

NEW ERA PUBLIC SCHOOL
Holiday Homework (2026-27)

Class IX

Subject : English

Assignment 1: The Chronicles of Kala Pani

Task:

Create a digital poster or a multi-page flipbook layout exploring the lives of the freedom fighters imprisoned in the Cellular Jail in the Andaman and Nicobar Islands. Present their struggles and historical legacy through a compelling blend of creative writing and visual art concepts."

Content Requirements:

- **The Narrative:** For each hero featured, write a short biographical sketch (80–100 words) using strong descriptive adjectives and a formal tone.
- **Visuals:** Hand-drawn or digitally designed illustrations that capture the atmosphere of the Cellular Jail.

Submission Format:

Hard copy only. (Coloured printouts for digital work or a handmade flipbook).

Assignment 2: Tenses Rangoli

Task:

Tenses in Technicolor: Ditch the standard charts and design a **Tenses Rangoli!**

Instructions:

Using an A3 canvas, create a vibrant, patterned flowchart that explores all 12 tenses. Use artistic flair—Mandalas, symmetry, and bold colors—to make the rules of English grammar pop off the page.

NOTE: Bring the HHW on the day the school reopens after summer vacations.

कक्षा-नवीं विषय-हिंदी

- 'संघर्ष से सफलता की ओर' विषय को आधार बनाकर सिक्किम के किसी एक प्रसिद्ध व्यक्ति की सचित्र जानकारी अथवा परियोजना कार्य तैयार कीजिए।



बैचुंग भूटिया, डैनी डेन्जोंगप्पा, प्रेम सिंह तमांग,
तरुणदीप रॉय, पवन कुमार चामलिंग, आदिल हुसैन,

- **कहानी लेखन-** अपने परिवार के किसी एक सदस्य के आदर्श जीवन को लेकर ('200 से 250 शब्दों की) एक कहानी लिखिए-
विषय: "एक नई सफलता"
"संघर्ष और सफलता"



नोट- सम्पूर्ण कार्य ए-4 शीट में करें।

Holiday Homework(2026-27)

Class: IX

Mathematics

(A) Project (Each task is to be done on separate A4 size sheet)

Task I: Designing the Mahakal Mask of Sikkim Using Coordinate Geometry

The Mahakal Mask is a sacred element of Sikkim's traditional Cham Dance, representing Lord Mahakala, a powerful protector deity in Vajrayana Buddhism. Carved from fine wood, the mask is typically painted deep blue or black with a fierce expression to symbolize the destruction of negative energy and ego. In Sikkimese culture, these masks are not just artistic crafts but spiritual symbols used during festivals like Losoong to bring good fortune and ward off evil spirits.

This task aligns with **SDG 11** (Sustainable Cities and Communities) by highlighting the importance of safeguarding the world's cultural heritage and traditional craftsmanship. It also supports **SDG 12** (Responsible Consumption and Production) by promoting the use of local, eco-friendly materials and supporting the livelihoods of traditional Sikkimese artisans.



To create this mask on graph paper, you can follow the steps given below.

STEPS:

1) Draw X-axis and Y-axis on a graph paper.

2) Outline of the Face

Plot the following points and join them smoothly:

(-8, 8), (-10, 2), (-9, -5), (0, -10), (9, -5), (10, 2), (8, 8), (0, 10)

This creates the outer face structure.

3) Eyes

Left Eye

Plot (-5, 3), (-3, 5), (-1, 3), (-3, 1)

Right Eye

Plot (1, 3), (3, 5), (5, 3), (3, 1)

Join the points to form diamond-shaped eyes.

4) **Nose**

Plot $(2,0), (-1,-2), (0,-4), (1,-2)$

Join the points.

5) **Mouth**

Draw a curve using points $(-4,-5), (-2,-7), (0,-8), (2,-7), (4,-5)$

6) **Horns**

Left Horn

Plot $(-8,8), (-12,14), (-10,18)$

Right Horn

$(8,8), (12,14), (10,18)$

Join using curved lines.

INSTRUCTIONS : Color the mask traditionally using red, blue, black, and gold. Also add flames or patterns using coordinate curves.

Based on above information, Answer the following questions.

Q1) Give a pair of mirror images on X-axis.

Q2) Find the distance between the top of left horn to the top of right horn

Q3) About which axis, the mask is symmetrical?

