers — express your own thoughts.**

3. Subject-Wise Balance

- **Languages: Read a storybook, write a diary entry or short story.**
- **Maths: Practice problem-solving through puzzles or worksheets.**
- **Science: Conduct a simple home experiment or make a model.**
- **Social Science: Create a travelogue, poster, or timeline.**
- **ICT/AI: Use educational apps, or create a small digital presentation.**
- **Art & Craft: Include fun creative work like drawing, painting, or DIY crafts.**

4. Integration of Life Skills

- **Learn a new recipe, help in organizing your room, or plant a sapling.**
- **Practice values like kindness, sharing, and gratitude.**

5. Presentation Matters

- **Use clean handwriting, label your work properly.**
- **Submit in a well-organized folder or as instructed.**

6. Take Breaks and Have Fun

- **Go outdoors, read books, play games, and enjoy time with family.**

SUBJECT: SOCIAL SCIENCE

1. Create a timeline chart of major events related to nationalism in Europe (1789-1914). Include at least 5 events with brief explanations and related symbols. Add images (printed or hand drawn).

2. Prepare a case study on soil conservation techniques in India. Include photos, maps and local examples if possible.

Creative Integration :

3. Poster making : Design a Poster on any one of the following themes:

“Unity in Diversity”

“Save Resources, Save Future”

“The India of my Dreams-vision 2047”.

4. Activity: Create a Digest of current events related to social science topic during summer break

5. An Interdisciplinary project for Class X on the theme “Egalitarianism”

Project Title- “Egalitarianism in Action: Exploring Equality through History, Society, and Governance.”

Project Objectives:

- To define and explain the concept of egalitarianism
- To explore historical and contemporary examples of egalitarianism principles.
- To analyze the importance of egalitarianism in promoting social justice and equality.
- To reflect on how egalitarianismcan be applied in various societal contexts.

Project Structure:

1. Introduction

· DefineEgalitarianism as the belief in human equality, especially with respect to social, political and economic rights and privileges.

2. Historical Background

· Provide a brief history of egalitarian movements, such as the abolition of slaver, women's suffrages, and civil rights.

3. Contemporary Examples

- · Discuss modern instances where egalitarian principles are applied, such as:
- · Universal suffrage allowing all adults to vote.
- · Equal pay for equal work initiative
- · Anti-discrimination laws in education and employment.

4. Importance of Egalitarianism

- · Explain how egalitarianism contributes to:
- · Social harmony
- · Economic development by providing equal opportunities
- · Political stability through inclusive governance

5. Challenges to achieve Egalitarianism

- · Identify obstacles such as:
- · Systematic discrimination and prejudice
- · Economic disparities
- · Cultural and societal norms that perpetuate inequality

Conclusion:

- · Reflect on the ongoing efforts needed to promote egalitarianism globally
- · Analyze the policies implemented and their outcomes.

Evaluation Criteria

- · Your project will be assess based on :
- · Content Accuracy and Originality: 3 marks
- · Presentation and Creativity: 2 marks

6. CBSE Project Work:

- Project work, students can choose to focus on either consumer awareness, social issues, or sustainable development . Projects should involve collecting data, using art forms, and include a summary report with a viva voce. They should also demonstrate creativity and innovation, while using eco-friendly materials.

Here's a more detailed look at the project options:

1. Consumer Awareness:

- Topics:

This project can explore various aspects of consumer rights, including understanding different types of consumer rights, the role of COPRA (Consumer Protection Act), and the role of courts in enforcing consumer rights.

- Activities:

Students can research and present information on how to spread consumer awareness, and they can include a case study to illustrate a real-world situation.

2. Social Issues:

- Topics:

Students can choose to delve into various social issues, such as gender inequality, caste issues, linguistic diversity, regionalization, economic disparities, or religious diversity.

- Activities:

This project could involve analyzing the causes and effects of chosen social issues, exploring potential solutions, and advocating for positive change.

3. Sustainable Development:

- Topics:

This project can focus on the meaning, importance, and challenges of sustainable development.

- Activities:

Students can research relevant reports, summits, and current status of development, exploring how sustainability can be achieved in different areas.

General Project Guidelines:

- Project Structure:

Projects should be presented in a clear and organized manner, including a title page, assessment sheet, index, acknowledgement, and bibliography.

· Data Collection:

Students should collect both primary and secondary data for their projects.

· Presentation:

Projects should be presented through exhibitions or discussions, and students should prepare a summary report of their work and group interactions.

Assessment:

Projects will be assessed based on content accuracy, presentation creativity, and the viva voce.

