LAKSHMIPAT SINGHANIA ACADEMY
TERM -1 PROJECT
SESSION- 2024-25
CLASS- IX

ENGLISH:
2 PROJECTS HAVE BEEN DESIGNED BELOW. BOTH ARE GROUP PROJECTS.
PROJECT 1 IS FOR JAL AND VAYU HOUSE.
PROJECT 2 IS FOR AGNI AND PRITHVI HOUSE.
PLEASE ADHERE TO THE INSTRUCTIONS GIVEN AGAINST EACH PROJECT.

PROJECT 1: CLEAN WATER AND SANITATION

Access to clean water and sanitation is vital for human health, well-being, and development on multiple fronts. Ensuring access to clean water and sanitation significantly reduces mortality rates, especially among children under five years old, who are particularly vulnerable to diseases transmitted through contaminated water. Beyond public health, addressing the issue of clean water and sanitation is integral to poverty alleviation efforts. Inadequate sanitation and contaminated water sources contribute to illness, which, in turn, affects productivity and economic development, perpetuating the cycle of poverty. By providing access to clean water and sanitation services, communities can break this cycle, fostering better health outcomes and contributing to broader socio-economic development.

Students are to design **a power point presentation**, consisting 10 slides on the importance of clean water and sanitation.

1. 1 power point presentation will be submitted by each house.
2. The slides should contain the following:

   - Slide 1 - Names of House members
   - Slide 2 -Introduction to the topic
   - Slide 3 - Importance of clean water and sanitation
   - Slide 4- Population groups which are vulnerable and why
   - Slide 5- Relevant newspaper reports/statistics/headlines
   - Slide 6-Current government efforts
   - Slide 7-Areas for improvement in current strategies

- Slide 8- Possible strategies/suggestions to ensure easy access to clean water and sanitation facilities
- Slide 9- An original poem on the topic
- Slide 10-Bibliography

LEARNING OBJECTIVE:

•Students have learnt to compose with clarity, coherence and precision.

LEARNING OUTCOME:

•Students will be made aware of the various issues related to availability of clean water and sanitation facilities to the population.

•Students will develop a collaborative approach and learn to work as a team and value time.

•Students will learn to express their emotions through an original narrative poem.

PROJECT 2: LIFE ON LAND AND WATER

Life on both land and water is essential for the well-being of ecosystems and the survival of countless species, including humans. Terrestrial ecosystems support a diverse array of flora and fauna. These ecosystems provide habitats for wildlife, regulate climate, purify air, and offer resources essential for human survival and development, such as food. Similarly, aquatic ecosystems, including oceans, rivers, lakes, and wetlands, host a vast array of life forms, from microscopic plankton to majestic whales. These ecosystems play a crucial role in regulating the Earth's climate, maintaining biodiversity, and providing essential services like water purification, flood control, and nutrient cycling. Life on land and water is interconnected, with many species relying on both habitats throughout their life cycles. Protecting and conserving these ecosystems is paramount for ensuring the sustainability of life on Earth and safeguarding the health and well-being of present and future generations.

Students are to design **a power point presentation**, consisting 10 slides on life on land and in water.

1. 1 power point presentation will be submitted by each house.

2. The slides should contain the following:

- Slide 1 - Names of House members
- Slide 2 -Introduction to the topic
- Slide 3 – Terrestrial ecosystems
- Slide 4- Aquatic ecosystems
- Slide 5- Relevant newspaper reports/statistics/headlines on dangers to ecosystems
- Slide 6-Current government efforts to protect terrestrial and aquatic ecosystems
- Slide 7- Areas for improvement in current strategies
- Slide 8- Possible strategies/suggestions to ensure balance of the ecosystems
- Slide 9- An original poem on the topic
- Slide 10-Bibliography

LEARNING OBJECTIVE:
•Students have learnt to compose with clarity, coherence and precision.

LEARNING OUTCOME:
•Students will be made aware of the interconnected nature of terrestrial and aquatic ecosystems.

•Students will develop a collaborative approach and learn to work as a team and value time.

• Students will learn to express their emotions through an original narrative poem.

RUBRICS FOR EVALUATION-

PARAMATERS	5	4	3
Authenticity of the **contents and appropriate expression- (5)**	Content is unique and proper research done and concepts properly explained but lacks expression	Not Unique but the concepts are well explained	Neither unique nor well explained

Timely submission demonstrates concise knowledge and understanding of the theme (5)	The submission addresses the requirement in meaningful and relevant way. The information is concise and accurate	The submission addresses the requirement. The information is presented accurately and in a concise manner	The submission somewhat addresses the requirement, but not in a cohesive or concise manner
Use of Technology (5)	Accesses suggested sites and employed technologies fluently	Accesses suggested sites and employed technologies adequately with support	Struggled while using technology. Struggled with teacher-provide strategies and resources
Creativity and Art Integration (5)	The concept and presentation in submission is creative, especially as compared with other submissions	The concept in the submission is somewhat creative	The concepts in the submission lacks creativity

SCIENCE

PHYSICS   FULL MARKS: 06
<u>**(JAL AND VAYU HOUSE)**</u>
<u>**CLEAN WATER AND SANITATION**</u>

<u>**Learning Objectives:**</u>

- To teach the students about the application of Reverse Osmosis Technology for getting clean drinking water
- To spread awareness for the banding open defecation for reducing suffering and loss of life

One in three people in India live without sanitation. This is causing unnecessary disease and death. Although huge strides have been made with access to clean drinking water, lack of sanitation is undermining these advances. If we provide affordable equipment and education in hygiene practices, we can stop this senseless suffering and loss of life.

1. Make a PPT explaining Reverse Osmosis (RO) Technology to get clean drinking water with necessary pictures.
2. What is the meaning of the word sanitate? Prepare a flyer with a catch line to spread the awareness for banding open defecation.

