## ART INTEGRATION PROJECT CLASS -VI SESSION- 2025-2026

Topic	Lakshadweep's Coral Reefs
Subject and Art Integrated	English, Hindi, Mathematics, Science, Social Science, ICT, Art and Craft
Objectives	Students will be able to: <ul> <li>incorporate interdisciplinary knowledge into one cohesive project.</li> <li>understand and identify various reefs.</li> <li>understand the environmental threats faced by marine ecosystems.</li> <li>develop creative writing skills through dialogue writing.</li> <li>understand the changes in coral reefs over the year's and its impact on the livelihood in Lakshadweep.</li> <li>apply geometric and mathematical concepts through hands-on activities and visual modes.</li> <li>recognise and categorise different types of patterns, symmetrical shapes and tessellation found in corals.</li> <li>लक्षद्वीप में उपलब्ध मूँगा (coral) उत्पादन से परिचित कराना।</li> </ul>
Material required	A4 size colourful sheets, scissors, glue, origami sheets, ribbon, cardboard, marker, water colours, pencil colours, clay, cotton and shells. Create a folder.
	The coral reefs of Lakshadweep are a vital part of its ecosystem and a major attraction for tourists. These reefs are essentially atolls, mostly submerged, with small sand cays above the high-water mark. Lakshadweep, along with the Maldives and Chagos, forms a terrestrial ecoregion with a rich biodiversity. The region boasts of over 600 species of marine fishes, 78 species of corals, 82 species of seaweed, and numerous species of crabs, lobsters, gastropods, bivalves, and birds. Pitti Island, in particular, is an important breeding ground for sea turtles and various pelagic birds, and has been declared a bird sanctuary.
Activities	<u>ACTIVITY-1: ENGLISH</u> Write an expository dialogue on the impact of overfishing on carol reefs and deliver it in the class. <u>गतिविधि –2 हिंदी</u>
	लक्षद्वीप के समुद्र तल में उपस्थित मूँगे (coral) के विविध आकार व रंग को कथात्मक कविता के रूप में कक्षा में प्रस्तुत कीजिए। इस प्रस्तुति को एम०एस०टीम पर अपलोड कीजिए।
	<ul> <li>ACTIVITY-3 MATHEMATICS</li> <li>Exploring coral reefs, create a Trifold presentation (36 inches by 48 inches) as explained below:</li> <li>For the first Panel, explore different types of coral reefs and their fractional distribution around the islands. Also, draw a rectangle (representing the archipelago), divide it into 36 equal parts and shade the number of parts which are coral reefs.</li> </ul>

	<ul> <li>For the second panel, discover and display how coral reefs reflect real-life mathematics: patterns, symmetry and shapes/tessellation.</li> <li>Patterns are observed in the coral reefs. Paste pictures and name the type of pattern found in different corals.</li> <li>Make a coral pattern strip. Use cut-outs of circles, triangles and squares.</li> <li>Radial symmetry means the shape looks the same all around its centre. Find out about corals which have radial symmetry and create symmetrical coral flower.</li> <li>Shapes and Tessellation are observed in corals. Paste pictures and explain where in corals you see tessellation.</li> <li>Be creative and build a coral tile with tessellation.</li> <li>For the third Panel, use clay, cotton, paper, shells, etc. to build or draw your own coral reef. Show where you used patterns, symmetry and tessellation. Add labels to highlight each concept.</li> <li>Link for Reference: <ul> <li>https://youtu.be/ZrTpyOLnB7s?si=ZZQBh2SLfySsGXgs</li> </ul> </li> <li>ACTIVITY- 4 SCIENCE</li> <li>Explain the formation of coral islands on an A4 size sheet. Include the following points: <ul> <li>Introduction of the coral reefs</li> <li>Types of coral reefs</li> <li>Various functions of coral reefs</li> </ul></li></ul>
Learning Outcomes	<ul> <li>Students will demonstrate an understanding of the coral reefs of Lakshadweep Islands and their ecological significance.</li> <li>Students will be able to identify the major environmental threats affecting Lakshadweep's marine life.</li> <li>Students will write impactful 'voice of the sea' speech bubbles, showing empathy and understanding of how pollution and climate change harm ocean creatures.</li> <li>Research, collaboration and presentation skills will be enriched as students explore and share information about the islands' coral reefs and conservation challenges.</li> <li>Creativity, critical thinking and artistic interpretation will be nurtured while fostering appreciation for the Lakshadweep's coral reefs.</li> <li>पर्यटन के द्वारा अनुभवों का विस्तार होगा।</li> </ul>
Self-evaluation and follow up	<ul> <li>Parameters</li> <li>Originality</li> <li>Understanding</li> <li>Creativity</li> <li>Innovation</li> <li>Presentation</li> <li>Reflection</li> </ul>