Q4) What are the coordinates of the lowest point of mask's chin?

Q5) Find the distance from the origin to the right ear point $(10, 2)$.

Q6) Find the total width of the mask using $(-10, 2)$ and $(10, 2)$

Q7) What is the length of the base of the nose using $(-1, -2)$ and $(1, -2)$.

Q8) Identify the abscissa of the point $(9, -5)$.

Q9) Find the distance of the point $(-3, 1)$ from $y - axis$.

Q10) In which quadrant do all the coordinates of the right eye lie?

Task II : THE RED PANDA'S SECRET GRID

The Red Panda is the proud state animal of Sikkim, where it is affectionately known as "Habre." These elusive mammals primarily inhabit the high-altitude temperate forests and bamboo thickets of the Himalayan region. The Red Panda is classified as **Endangered** on the IUCN Red List and is protected under **Schedule I** of India's Wildlife Protection Act, 1972. Protection of Red Panda aligns with **SDG 15: Life on Land**, which focuses on protecting, restoring, and promoting the sustainable use of terrestrial ecosystems.

Paste or draw the given grid on a coloured A4 size sheet.

Identify the type of number in each cell to uncover a hidden image by following the given directions.

Directions:

- Color the cell red if the number is Rational.
- Do not color (Leave it Blank) the cell if the number is Irrational.
- **CREATIVE FREEDOM:** For cells without numbers, use your artistic skills to complete the face of the Red Panda.

1	$\sqrt{2}$	3.5	$\sqrt{16}$	25	9	$\frac{3}{20}$	4	$\frac{\pi}{2}$	$1.\overline{37}$
$4\sqrt{3}$	34	1.10100..	-1	1	0.33...	7.71	$\sqrt{7}$	0.6	$\sqrt{12}$
	π	0.1	9.987	-7	34	$0.\overline{15}$	$\sqrt{81}$	0.70700...	
$\sqrt{5}$	$\sqrt{9}$	16	$\frac{1}{7}$	7	$\frac{-11}{-2}$	200	0.1456	42	$\pi + 7$
91	125		0.31311...	5	98-6	$\sqrt{31}$		67.159	8000
10	$\frac{\pi}{6}$			09	53.99...			$\sqrt{7}$	$\sqrt{1}$
100	0.12122...	01001					0.7	7π	900
5^3			2π			$\sqrt{13}$			40
46.0	144	1749					-18	$0.\overline{9}$	65
23.56	8	$\sqrt{64}$	5.9	987	4	-18	0	6.0	$\sqrt{8}$

Holiday Homework (2026-27)

Class: IX

Subject: Science

GENERAL INSTRUCTIONS

The holiday homework is divided into two parts:

- (a) A project based on the topic ‘**The Science of Sound Pollution**’
- (b) Assignment

(A) Activity 1 (To be done in a Scrap file)

Noise pollution has become a major environmental issue in urban areas due to increasing traffic, industrialization, construction activities, loudspeakers, and social events. Continuous exposure to high sound levels affects human health, wildlife, and overall quality of life.

Students will research sound pollution and complete the following tasks:

1. **Define sound pollution and explain how sound is produced and transmitted (include explanation of amplitude, frequency, and decibel scale).**
2. **Measure noise levels** in different areas such as:
 - (a) Residential area
 - (b) School zone
 - (c) Market area
 - (d) Traffic intersection

Present the data in tabular or graphical form.

Students can use the following tools on smartphones or computers to *measure noise levels*:

Phone Apps (Android & iOS):

- **Sound Meter (Android & iOS)** – Displays real-time sound level in decibels (dB).
- **Decibel X (Android & iOS)** – Professional sound meter app showing accurate dB values.
- **Noise Meter (Android)** – Simple tool to measure noise intensity around you.
- **SPLnFFT Noise Meter (iOS)** – Offers advanced noise analysis with frequency display.

Websites / Online Tools:

- **Online Sound Meter (Web)** – Uses your computer mic to show sound level in db.
- **Ambient Noise Level Meter (Web)** – Another browser-based decibel meter suitable for quick readings.

(Note: Apps use your phone’s microphone and are good for relative comparisons — results may vary depending on device quality.)