<u>**Learning Outcomes:**</u>

- Students learnt about the application of Reverse Osmosis Technology for getting clean drinking water

- To spread awareness for the banding open defecation for reducing suffering and loss of life

(AGNI AND PRITHVI HOUSE)

LIFE ON LAND AND IN WATER

Learning Objectives:

- To make the students aware of the origin of life
- To spread awareness and make students conscious about preservation of Ecosystem

Life on Land pertains to the efforts and actions taken to preserve, protect, and restore terrestrial ecosystems and biodiversity. It involves sustainable land management practices, reforestation, and afforestation, conservation of natural habitats, and combating desertification and land degradation.

Since life on Earth began in water some 3.5 billion years ago, living organisms have evolved an amazing variety of techniques for surviving different water conditions. Water is one of life's essential ingredients. And life exists wherever there's water.

1. Where was the life originated? On land or in water? Explain.
2. Progress in civilization is reversely affecting the preservation of life on land and water. Organize a debate on this topic.

Learning Outcomes:

- Students will be aware of the origin of life
- Students will be aware and make conscious about preservation of Ecosystem

CHEMISTRY   FULL MARKS: 06

(AGNI AND PRITHVI HOUSE)

LIFE ON LAND AND IN WATER

LEARNING OBJECTIVES: The students will learn about

- Pollutants present in air and water and its impact on health

- Ways to reduce pollution of both air and water

- Resources obtained from sea water

Hills and mountains and seaside are unique ecosystems; their ecological and cultural attributes make them favourite tourist destinations. They offer ideal conditions for the three R's – rest, relaxation and recreation

1. What is the difference between the air you breathe here and that of the hills?
2. Name a few pollutants present in the air of Kolkata and their sources.
3. One of the important resources obtained from sea water is salt. With the help of a diagram/flowchart write the process for obtaining it.
4. Prepare a skit on the topic "Hills right here" based on :   (Agni House)

- How you love the fresh air of the hills

- How to reduce household pollution and bring hills to your home.

- To take a few extra steps to reduce pollution (poster)

   Prepare a skit on the topic "I want my ocean back" based on:

- How much and why you love oceans.

- What difference you find in the oceans now.

- Slogan that can raise awareness in the people destroying oceans (Prithvi House)

LEARNING OUTCOMES:

The students learnt about-

- Pollutants present in air and water and its impact on health

- Ways to reduce pollution of both air and water

- Resources obtained from sea water

(JAL AND VAYU HOUSE)

CLEAN WATER AND SANITATION

LEARNING OBJECTIVES:

The students will learn about-

- Different methods of water treatment
- Impact of poor sanitation on society

One in three people live without sanitation. This is causing unnecessary disease and death. Although huge strides have been made with access to clean drinking water, lack of sanitation is undermining these advances. If we provide affordable equipment and education in hygiene practices, we can stop this senseless suffering and loss of life.

1. Write any 2 types of water treatment methods with relevant pictures.

2. What do you mean by 'safe water'?

3. What can be the impact of poor sanitation on society?

4. 'Clean Drinking Water is not a privilege – It is a human right.' – Prepare a skit/role play on this topic along with a poster

LEARNING OUTCOMES:

The students learnt about-

- Different methods of water treatment
- Impact of poor sanitation on society

BIOLOGY   **FULL MARKS: 08**

(JAL AND VAYU HOUSE)

CLEAN WATER AND SANITATION

Learning objective-

Students will be able to –

- Realize the importance of clean water and sanitation
- Understand how water pollution affects aquatic life.
- Illustrate the working of water treatment plant

Access to water, sanitation and hygiene is a human right, yet billions are still faced with daily challenges accessing even the most basic of services.

1. What is the main goal of clean water and sanitation?

2. How has the aquatic life been affected due to unclean water?
   Elaborate 'HYPOXIA' with example.

3. Present a video of a model to show water treatment plant.

4. Through a video depict a case study on 'Life of Africans to Procure
   Safe water'

Learning Outcome-

Students were able to –

- Explain the importance of clean water and sanitation

- Relate how water pollution affects aquatic life.

- Illustrate the working of water treatment plant

(AGNI AND PRITHVI HOUSE)

LIFE ON LAND AND IN WATER

Learning Objective-

Students will be able to –

- Understand the importance of forest

- Relate how human intelligence is not being used in favour of mother earth.

- Illustrate the life of sessile animals by a video

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss – should be our present motto.

1. What target has UN set to save land and water?

2. Forests are known as the 'LUNGS OF OUR PLANET'.13 million hectares of forest disappear every year. What measures have been taken to stop desertification of the planet?

3. Humans are the most intelligent animal on the earth. Explain with example how this overwhelming intelligence is affecting mother earth.

4. Explain how the sessile animals survive under water by taking any two
   Examples. Add a video to emphasize your answer.

Learning Outcome-

Students were able to –

- Understand the role of forest in our sustenance
- Rationalize how human intelligence is not being used in favour of mother earth.
- Illustrate the life of sessile animals by a video

Evaluation Rubrics for Physics and Chemistry

	3x2	3x1.5	3x1
Details of Research on the topic (2)	Content is well researched ,genuine with detailed explanation	Not well researched , but the concepts are well explained	Neither well researched , nor well explained
Presentation (2)	Well presented	Average	Sketchy
Creativity and Art Integration (2)	The concept in submission is creative, especially as compared with other submissions	The concept in the submission is somewhat creative	The concepts in the submission lacks creativity

Evaluation Rubrics for Biology

	4x2	3x2	4x1
Details of Research on the topic(2)	Content is well researched, genuine with detailed explanation	Not well researched, but the concepts are well explained	Neither well researched , nor well explained
Presentation (2)	Well presented	Average	Sketchy
Creativity and Art Integration(2)	The concept in submission is creative, especially as compared with other submissions	The concept in the submission is somewhat creative	The concepts in the submission lacks creativity

Ethical aspect (2)	Concept well related to life problems	Concept is related to life problems is not well explained	Lack of problem solving aspect

SOCIAL SCIENCE

ALIGNED WITH CBSE PROJECT TOPIC

GEOGRAPHY

TOPIC: "Natural Vegetation and Wildlife"   **FULL MARKS: 10**

 SUB TOPIC: NATURAL VEGETATION

Natural vegetation is a plant population that has formed organically even without the assistance of humans. They have also been unharmed by humanity for a long time. The term "virgin vegetation" refers to this type of vegetation. Vegetation includes cultivated crops such as fruits and orchards, but not natural vegetation. With a coastline spanning more than 7500 km, India has a total geographic area of over 3.28 million hectares. The ecological or ecosystem diversity of the nation is immense, spanning from sea level to the tallest mountain ranges in the world; hot and arid conditions in the northwest to cold, arid conditions in the trans-Himalayan region; tropical wet evergreen forests in Northeast India and the Western Ghats; mangroves in the Sundarbans; and freshwater aquatic to marine ecosystems. India ranked 10th in the world and fourth in Asia for plant diversity, with approximately 47,000 plant species.

