## INTERDISCIPLINARY PROJECT

# THEME: International Year of Cooperatives, Glaciers' Preservation, and Quantum Science and Technology.

#### CLASS IX

The UN General assembly declared 2025 as the International Year of Cooperatives (IYC2025) to be celebrated under the theme "Cooperatives Build a Better World."

The theme highlights the lasting global impact of cooperatives and emphasizes that the cooperative model is a crucial solution for addressing various global challenges.

Glaciers are crucial for regulating the global climate and providing freshwater, essential for billions of people. However, due to climate change, driven mainly by human activities since the 1800s, these vital resources are rapidly melting. The United Nations has designated 2025 as the International Year of Glaciers' Preservation to highlight the importance of glaciers and ensure that those relying on them, and those affected by cryosphere processes, receive the necessary hydrological, meteorological, and climate services.

The United Nations proclaimed 2025 as the International Year of Quantum Science and Technology (IYQ). According to the proclamation, this year-long, worldwide initiative will "be observed through activities at all levels aimed at increasing public awareness of the importance of quantum science and applications."

Keeping the above in mind, the spectrum of activities are designed to unify pedagogy and the quintessence of education, so that our learners are nurtured as compassionate and capable global leaders of tomorrow. We wish that our children collaborate their fun filled vacation experiences with learning and get a chance to paint their holidays with creative spirit and academic endeavor.

- This project comprises of 7 parts –A, B, C, D, E, F and G
- The class will be divided into groups comprising 5 members each on the basis of roll numbers i.e., 1-5, 6-10, etc. (8 groups per class)
- Each group is expected to do all the 5 tasks given under each part (One task per child for each part). Task 1 is for Roll Nos. 1, 6, 11, 16, 21, 26, 31, 36, 41

Task 2 is for Roll Nos. 2, 7, 12, 17, 22, 27, 32, 37, 42 Task 3 is for Roll Nos. 3, 8, 13, 18, 23, 28, 33, 38, 43

- Task 4 is for Roll Nos. 4, 9, 14, 19, 24, 29, 34, 39, 43
- Task 5 is for Roll Nos. 5, 10, 15, 20, 25, 30, 35, 40, 45
- Each group will have a leader who will be coordinating with the group members, so that the work is completed and submitted on time
- Each group will collate and present their work in **one single file only**
- Make use of eco-friendly materials for preparing the models

# Part A

#### **Dear students**

This year, our Holiday Homework revolves around the meaningful theme declared by the United Nations: International Year of Glacier's Preservation. Glaciers are silent storytellers of our planet's past and fragile guardians of its future. Through these creative tasks, you will explore their beauty, raise awareness about their rapid disappearance and express their voices for nature.

# Let this holiday be a journey of imagination, learning and conscious creativity. Enjoy, recharge and return with renewed energy—both for learning and for the Earth!

#### Task 1: Comic Strip – The Glacier Speaks (Roll no. 1 to 8)

Create a comic on an A-3 size sheet where a melting glacier is the main character, interacting with humans, animals and nature. Blend empathy, awareness and environmental concern in a story arc.Use speech bubbles and illustrations to make it artistic.

#### Task 2: Podcast Episode – Chill with a Glacier (Roll no. 9 to 16)

Record a 2-minute podcast in which you interview a glacier or report live from one that's rapidly melting. Add glacier facts + emotional tone. The file should be in MP3 or MP4 format.

#### Task 3: Poetry Challenge – Frozen Feelings (Roll no. 17 to 24)

Write a free verse or rhymed poem on an A-4 size sheet inspired by glaciers, their beauty, pain and disappearance. Include at least two poetic devices (imagery, metaphor, personification, enjambment). Give your poem a creative title and add visuals.

#### Task 4: Visual Diary – A Day in the Life of a Glacier (Roll no. 25 to 32)

Create a 4-page illustrated diary of a glacier, writing about what it sees each day—melting, pollution, tourists, or rescue missions. Add human interaction and an emotional close. Use four A4 size coloured sheets (can be stapled or bound as a mini-booklet).

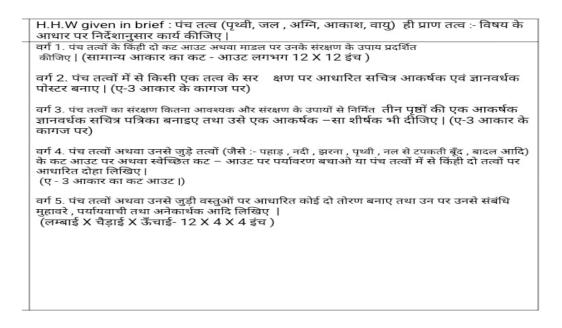
#### Task 5: Fiction Writing – When the Glacier Wept (Roll no. 33 and above)

Write a short story (300 words) on A-4 size sheets where a melting glacier causes an unexpected discovery: a creature, a secret, or a transformation in human behavior. Use visual illustrations to make your story interesting.