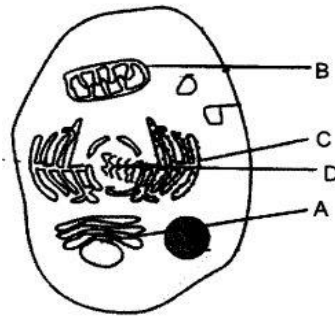
3. **Differentiate between pleasant sound and noise.**
4. **Draw and explain the decibel (dB) scale** showing examples such as whisper, normal conversation, traffic noise, construction noise, loudspeakers, etc.
5. **List major sources of sound pollution:**
 - (a) Household sources
 - (b) Transport sources
 - (c) Industrial sources
6. **Explain the harmful effects of noise pollution on:**
 - (a) Human health (hearing loss, stress, hypertension, sleep disturbance)
 - (b) Students’ concentration and learning
 - (c) Wildlife and environment
7. **Suggest control measures at:**
 - (a) Individual level
 - (b) Community level
 - (c) Government level

(B) Assignment (To be done in the Class register)

- Q1. State the differences between smooth endoplasmic reticulum and rough endoplasmic reticulum. (Any 2 points).
- Q2. How do cells monitor their growth to maintain a balance?
- Q3. Which cell organelle is called as suicidal bag of the cell and why?

Q4. Label the figure and answer the questions:

- (i) A – It is the packaging organelle
 (ii) B – Provides energy
 (iii) C – helps in the transport of material
 (iv) D – Carries the information.



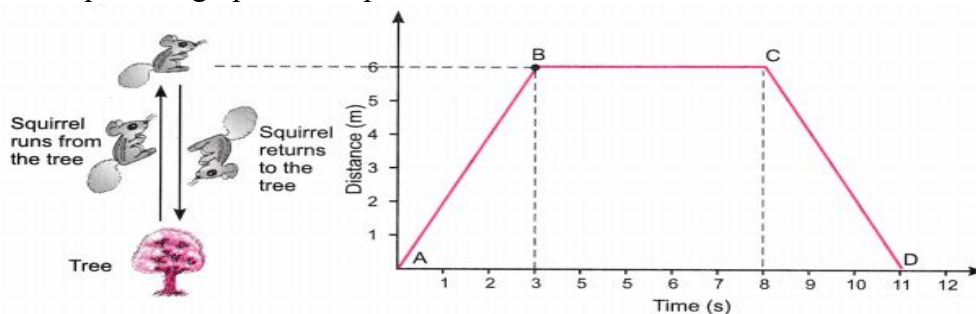
Animal Cell

- Q5. Where will you find more number of ribosomes-in cancer cells or in fat cells? Why?
 Q6. A person takes concentrated solution of salt, after sometime, he starts vomiting. What is the phenomenon responsible for such situation? Explain
 Q7. Give an example of a body which may appear to be moving for one person and stationary for the other.
 Q8. How does a vehicle's braking or stopping distance affected by: (i) wet roads, (ii) worn-out tyres, (iii) higher vehicle mass, (iv) driving at night, (v) fog, (vi) severe weather (rain, snow, storm), and (vii) driver reaction time.
 Q9. The table given below shows distance (in cm) travelled by bodies A, B and C. Read this data carefully and answer the following questions.

Distance (in cm) covered by different bodies

Time in (s)	Body (A)	Body (B)	Body (C)
1st Second	20	20	20
2nd Second	20	36	60
3rd Second	20	24	100
4th Second	20	30	140
5th Second	20	48	180

- (i) Which of the bodies is moving with
 (a) constant speed? (b) constant acceleration? (c) non-uniform acceleration?
 (ii) Which of the bodies covers
 (a) maximum distance in 3rd second? (b) minimum distance in 3rd second?
 Q10. Suppose a squirrel is moving at a steady speed from the base of a tree towards some nuts. It then stays in the same position for a while, eating the nuts, before returning to the tree at the same speed. A graph can be plotted with distance on the x-axis and the time on y-axis.



Observe the graph carefully and answer the following questions.

- (i) Which part of the graph shows the squirrel moving away from the tree?
 (ii) Name the point on the graph which is 6 m away from the base of the tree.
 (iii) Which part of the graph shows that the squirrel is not moving?
 (iv) Which part of the graph shows that the squirrel is returning to the tree?
 (v) Calculate the speed of the squirrel from the graph during its journey.

Holiday Homework (2026-27)

Class IX

Subject : Social Science

“RESPECT NATURE BEFORE NATURE REACTS.”

