

National Curriculum of Pakistan
2025

Non-Credit Curriculum

ENVIRONMENT FOR LIVING

FOR GRADE 1 TO GRADE 8



NATIONAL CURRICULUM COUNCIL
MINISTRY OF FEDERAL EDUCATION AND
PROFESSIONAL TRAINING, ISLAMABAD
GOVERNMENT OF PAKISTAN

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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P R E F A C E

The National Curriculum Council (NCC) Ministry of Federal Education and Professional Training, is committed to providing a quality, comprehensive, and forward-looking education that meets the needs of students across Pakistan. In pursuit of this goal, the Environment for Living curriculum for Grades 1 to 8 has been developed to instill environmental awareness, knowledge, and a sense of responsibility among students.

This curriculum is designed to help learners understand the significance of the environment and their role in its preservation. It aims to develop an informed perspective on ecological balance, sustainability, and responsible citizenship. By integrating scientific concepts, real-world applications, and experiential learning, the curriculum encourages students to explore their surroundings, analyze environmental challenges, and develop problem-solving skills to address them effectively.

A key objective of this curriculum is to cultivate a deep understanding of the interdependence between humans and nature while nurturing values of care, respect, and responsibility toward the environment. It emphasizes the development of critical thinking, inquiry-based learning, and hands-on experiences that empower students to adopt sustainable practices. Through this curriculum, we aspire to embed a sense of environmental stewardship, equipping students with the knowledge, skills, and attitudes necessary to contribute to a healthier and more sustainable world.

Dr. Tabassum Naz

Director,

National Curriculum Council

M/o Federal Education and Professional Training Islamabad

ACKNOWLEDGMENT

The National Curriculum Council (NCC) extends its sincere gratitude to all individuals and organizations that played a crucial role in shaping this curriculum. The successful development of the Environment for Living curriculum for Grades 1-8 would not have been possible without the invaluable contributions and collective expertise of multiple stakeholders. I express my heartfelt appreciation to Rupani Foundation Pakistan, GbeeTehive, and its consultant organization, Institute of Learning for a Better Tomorrow (ILFABET) Pvt. Ltd., for their dedicated support and collaboration in the design and development of this curriculum. I also acknowledge the valuable insights drawn from UNESCO's Greening Curriculum Guidance, which served as a guiding framework for ensuring the curriculum's global relevance and sustainability.

A special thanks to the expert review committees from National Curriculum Council, International Islamic University and Federal College of Education Islamabad, whose rigorous assessment and constructive feedback have greatly enhanced the quality and effectiveness of this curriculum. Their dedication and commitment to excellence have ensured that this curriculum meets the educational standards while remaining inclusive and adaptable to the diverse learning needs of young children in Pakistan.

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Domain 1: Understanding Our Environment

Themes Covered:

- I. Our environment
- II. Biodiversity
- III. Human relation to the natural environment

Standard: *The students will have the skills (cognitive and social/emotional), and behaviours related to living and non-living components of the environment and how they are related to each other, the formation of ecosystems and the relationship between their living (biotic) and non-living (abiotic) components, Earth's systems and the fluxes of matter and energy between the ecosystem elements on Earth, weather, climate, seasons and their relationship with the ecosystems.*

Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
	Theme I – Our environment							
	Benchmark I: <i>Living and Non-living components of the environment and how they are related to each other.</i>			Benchmark I: <i>Formation of ecosystems and the relationship between their living (biotic) and non-living (abiotic) components.</i>		Benchmark I: <i>Earth's systems and the fluxes of matter and energy between the ecosystem elements on Earth. Weather, climate, seasons and their relationship with the ecosystems</i>		
Student Learning Outcomes								
Cognitive	<i>The students will be able to: SLO-1: Describe that everything that surrounds us makes our environment SLO-2: Group living and non-living components of the environment.</i>	<i>The students will be able to: SLO-1: Describe how living and non-living elements need each other in our surroundings SLO-2: Share what they need around them as humans to make their environment conducive</i>	<i>The students will be able to: SLO-1: Ask about the possible changes in the quality of living and non-living things in the environment.</i>	<i>The students will be able to: SLO-1: Identify factors sustaining life (plants and animals) on Earth (relationship between biotic and abiotic elements) SLO-2: Observe how diverse life (plants/animals) on Earth is, resulting in biodiversity</i>	<i>The students will be able to: SLO-1: Identify different ecosystems with biodiversity on earth (urban/rural).</i>	<i>The students will be able to: SLO-1: Describe the layered system that makes up Earth (geosphere, hydrosphere, atmosphere, and biosphere) SLO-2: Recognize that humans are part of any ecosystem</i>	<i>The students will be able to: SLO-1: Discuss how humans shape and impact their natural environments SLO-2: Understanding the relationship between weather, climate and seasons.</i>	<i>The students will be able to: SLO-1: Describe the large fluxes of matter in place in a specific ecosystem. (teachers should explain how matter moves in an ecosystem, e.g. carbon, nitrogen. In a food web they can explain transfer of matter from</i>