# Part B

#### SINDHI

H.H.W given in brief : पर्यावरण जी रक्षा
वर्ग-1. पर्यावरण या उन सां वास्तो रखंदइ शयुनि (जीअं :- ग्लेशियर, पेइ-पोधे , पहाइ , नदी , झरना , धरती, पाणी वगैरह ) ते हिकु कोलाज़ ठाहियो   उन ते पर्यावरण ते सिंधीअ में संदेश लिखी   (ए - 3 आकार का कट आउट  )
वर्ग-2. पर्यावरण या उन सां वास्तो रखंदड़ शयुनि (जीअं :- ग्लेशियर, पेड़-पोधे , पहाड़ , नदी , झरना , धरती, पाणी वगैरह ) खे चित्र सहित बु पोस्टर ते ठाहे सिन्धीअ में नारों लिखो ।(ए - 3 आकार का कट आउट)
<b>वर्ग-3.</b> पर्यावरण मुताबिक (Ecofriendly) हिकु थैलो ठाहियो   हुन ते पर्यावरण या उन सां वास्तो रखंदइ शयुनि (जीअं :- ग्लेशियर, पेइ-पोधे , पहाइ , नदी , झरना , धरती, पाणी वगैरह ) ते सिंधीअ में चित्र सुमत स्लोगन लिखो   (सामान्य आकार लगभग 10 इंच लंबाई एवं 8 इंच चौड़ाई)
वर्ग-4. पर्यावरण मुताबिक (Ecofriendly) हिकु लिफाफ़ो ठाहियो   हुन ते पर्यावरण या उन सां वास्तो रखंदइ शयुनि (जीअं :- ग्लेशियर, पेइ-पोधे , पहाइ , नदी , झरना , धरती, पाणी वगैरह ) जा सिंधीअ में चित्र सुमत स्लोगन लिखो   (सामान्य आकार लगभग 8 इंच x 4 इंघ आयताकार )
वर्ग-5. पर्यावरण मुताबिक़ (Ecofriendly) हिकु माडल ठाहियो   हुन ते पर्यावरण या उन सां वास्तो रखंदइ शयुनि (जीअं :- ग्लेशियर, पेइ-पोधे , पहाइ , नदी , झरना , धरती, पाणी वगैरह ) जा सिंधीअ में चित्र सुमत स्लोगन लिखो   (सामान्य आकार लगभग 8 इंच x 4 इंच आयताकार )



#### SANSKRIT

H.H.W given in brief : पंचतत्व ( क्षिति, जल , पावक , गगन, समीरा ) - प्राणतत्व एव :- विषय के आधार पर निर्देशानुसार कार्य कीजिए | वर्ग 1. पंच तत्वों के कट आउट अथवा माडल पर उनके संरक्षण के उपाय प्रदर्शित कीजिए । (सामान्य आकार का कट - आउट लगभग 12 X 12 इंच ) वर्ग 2. पंच तत्वों में से किसी एक तत्व के संरक्षण पर आधारित सचित्र आकर्षक एवं ज्ञानवर्धक सुक्तिपरक पोस्टर बनाए | (ए-3 आकार के कागज पर) वर्ग 3. पंच तत्वों का संरक्षण किंतना आवश्यक और संरक्षण के उपायों से निर्मित तीन पष्ठों की एक आकर्षक जानवर्धक सचित्र पत्रिका बनाइए तथा उसे एक आकर्षक -सा शीर्षक भी दीजिए | (ए-3 आकार के कागज पर) वर्ग 4. पंच तत्वों अथवा उनसे जुड़ी वस्तुओं ( जैसे :- पहाड़ , नदी , झरना , पृथ्वी , नल से टपकती बूंद , बादल आदि ) के कट आउट पर अथवा स्वेच्छित कट - आउट पर पर्यावरण बचाओ या पंच तत्वों के प्रत्येक तत्व पर आधारित श्लोक लिखिए | ( ए - 3 आकार का कट आउट | ) वर्ग 5. पंच तत्वों अथवा उनसे जुड़ी वस्तुओं पर आधारित कोई दो तोरण बनाए तथा उन पर उनसे संबंधित पर्यायवाची लिखिए | (लम्बाई X चैड़ाई X ऊँचाई- 12 X 4 X 4 इंच )

#### FRENCH

Task-1 Imagine you had just come back from a mesmerising journey of Glacier with your family. Pen down your experience in French language about what you saw, how it felt, learning moments and your thoughts about climate change in a travel journal of size A3 giving it a ice texture and glitter for frost.