# ART INTEGRATION PROJECT CLASS -VII SESSION- 2025-2026

Topic	Volcanoes of Andaman- A Geological Mystery
Subject and Art Integrated	English, Hindi, Mathematics, Science, Social Science, ICT, Art and Craft
Objectives	<ul> <li>Students will be able to:</li> <li>&gt; undertake a geological journey to explore the volcanoes of Andaman and Nicobar Islands.</li> <li>&gt; assess the risks associated with volcanic eruptions, including threat to human life, infrastructure and the environment</li> <li>&gt; apply geometric and mathematical concepts by analysing dimensions and creating a scaled 3D model of Barren Island.</li> <li>&gt; develop data representation skills by creating pictographs, bar graphs and timelines to visually interpret scientific information.</li> <li>&gt; Understand the need of effective evacuation plans, emergency response protocols and public education</li> <li>&gt; अंडमान–निकोबार के समुद्री और स्थलीय संरचना के प्रति जागरूक करवाना।</li> </ul>
Material required	A3, A4 size colourful sheets, paper mache/clay/cardboard, watercolours, pencil colours, sketch pens, bottle, sea/land miniature items, scissors, glue and ruler. Create a folder
	The Andaman Islands, known for their stunning beaches and tropical landscapes, hold a geological secret; they are home to the only volcanoes in South Asia. Among these, the Barren Island volcano stands out as the sole confirmed active volcano in the region. These volcanic formations, along with the islands' intriguing mud volcanoes, add a layer of geological wonder to the area's natural beauty. The volcanic activity in the Andaman Islands is a result of subduction, a process where one tectonic plate slides beneath another.
	ACTIVITY-1 ENGLISH You are a newsreader. You have covered the volcanic eruption in the Andaman and Nicobar Island. Make a video of the news reading and upload in the assignment section of MS Teams. <u>गतिविधि–2 हिंदी</u> ज्वालामुखी– 'एक प्राकृतिक विस्फोट' विषय पर अपने विचार प्रभावशाली तरीके से कक्षा में प्रस्तुत कीजिए।
Activities	<ul> <li>ACTIVITY- 3 MATHEMATICS</li> <li>Create a scaled 3D volcano model using real-world dimensions and design an informative A3-size poster.</li> <li>Part I: Create a scaled 3D Model of the Volcano: Scale: 1 cm = 100 meters Real Dimensions: Height: 350 meters → Model Height: 3.5 cm Base Radius: 1000 meters → Model Radius: 10 cm</li> <li>Label the following features: Crater, Lava, Base, Sea Level and Ash Cloud.</li> <li>Decorate the model with small flags displaying interesting mathematical facts about Barren Island.</li> </ul>

	Part II: Create a visually appealing A3-size poster with a beautiful collage of
	the Barren Island and also give the following information:
	1. Show lava composition using creative symbols in a
	pictograph.
	2. Prepare a bar graph comparing the heights of five
	volcanoes around the world (e.g., Mauna Loa, Mount Fuji,
	Mount Etna, Mount St. Helens, Barren Island).
	3. Aspect ratio in volcanoes refers to the ratio of a volcano's height to its base
	diameter or width. This ratio can provide valuable insights into a volcano's shape,
	structure and potential behaviour. Show the utility of the aspect ratio along with
	the aspect ratio of any 5 volcanoes in the world.
	4. Create an event timeline plotting the years and details of Barren Island's
	eruptions over the past 10 years.
	Link for Reference:
	<ul> <li><u>https://youtu.be/HJFhqrevVpM?si=r5bgzM0ZZ9M1ed7s</u></li> </ul>
	ACTIVITY A SCIENCE
	ACTIVITIE 4 SCIENCE Explain the formation of 'Barron Island Volcane' with diagram covering the
	following noints.
	Scientific principle behind eruption
	<ul> <li>Movement of magma</li> </ul>
	<ul> <li>Pressure huilds un</li> </ul>
	Vent formation
	Eiection
	ACTIVITY-5 SOCIAL SCIENCE
	Describe disaster management strategies/ plan of action in case of volcanic
	• Students will demonstrate an understanding of the forces of nature in the
	Indian sea.
	• Students will creatively express their observations through postcard
· ·	illustrations, bottle dioramas and campaign posters, enhancing their visual
Outcomes	and artistic representation skills.
outcomes	<ul> <li>Research and presentation skills will be enriched.</li> </ul>
	• Creativity, critical thinking and artistic interpretation will be nurtured
	while fostering understanding for Andaman's volcanoes.
	<ul> <li>अंडमान–निकोबार की स्थलीय जानकारी प्राप्त होगी।</li> </ul>
Self-evaluation and follow up	Parameters
	Originality
	Understanding
	• Creativity
	Innovation
	Presentation
	Reflection