· Eco-Friendly Materials:

The project should be completed using ecofriendly materials without much expenses.

ENGLISH COMMUNICATIVE

1)Imagine yourself to be the narrator of the story, 'Two Gentlemen of Verona'. Write a letter to one of your friends to contribute some money to aid the treatment of Lucia.

2) Mrs. Packletide develops extreme jealousy for Loona Bimberton. She gives vent to her feelings by writing a diary entry. As Mrs. Packletide, write the diary entry.

3)The frog, who was not at all talented, ruled in the end and the nightingale, who possessed the fineness and versatility of voice, died. Explain the irony of the statement, highlighting the values the frog should have possessed.

4) Write an article on "Examinations: A True Test of Ability or a Memory Test?" discussing the need for assessment reforms. Verbal Cues: rote learning, real-life skills, critical thinking, NEP 2020, competency-based assessment, learner-centric approach.

INTERDISCIPLINARY PROJECT

THEME: EGALITARIANISM

a) Read a short story, novel, or poem where the theme of equality or justice is central. Write a summary and explain how the theme of egalitarianism is portrayed. (150 words)

b) Imagine you live in a world where people are judged only by their social status. Write a short dialogue (10–12 exchanges) between a rich employer and a poor but educated job seeker that shows the impact of inequality and the importance of fair treatment.

c) Make a colorful poster on the topic “Equality for All.” Include a slogan.

हिंदी

अवकाश कार्य विषय (Holiday Homework Theme)-"समानता का सपना: समतावादी समाज की ओर"

विवरण**:**

इस विषय के अंतर्गत विद्यार्थियों को विभिन्न विषयों (हिंदी, सामाजिक विज्ञान, विज्ञान, गणित, अंग्रेजी आदि) के माध्यम से समतावादी विचारधारा को समझना और प्रस्तुत करना है।

प्रत्येक विषय के अंतर्गत संभावित कार्य:

हिंदी:

निबंध लेखन – "एक समतावादी समाज की कल्पना"

कविता लेखन – "सबको मिले बराबरी"

किसी साहित्यिक पात्र के माध्यम से समानता का विश्लेषण (जैसे प्रेमचंद की कहानियों से)

प्रेमचंद के समकालीन किसी भी कहानीकार की किसी एक कहानी का चित्रात्मक वर्णन करते हुए अपने शब्दों में उस कहानी का सार भी लिखें .

इसके अतिरिक्त इस विषय को कविता-- मनुष्यता ,दोहे और अब कहाँ ---वाले –पाठों से जोड़ते हुए एक परियोजना तैयार कीजिए .

इसके अतिरिक्त दिए गए विषय पर पोस्टर ,स्लोगन ,नाटक अथवा प्रोजेक्ट निर्माण कीजिए .

‘बुज़ुर्ग हमारी धरोहर ‘—इस विषय को पाठ हरिहर काका से जोड़ते हुए एक सर्वेक्षण कीजिए और उसकी रिपोर्ट चित्र सहित तैयार कीजिए .

व्याकरण और रचनातमक लेखन का नियमित अभ्यास कीजिए .

पठित पाठ्यक्रम का मौखिक और लिखित अभ्यास कीजिए .

स्वस्थ रहिए,सकारातमक रहिए और अपने माता – पिता का सम्मान कीजिए .

वर्ष की बोर्ड परीक्षा के प्रश्न – पत्रों का अभ्यास कीजिए

PHYSICS

HANDS ON EXPERIENTIAL LEARNING ACTIVITY:

Make the pencil resistor (Source: http://www.arvindguptatoys.com/ toys/resister.html)

Enhanced Learning:

1. A current of 1 A is drawn by a filament of an electric bulb. Number of electron passing through a cross-section of the filament in 1 seconds would be roughly
(a) 10^{20}
(b) 10^{16}
(c) 10^{18}
(d)10^{23}

2. A cylindrical conductor of length l and uniform area of cross section A has resistance R. Another conductor of length 2l and resistance R of the same material has area of cross section
(a)A/2
(b) 3A/2
(c) 2A
(d) 3A

3. If the current I through a resistor is increased by 100% (assume that temperature remains unchanged), the increase in power dissipated will be
(a) 100%
(b) 200%
(c) 300%
(d) 400%

4. In an electrical circuit, two resistors of 2 and 4 ohms respectively are connected in series to a 6V battery. The heat dissipated by the 4 ohm resistor in 5s will be
(a) 5J
(b) 10J
(c) 20J
(d) 30J