								<p><i>SLO-3: Recognize the significance of seasonal variations, such as rainfall, temperature changes, and sunlight, in shaping local biodiversity dynamics throughout the year.</i></p>	<p><i>producer to consumers and decomposers)</i> <i>SLO-2: Explain water/hydrological cycles such as carbon, phosphorus, or nitrate between the biosphere, atmosphere and lithosphere.</i> <i>SLO-3: -describe small scale fluxes and energy changes in conditions such as and cellular respiration.</i> <i>SLO-4: Understand middle-scale energy fluxes in an organism.</i> <i>SLO-5 Demonstrate complex thinking towards biodiversity.</i></p>
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Social and Emotional	<i>The students will be able to: SLO-3: Show respect for everything that makes their environment comfortable</i>	<i>The students will be able to: SLO-3: Appreciate the value of living and non-living things in their environment and how they make their life better together</i>	<i>The students will be able to: SLO-2: Appreciate the relationship between living and non-living elements to make their environment livable.</i>	<i>The students will be able to: SLO-3: Appreciate the diversity in living and non-living elements of the environment</i>	<i>The students will be able to: SLO-2: Show respect and care for every single component of an ecosystem and its importance in sustaining the ecosystem SLO-3: Value the role of humans in every ecosystem</i>	<i>The students will be able to: SLO-3 Appreciate the discipline in nature and its importance</i>	<i>The students will be able to:SLO-4: Discuss with peers about the current changes in weather/climate and the impacts they see on life</i>	<i>The students will be able to: SLO-6 Appreciate the aspects of the complexity and the harmony of an ecosystem. SLO-7: Discuss with peers about the complex nature of the environment and how it is impacting their life</i>
Behavioural	<i>The students will be able to: SLO-4: Understand the value of living things. SLO-5: Practice not to harm anything around them, whether living or non-living</i>	<i>The students will be able to: SLO-4: Develop a habit of respecting everything surrounding them, whether living or non-living</i>	<i>The students will be able to: SLO-3: Develop a habit of keenly observing changes in their environment</i>	<i>The students will be able to: SLO-4: Develop a low to zero-waste attitude and promote it in the school and at home</i>	<i>The students will be able to: SLO-4: Encourage the preservation and enhancement of local ecosystems (e.g. through gardening, reforestation, fostering closer connections with nature).</i>	<i>The students will be able to: SLO-4: Adopt a positive role in every ecosystem -</i>	<i>The students will be able to: SLO-5: Find ways to use the possible role of human beings to benefit ecosystems around them and not harm creatures and the natural systems them.</i>	<i>The students will be able to: SLO-8: understand the ecosystem complexities and the role of human activities</i>

Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
	Theme II – Biodiversity							
	Benchmark II: <i>Variety of plants, animals and micro-organisms in the environment and their interactions</i>			Benchmark II: <i>Biodiversity and its link with the abiotic elements of the environment and human activity</i>		Benchmark II: <i>Biodiversity’s link with migration, adaptation, evolution and survival.</i>		
	Student Learning Outcomes							
Cognitive	<p>The students will be able to:</p> <p><i>SLO-1: Recognize that animals and plants have a huge variety (have their types)</i></p> <p><i>SLO-2: Differentiate animals and plants live in different environments (the basic concept of habitat)</i></p>	<p>The students will be able to:</p> <p><i>SLO-1: Identify and contrast how animals/plants are different (including behaviours and habitats).</i></p> <p><i>SLO-2: Demonstrate how different animals interact with each other (food chain, habitat and population)</i></p>	<p>The students will be able to:</p> <p><i>SLO-1: Tell about the presence of micro-organisms and their role in ecosystems,</i></p> <p><i>SLO-2: Identify and compare tools to identify and recognize microscopic diversity (e.g. microscopes,</i></p>	<p>The students will be able to:</p> <p><i>SLO-1: Explain the complexity of biodiversity and ecosystems, including in their local environment.</i></p> <p><i>SLO-2: Identify how daily life activities are linked with plants, animals and/or the natural environment (resources for food, clothes, houses, etc.).</i></p>	<p>The students will be able to:</p> <p><i>SLO-1: Describe and differentiate how specific plants, such as trees/forests, sea algae and plankton are important for the environment.</i></p> <p><i>SLO-2: Compare the roles of species diversity in ecosystem self-regulation, including the functions of decomposers and umbrella species.</i></p>	<p>The students will be able to:</p> <p><i>SLO-1: Describe the tectonic plates and illustrate how it can cause changes in species in different regions of the world.</i></p> <p><i>SLO-2: Discuss how atmospheric composition has evolved on Earth</i></p> <p><i>SLO-3: Analyze changes in the biotic and abiotic elements of the environment that result in migration, and overall impact on biodiversity and the ecosystem</i></p>	<p>The students will be able to:</p> <p><i>SLO-1: Describe the evolutionary process as a lengthy journey,</i></p> <p><i>SLO-2: Describe how living things in the present age are adapting to changing conditions.</i></p>	<p>The students will be able to:</p> <p><i>SLO-1: Present specific examples of species diversity, e.g. Taxa or biodiversity functions that are endangered (birds, bees, frogs...).</i></p> <p><i>SLO-2: Discuss and understand how some animal and plant species are extinct and what changes in their ecosystem resulted in vanishing them from the face of the earth.</i></p>