PRITHVI HOUSE: TROPICAL EVERGREEN FORESTS.

Conservation through private initiative: A case study in the Western Ghats, India.

VAYU HOUSE: TROPICAL DECIDUOUS FORESTS.

A case study in Behali Reserved Forest, Assam, India.

JAL HOUSE: MONTANE FORESTS.

 Case study: Protecting forests and securing customary rights through Community Forest Governance.

 AGNI HOUSE: TROPICAL THORN AND SCRUB FORESTS.

Case Study: Joint Forest Management (JFM) as an example of a non-monetary positive incentive.

- **Students will have to research on the type of forest assigned to their group. Shade the forest area in an outline political map of India.**

- **Students will write about their growing conditions, economic values and support with any two relevant pictures of the vegetation assigned.**

- **Students will provide a brief report on the <u>CASE STUDY</u> assigned to them. (80 Words)**

PROJECT FORMAT:
  - ✓ Projects need to be done in groups.
  - ✓ Support the project with relevant pictures.
  - ✓ Students will make a PowerPoint presentation (maximum 8 slides including cover page, acknowledgement, index, content and bibliography)

    The following questions to be answered by all the groups. **(House wise)**

Content –
  1. What factors are responsible for the great diversity of flora and fauna in the world? Mention any two special adaptive features of Mangrove forests.

2. How can you contribute to the maintenance of the green wealth of your locality? Make a list of actions to be taken by you. (Three points)

SUBJECT INTEGRATION: History, Life-skills, Political Science, Economics, Mathematics, A.I. and English.

LEARNING OBJECTIVE:
- ✓ To find out the nature of diverse flora and fauna as well as their distribution.
- ✓ To develop concern about the need to protect the biodiversity of our country.
- ✓ Students will develop citizenship through understanding the Indian environment in its totality and diversity in natural vegetation and wildlife.
- ✓ Students would be able to enhance their communication skills by debating on positive and negative impacts of human activities.

LEARNING OUTCOME: The learning outcome will include –
- ✓ Independent research work.
- ✓ Collaboration.
- ✓ Awareness and awakening among all.
- ✓ They will learn about the number of species of plants and animals in India.
- ✓ How climate, topography and slope affect the growth of natural vegetation and wildlife.
- ✓ Importance of ecosystem.

LINKS:
https://ncert.nic.in/textbook.php?ln=en
https://www.iucn.org/news/commission-environmental-economic-and-social-policy/202003/conservation-through-private-initiative-a-case-study-western-ghats-india
https://www.researchgate.net/publication/356613671_Deforestation_A_Case_study_in_Behali_Reserved_Forest_Assam_India
https://www.cbd.int/doc/case-studies/inc/cs-inc-india-forest-en.doc
https://www.iwgia.org/images/documents/briefings/Case-Study-India.pdf
https://en.wikipedia.org/wiki/Forest

HISTORY

ALIGNED WITH CBSE PROJECT TOPIC ON Forest Society   and Colonialism

 PROJECT ON----- **FOREST SOCIETY AND ITS CHALLENGES**:

Ever since the advent of the industrial revolution, forests and their resources have been subject to overexploitation worldwide. Forests and its resources play a vital role in managing both the ecosystem and the economy of a country. The depletion of forest cover and resources is a significant threat to our country's ecosystem and economy. . Furthermore, the paper also discusses the current forest laws and suggests solutions to replenish the precious forest resources. The histories of humans and forests have long been interlinked. They have inspired human traditions and folklore, appearing as symbols of life, knowledge, and fertility It can also be concluded after looking at Kautilya's Arthashastra and the rules and regulations of the various rulers before the British era that protection and conservation of forest was one of the important goals. However, ever since the British era the policies and legislations that were aimed at forest conservation have instead undermined their true purpose. Most of these policies have been contradictory in nature and further escalated the loss of forest resources and wealth by giving rise to new conflicts and distortions. In India, the connection among tribal groups and forests was defined by coexistence, and these populations were seen as essential to the natural system's survival and sustenance. This mutualistic interdependence was recognized, and customary rights over natural forests were established. However, during the colonial era and in Indian independence, the administration did not acknowledge or register these rights when combining state forests.

 Learning Objective -Students through their project learn about the **forest management** in **India** which is based on 'co-**management**' and a 'give and take' relationship, Sustainable forest management (SFM) is defined as a "dynamic and evolving concept, which aims to maintain and enhance the economic, social and environmental values of all types of forests.

METHODOLOGY: Project will be handled by the 4 HOUSE each HOUSE will handle only 2 questions according to the instructions given and follow the CBSE   rubrics given below. Projects should be supported by photographs, relevant articles from newspaper and magazines, graphics, videos, cartoon drawing and digital storyboard etc

Presentation of project will be presented digitally.

AGNI HOUSE:

1A) How are the environmental situation in the forests handled in India today?