#### ART INTEGRATION PROJECT CLASS -VIII SESSION- 2025-2026

Topic	Lakshadweep's Emblem: A Symbol of Unity and Nature
Subject and	English Hindi Mathematics Science Social Science ICT Art and Craft
Art Integrated	English, filliul, Mathematics, Science, Social Science, 101, Alt and Craft
Objectives	Students will be able to:> analyse the key symbols and elements in the Lakshadweep emblem and their representation of the region's culture, nature, and history.> study the emblem's depiction of natural resources, such as the sea, coral reefs, and biodiversity, and how these are integral to the region.> explore the historical significance of the emblem and how it connects to the formation and governance of Lakshadweep as a Union Territory.> understand how the emblem visually communicates the identity of Lakshadweep on both at national and global level.> examine the role the emblem plays in fostering a sense of pride and unity among the people of Lakshadweep.> look into the design and creation process of the Lakshadweep emblem, exploring the considerations behind its development.> लक्षद्वीप की प्रकृति से परिचित कराना व रिपोर्ट लेखन कला का विकास करना।
	A3, A4 size colourful sheets, coconut husks, thread, fevicol, pencil colors, markers,
Material	sketch pens, stickers/embellishments, cardboard, coloured clay, decorative
requirea	figurines a political map of Lakshadwaan and scrap book
	The emblem of Lakshadween is a symbol that represents the unique identity
Activities	The emblem of Lakshadweep is a symbol that represents the unique identify and characteristics of this union territory. The emblem encapsulates the essence of Lakshadweep's natural beauty, cultural heritage, and its connection to the sea. The official emblem is used on government documents, official communications, and other state symbols, representing the authority and identity of the Lakshadweep administration. <b>ACTIVITY-1 ENGLISH</b> Write a speech on the emblem of Lakshadweep on an A4 size sheet. Include details of its design, colours, symbols, significance of each component of the emblem and its relevance to its culture, history and environment. Make a video of the speech and upload in the assignment section of MS Teams. <b>TIRITE-2 हिंदी</b> लक्षद्वीप की प्रकृति को मद्देनज़र रखते हुए एक सचित्र रिपोर्ट तैयार कीजिए और कक्षा में प्रस्तुत कीजिए। <b>ACTIVITY-3 MATHEMATICS</b> <b>Lakshadweep - The Mathematical Emblem</b> <b>Task 1</b> : Create a 3D Model of Lakshadweep Emblem using colourful clay. • Outer Shape - The Circle of the Sea Use a perfect circle as the base of the emblem and calculate circumference and area using the formulas: $C = 2\pi r$ and $A = \pi r^2$
	Represent islands with regular polygons (hexagons, pentagons). Arrange in a circular pattern using rotation symmetry (10° apart). Identify interior angles and classify polygons.