<p>Social and Emotional</p>	<p>The students will be able to: SLO-3: Share with peers about the animals and plants that live in and/or around their schools and communities</p>	<p>The students will be able to: SLO-3: Discuss with peers about one or two animals to understand their food chain and how plants play their role in it -</p>	<p>The students will be able to: SLO-3: discuss that nothing on Earth is useless. Everything is created for a purpose. Even the creatures we can't see with the naked eye have an important role on this planet.</p>	<p>The students will be able to: SLO-3: Describe how every plant/animal/micro-organism plays an important role in human life and meets our needs like food, clothing, in day-to-day activities.</p>	<p>The students will be able to: SLO-3: describe the responsibility of taking care of plants and animals so that they can play their role in maintaining the ecosystem balance</p>	<p>The students will be able to: SLO-4: Discuss with peers the impact of changing environmental conditions and weather patterns on biodiversity and their habitats.</p>	<p>The students will be able to: SLO-3: Discuss with elders about things they have seen changing over time.</p>	<p>The students will be able to: SLO-3: Discuss with peers how some endangered species can be saved from extinction and what steps are already taken to save species like butterflies, and fireflies in urban areas and plants/herbs in rural areas (teachers can identify local plants and animals with decreasing populations or getting extinct).</p>
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Behavioural	<i>The students will be able to: SLO-4: Realize that nests, hives and plants are the homes of some animals or plants that must be protected not harmed.</i>	<i>The students will be able to: SLO-4: Practice eating balanced food including plants and animals to maintain health without disturbing their population balance.</i>	<i>The students will be able to: SLO-4: Aware of the harmful micro-organisms to protect themselves (bacterial and viral infections) and useful micro-organisms to help them grow (probiotics)</i>	<i>The students will be able to: SLO-4: Use things made from plants and animals as they take time and effort to grow (crops, food, clothes, shelter, houses, medicines, transport etc.).</i>	<i>The students will be able to: SLO-4: participate in the local/school-level plantation campaigns and learn about using different plants and animals to improve soil fertility naturally.</i>	<i>The students will be able to: SLO-5: Organize and participate in awareness campaigns within their schools</i>	<i>The students will be able to: SLO-4: Initiate educational campaigns or workshops within the community to share knowledge about the impact of better adapted individuals on the tree of life,</i>	<i>The students will be able to: SLO-4: Demonstrate a sustained commitment to responsible environmental behaviour in their daily lives through various activities such as collaborating with local environmental organizations SLO-5: Find out ways to work with school mates and/or friends to restore some of the biodiversity in their area with local plants and animals with the guidance of teachers</i>
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Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
	Theme III - Human Relation to the Natural Environment							
	Benchmark III: Food, ecosystem and biodiversity			Benchmark III: Population, urbanization and the environment		Benchmark III: Human activities that cause environmental issues, disrupt ecosystems and alter habitat.		
	Student Learning Outcomes							
Cognitive	<i>The students will be able to: SLO-1: Describe different kinds of foods and drinks they consume SLO-2: Identify the sources of different food items (maybe those in their lunch boxes or they ate today/yesterday and the sources can be divided as plants or animals).</i>	<i>The students will be able to: SLO-1: Analyze the dietary habits of selected species, including their consumption of both plants and animals SLO-2: Describe the basic nutritional needs of humans according to their stage of life (e.g. baby, child, youth, adult, elder).</i>	<i>The students will be able to: SLO-1: Compare different diets and food cultures from around the World.</i>	<i>The students will be able to: SLO-1: Discuss how urbanization, mechanization has increased the distance between humans and nature. SLO-2: Discuss the natural environment, such as forests, are good for human mental and physical well-being.</i>	<i>The students will be able to: - SLO-1: Understand the relationship between the population increase, urbanization and food security.</i>	<i>The students will be able to: SLO-1: Compare the different environmental impacts of different modes of Transportation SLO-2: describe the adverse effects of intensive and industrial fishing on marine ecosystems. SLO-3: Identify the packing materials for food and other items whether it is more useful or harmful to the environment. -</i>	<i>The students will be able to: SLO-1: Identify various types of pollution (air, soil, water, light, noise) SLO-2: Describe the relationship between pollution and changing weather patterns, resulting in climate change</i>	<i>The students will be able to: SLO-1: Describe how buildings, towns or cities have less biodiversity than natural areas. SLO-2: Research and gather information on how people living in cities can connect to nature like those in villages and hilly areas.</i>
Social and Emotional	<i>The students will be able to: SLO-3: Appreciate the efforts of farmers in growing</i>	<i>The students will be able to: SLO-3 Keep a record of what they eat in a week</i>	<i>The students will be able to: SLO-2: Interview a shopkeeper, farmer or elder at home to understand how the</i>	<i>The students will be able to: SLO-3: Find time to spend in a natural environment with plants, animals,</i>	<i>The students will be able to: SLO-2: Discuss with peers about the importance of matching</i>	<i>The students will be able to: SLO-4 List down the activities or things they see in their daily life that</i>	<i>The students will be able to: SLO-3 Analyze and discuss with peers the activities that are</i>	<i>The students will be able to: SLO-3: Develop small models of cities, in peer groups, where</i>

	<i>crops and raising animals for meat</i>	<i>and what their dietary value is.</i>	<i>food they ate was produced and reached their plate.</i>	<i>water etc. with friends or family.</i>	<i>population growth with the available natural resources</i>	<i>are disturbing the natural environment</i>	<i>hazardous for the environment and people can minimize..</i>	<i>people have the opportunity to stay connected with nature.</i>
Behavioural	<i>The students will be able to: SLO-4: Help the gardener/elder in school and at home to grow a kitchen garden.</i>	<i>The students will be able to: SLO-4: Commit to themselves to eat what is grown and available in their area</i>	<i>The students will be able to: SLO-3: discuss the variety of food produced in different areas and transported to areas that don't produce it.</i>	<i>The students will be able to: SLO-4: Make efforts to protect the natural environment</i>	<i>The students will be able to: SLO-3: Feel curious about how humans can still protect land with the natural environment.</i>	<i>The students will be able to: SLO-5: Find ways to start changing themselves and promote activities that can reduce the level with which human activities are disturbing nature.</i>	<i>The students will be able to: SLO-4: Develop and strictly follow personal rules to minimize the pollution that they add to the environment.</i>	<i>The students will be able to: SLO-4: Appreciate and fully benefit from nature if they live near nature. SLO-5: Feel motivated to plant trees/plants and keep pets</i>

Domain 2: Climate Change

Themes Covered:

- I. Causes of climate change
- II. Climate change impacts and hazards
- III. Monitoring climate change and mitigation and
- IV. Climate Justice

Standard: *The students will have the skills (cognitive and social/emotional), and behaviours related to food waste, smoke from transport/ factories, cutting trees but not planting new trees are changing the environment negatively. natural versus human-driven climate change causes. Industries, manufacturing, non-vegetarian food, agriculture, buildings, air traffic, deforestation, lifestyles, greenhouse gases as major human-driven causes of climate change, carbon-based fuels used for electricity generation, industries, and transport, carbon emissions and carbon footprint.*

Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
	Theme I - Causes of climate change							
	Benchmark I: <i>Food waste, smoke from transport/ factories, cutting trees but not planting new trees are changing the environment negatively.</i>			Benchmark I: <i>Natural versus human-driven climate change causes. Industries, manufacturing, non-vegetarian food, Agriculture, buildings, air traffic, deforestation, lifestyles, and greenhouse gases as major human-driven causes of climate change.</i>			Benchmark I: <i>Carbon-based fuels used for electricity generation, industries, and transport, carbon emissions and carbon footprint.</i>	
	Student Learning Outcomes							
Cognitive	<i>The students will be able to: SLO-1: Observe which things produce smoke and make the air dirty/polluted (vehicles like busses, rickshaws and cars, burning</i>	<i>The students will be able to: SLO-1: Tell how cutting trees impacts the environment negatively SLO-2: Discuss about ways to</i>	<i>The students will be able to: SLO-1: Cite ways to reduce smoke and dust from the air to make it clean. SLO-2: Investigate how food waste makes the environment dirty</i>	<i>The students will be able to: SLO-1: Cite human activities that are affecting the quality of air, water and soil SLO-2: Discuss how non-vegetarian food</i>	<i>The students will be able to: SLO-1: Describe natural causes of climate change that have existed on Earth since the beginning SLO-2: Explore how human</i>	<i>The students will be able to: SLO-1: Investigate what greenhouse gases are and how they become a reason for climate change SLO-2: Explore industrial</i>	<i>The students will be able to: SLO-1: Explores ways in which electricity is generated and which of these ways use fossil fuel and add</i>	<i>The students will be able to: SLO-1: Investigate why carbon is a hazardous element and causes climate change-Describe the possibilities of</i>