1B)With more than a fifth of population dependent on forest for livelihood and the rich ecological, economic and development value it produces. there is an urgent need to redefine India's 'forests. Given the critical state of India's forest, it is imperative to move beyond compensatory afforestation and adopt meaningful strategies for creating serious impact on the ground. Discuss about strategies India has adopted so far? :

JAL HOUSE:

2A) Social Forestry can be characterized as "Forestry by the people, for the people, and of the people." It involves the management and preservation of forests, afforestation of barren lands, and aims to contribute to environmental, social, and rural development. **What are the Objectives of Social Forestry?**

2B) Discuss the strategies for implementation of Social Forestry in India and its drawbacks

VAYU HOUSE:

3A) Discuss in your project what are the avenues of Joint Forest Management in India?

https://www.sciencedirect.com/science/article/abs/pii/S0921344909002274

3B) What are the present challenges in Joint Forest Management in India?

PRITHVI HOUSE:

4A) The Sustainable **forest management in India** is a success story Justify.
 Make a story board and high light the role of emerging digital technology can transform forestry and its management in INDIA

4B) Research on the FOREST SURVEY REPORT OF 2021 and make charts, graphs, map presentation to highlight the report of the survey

Learning Outcome - Protection of forests will help to conserve our rich biodiversity, promote wildlife and ensure the welfare of the Scheduled Tribes and other forest dwellers. The promotion of tree cover outside forest areas will help to increase green cover, provide raw materials for industries and control pollution.

Forest projects which researched on participatory forest management will highlight on most successful aspect of the Indian economy that is -balancing poverty reduction, livelihoods and creating employment

REFERENCES:

https://www.sciencedirect.com/science/article/abs/pii/S0921344909002274

- http://pdf.wri.org/ref/nayak_02_com-based_forest.pdf*https://www.lawteacher.net/free-law-essays/land-law/law-forest-dwellers.php*

- https://blog.ipleaders.in/all-about-the-forest-rights-act-in-india/

- https://www.researchgate.net/publication/265000880_The_Indian_Forest_Rights_Act_2006_A_critical_appraisal

- https://migrate.theleaflet.in/validity-of-the-forest-rights-act-supreme-court-directing-eviction-of-almost-two-million-tribal-peoples-is-a-gross-travesty-of-justice/

- https://www.scobserver.in/court-case/eviction-of-forest-dwellers

- https://blog.ipleaders.in/forest-rights-act-2006-advantages-disadvantages-environment-conservation/amp/

- https://www.scconline.com/blog/post/2019/02/20/sc-orders-forced-eviction-of-more-than-1000000-tribals-from-from-forestlands-across-16-states/

- https://www.scconline.com/blog/post/tag/forest-dwellers/

- https://www.researchgate.net/publication/332107497_Understanding_India's_Forest_Land_Rights_through_Spatial_Justice_Framework_-_A_Policy_Analysis_of_the_Forest_Rights_Act_2006.

Rubrics for Evaluation

	5	4	3	2	1
Content (4)	-	Applicable to Theoretical knowledge and all facts are correct. Map work and Case Study done perfectly.	Applicable to Theoretical knowledge and all facts are correct. One or two factual errors. Map work done but not shaded/colored correctly.	Applicable to Theoretical knowledge and all facts are correct. Few factual errors. Map work not shaded	Applicable to theoretical knowledge and all facts are not at all relevant to the topic. Map is missing.

			Case Study should be descriptive and completed with one error.	correctly. All states are not marked. Case Study should be descriptive and completed with two error.	Case Study not attempted.
Presentation (3)	-	-	Overall impact of the project is attractive and appealing to the viewers. Students are well prepared. Teamwork is visible. Project is compiled up to the mark.	Overall impact of the project is quite appealing to the viewers. Students are well prepared. Teamwork is visible. Project is fairly compiled.	Some attempt has been made to make the presentation appealing to the viewers. Students are well prepared. Teamwork is visible. Project is not compiled up to the mark.
Graphics/ Photographs/Charts/Relevance to the topic and	-	-	Presentation includes relevant photographs/ charts/ Maps/ model/diagrams are correct/relevant to the topics.	Presentation includes relevant photographs/ charts/ Maps/ model/diagra	Graphics / Chart /models are not clear. They are irrelevant to the topic.

Team Work (3)			Independent research work and collaboration shown by the team members. Tried to adapt the new technology.	ms are partially correct/relev ant to the topics. Team work shows communicati on gap.	No group coordination shown.

ARTIFICIAL INTELLIGENCE

Broad Theme- Sustainable Development Goal

Sub Themes:-

- Jal House, Vayu House: Clean water and sanitation.
- Agni House, Prithvi House: Life on land and in water.

Learning Objective:-

- Foster a deeper understanding of Sustainable Development Goals
- Research on AI based skills and soft skills required for futuristic solutions
- Empower youth to become human-centric designers and users of AI

Learning Outcome:

Students will be able to -

- Develop 21st century's creative presentation and communication skill.
- Handle video editing application.
- Empower themselves as design thinkers by giving proposal of prospective solutions.

Introduction:-

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

Source-**https://www.undp.org/sustainable-development-goals**

Global leaders acknowledged that Artificial Intelligence has the potential to accelerate the SDG goals through a responsible application in energy, climate change, food security, health, environment, poverty, and education.
The students of today will be the change makers of tomorrow.

To Do:-

Do your research work on the topic given for your house. Create an approximately 150-second video explaining a proposed AI-enabled solution for the given topic.

Guidelines:-

- YOU MUST BE IN REGULAR SCHOOL UNIFORM AND PROPERLY GROOMED.
- Prefer to take video in landscape orientation.
- There should be enough light at the location.
- An organized/ clean background is expected.
- Use any free video editing software in order to present your research work.

[Note- Project plan, video making and upload will be done individually. Each house will be given chance to present their proposals in school after summer vacation]

Video Content:-

Once you have identified a problem statement and ideated a proposed solution using Artificial Intelligence, you have to share it in the form of an approximately 150 seconds video.

The 150 second's video should consist of the following –
i. Self-Introduction [20 sec] a. Name of student and school b. Name of the House c. Theme and sub theme
ii. Problem Statement [40seconds] a. Talk about the problem you want to solve. b. Why do you want to work on this problem?
iii. Proposed Solution [90 seconds] a. What is your idea to solve the problem? b. Why do you think your idea is innovative? c. How will you work on the solution? d. What

role will artificial intelligence and related technology play in your solution?