	<ul> <li>Palm Tree - The Golden Leaf Spiral Create spiral leaf patterns using the Fibonacci sequence (1,1,2,3,5,8). Relate the design to the Golden Ratio (1:1.618). Show how natural forms follow this ratio - palm leaves, shells and flowers.</li> <li>Waves - Repeating Curves and Patterns Create waves using smooth curved lines (semi-circles or arcs). Analyse the idea of periodicity and repetition in patterns and explore reflection symmetry in wave design.</li> <li>Border - Tessellations and Proportions Use triangles and squares to create a tessellated border. Connect the proportions of the frame to the Golden Ratio to enhance aesthetics.</li> </ul>
	ACTIVITY -4 SCIENCE
	Lakshadweep - The Science Emblem
	Imagine Lakshadweep is chosen as India's 'Science Emblem' for its unique natural features and scientific significance. Design a visual representation (a physical diorama, a 3D model, or a digital artwork) that showcases at least three distinct scientific aspects of Lakshadweep's Emblem. For each scientific aspect you highlight, include a brief artistic depiction and an explanation of the underlying scientific principles and their importance to the islands' ecosystem and beyond.
	ACTIVITY- 5 SOCIAL SCIENCE
	Make a small passport-style ID card for 'The Citizen of Lakshadweep' with an emblem, island name and a traditional symbol or pattern.
Learning Outcomes	<ul> <li>Students will gain a deeper understanding of how emblems can convey complex cultural, historical, and natural symbols through visual design.</li> <li>Learners will develop an appreciation for the unique cultural and environmental identity of Lakshadweep, and how the emblem reflects these aspects.</li> <li>The project will foster critical thinking about how regional symbols contribute to the national identity and how they are used for representation and unity.</li> <li>Students will acquire knowledge of the historical evolution of Lakshadweep, including its governance and its significance in the broader context of India's administration.</li> <li>Learners will improve their ability to analyse visual designs, understanding the role of each element in the emblem and how they work together to convey a message.</li> <li>Through the study of Lakshadweep's emblem, students will gain a greater understanding of the region's diverse cultural and ecological landscape.</li> <li>लक्षद्वीप के सांस्कृतिक धरोहरों व उत्सवों की जानकरी प्राप्त होगी।</li> </ul>
Self-evaluation and follow up	Parameters         Originality         Creativity         Comprehension         Presentation         Interdisciplinary integration         Time management         Innovation         Reflection

# ART INTEGRATION PROJECT CLASS -IX SESSION- 2025-2026

Topic	Andaman & Nicobar- 'A Haven of Biodiversity'
Subject and Art Integrated	English, Hindi, Mathematics, Science, Social science, ICT, Art and Craft
Objectives	Students will be able to• understand the treasure trove of biodiversity boasting an incredible array of flora & fauna.• understand the interconnectedness of different species and ecosystems.• understand role of conserving the fragile ecosystem of the region.• preserve the unique biodiversity of the region.• learn about the conservation status of various species.• explore mathematical concepts in a creative and hands-on way, helping better understanding of the surface area and volume.• apply formulae and mathematical reasoning to real-life objects and artistic creations, encouraging critical thinking and problem-solving.• अंडमान–निकोबार की वन–संपदा के संबंध में जानकारी प्राप्त करना।
Material required	Paper, mould, pens, crayons, organic colours, geometry box, A4 sheets, A3 coloured sheet, graph paper, cardboard, scrapbook and map of Anadaman and Nicobar. Create a folder
	The Andaman and Nicobar Islands, located in the eastern side of the Bay of Bengal, are an archipelago known for their rich biodiversity and unique ecosystems. The islands are a treasure trove of plant life, with over 2,500 flowering plant species recorded, 10% of which are found nowhere else. The islands boast tropical rainforests and mangroves, with mangroves playing a vital role in protecting the coastline and supporting marine life. The islands' ecosystem is also characterised by its marine faunal diversity, including coral reefs and associated fauna. The Zoological Survey of India (ZSI) has documented that the Andaman and Nicobar Islands, despite making up only 0.25% of India's landmass, are home to over 10% of the country's faunal species.
Activities	Write an ode on the natural beauty and biodiversity of the Andaman and Nicobar Islands, exploring the themes like conservation and impact of human activities on the environment. Record it and upload in the assignment section of MS Teams.
	<u>भारतपाय—2 रहदा</u> अंडमान—निकोबार के जैव—विविधता को बचाने हेतु दो प्लेकार्ड (placard) स्लोगन बनाइए।
	ACTIVITY 3 MATHEMATICS Mapping Biodiversity: A Mathematical Exploration of the Andaman and
	Nicobar's Flora and Fauna through Coordinate Geometry and Statistics
	<b>Task:</b> Create a sturdy and clean Cartesian plane by pasting graph sheets on a cardboard. Define the x-axis (longitude) and y-axis (latitude) on this Cartesian plane. Choose a suitable scale (e.g., 1 unit = 10 km).