	<i>wood, coal and crop stubble)</i>	<i>increase plants and trees -Identify dust as a reason for making air dirty/polluted</i>		<i>becomes a reason for climate change</i>	<i>lifestyle becomes a reason for climate change</i>	<i>manufacturing, agriculture, buildings, and air traffic as human activities causing climate change</i>	<i>carbon to the atmosphere SLO-2: Identify ways in which industries and transport are becoming a reason to add carbon to the atmosphere SLO-3: Introduction with the term carbon footprint</i>	<i>reducing carbon footprint SLO-2: make a simple computation of their carbon footprint.</i>
Social and Emotional	<i>The students will be able to: SLO-2: Show concerns about breathing in the dirty air with dust and smoke</i>	<i>The students will be able to: SLO-3: Feel responsible for planting trees and plants and taking care of them to make air and atmosphere clean</i>	<i>The students will be able to: SLO-3: Take the responsibility of having zero food waste -Develop an attitude of avoiding activities that can pollute the air</i>	<i>The students will be able to: SLO-3: Value simple lifestyles that are nature/environment friendly and promote them to make it a norm</i>	<i>The students will be able to: SLO-3: Feel the need to eat more vegetarian and less non-veg food to avoid the animal waste that causes environmental pollution, contributing to climate change</i>	<i>The students will be able to: SLO-3: Be convinced that more than natural causes human activities are the biggest cause of climate change</i>	<i>The students will be able to: SLO-4: Cultivate an attitude where everything done in life is planned to be nature-friendly and free from carbon-based waste/by-products.</i>	<i>The students will be able to: SLO-3: Realize that carbon-based fuels are hazardous to nature and must be avoided and replaced with alternate sources</i>
Behavioural	<i>The students will be able to: SLO-3: Use masks while moving outside in dusty and smoky environment</i>	<i>The students will be able to: SLO-4: Avoid adding food to their plate that they can't eat and may go to waste SLO-5: Plant trees and kitchen</i>	<i>The students will be able to: SLO-4: Cover land with grass or pebbles to avoid adding dust to the air, if there is any dusty area inside or outside the house</i>	<i>The students will be able to: SLO-4: Avoid littering the land, water and air with anything they do and encourage others around to follow</i>	<i>The students will be able to: SLO-4: Replace synthetic products with the natural ones in daily life and promote it</i>	<i>The students will be able to: SLO-4: Evaluate the human activities at home and school that might be contributing to climate change,</i>	<i>The students will be able to: SLO-5: Identify things at home and school that might be contributing to climate change and work with</i>	<i>The students will be able to: SLO-4: Use bicycles or shared transport for longer distances (keeping in mind the safety aspects, especially for</i>

		<i>gardens (use clay pots for kitchen gardening in small urban houses, if living in an urban area)</i>	<i>(request elders for help)</i>			<i>develop a plan and take action with peers/friends for at least one of these activities.</i>	<i>elders to fix them as much as possible</i>	<i>girls and children with disabilities).</i>
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Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	
	Theme II - Climate Change impacts and hazards								
	Benchmark II: <i>N/A</i>			Benchmark II: <i>Climate change impacts the environment, weather/seasons, agriculture, and animal and human life.</i>			Benchmark II: <i>Climate change-induced disaster/calamities and its impact on life. Future effects of climate change. Climate action. Adaptation and mitigation during climate change. National and international cooperation on climate action.</i>		
Student Learning Outcomes									
Cognitive	<i>N/A</i>			<i>The students will be able to: SLO-1: Analyze the effects of climate change on local weather like high average temperature, heat waves, longer-lasting droughts, more intense wildfires, uneven rainfall, and stronger storms. SLO-2: Analyze the effects of climate change on agriculture like less predictable growing</i>	<i>The students will be able to: SLO-1: Analyze the climate change impacts on the environment like, smog, melting of glaciers, rising sea levels, flooding, warmer ocean water, and ecosystem stressors. SLO-2: Analyze the effects of climate change on animals like the risk of extinction, biodiversity crisis,</i>	<i>The students will be able to: SLO-1: Identify the climate change-induced disasters/calamities happening in different parts of Pakistan and their impacts on life SLO-2: Imagine the future with climate change (with increased temperature, health issues, change in biodiversity and ecosystems,</i>	<i>The students will be able to: SLO-1: Describe the concepts of adaptation and mitigation. SLO-2: Search for some adaptation methods for a local climate change crisis identified SLO-3: Discuss some tools/technologies that help mitigate climate change.</i>	<i>The students will be able to: SLO-1: Clarify why we need international cooperation to reduce climate change and its impacts. SLO-2: Explain the importance of Government level Engagement in climate action SLO-3: List the national and international organizations, departments, and</i>	