[Note: You may include supporting data with resource links in your video]

Submission Process:-

    i.   Create a word file.

    ii.   Write your Full name, class section, House, Subject, mention the Project theme-sub theme

    iii.   Upload the video on your YouTube channel, **make it unlisted.**

    iv.   Copy the YouTube link in the same document.

    v.   Add the consent form duly filled up.

    vi.   Save your word file as ClassSec_Name_AIProj and submit through Teams.

Consent form for Photograph, Video or Audio Recording

I, _____ (full name) of class-_____ sec_____, do hereby give my consent to the use my image, video, voice, and or all three of them, for the Artificial Intelligence Term1 project (Session 2024-25).

I agree that all such pictures, video or audio recordings and any reproduction thereof shall remain the property of the academy and will be used for educational purposes only.

Date: _____

RUBRICS FOR EVALUATION

Criteria	5	3	1
Potential Impact & Clarity of Explanation (4)	The proposed AI-enabled solution have the potential to make a significant impact in addressing the problem identified and the video clearly explains the same.	The proposed AI-enabled solution may make a significant impact in addressing the problem identified and the video somewhat explains the same.	The proposed AI-enabled solution does not have the potential to make a significant impact in addressing the problem identified and the video fails to explain the solution
Quality of Production (4)	Audio and video quality is excellent for the viewer to understand the presentation	Audio and video quality is moderate for the viewer to understand the presentation	The video contains no audio.
Personal grooming and Team coordination (4)	Was properly groomed and in School uniform. Consistently stays during group presentation. Effectively encourages and supports the efforts of the group as a whole.	Was not properly groomed but in School uniform. Focuses on the group presentation, most of the time. Usually encourages and supports the efforts of the group as a whole	Was not present during group presentation. OR Not groomed properly and not in school uniform.
Consent documentation (4)	Clear documentation of consent obtained.	Consent obtained with incomplete information.	No evidence of consent available.

MATHEMATICS:

LIFE ON LAND AND IN WATER

BY PRITHVI HOUSE AND AGNI HOUSE

In the race to make the world more livable for people and nature, progress on land is outpacing successes in the seas, raising red flags that wealthier countries' advantages may be upsetting a balance.

LEARNING OBJECTIVES:

Students will be able to:

- Know about conserving life on land to protect and restore terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and stop biodiversity loss.
- Know about conserving and sustainably using the oceans, seas and marine resources. Healthy oceans and seas are essential to human existence and life on Earth.

1. Research and collect data to fulfill the goal of life on land and in water
2. The ocean is our planet's life support and regulate the global climate system. It is the world's largest ecosystem, home to nearly a million known species and containing vast untapped potential for scientific discovery. Collect data stating the factors which are cause of hindrance of our planets life support.
3. Research on the quality of sea water at coastal area of any 10 states of India and collect data of dissolved oxygen, dissolved nitrogen and pH values and represent them on Bar graph.

LEARNING OUTCOMES:

- The health of the ocean is intimately tied to our health. The diversity of species found in the ocean offers great promise for pharmaceuticals.
- We must be respectful toward wildlife and only take part in ecotourism opportunities that are responsibly and ethically run in order to prevent wildlife disturbance. Well-managed protected areas support healthy ecosystems, which in turn keep people healthy. It is therefore critical to secure the

involvement of the local communities in the development and management of these protected areas.

MATHEMATICS PROJECT GRADING RUBRIC-

CATEGORY	GREAT WORK (4)	GOOD WORK (3)	SATISFACTORY (2)	COULD BE BETTER (1)
TOPIC CONTENT – ACCURACY- (4)	Content regarding Roman numerals and population density well explained. All facts are accurate	Content regarding Roman numerals and population density well explained. 90 – 95% of the facts are accurate	Explanation needs improvement 80 – 89% of the facts are accurate	More points need to be added. Less than 80% of the facts are accurate
WRITING- VOCABULARY EDITING- LANGUAGE- (4)	Use of mathematical terms in the proper way. Presentation is Free from grammatical errors	Use of few mathematical terms in the proper way. The presentation may have one or two grammatical errors	Less use of mathematical terms in the proper way. The presentation may have few grammatical errors	No Use of mathematical terms in the proper way. There are many grammatical errors
GRAPHICS- FORMULAE- (4)	Images and pictures go well with the text and there is good mix of text and graphics	Images and pictures go well with the text , but they are inappropriately sized, too small or hard to read	Images and pictures go well with the text , but they are too few and the project seems text heavy.	There are no Images and pictures or they do not go with the topic.
OVERALL PRESENTATION- (4)	The presentation	The presentation is attractive, in	The presentation is acceptably	The project is

	Is exceptionally attractive, in terms of design, layout and neatness.	terms of design, layout and neatness.	attractive, though it may be a bit messy.	distractingly mess or very poorly designed.
USE OF IMAGES AND COLOURS- (4)	Diagrams are properly done with the correct choice of colours	Diagrams are done with the colours. Combination of colours could have been better.	Diagrams are not done neatly with the correct choice of colours	Diagrams are not done neatly with the correct choice of colours. Needs a lot of improvement in terms of presentation and neatness.

CLEAN WATER AND SANITATION
– BY VAYU HOUSE AND JAL HOUSE

Sustainable management of water resources and access to safe water and sanitation are essential for unlocking economic growth and productivity and provide significant leverage for existing investments in health and education. The natural environment e.g. forests, soils and wetlands contribute to management and regulation of water availability and water quality, strengthening the resilience of watersheds and complementing investments in physical infrastructure and institutional and regulatory arrangements for water access, use and disaster preparedness.

LEARNING OBJECTIVES:
Students will be able to know about:
- Access to safe water, sanitation and hygiene is the most basic human need for health and well-being.
- Demand for water is rising owing to rapid population growth, urbanization and increasing water needs from agriculture, industry, and energy sectors.