Disaster management involves organized, multi-sectoral efforts to prevent, mitigate, prepare for, respond to, and recover from natural (floods, earthquakes) or human-made (industrial, terrorism) hazards. The goal is to reduce risks to life and property through a continuous cycle of planning, mitigation, and rapid response.

Key Stages of Disaster Management

- Before (Prevention & Mitigation/Preparedness): Risk assessment, land-use planning, building codes, and early warning systems to reduce impact.
- During (Response): Immediate actions like search and rescue, medical assistance, and evacuation to minimize suffering.
- After (Recovery & Rehabilitation): Long-term efforts to restore services, repair infrastructure, and "build back better".

Objective

- This project aims to develop an understanding of natural disasters such as earthquakes, landslides, floods, and dust storms.
- Through detailed research and case studies, students will explore their causes, effects, and the role of human activities in increasing or reducing disaster risks.
- The project will also encourage students to study mitigation and preparedness measures that can help minimise damage and protect lives and property.

Prepare a project file with the following details:

1. The total length of the project report should not be more than 15 written pages of foolscap size (A-4 size) sheet.
2. The project report should be handwritten and credit will be awarded to original drawings, illustrations and creative use of eco-friendly material.
3. The project report should be presented in a neatly bound simple folder.
4. The project report should be developed and presented in this order
 - a) Cover page showing project title, student information, school and year.
 - b) List of contents with page numbers.
 - c) Certificate page

d) Acknowledgements (acknowledging the institution, offices and libraries visited and persons who have helped).

e) Chapters with relevant headings.

f) Summary and conclusions based on findings.

g) Bibliography: should have the Title, author, publisher and if a website, the name of the website with the specific website link which has been used.

5. The project should be made from eco-friendly products without incurring too much expenditure.

The **distribution of marks** over different aspects relating to Project Work is as follows:

S. No.	Aspects	Marks
A	Content accuracy, originality and collaborative skills	2
B	Competencies exhibited and Presentation	2
C	Viva	1

Project Work

(A) Prepare a detailed project report on each of the following disasters:

- Earthquake
- Landslide
- Flood
- Dust Storm

Present your report under the following headings:

1. Causes of the Disaster

Explain the natural and human-made factors responsible for the disaster.

2. Impact of the Disaster

Describe the effects on people, property, environment, economy, and daily life.

3. Mitigation and Safety Measures

Suggest measures that can reduce the damage caused by the disaster and improve preparedness.

4. Role of Humans

Analyse how human activities may increase disaster risks and how responsible actions can help prevent or reduce them.

5. Case Study

Research and present one real-life case study related to the disaster, supported with facts, pictures, maps, newspaper cuttings, or colourful illustrations.

Creative Additions

To make your project more informative and attractive, include:

Disaster awareness slogans

Maps showing disaster-prone regions

Safety tips and emergency helpline numbers

Use creative headings, coloured borders, illustrations, and neatly labelled sections to make the project visually appealing and easy to understand.

(B) The ongoing conflict with Iran is widely characterized as a strategic disaster, resulting in a fragmented, hardline regime, significant global humanitarian crises, and instability in energy markets. The war, marked by the death of Iran's supreme leader and a shift toward "decapitation" strikes, has shattered previous rules of engagement.

"Analyze the 2026 escalations between Iran, Israel, and the United States. Create a 5-page report answering:"

- What are the key justifications cited by Israel/US for striking Iran (nuclear/missile programs)?
- Map Work: Locate Iran, Israel, USA and the Strait of Hormuz on the map of the World..
- Explain the importance of Strait of Hormuz in this war.
- Case Study: How have these events affected global energy prices and air travel?
- Opinion: Given the risks, was this conflict unavoidable?

Holiday Homework (2026-27)

Class IX

Subject : Artificial Intelligence

Create an **A3 digital poster** on the topic “**Design Your Own AI.**”

Imagine an AI system that solves a real-life problem.

Include:

- AI Name
- Problem Solved
- How It Works (steps/flowchart)
- Key Features
- Where It Can Be Used
- Software/Technologies Used
(e.g., Python, TensorFlow, Canva, Google Colab)
- Relevant images/icons

You may use:

Canva, Microsoft PowerPoint, Adobe Express, or Google Slides.

Guidelines:

- Poster size: A3
- Keep content short, creative, and visually attractive
- Use headings, colors, and graphics effectively and submit its A3 size print out.

Sample