		<p>seasons, reduced soil health, and food shortages.</p> <p><i>SLO-3: Explore the effects of climate change on humans like human health, worsening inequality, displacement, and economic impacts.</i></p>	<p>insufficient or altered habitats, migration and hard-to-adapt rapid seasonal changes.</p>	<p>unpredictable and harsh weather etc.</p> <p><i>SLO-3: Describe the concept of climate action</i></p>		<p>forums that work on climate change</p> <p><i>SLO-4: Discuss how youth is represented at these climate change forums and organizations.</i></p>
Social and Emotional	N/A	<p>The students will be able to:</p> <p><i>SLO-4: Feel concerned about the fact that climate change is a real threat to this planet and human activities are the cause.</i></p>	<p>The students will be able to:</p> <p><i>SLO-3: Feel the need to make people aware that climate change threatens food security, health and human life.</i></p>	<p>The students will be able to:</p> <p><i>SLO-4: feel the urgency to take action on climate change</i></p> <p><i>SLO-5: Empathize with people affected by disasters</i></p>	<p>The students will be able to:</p> <p><i>SLO-4: Create awareness of the adaptation approaches to a local climate threat</i></p>	<p>The students will be able to:</p> <p><i>SLO-5: Realize the fact that climate change is a global issue for which collective action is needed</i></p>
Behavioural	N/A	<p>The students will be able to:</p> <p><i>SLO-5: Avoid being part of any activity that can disturb nature and natural settings/habitats (burning, garbage and openly throwing waste, using open toilets etc)</i></p>	<p>The students will be able to:</p> <p><i>SLO-4: Avoid being part of any activity that can contribute to climate change</i></p> <p><i>-Identify some of such acts they were in recently</i></p>	<p>The students will be able to:</p> <p><i>SLO-6: Develop a group of local youth at school, to volunteer for local climate action depending of the type of disaster.</i></p>	<p>The students will be able to:</p> <p><i>SLO-5: Develop an awareness group of volunteers in school, on social media, or in the community to make people aware of the need for climate action (adaptation/mitigation)</i></p>	<p>The students will be able to:</p> <p><i>SLO-6 Develop volunteer groups at the community level to take collective community action.</i></p> <p><i>SLO-7: Perform one climate related activity</i></p>

Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
	Theme III – Monitoring Climate Change (Air Quality Index (AQI), soil and water quality assessment, Environment Impact Assessment, Energy audit, Carbon footprint and carbon credits)							
	Benchmark III: <i>N/A</i>			Benchmark III: <i>Air, water and soil quality and its indicators that tell us about their quality and fitness for use by living things.</i>		Benchmark III: Air Quality Index (AQI), soil and water quality assessment, Environment Impact Assessment, Energy audit, and Carbon Credits		
	Student Learning Outcomes							
Cognitive	<i>N/A</i>			<i>The students will be able to: SLO-1: Research to understand that the environment quality is measured with the help of some indicators like the level of greenhouse gases, temperature for, and biodegradable/non-degradable contents in water and soil.</i>	<i>The students will be able to: SLO-1: Research and describe the standards of air, water and soil quality fit for life (humans, plants and animals) so make an understanding of the same</i>	<i>The students will be able to: SLO-1: Demonstrate the method(s) of measuring air quality (Air Quality Index or AQI) and the tools/apps available to do it SLO-2: Demonstrate how water soil quality assessment is done and what tools/apps are</i>	<i>The students will be able to: SLO-1: Demonstrate the methods of Environment Impact Assessment (EIA) and the possible tools/apps/devices used.</i>	<i>The students will be able to: SLO-1: Demonstrate the energy audit methods and identify the tools/software/devices used to conduct the audit. SLO-2: Demonstrate how carbon footprint is measured and the tools/apps/devices used for it.</i>

				<i>used for this purpose.</i>		
Social and Emotional	<i>N/A</i>	<i>The students will be able to: SLO-2: Show gratitude for the scientific discoveries and the importance of science, technology and innovation that enabled humans to measure the environmental suitability for life and protect themselves.</i>	<i>The students will be able to: SLO-2: Show gratitude if you have access to high-quality air, water and soil. SLO-3: Feel concerned about the people living in low-standard air, water and soil with a constant threat to their health and well-being.</i>	<i>The students will be able to: SLO-3: Respect and Appreciate the scientific inventions in helping humankind make its environment suitable for living</i>	<i>The students will be able to: SLO-2: Recognize the importance of doing an Environmental Impact Assessment (EIA) before starting any activity or project SLO-3: Will be able to tell one example of the EIA for a local project (teachers can help them identify some projects for this purpose)</i>	<i>The students will be able to: SLO-3: Show concern about activities resulting in an increased carbon footprint. SLO-4: Commit to following the methods that help save natural resources and reduce contamination.</i>
Behavioural	<i>N/A</i>	<i>The students will be able to: SLO-3: List down a few indicators of water quality and compare them with different samples of water taken from the school, home and any other place in the community (if the water is taken from other than tap</i>	<i>The students will be able to: SLO-4: Make a list of the standards used for air, water and soil quality and see if the environment in which you live meets these standards, using the existing data/information.</i>	<i>The students will be able to: SLO-4: Conduct the air, water and soil quality assessment at school and home with the help of peers in a group activity (use existing Indigenous or technology-based</i>	<i>The students will be able to: SLO-5: Need for the EIA of every activity that is planned SLO-6: Discuss with peers the link between environment quality and increasing population..</i>	<i>The students will be able to: SLO-5: Understand and Conduct an energy audit at home and advocate for it in the neighbourhood/peers to save energy at home and in the communities/schools.</i>

		<i>then take precautions and do it with the help of an elder for open reserviurs)</i>		<i>tools or innovate to make your own tools)</i>		
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Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	
	Theme IV - Climate Justice								
	Benchmark IV: <i>N/A</i>			Benchmark IV: <i>N/A</i>	Benchmark IV: Unequal share of climate change burden, social determinants, historic economic and political process and transformed future.				
	Student Learning Outcomes								
Cognitive	<i>N/A</i>			<i>The students will be able to: SLO-1: Visualize how issues like pollution, drought and extreme storms are felt everywhere around the world (or across one's country), but some parts of the world (or one's country) experience these issues more than others</i>	<i>The students will be able to: SLO-1: Identify ways in which climate change disproportionately impacts girls/ women, children with disabilities, refugees/migrants/displaced people, Indigenous communities, informal workers, and less developed countries, drawing on national and global examples.</i>	<i>The students will be able to: SLO-1: Assess how climate injustice is a problem. SLO-2: Draw lessons from history about how some people with power and authority or out of ignorance and neglect depleted natural resources or harmed the environment without thinking about the future generations and their needs especially</i>	<i>The students will be able to: SLO-1: Identify a role that they can play in addressing the unfair impacts of climate change. SLO-2: Argue with evidence that to promote climate justice, actions must be taken to transition away from fossil fuels and</i>		