Task-2 Create a poem of three-four stanzas in French language on "Be cool- Keep the earth cool". Use light blue paper and white crayons or glitter for a frosty effect to your sheet.

Task-3 Design two posters of size A-3 on Reduce pollution and keep the earth cool include earth illustration, people recycling and saving energy for future generations. Give it a catchy title in French.

Task-4 Construct a message in French language from a French glacier "Mer de glacé " to remind people about the beauty and fragility of nature. Cut your message into the shape of a iceberg, give it a frosty effect like it's carved in ice.

Task-5 Cut out shapes of icebergs or snowflakes, write one glacier fact in French on each, and string them together like a garland. Add flags to show glaciers from different countries like India (Gangotri) or France (Mer de Glace).

#### SPANISH

#### Tarea 1: "El glaciar en mi maqueta" – Create a Glacier Diorama or 3D Model (in Spanish)

#### **Instructions :**

Students will build a 3D model (or diorama) of a glacier or glacial landscape, inspired by famous glaciers from Spanish-speaking countries like Glaciar Perito Moreno (Argentina) or Glaciar San Rafael (Chile). Along with the model, they will prepare a short written and oral presentation in Spanish describing the glacier, its location, and environmental significance. You can label parts in Spanish (like "morrena", "hielo", "lengua del glaciar").

#### Tarea 2: "Postales del hielo" – Create Artistic Postcards from a Glacier Destination (in Spanish)

#### **Instructions :**

Students will create two hand-drawn or digitally designed postcards as if they are visiting a glacier in a Spanish-speaking country. The artwork should show a beautiful glacial scene and some cultural elements (e.g., local animals, traditional clothing, or a Spanish greeting). On the back, students will write a short message in Spanish, pretending they're writing to a friend or family member about their glacial adventure.

**Skills developed:** Sentence construction, researching in Spanish (guided material), summarizing information, artistic creativity.

#### Tarea 3: Spanish Song or a poem presenting Glacier with Lyrics Translation

\* Choose a popular Spanish song or can create your own song or poem referred to Glacier and translate the lyrics into English. Highlight any interesting idioms or cultural references in the song.

\* Present the original Spanish lyrics and your English translation on A4 sheets creatively.

#### Tip: Use colored paper or recycled material to make it eco-friendly and fun! Reminder:

\* Projects must be presentable and neat, labeled clearly in Spanish

\* Try to use your own imagination, creativity, and love for art to make it stand out!

\* You may take inspiration from real glaciers but add your own twist to reflect Hispanic culture and Spanish vocabulary.

# Part C

### TOPIC: INTERNATIONAL YEAR OF COOPERATIVES

The United Nations has designated 2025 as the International Year of Cooperatives, with the theme "Cooperatives Build a Better World". This year-long celebration highlights the crucial role of cooperatives in achieving the UN's Sustainable Development Goals.

The students are expected to work on a given task which will keep them engaged in creative and fruitful pursuits during the break.

Roll numbers - 1,6,11,16,21,26,31,36,41

TASK 1: Design a logo on an A3 sheet for a cooperative you would like to start. This could be based on helping farmers, promoting clean energy, or supporting local artisans. Use geometric tools like a compass and ruler to create a neat, symmetrical design. On a separate A4 sheet, write a short paragraph explaining the name, purpose, and idea behind your cooperative and what your logo represents. Be creative and add colours or patterns to make your logo stand out.

Roll numbers - 2,7,12,17,22,27,32,37,42

TASK 2: Create a symbol of unity or cooperation -like a star, circle of people, or any creative designusing only x and y coordinates on graph paper or an A3 sheet with a grid. Plot at least 10-15 points and use threads or wool to connect the points in order, forming your design. Make sure to label each coordinate clearly and use Math tools to keep it neat. Add colours or patterns if you like.

Roll numbers - 3,8,13,18,23,28,33,38,43

TASK 3: On an A3 sheet, create a vibrant and symmetrical Mathematical poster on the theme "Together We Multiply Power of Cooperatives" by incorporating at least three different geometric shapes such as triangles, circles, and polygons. Use these shapes creatively to represent the idea of collaboration and unity within cooperatives. Add a Mathematical quote or slogan to emphasize the power of teamwork, such as "The whole is greater than the sum of its parts," and ensure the design is colourful, visually appealing, and reflective of both Mathematical principles and artistic expression.