5. An Electric kettle consumes I KW of electric power when operated at 220 V,A fuse wire of what rating must be used for it?
(a) 1 A
(b) 2A
(c) 4A
(d) 5 A

6. Two resistors of resistance 2 and 4 ohms when connected to a battery will have
(a) same current flowing through them when connected in parallel
(b) same current flowing through them when connected in series

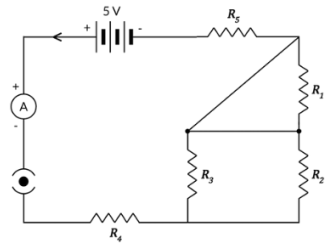
(c) same potential difference across them when connected in series
(d) different potential difference across them when connected in parallel

7.How does the resistance of a wire change when
(i) its length is tripled?
(ii)its radius is tripled?
(iii) its material is changed to one whose resistivity is three times?

8. What is heating effect of current? List two electrical appliances which work on this effect.
(b) An electric bulb is connected to a 220 V generator. If the current drawn by the bulb is 0.50 A; find its power.
(c) An electric refrigerator rated 400 W operates eight hours a day. Calculate the energy per day in kWh.
(d) State the difference between kilowatt and kilowatt hour.
(e) Why is the series arrangement of appliances not used for domestic circuits?

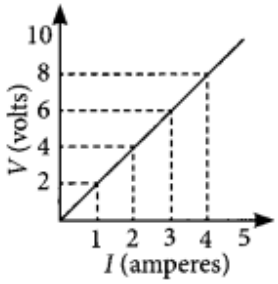
9. The resistance of a wire of 0.01cm radius is 10 ohms . If the resistivity of the material of the wire is $50*10^{-8}$ohm-m, find the length of the wire.

10. Consider the following electric circuit.



(i) Which two resistors are connected in series?
(ii) Which two resistors are connected in parallel?
(iii) If every resistor is 2 ohms , what current will flow in the circuit?

11. Study the V-I graph for a resistor as shown in the figure. Find the value of current for V = 10 volts. How can we determine the resistance of the resistor from this graph?



12.Choose the correct option:

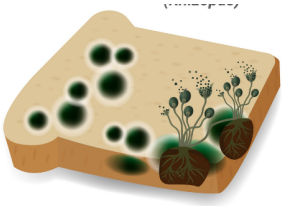
(a) Both (A) and (R) are true and (R) is the correct explanation of the assertion (A).
(b) Both (A) and (R) are true, but (R) is not the correct explanation of the assertion (A).
(c) (A) is true, but (R) is false.
(d) (A) is false, but (R) is true.
Assertion (A) : Alloys are commonly used in electrical heating devices like electric iron and heater.
Reason (R): Resistivity of an alloy is generally higher than that of its constituent metals but the alloys have low melting points then their constituent metals.

ART INTEGRATION:
Make a concept map of Chapter Electricity.

Biology

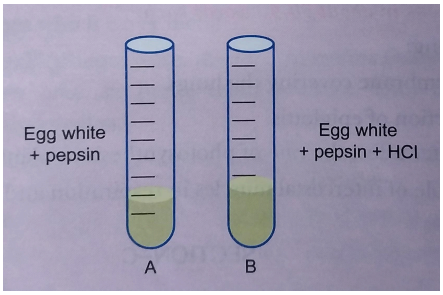
A.Revise the Ch-Life Processes- Nutrition, Respiration and attempt the following assignment questions in biology notebook.

1.The image shows the bread molds on the bread. How do these fungi obtain nutrition?



2.What is common for Cuscuta, ticks and leeches?

3. A student sets up an experiment to study the role of enzymes in digestion of food.



In which test tube, the digestion of protein will occur and why?

4.What will happen if mucus is not secreted by the gastric glands?

5.Bile juice does not have any digestive enzyme but still plays a significant role in the process of digestion. Justify the statement.

6.a)What causes movement of food inside the alimentary canal?

b)List in tabular form two differences between pepsin and trypsin.

7.Out of a goat and a tiger, which one will have a longer intestine ? Justify your answer.

8.If a plant is releasing carbon dioxide and taking in oxygen during the day, does it mean that there is no photosynthesis occurring? Justify your answer.

9.What causes muscle cramps in cricketers and athletes ? Explain the process involved.

10.In a bakery, yeast is added to dough while preparing fluffy cakes and breads. Explain how yeast helps in the process.