			<p><i>SLO-2: Explain how wealthy populations, industrialized countries, and polluting companies are more responsible for climate change and environmental degradation because they are more likely to be engaged in activities that are environmentally unfriendly and emit greenhouse gases.</i></p>	<p><i>industrialists and early settlers in forests</i></p>	<p><i>from economic practices that promote the extraction of natural resources for profit and growth. (</i></p>
Social and Emotional	N/A	<p><i>The students will be able to: SLO-2: Empathize with the different groups of people, communities, and/or countries that are more likely to experience the worst effects of heat waves, extreme storms, flooding, or other locally relevant climate events (may include fire and tornados).</i></p>	<p><i>The students will be able to: SLO-3: Express concern for how it is unfair for some groups suffer more and face additional risks and exposure to climate hazards, especially if it is not a result of their own choices or decisions SLO-4: Value climate actions that promote accountability, fairness, and taking</i></p>	<p><i>The students will be able to: SLO-3: Reflect critically on the detrimental impacts of poverty and inequality on both people and the planet. SLO-4: Demonstrate concerns about past actions that harmed the environment and commit to not repeating the same (at their community level as well as</i></p>	<p><i>The students will be able to: SLO-3: Realize that if we only think of ourselves, our actions could harm others and the planet SLO-4: Believe that climate action today can make a positive difference for generations to come.</i></p>

			<i>ownership over one's responsibilities</i>	<i>regional and global examples)</i>	
Behavioural	N/A	<p><i>The students will be able to:</i> <i>SLO-3: Defend those whose actions are less harmful to the planet.</i></p>	<p><i>The students will be able to:</i> <i>SLO-5: Raise awareness among friends and family of the injustice behind the unequal burden of climate impact that marginalized communities experience.</i></p>	<p><i>The students will be able to:</i> <i>SLO-5 Identify a marginalized population (at climate change risk e.g. Maldives, Bangladesh, Pakistan) and advocate with others for actions that would help to reduce the burden of the impacts of climate change on marginalized populations.</i></p>	<p><i>The students will be able to:</i> <i>SLO-5: Tell records and facts from history were collective action helped to advance equality, inclusion, justice, and/or Human Rights to identify and inspire present opportunities to advance climate justice in the future.</i> <i>SLO-6: Can tell at community up to global scale, what an individual. Population and Community can contribute to Reduce Climate change impacts to help their governments and the Global Community.</i></p>

Domain 3: Sustainable Living and Stewardship

Themes:

- I. Responsible consumption and conservation
- II. Renewable energy use
- III. Water Management
- IV. Sustainable lifestyle

Standard: The students will have the skills (cognitive and social/emotional), and behaviours related to natural resources are not infinite, careful use of resources and promoting them, human needs and wants, the concept of scarcity, preserving natural resources (forests, wildlife, water, energy and clean air), voiding pollution and conserving natural resources, following the concepts like refuse (avoid unnecessary purchasing), re-use, repair and recycle (RRRR/4Rs), regulations on the use of natural resources.

Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
	Theme I - Responsible consumption and conservation							
	Benchmark I: Natural resources are not infinite, careful use of resources and promoting it.			Benchmark I: Human needs and wants, the concept of scarcity, preserving natural resources (forests, wildlife, water, energy and clean air)		Benchmark I: Avoiding pollution and conserving natural resources, following the concepts like refuse (avoid unnecessary purchasing), re-use, repair and recycle (RRRR/4Rs), regulations on the use of natural resources		
	Student Learning Outcomes							
Cognitive	The students will be able to: SLO-1: Recognize that natural resources like tree, water, wildlife, energy etc come from nature and that	The students will be able to: SLO-1: Differentiate between basic needs and wants and analyze how consumption	The students will be able to: SLO-1: Explain what is overconsumption and how it is demonstrated.	The students will be able to: SLO-1: Explain how natural environments, such as forests, wildlife, and water are good for human	The students will be able to: SLO-1: Explain how our natural resources are not infinite, and that mining goods,	The students will be able to: SLO-1: Compare the amount of energy required to use raw materials versus recycled materials.	The students will be able to: SLO-1: Investigate the role of sustainable farming practices in reducing	The students will be able to: SLO-1: Analyze how pollution (air, water, and land) affect local communities in Pakistan.

	<i>we need to use them carefully because they are limited.</i>	<i>affects the environment.</i> <i>SLO-2: Explain how excessive use of natural resources (tree, water, wildlife) leads to shortages.</i>	<i>SLO-2: Analyze how cutting trees, hunting animals, and wasting water harm the environment with the help of local examples.</i>	<i>mental and physical well-being.</i>	<i>fossil fuel, plants and animals have finite quantities on our planet.</i> <i>SLO-2: Define scarcity as the limited availability of resources.</i>	<i>SLO-2: Describe the impact of human activities on the environment, particularly in Pakistan, using local examples (e.g., plastic waste, water scarcity).</i>	<i>environmental footprints.</i> <i>SLO-2: Explain the principles of the RRRR/4Rs (Refuse, Re-use, Repair, Recycle) approach and its relevance to everyday life.</i>	<i>SLO-2: Investigate how the RRRR/4Rs concepts can be integrated into industries and businesses in Pakistan to promote sustainability.</i>
Social and Emotional	<i>The students will be able to:</i> <i>SLO-2: Share examples of how families and communities use natural resources.</i>	<i>The students will be able to:</i> <i>SLO-3: Develop a sense of gratitude for available resources and empathy for those with limited access.</i> <i>SLO-4: Participate in group activities to promote resource-saving habits.</i>	<i>The students will be able to:</i> <i>SLO-3: Show concerns about how people in different areas in Pakistan depend on natural resources (such as forests, water etc.) that are getting affected by climate change</i>	<i>The students will be able to:</i> <i>SLO-2: Discuss their concerns with peers about how air pollution impacts the health of vulnerable groups in different regions of Pakistan.</i> <i>SLO-3: Identify global and local examples of resource depletion.</i>	<i>The students will be able to:</i> <i>SLO-3: Be curious about ways in which communities can preserve forests, wildlife, and water bodies, considering local challenges.</i>	<i>The students will be able to:</i> <i>SLO-3: Collaborate with peers to create a small-scale sustainability initiative (e.g., waste segregation in school).</i>	<i>The students will be able to:</i> <i>SLO-3: Demonstrate empathy for people affected by environmental issues, especially those from vulnerable communities in Pakistan.</i>	<i>The students will be able to:</i> <i>SLO-3: Show a reduction in personal waste production by adopting more sustainable habits like repairing items instead of discarding them.</i>
Behavioural	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>