Roll numbers - 4,9,14,19,24,29,34,39,44

TASK 4: In five nearby towns, different types of cooperatives work actively to help people—like dairy cooperatives, farming cooperatives, and handloom cooperatives. The number of members in each type of cooperative in the year 2020 and 2025 is given below:

Town	Dairy (2020/2025)	Farming (2020/2025)	Handloom (2020/2025)
А	120 / 150	80 / 100	60 / 90
В	90 / 110	70 / 90	50 / 70
С	100 / 140	60 / 80	40 / 65
D	130 / 160	100 / 120	70 / 100
E	110 / 130	90 / 110	55 / 75

Draw a double bar graph on an A3 sheet comparing the number of members in 2020 and 2025 for any one type of cooperative across the five towns. Choose an appropriate scale, and clearly mention the scale on the graph.

Use colours, symbols, and creative labels to make your graph visually appealing and informative.

Create a decorative border for your graph that shows cooperative values—like people working together, farming tools, dairy animals, looms, etc.

Roll numbers - 5,10,15,20,25,30,35,40,45

TASK 5: Create a beautiful rangoli design on an A3 sheet, using Mathematical shapes! Incorporate various geometric figures such as triangles, circles, squares, and polygons to form a symmetrical and colourful pattern. Use these shapes creatively to represent unity and cooperation, keeping in mind the principles of symmetry and proportion. Feel free to add vibrant colours, blending both Mathematics and artistic expression to make a stunning and meaningful rangoli. Use any type of colours like sketch pens or watercolours for the Rangoli, but not traditional Rangoli powders.

# Part D

The United Nations General Assembly declared 2025 as the International Year of Quantum Science and Technology to promote global collaboration in Quantum Science and Technology .The word "quantum" originates from the idea that physical properties, such as energy, are not continuous but rather exist in specific—or quantized amounts. A quantum is the smallest possible unit of a physical property.For example, a photon is a quantum of light. The principles of quantum mechanics are used in developing new technologies with potential applications in computing, communication, and sensing.

# Task 1: Experiential learning

# Roll numbers 1, 6, 11, 16, 21, 26, 31, 36.

Sustainable development is defined by three sub-categories:

Environmental responsiveness, resource efficiency, and community and cultural sensitivity. Design a prototype or a 3 D model which will help in saving energy and also focuses on developing materials with novel properties.

Web source: Quantum Technology Use Cases in Energy & Utilities

### Task 2: Comic strip

# Roll numbers 2, 7, 12, 17, 22, 27, 32, 37.

Graphic novel is a combination of images and texts. It is based on a fictional story. It requires a team effort to create characters and story for the novel. Prepare a story in the form of comic strip(5 to 10 pages) on the topic-**'Development of Quantum Mechanical model of an atom'** 

# Web source:

QuantumMechanicalModel.pdf

# 5 Different Atomic Models- Theories, Diagram & Structure of Atom (testbook.com)

# Task 3: Designing a game

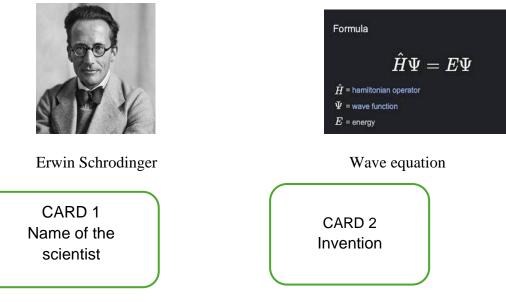
# Roll numbers 3, 8, 13, 18,23, 28,33, 38.

Create a fun and educational matching game based on scientists who contributed to the quantum mechanical model.

You need to make 20 cards in total—10 cards should have the names and photos of famous physicists and the other 10 should mention their key discoveries or inventions.

The objective of the game is to correctly match each scientist with their respective invention or contribution. Use your creativity and present your game neatly.

For example, the card with Erwin Schrödinger's photo will match with the card showing the Schrödinger Wave Equation. Also, give a brief description of the invention on the card.



# Task 4: Collage

# Roll numbers 4, 9, 14, 19,24, 29,34, 39.

Science provides the foundation for technology. Scientific knowledge is essential for developing new technologies and then these developments lead to further discoveries in the field of Science. Hence, Science and technology are intertwined. They are two sides of the same coin.