B. Experiential Learning

Group Activity- <u>Class Health Magazine</u> (5 marks)

In groups of three children each, write an article for class Health Magazine promoting a good habit/practice/a useful information/news promoting good health; or some unhealthy habit/practice to be avoided for staying healthy. Articles should present scientific explanations in an easy, interesting, convincing way and may include relevant pictures/drawing/diagrams too. It may quote authentic scientific sources from where information is collected. It can be either in Hindi or English, written on white A4 sheets without grammatical errors. Coloured pens may be used. Give a proper heading to your article and write the name of student authors in the end. Think of an interesting name for your class health magazine too.

(Ideas: You may talk about diet/ food choices, spices-health benefits, effects of cosmetics, chemical dyes, food colours, exercise, meditation, naturopathy, harms of tobacco use etc…..)

(Assessment criterion:Topic selection, Relevant information, Presentation, Creativity, Originality)

Individual Activity- *Eco conscious products - a step towards LiFE* **(5 marks)**
Design and create an eco-friendly product to promote awareness about environment conservation and promote healthy sustainable living.
Prepare a 1-2 page report/pamphlet in Hindi or English on A4 sheet presenting your product with a picture, explaining its qualities, the environmental problem it addresses and the way it is produced (with reproducible details). Submit your self prepared eco friendly product sample(s) with the report/ pamphlet for promotion. It will be showcased in the school's Craft Mela.
(Ideas: Newspaper pen/ pencil, Bioplastics/ Eco friendly fridge, pressed leaf/ flower/ herbarium greeting cards, keychains etc.)
(Assessment Criteria: Problem addressed, Usefulness, Affordability, Creativity, Originality)

C. Interdisciplinary Project Work on 'Egalitarianism' : Collect information on any three Indian women scientists who defied any gender bias and excelled in their chosen field of interest. Write their brief biography including their contribution in the field of STEM (science, technology, engineering & mathematics- Ex: space research/ astronomy, medicine, agriculture, chemistry, physics etc.).
Note: One page for each scientist on A4 size pastel sheets. (**5 marks)**

Chemistry

Theme: *International Year of Quantum Science and Technology & The ITER Project*

Objective:
Explore how quantum science and nuclear fusion (as studied in the ITER project) relate to modern chemistry and the future of sustainable energy.

Part A: Research & Presentation (Choose One Topic) Prepare a short presentation (6–8 slides) or a handwritten report (4–5 pages) on **any one** of the following:

1. **Quantum Chemistry in Daily Life:**
    - What is quantum chemistry?
    - How does it help us understand chemical bonding and reactions?
    - Examples: Lasers, semiconductors, MRI machines.
2. **The ITER Project – A Fusion of Science:**
    - What is nuclear fusion and how does it differ from nuclear fission?
    - What is ITER and why is it important?
    - How chemistry is used in designing the fusion reactor.

<u>Part B</u>: Creative Corner

Do any ONE of the following:

- Create a **poster** titled “Quantum Chemistry: The Future of Clean Energy” OR “Chemistry in the Heart of a Star: Fusion and ITER”.
- Design a **comic strip** (6–8 panels) explaining how a hydrogen atom is used in nuclear fusion inside ITER.
- Write a short **poem or story** imagining a world where quantum chemistry has solved the energy crisis.

<u>Part C</u>: Worksheet

In your Chemistry notebook, solve the worksheet as shared.

Chemistry Worksheet

Chapter 1- Chemical Reactions and Equations

1. Respiration is considered to be an exothermic reaction. Give reason.

2. What is the difference between a physical change and a chemical change? Provide one example of each.

3. A student observed that silver articles tarnish over time when exposed to air. The tarnish appeared as a black coating on the surface of the silver.

   a) Write the chemical equation for the formation of the black tarnish on silver.

   b) What is the name of the black compound formed?

   c) Suggest two methods to prevent tarnishing of silver articles.

4. Magnesium ribbon turns dull when exposed to air.
a) Explain the chemical reason behind this change.
b) Suggest how magnesium should be stored in laboratories.

5. A factory produces large quantities of calcium hydroxide by reacting calcium oxide with water. The calcium hydroxide is then used in the process of whitewashing

   a) Write the chemical equation for the reaction between calcium oxide and water.

   b) Explain the role of calcium hydroxide in whitewashing.

c) What is the chemical formula of quick lime and slaked lime?

6. In a rural area, farmers use lime (CaO) to neutralize the acidity of soil.

a) Write the chemical equation for the reaction between lime and acidic soil.

b) Explain how this neutralization reaction benefits the soil.

c) What type of chemical reaction is this?