	<i>SLO-3: Follow instructions to avoid wasting natural resources like plants, water, electricity etc at home and school.</i>	<i>SLO-5: Use natural resources wisely by making responsible choices and avoiding waste.</i>	<i>SLO-4: Develop a habit of responsible consumption</i>	<i>SLO-4: Participate in local conservation efforts like tree plantation, water conservation, or wildlife protection activities.</i>	<i>SLO-4: Promote sustainable habits, such as walking or cycling instead of using cars, and reduce the use of fossil fuels in daily activities.</i>	<i>SLO-4: Reflect on personal consumption habits and express a willingness to make sustainable choices.</i>	<i>SLO-4: Implement at least one RRRR/4Rs practice at home or school, such as reducing plastic use or reusing materials.</i>	<i>SLO-4: Engage in eco-friendly purchasing by avoiding disposables, such as plastic bags, and buying durable products like stainless steel water bottles or reusable shopping bags.</i>
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Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	
	Theme II- Renewable energy use								
	Benchmark II: <i>N/A</i>			Benchmark II: <i>Non-renewable and renewable energy, renewable energy reduce CO2 emissions resulting in climate change mitigation,</i>			Benchmark II: <i>Technology innovation and renewable energy, energy efficiency and climate change mitigation.</i>		
	Student Learning Outcomes								
Cognitive	<i>N/A</i>			<i>The students will be able to:</i> <i>SLO-1: Analyze that increased energy consumption from carbon-based/fossil fuels leads to greater carbon</i>	<i>The students will be able to:</i> <i>SLO-1: Analyze the sources of energy used at home and assess whether any free natural renewable sources, such as solar, wind, water</i>	<i>The students will be able to:</i> <i>SLO-1: Cite evidence showing how rapid economic growth and industrial expansion increase energy consumption,</i>	<i>The students will be able to:</i> <i>SLO-1: Explain with examples that energy efficiency is an important climate change mitigation approach</i> <i>SLO-2: Compare national and/or</i>	<i>The students will be able to:</i> <i>SLO-1: Explain how technological innovation, among other factors (e.g. policies),</i>	

		<i>emission, polluting the atmosphere. SLO-2: Compare renewable and non-renewable sources of energy with examples and their impact on the environment.</i>	<i>(waves/tides), biomass, or geothermal, are available.</i>	<i>leading to pollution and climate change due to reliance on non-renewable energy sources.</i>	<i>international innovations for energy conservation and efficiency, highlighting their effectiveness and feasibility.</i>	<i>drives the growth of renewable energy, e.g. new technologies help improve the efficiency of solar/wind power facilities. SLO-2: Research and identify ways the technology too is causing climate change so it should be used carefully and intelligently following the RRRR principle.</i>
Social and Emotional	N/A	<i>The students will be able to: SLO-3: Demonstrate responsibility in energy use by recognizing the importance of renewable energy for a sustainable future.</i>	<i>The students will be able to: SLO-2: Prefer renewable energy over non-renewable energy</i>	<i>The students will be able to: SLO-2: Advocate for responsible industrial practices by evaluating their impact on energy consumption and proposing sustainable solutions.</i>	<i>The students will be able to: SLO-3: Value the importance of technological innovation in boosting renewable energy.</i>	<i>The students will be able to: SLO-3: Demonstrate an interest in keeping up with technological innovations related to renewable energy.</i>
Behavioural	N/A	<i>The students will be able to: SLO-4: Avoid unnecessary use of</i>	<i>The students will be able to: SLO-3: Use sustainable</i>	<i>The students will be able to: SLO-3: Think critically and</i>	<i>The students will be able to: SLO-4: Discuss with peers and families about</i>	<i>The students will be able to: SLO-4: Identify the existing</i>

		<i>wood for burning. (It is a renewable source but increases greenhouse gases/carbon footprint.)</i>	<i>transport and choose items that consume less or no non-renewable energy. For example, prefer bicycles over motorbikes.</i>	<i>creatively to find ways to make industries energy efficient.</i>	<i>making the school and houses energy efficient and develop and plan to execute</i>	<i>renewable energy sources in the vicinity and analyze how they are more environment-friendly</i>
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Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
	Theme III - Water Management							
	Benchmark III: <i>Life depends on water, water cycle,</i>			Benchmark III: <i>Global warming, water as a scarce resource,</i>		Benchmark III: <i>Maintaining water sources/water management, water quality, conserving water, rainwater harvesting. planning for future water needs and water policies</i>		
	Student Learning Outcomes							
Cognitive	<i>The students will be able to:</i> <i>SLO-1: Explain with examples/demonstration that animals, plants and humans need water for life</i>	<i>The students will be able to:</i> <i>SLO-1: Fresh water is key to human life</i> <i>SLO-2: Identify the freshwater sources and those available at the school and home</i>	<i>The students will be able to:</i> <i>SLO-1: Explain the concept of the water cycle and how climate is disturbing it</i>	<i>The students will be able to:</i> <i>SLO-1: Explain the global warming threats due to increasing greenhouse gases</i> <i>SLO-2: Demonstrate that increased temperatures due to global warming are disrupting the</i>	<i>The students will be able to:</i> <i>SLO-1: Explain, using the water cycle, how fresh water is a scarce resource.</i> <i>SLO-2: Provide evidence with some case studies (local context), how global warming has made many areas water scarce</i>	<i>The students will be able to:</i> <i>SLO-1: Measure rainfall and safely observe levels of rivers, wells, etc. in their home area, maintaining records.</i> <i>SLO-2: Collect evidence showing that untreated industrial waste</i>	<i>The students will be able to:</i> <i>SLO-1: Assess the relevance of potential water purification methods such as chlorination, sedimentation, filtration, evaporation, desalination, and of water storage methods.</i>	<i>The students will be able to:</i> <i>SLO-1: Explain the concept of rainwater harvesting</i> <i>SLO-2: Research and present some rainwater harvesting methods that can be used in schools, houses, and public places.</i> <i>SLO-3: Explain how with increasing population and</i>