1. Research and collect data to fulfill the goal clean water and sanitation.

2. Lots of countries face growing challenges linked to water scarcity, water pollution, degraded water-related ecosystems and cooperation over trans boundary water basins. Collect data stating the challenges. How are the water and climate change linked.

3. To ensure safe drinking water and sanitation for all, focusing on the sustainable management of water resources, wastewater and ecosystems, and acknowledging the importance of an enabling environment. In the 2030 Agenda for Sustainable Development, countries have committed to engage in systematic follow-up and review of progress towards the Goals and targets, using a set of global indicators such as drinking water, sanitation, Hygiene, waste water etc.

   Collect data and represent them on a bar graph.

LEARNING OUTCOMES:

Students will

- Civil society organizations should work to keep governments accountable, invest in water research and development, and promote the inclusion of women, youth and indigenous communities in water resources governance.

- Generating awareness of these roles and turn- ing them into action will lead to win-win results and increased sustainability and integrity for both human and ecological systems.

MATHEMATICS PROJECT GRADING RUBRIC

CATEGORY	GREAT WORK (4)	GOOD WORK (3)	SATISFACTORY (2)	COULD BE BETTER (1)
TOPIC CONTENT – ACCURACY (4)	Content regarding Symmetry, calories and BMI well explained. All facts are accurate	Content regarding Symmetry, calories and BMI well explained. 90 – 95% of the facts are accurate	Explanation needs improvement 80 – 89% of the facts are accurate	More points need to be added. Less than 80% of the facts are accurate
WRITING-	Use of	Use of few	Less use of	No Use of

VOCABULARY EDITING- LANGUAGE (4)	mathematical terms in the proper way. Presentation is Free from grammatical errors	mathematical terms in the proper way. The presentation may have one or two grammatical errors	mathematical terms in the proper way. The presentation may have few grammatical errors	mathematical terms in the proper way. There are many grammatical errors
GRAPHICS- FORMULAE (4)	Images and pictures go well with the text and there is good mix of text and graphics	Images and pictures go well with the text , but they are inappropriately sized, too small or hard to read	Images and pictures go well with the text , but they are too few and the project seems text heavy.	There are no Images and pictures or they do not go with the topic.
OVERALL PRESENTATION (4)	The presentation Is exceptionally attractive, in terms of design, layout and neatness.	The presentation is attractive, in terms of design, layout and neatness.	The presentation is acceptably attractive, though it may be a bit messy.	The project is distractingly mess or very poorly designed.
USE OF IMAGES AND COLOURS (4)	Diagrams are properly done with the correct choice of colours	Diagrams are done with the colours. Combination of colours could have been better.	Diagrams are not done neatly with the correct choice of colours	Diagrams are not done neatly with the correct choice of colours. Needs a lot of improvement in terms of presentation and neatness.

HINDI 2ND LANGUAGE

HOUSE – JAL AND VAYU

विषय – पानी के नीचे जीवन (सतत विकास लक्ष्य क्रमांक –14)

महासागर, समुद्र और अन्य समुद्री संसाधन दुनिया भर में मानव कल्याण और सामाजिक और आर्थिक विकास के लिए आवश्यक हैं। महासागर वायुमंडल से गर्मी और कार्बन डाइऑक्साइड (सीओ 2) को अवशोषित करके वैश्विक पारिस्थितिकी तंत्र को नियमित करने में भी मदद करते हैं। इन्हीं लक्ष्यों के उद्देश्य का उल्लेख करते हुए संरक्षण के लिए अब तक उठाए गए कदमों एवं भविष्य में उनके संरक्षण के लिए सतर्कता की जानकारी देते हुए जलीय वनस्पतियों और जल जीवों के संरक्षण पर एक सचित्र प्रस्तुतीकरण (PPT) तैयार करें।

Learning Objectives

- सतत विकास लक्ष्य क्रमांक -14 के प्रति विद्यार्थियों को जागरूक करना ।
- सतत विकास के लिए महासागरों, समुद्रों और समुद्री संसाधनों के सतत उपयोग के प्रति सचेत करना।
- भूमि की परिस्थितियों में परिवर्तन, अवैध मछली पकड़ने या प्राकृतिक आपदाओं से आए जल के नीचे बदलाव के प्रति सजग होना।
- सतत विकास के लक्ष्यों के उद्देश्यों की परख तथा उपयुक्त भाषा-कौशल का विकास।

Learning Outcomes

- समसामयिक विषयों के प्रति जानकार हुए।
- भविष्य में वन या वन्य जीव संबंधी संकट से निपटने के लिए उठाए जाने वाले कदमों की आवश्यकता के प्रति जानकार हुए ।
- सृजनात्मकता का विकास हुआ।
- स्थितियों की परख तथा उपयुक्त भाषा-कौशल का विकास हुआ।

HOUSE – AGNI AND PRITHVI

विषय – स्वच्छ जल और स्वच्छता (सतत विकास लक्ष्य क्रमांक – 6)

सभी प्राणियों के जीवन के लिए स्वच्छ जल की उपलब्धता अनिवार्य है। स्वच्छ जल के सतत प्रबंधन को सुनिश्चित करने के मुख्य उद्देश्य का उल्लेख करते हुए जल जीवन मिशन के तहत उठाए गए कदमों के उल्लेख सहित पेय जल की शुद्धता एवं उपलब्धता में सुधार के लिए उठाए जाने वाले अनिवार्य कदमों पर एक सचित्र प्रस्तुतिकरण (PPT) तैयार करें। जिसमें विश्व के अन्य देशों की स्वच्छ जल संबंधी समस्याओं एवं सुधार के लिए उठाए गए कदमों का भी सचित्र वर्णन हो।

Learning Objectives

- सतत विकास लक्ष्य क्रमांक -6 के प्रति विद्यार्थियों को जागरूक करना ।
- पेयजल के संकट के प्रति सचेत करना।
- जल प्रदूषण एवं जल की बरबादी के प्रति सजग एवं सचेत करना।
- सतत विकास के लक्ष्यों के उद्देश्यों की परख तथा उपयुक्त भाषा-कौशल का विकास।