	Take Port Blair as origin for reference. Use the chosen scale to plot any 5 Andaman Islands on the graph paper. Ensure accurate representation of the chosen islands' shape and size. Choose one biodiversity hotspot to represent the proportions of different types of flora and fauna. Use reliable maps and geographical databases to find the coordinates (latitude and longitude) of chosen biodiversity hotspot.
	Highlight biodiversity hotspot using different colours and artistic elements to bring it to life. Plot exact location of the biodiversity hotspot using coordinates. Collect data on biodiversity proportions. Represent your findings through a pie chart to visualise biodiversity proportions in Andaman.
	ACTIVITY-4 SCIENCE
	Prepare a collage on an A4 sheet that highlights the rich marine biodiversity, including coral reefs, various fish species, and endangered marine animals.
	ACTIVITY- 5 SOCIAL SCIENCE
	Mark the selected biodiversity hotspot on a political or physical Andaman and Nicobar Islands map. Also, write the following information on an A4 size sheet: • its location (latitude and longitude) • key species of flora and fauna found there (3–4 examples) • why it's ecologically important
	<ul> <li>Learners will develop skills in observing and documenting the flora and fauna.</li> </ul>
Learning Outcomes	<ul> <li>Learners will develop research skills by investigating the biodiversity of the islands.</li> <li>Learners will develop a sense of responsibility towards conserving the unique biodiversity of the islands.</li> <li>Critical thinking and idea generation skills of the learners will be enhanced.</li> <li>अंडमान–निकोबार के वनस्पतियों की जानकारी प्राप्त होगी।</li> </ul>
	Parameters
Self-evaluation and follow up	<ul> <li>Understanding</li> <li>Creativity</li> <li>Innovation</li> <li>Presentation</li> </ul>

# **ART INTEGRATION PROJECT**

#### <u>CLASS X</u>

#### SESSION: 2025-26

	Assign coordinates to 5 islands of Lakshadweep using pins. Select pairs of islands
	and draw the ferry routes (lines) connecting them using a thread. For each pair of
	islands, use the two-point formula to write the linear equation in two variables that
	represent the ferry route. The formula for the equation of a line between two points
	$(x_1, y_1) (x_1, y_1)$ and $(x_2, y_2) (x_2, y_2)$ is
	$(y_1, y_2) = y_2 - y_1$ (y_1, y_2)
	$(y - y_1) = \frac{1}{x_2 - x_1} (x - x_1)$
	Convert the equation into standard form $ax + by + c = 0ax + by + c = 0$ for each
	ferry route. Identify where different ferry routes intersect. Use the substitution or
	elimination method to solve the system of equations and find the coordinates of the
	intersection points. This point represents the meeting point of two ferry routes. The
	intersection points mean in real-world terms, the place where two ferries cross
	paths or a popular transfer point. Decorate the map by adding pins with Island
	names, boat icons and wave patterns around the ferry routes to make the map
	different formy routes and make the graph more attractive. Include a logend to
	amerent ferry routes and make the graph more attractive. Include a legend to
	explain the routes, islands and any other symbols used.
	<u>ACTIVITY – 4 SCIENCE</u>
	Create a public awareness campaign on an A4 size sheet to educate people about
	sustainable ferry travel in Lakshadweep.
	ACTIVITY -5 SOCIAL SCIENCE
	On an A4-sized sheet, explain in bullet points how ferry connectivity affects life in
	Lakshadweep, like:
	• enables movement of people for education, healthcare, trade
	• strengthens administration and supply chains across islands
	<ul> <li>promotes tourism and cultural exchange</li> </ul>
	• Students will analyse how tourism affects the fragile marine ecosystems of
	Lakshadweep, including coral reefs, biodiversity, and coastal habitats.
	• Learners will evaluate the potential of sustainable tourism models in
	Lakshadweep and how they can balance environmental conservation with
	economic development.
	• Learners will gain insights into effective tourism management strategies for
Learning	maintaining a balance between the growth of tourism and nature.
Outcomes	• Learners will assess the role of tourism in promoting or threatening the
	• Students will apply the knowledge gained throughout the project to propose
	recommendations for a sustainable tourism strategy for Lakshadween
	addressing both environmental and socio-economic concerns.
	• Students will be able to develop both mathematical and geographical reasoning
	through the application of algebra.
	• लक्षद्वीप के दर्शनीय स्थलों की जॉनकारी प्राप्त होगी।
	Parameters
Solf avaluation	Originality
sen-evaluation	Understanding
and follow up	Creativity
	Innovation
	Presentation