7. Why is it important to prevent the oxidation of fats and oils in food products? Explain with an example.

8. During Diwali, Raj noticed that when magnesium ribbon was burnt, it produced a dazzling white flame and left behind a white powder. His teacher told him that this was an example of a chemical reaction.

a) What type of reaction is this – combination, displacement, or decomposition?

b) Write the balanced chemical equation for the reaction.

c) What is the chemical name of the white powder formed?

d) Is this reaction exothermic or endothermic? Give a reason.

9. Describe the process of corrosion and its preventive measures.
10. Explain the significance of balancing chemical equations in terms of the law of conservation of mass.

MATHEMATICS

1. **Imagine you are a geographical surveyor tasked with explaining to a group of younger students , how their smartphones can pinpoint their location using GPS. Your explanation should focus on the mathematical principles of coordinate geometry, specifically the concepts of distance and the intersection of geometric shapes.**
   Your project should include the following:

- **Explaining how to know your distance from two fixed points (representing two GPS satellites in a 2D plane)**
- **Explain why knowing your distance from a third fixed point is necessary to pinpoint a unique location in this 2D model.**
- **Provide a hypothetical scenario with the coordinates of three "satellites" in a 2D plane and the measured distances from a receiver to each satellite.**

2. Using Geo- gebra applet create graph on pair of linear equations in two variables. Get pdf of that with your name and section being mentioned on it and share it to your subject teacher.

INTERDISCIPLINARY - Mathematical Lens on Equality and Egalitarianism

3.Research (using reliable sources like government data or reputable organizations) the income distribution within a specific region or country. Find data that categorizes the population into income percentiles (e.g., bottom 20%, middle 60%, top 20%).

- **Represent this income distribution using a suitable graphical method (e.g., bar chart, pie chart).**
- **Calculate the ratio of the average income of the top percentile to the average income of the bottom percentile.**
- **Discuss how this mathematical analysis helps to understand the level of income inequality in the chosen region. How does this relate to the concepts of equality and egalitarianism?**
- **Suggest measures to reduce this difference.**

Artificial Intelligence

Subject: Artificial Intelligence
Submission Date: First Day After Holidays
Instructions: Complete all tasks neatly. Use charts, presentations, or digital tools where mentioned.

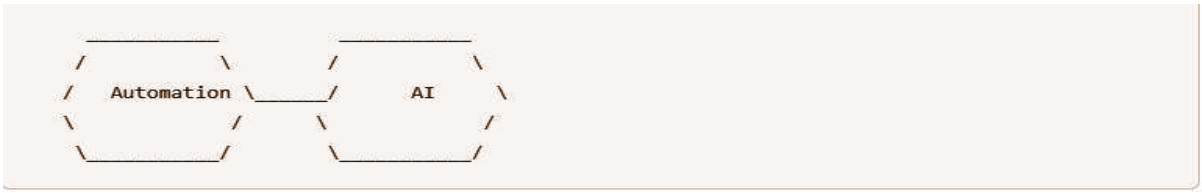
Part A: Research & Write (Theory-Based)

1. Understanding AI in Daily Life (5 Marks)
Write a short note (200–250 words) on how Artificial Intelligence is used in:

- Education
- Healthcare
- Entertainment
  (Use examples like Duolingo, chatbots, fitness apps, Netflix, etc.)

2. Automation vs Artificial Intelligence (3 Marks)
Draw a Venn diagram and explain at least 3 differences between Automation and AI with examples.

Venn Diagram Sample:



3. AI Ethics and Bias (2 Marks)
Answer the following in your notebook:

- What is AI bias?
- Why is it important to ensure ethical use of AI?

Part B: Activity-Based Task (Creative)

4. Poster Making (5 Marks)
Make a creative poster (on A4 or chart paper) on any one topic:

- “The Future of AI”
- “AI for Good”
- “AI in Agriculture / Transport / Smart Cities”
  (Can be handmade or created using tools like Canva)

Part C: Practical Task (Using Python or Online Tools)

6. Chatbot using Python (10 Marks)
Create a basic chatbot using Python. You can use:

Python coding

```
name = input("What is your name? ")

print("Hello", name, "I am your AI Assistant.")

question = input("How can I help you today? ")

print("Sorry, I am still learning. Let's try again later!")
```

- Run this code in IDLE or Google Colab
- Take a screenshot and paste it in your notebook

OR

Use https://scratch.mit.edu/ to create an AI-like interaction or quiz.

Part D: Fun Exploration (Optional but Rewarded)

7. Try an Online AI Tool
Explore any one tool:

- Teachable Machine by Google
- Quick, Draw!
- AI Experiments by Google
  Write a short note (3–5 lines) on what you tried and what you learned.