Design a collage on A2 sheet depicting the 'Latest developments in the field of Science and technology'

# 'Web source:

Discover India's Achievements in Science and Technology

## News - latest in science and technology | New Scientist

### Task 5 : Poster making.

### Roll numbers 5, 10, 15, 20, 25, 30, 35, 40.

Artificial intelligence is a set of technologies that enable computers to perform tasks that typically require human intelligence. The prominent applications of Artificial Intelligence include: virtual assistants like Siri and Alexa, autonomous vehicles and image/facial recognition in security

Make a poster on an A3 sheet on the topic given below:

## **Applications of Artificial Intelligence**

Use Google search engine to get images depicting the above topic. You can refer to these images while making the poster.

## For compiling data, the following groups can be formed:

Group A- roll no 1-5 Group B -roll no 6 -10 Group C -roll no 11-15 Group D -roll no 16-20 Group E- roll no 21 - 25Group F- roll no 26-30Group G- roll no 31-35Group H -roll no 36-40

# Part E

<u>Class:</u> IX <u>Term:</u> I and II <u>Subject:</u> Social Science <u>Skill to be assessed:</u>

- ➢ Understanding
- > Analyzing
- ➢ Evaluating
- ➤ Expressing
- Presenting ideas
- Time management

## DISASTER MANAGEMENT PROJECT

Project should be developed and presented in this order

- Cover page showing project title ,schools name, student's name, class and section and academic session (year)
- List of contents with page number (approx...15 pages)
- Acknowledgements: Acknowledging institution, offices and libraries visited and people who have helped.
- > Project Overview: Purpose ,aim, methodology and experience while doing the project

Main Topic: Disaster Management Session: 2025-26 Chapter/Topic: Disaster Management

- Chapters with relevant headings.
- Summary and conclusions based on findings.
- Bibliography should have the title, pages referred ,author, publisher ,year of publication and if a website, the name of the website with a specific link which have been used.
- ➢ Teachers evaluation report

NOTE: Only eco friendly material to be used

# PROJECT EVALUATION PROFORMA

The Proforma should be attached on the last page of the project. School's Name Address Student's Name Roll. No Class Section Teacher Assessment 1. Content accuracy and originality 2. Presentation and creativity 3. Process of project competition 4. Viva –voce 5. Overall remarks: 6. Teacher signature: Date: 7. School stamp

# **Topics and themes for project work on Disaster Management**

"Building Resilience in Glacier-Dependent Communities: Adaptation and Risk Reduction Strategies

Glacier-dependent communities face significant challenges due to climate change, including glacial lake outburst floods, changes in water availability, and increased risk of natural disasters. To address these challenges, it is essential to build resilience in these communities through adaptation and risk reduction strategies.

Keeping the above statement in mind, prepare a project on Disaster Management as per the following guidelines:

1. Highlight the following:

- Definition of 'Disaster'.
- ✤ What is disaster management cycle?
- ✤ What is a 'Hazard'? How is it classified?
- ✤ Differentiate between hazard and disaster.
- Contrast and compare physical, chemical and biological hazard.
- 2. Complete the following table with the relevant information:

Hazard	Elements of the	Vulnerable	Prevention	Examples
	hazard	groups		
Physical				
Chemical				
Biological				

3a. Prevention and Mitigation of Common Disasters.

- Earthquake (Roll No-1 -12)
- Cyclones (Roll No-13 -24)
- Flood (Roll No-25 36)
- Drought (Roll No-37 -48)

3b. Based on your selection in Point 3a above, enumerate the following in your project:

- ✤ Meaning
- ✤ Causes
- Prevention and mitigation measures
- Impact on national economy
- Key challenges to safe schools according to National Disaster Management Authority ((NDMA.)

# Part F

**Task 1:** Create an innovative Infographic / Comic Strip / Video / Audio Podcast - representing the theme "Quantum Cloud Computing Trends and Challenges / impact of cyber bullying and how to prevent".

Or

Design a colourful Catalogue/ Radio Show and share **Comparison & Contrast about Conventional AI & Generative AI** using any open-source software.

Task 2: <u>https://research.google.com/semantris/</u>

Use the link and **Play Arcade** to think and type fast and share your highest score achieved. Email on the following Id:

computerassignments@svisgdelhi.com with your name, class, and section in the subject line.

NOTE- Students need to perform both the tasks given.

# Part G

#### **COMPUTER APPLICATIONS (165)**

Design a colourful Catalogue / flipbook / e-story on the theme "**Technology – Then and Now?** / **Quantum Computing**" using any open-source software

Email on the following Id: computerassignments@svisgdelhi.com with your name, class and section in the subject line.

### PAINTING (049)

Make any 5 compositions for any topic, where 3 human figure are compulsory from any medium (paint, oil pastels etc.) which indicates the geometrical shapes, rhythms, proportional and balance. Note : Ignore back figure