Learning Outcomes

- समसामयिक विषयों के प्रति जानकार हुए।
- पेयजल की उपलब्धता एवं भविष्य में पेयजल संकट से निपटन के लिए उठाए जाने वाले कदमों की आवश्यकता के प्रति जानकारहुए ।
- सृजनात्मकता का विकास हुआ।
- स्थितियों की परख तथा उपयुक्त भाषा-कौशल का विकास हुआ।

RUBRICS FOR EVALUATION (CLASS-IX) HINDI

मानदंड	5	4	3	2
विषय वस्तु की प्रभावी एवं सटीक जानकारी (5)	विषय सामग्री से जुड़े तथ्य प्रयुक्त लेखों में सटीक एवं विषयानुरूप है।	एक या दो तथ्यात्मक त्रुटियों के अलावा अधिकांश तथ्य सही एवं विषयानुरूप है।	कुछ तथ्य विषयानुरूप है पर तीन से अधिक त्रुटियाँ पाई गईं है।	प्रयुक्त लेखों में विषय सामग्री स्पष्ट नहीं है।
सचित्र प्रस्तुतिकरण (5)	अच्छे ढंग की तैयारी,टीम के सदस्यों का समन्वय सराहनीय,प्रस्तुतिकरण स्पष्ट एवं प्रभावी	पर्याप्त तैयारी,टीम के सदस्यों का परस्पर सहयोग देखा गया। प्रस्तुति के दौरान स्पष्टता पाई गई पर प्रभावी नहीं हो पाई।	कुछ विद्यार्थी ही लिखित विषय में सहयोग देने के लिए तैयार, टीम के सदस्यों में परस्पर सहयोग का अभाव देखा गया। लिखित अभिव्यक्ति में आत्मविश्वास की कमी पाई गई।	छात्र तैयार नहीं ,टीम वर्क का अभाव एवं लिखित प्रस्तुति अस्पष्ट एवं विषयानुरूप नहीं।
तकनीक एवं इंटरनेट संसाधनों का रचनात्मक उपयोग, विषयानुरूप	परियोजना के विषय की प्रभावी अभिव्यक्ति के लिए इंटरनेट से संकलित	परियोजना के विषय की अभिव्यक्ति के लिए इंटरनेट से	इंटरनेट से संकलित तथ्यों एवं तस्वीरों, का उपयोग कम होने के कारण विषय की	इंटरनेट से संकलित तथ्यों एवं तस्वीरों का

चित्र संकलन (5)	तथ्यों एवं तस्वीरों का अच्छा उपयोग ।	संकलित तथ्यों एवं तस्वीरों का कुछ उपयोग ।	अभिव्यक्ति स्पष्ट तौर पर नहीं हो पाई।	उपयोग नहीं होने के कारण विषयानुरूप अभिव्यक्ति नहीं हो पाई।
भाषा की उपयुक्तता समग्र प्रस्तुति (5)	प्रस्तुतीकरण में वाक्य विन्यास, वर्ण विन्यास एवं विराम चिह्न संबंधी त्रुटियों का न होना। सहज एवं बोधगम्य भाषा का उपयुक्त प्रयोग परियोजना का समग्र प्रभाव दर्शकों के लिए रोचक और आकर्षक।	प्रस्तुतीकरण में वाक्य विन्यास, वर्ण विन्यास एवं विराम चिह्न संबंधी कुछ त्रुटियों का ही होना। विषय की सहज अभिव्यक्ति। परियोजना का समग्र प्रभाव दर्शकों का ध्यान आकर्षण करने के लिए पर्याप्त।	वाक्य विन्यास, वर्ण विन्यास एवं विराम चिह्न संबंधी त्रुटियों के कारण भाषा की उपयुक्तता का अभाव पाया जाना। परियोजना की समग्र प्रस्तुति को आकर्षक बनाने के लिए कुछ प्रयास किया गया।	वाक्य विन्यास, वर्ण विन्यास एवं विराम चिह्न संबंधी अत्यधिक त्रुटियों के कारण विषयानुरूप भाषा का प्रयोग न हो पाना । समग्र प्रस्तुति को रोचक बनाने के लिए विद्यार्थियों के प्रयास में अभाव।

LAKSHMIPAT SINGHANIA ACADEMY

PROJECT PLAN, TERM -I

2024-25

Theme : Clean Water and Sanitation

House : Jal , Vayu

Integration : Art, IT, Hindi, History ,

Marks : 20

CLASS-IX

SUBJECT : Bengali 2ⁿᵈ Language

জলের অপর নাম জীবন – একথা সর্বজন বিদিত। জল , বিশেষ করে স্বচ্ছ জল শুধু মানুষ নয় সমগ্র প্রানীকূলের বেঁচে থাকার জন্য অতি আবশ্যক। জলের স্বচ্ছতা বজায় রাখতে এবং স্বচ্ছ জলের পরিষেবা অব্যাহত রাখতে প্রত্যেক পদে প্রত্যেক মানুষকে সচেতন থাকতে হবে। এবিষয়ে সরকার কর্তৃক নির্ধারিত পদক্ষেপগুলির আলোচনা করে একটি সচিত্র পত্রিকা রচনা কর। এবিষয়ে জনগনের সচেতনতা বৃদ্ধির উপায় , শুদ্ধ জলের পরিষেবা বৃদ্ধির উপায় এবং অন্যান্য দেশে এই বিষয় সংক্রান্ত সমস্যা ও সমাধানের পথ সম্পর্কে তথ্যের উল্লেখ কর।

পরিযোজনা কার্যের উদ্দেশ্য :

➢ Sustainable development এর ৬ নম্বর লক্ষ্যের প্রতি শিক্ষার্থীদের সচেতন করা।

➢ শুদ্ধ পানীয় জলের সংকট ও তার সমাধানের প্রতি সচেতন করা

➢ জল দূষণ ও জলের অপচয় সম্পর্কে সচেতন করা

➢ Sustainable development এর আদর্শ সম্পর্কে অবহিত হওয়া।

➢ সৃজনশীলতা, ভাষাশৈলীও চিন্তাশক্তির বিকাশ সাধন করা।

পরিযোজনা কার্যের কাঙ্ক্ষিত ফলাফল:

➢ সমসাময়িক বিষব সম্পর্কে অবহিত হবে।

➢ শুদ্ধ পানীয় জলের উপলব্ধতা ও ভবিষ্যতে পানীয় জলের সংকটের বিরুদ্ধে নেওয়া পদক্ষেপ সম্পর্কে অবহিত হবে।

➢ পরিস্থিতির উপযুক্ত বিচার বিশ্লেষণ করে যধাযথ সিদ্ধান্ত নিতে সক্ষম হবে।

➢ সচেতন নাগরিক হতে সক্ষম হবে।

Theme : Life on Land and in Water

House : PRITHVI, AGNI

Integration : Art, IT, Hindi, History

Marks : 20

CLASS-IX

SUBJECT: Bengali 2nd Language

মহাসমুদ্র, সামুদ্রিক জীব বা বিভিন্ন সামুদ্রিক বিষয়বস্তু মানব কল্যান তথা মনুষের সামাজিক ও অর্থনৈতিক কল্যানের কাজে অতি আবশ্যক। মহাসাগর বায়ুমন্ডলের থেকে উষ্ণতা ও কার্বন- ডাই- অক্সাইড শোষন করে বিশ্বের আবহাওয়ার ভারসাম্য বজায় রাখতে সাহায্য করে। তাই মহা সমুদ্র ও সামুদ্রিক জীব ও তাদের রক্ষনাবেক্ষণ অত্যন্ত জরুরি। এবিষয়ে সচেতনতা বৃদ্ধির উদ্দেশ্যে একটি সচিত্র পত্রিকা তৈরি কর যাতে থাকবে

➢ মানব কল্যানে সমুদ্র, সামুদ্রিক জীব এর গুরুত্ব

➢ দেশের অর্থনীতিতে এর প্রভাব

➢ বিভিন্ন সামুদ্রিক জীব ও উদ্ভিদের রক্ষনাবেক্ষণের জন্য সরকারের তরফ থেকে কী কী পদক্ষেপ নেওয়া হয়েছে

➢ জনগনের সচেতনতা বৃদ্ধির জন্য আর কী কী পদক্ষেপ নেওয়া উচিত

➢ শিরোনাম

➢ প্রাসঙ্গিক চিত্র

পরিযোজনাকার্যের উদ্দেশ্য :

➢ Sustainable development এর ১৪ নম্বর লক্ষ্যের প্রতি শিক্ষার্থীদের সচেতন করা।

➢ মহাসমুদ্র, সামুদ্রিক জীব ও তার রক্ষনাবেক্ষণ সম্পর্কে সচেতনতা বৃদ্ধি করা

➢ স্থলভাগের বিভিন্ন পরিস্থিতির পরিবর্তন, আবৈধ মৎস্য শিকার, ও বিভিন্ন প্রাকৃতিক দুর্যোগের ফলে জলের নীচের জীবনে আসা বিভিন্ন পরিবর্তন সম্পর্কে অবহিত করা।

➢ Sustainable development এর আদর্শ সম্পর্কে অবহিত হওয়া।

➢ সৃজনশীলতা, ভাষাশৈলীও চিন্তাশক্তির বিকাশসাধন করা।

পরিযোজনা কার্যের কাঙ্ক্ষিত ফলাফল:

➢ সমসাময়িক বিষব সম্পর্কে অবহিত হবে।

➢ ভবিষ্যতে সামুদ্রিক জীব বা প্রকৃতির বিভিন্ন সংকট দূর করতে নেওয়া পদক্ষেপ গুলি সম্পর্কে সচেতন হবে।

➢ পরিস্থিতির উপযুক্ত বিচার বিশ্লেষণ করে যধাযথ সিদ্ধান্ত নিতে সক্ষম হবে।

RUBRICS

Skills– দক্ষতা	Competency – যোগ্যতা			
	4	3	2	1
Content (4 marks)	সকল বিষয় সঠিক ভাবে লেখা হবে এবং প্রতিটি ক্ষেত্র আলাদা ভাবে প্রতিফলিত হবে	বিষয়বস্তুর উল্লেখে অপ্রতুলতা	প্রয়োজনীয় বিষয়ের প্রতিটি ক্ষেত্রের উল্লেখ নেই	অসম্পূর্ণ কাজ
Research (4 marks)	বিষয়ের স্পষ্ট ও যথাযথ উল্লেখ	প্রয়োজনীয় বিষয়ের অসম উল্লেখ	প্রয়োজনীয় বিষয়ের অনুপস্থিতি	ভুল পদ্ধতি বেছে নেওয়া
Creativity (4 marks)	বিষয়বস্তুর সাথে সমতা বজায়	বিষয়বস্তুর সাথে সমতা বজায় থাকলেও	বিষয়বস্ত ও নামকরণে সমতার অভাব	নামকরণের অনুপস্থিতি

	রেখে মৌলিক চিন্তাশীলতা	মৌলিকতার অভাব		
Art Integration (4 marks)	পরিচ্ছন্ন কাজ, উপযুক্ত প্রচ্ছদ ভাবনা, উপযুক্ত শিল্পভাবনা	উপযুক্ত প্রচ্ছদ কার্যের অপ্রতুলতা , সৃজনশীলতার অভাব	উপযুক্ত প্রচ্ছদের অভাব	প্রচ্ছদের অনুপস্থিতি
Overall Presentation (4 marks)	সুন্দর, পরিচ্ছন্ন উপস্থাপনা	সুন্দর, পরিচ্ছন্ন উপস্থাপনা, কার্যে আত্মবিশ্বাসের অভাব	কার্যে পরিচ্ছন্নতার অভাব	বানান ভুলের বাহুল্য