				water cycle (melting glaciers, evaporating surface water/ open water sources and altering rain patterns)		contaminates water bodies such as canals, rivers, and seas.	SLO-2: Explain with examples what water conservation means SLO-3 Explain what water security means. SLO-4: Research to identify national water policies to assess how helpful they are in ensuring water security in Pakistan	industrialization and reducing rainfall it is important to conserve water by creating dams, underground water channels (Karez), storage tanks and recharge wells.
Social and Emotional	The students will be able to: SLO-2: Demonstrate care and responsibility for water conservation by understanding its importance for the survival of humans, animals, and plants.	The students will be able to: SLO-3: Show concern for people not having access to fresh drinking water	The students will be able to: SLO-2: Recognize that 2/3 of the Earth's surface is covered by water, but most of it is not drinkable, and understand the need for responsible water use.	The students will be able to: SLO-3: Show concern over increasing temperatures	The students will be able to: SLO-3: Water scarcity is a serious threat to life	The students will be able to: SLO-3: Show concern about water contamination and its hazards.	The students will be able to: SLO-5: Be convinced that countries need to manage their freshwater	The students will be able to: SLO-4: Appreciate that rainwater is the major source of water that must not be allowed to run to the sea without having a good amount stored or absorbed in the ground, which can be pumped as needed.

Behavioural	<i>The students will be able to: SLO-3: Drink a good amount of water every day (4-5 cups at least and more if it is summer and they need it)</i>	<i>The students will be able to: SLO-4: Make sure that fresh water is not wanted in anything you do (washing hands, brushing, bathing, washing clothes etc)</i>	<i>The students will be able to: SLO-3: Identify their role in the water cycle and make it better</i>	<i>The students will be able to: SLO-4: Take precautionary measures to adapt to rising temperatures in their homes and surroundings.</i>	<i>The students will be able to: SLO-4: Identify areas/communities that have non-limited access to fresh/drinking water and find ways to provide them</i>	<i>The students will be able to: SLO-4: Measure rainfall for a 6 month or one-year-long period at school and discuss whether it is normal or not.</i>	<i>The students will be able to: SLO-6: -Discuss with the teachers and parents how the drinking water is purified for school and home use.</i>	<i>The students will be able to: SLO-5: Discuss with the school management and the family about possible ways to harvest rainwater</i>
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Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
	Theme IV - Sustainable lifestyle							
	<i>Benchmark V: Importance of walking and using a bicycle instead of using other fuel-based transport, reducing the use of packed food, and understanding sustainability through exploring sustainable housing.</i>			<i>Benchmark V: Engaging with nature Preferring vegetarian food over non-vegetarian and processed food, avoid wasting food, green and blue spaces.</i>		<i>Benchmark V: Using renewable energy at home, conserving resources at the household level, replacing fossil fuel vehicles with electric vehicles, preferring public transport over personal vehicles that use fossil fuel, and government policies for sustainable living.</i>		
	Student Learning Outcomes							
Cognitive	<i>The students will be able to: SLO-1: Identifies walking and cycling as healthy ways to travel.</i>	<i>The students will be able to: SLO-1: Describes how food packaging can contribute to waste.</i>	<i>The students will be able to: SLO-1: Define "sustainable" in simple terms (e.g., using resources wisely).</i>	<i>The students will be able to: SLO-1: Explain the concept of an ecosystem and give simple examples.</i>	<i>The students will be able to: SLO-1: Identify different types of green spaces (e.g., parks, gardens, forests) and blue</i>	<i>The students will be able to: SLO-1: Define "carbon footprint" in simple terms.</i>	<i>The students will be able to: SLO-1: Analyze the relationship between diet and health.</i>	<i>The students will be able to: SLO-1: Identify the principles of energy conservation and their connection</i>

			<i>SLO-2: Compare and contrast different types of sustainable houses, such as mud houses, bamboo houses, and solar-powered homes, based on their materials, and energy efficiency.</i>		<i>spaces (e.g., lakes, rivers, oceans).</i>			<i>to zero-energy homes.</i>
<i>Social and Emotional</i>	<i>The students will be able to:</i> <i>SLO-2: Develops a positive attitude towards physical activity.</i>	<i>The students will be able to:</i> <i>SLO-2: Appreciate the benefits of eating seasonal and locally grown food.</i>	<i>The students will be able to:</i> <i>SLO-3: Work in groups to discuss and share different opinions on the advantages and disadvantages of various building materials (e.g., wood, bricks, concrete).</i>	<i>The students will be able to:</i> <i>SLO-2: Reflect on how spending time in nature affects their emotions, thoughts, and well-being, and express their feelings through discussion, writing, or creative activities.</i>	<i>The students will be able to:</i> <i>SLO-2: Work together to keep green and blue spaces clean and safe.</i>	<i>The students will be able to:</i> <i>SLO-2: Create a poster or presentation advocating for sustainable transportation. (Such as electric vehicles over gasoline cars).</i>	<i>The students will be able to:</i> <i>SLO-2: Collaborate with peers to create a healthy and sustainable meal plan.</i>	<i>The students will be able to:</i> <i>SLO-2: Work in groups to develop a presentation on zero-energy homes and their role in sustainable building practices.</i>
<i>Behavioural</i>	<i>The students will be able to:</i> <i>SLO-3: Illustrates basic safety rules for walking and cycling etc through artwork.</i>	<i>The students will be able to:</i> <i>SLO-3: Compares the amount of packaging used for different snacks. Chooses snacks with minimal packaging.</i>	<i>The students will be able to:</i> <i>SLO-4: Present about the importance of sustainable housing with examples.</i>	<i>The students will be able to:</i> <i>SLO-3: Plan and carry out a small-scale environmental project (e.g., creating a bird feeder, and reducing waste at school).</i>	<i>The students will be able to:</i> <i>SLO-3: Participate in citizen science projects by observing and recording plants, animals, and water quality in green spaces (parks, forests) and blue spaces (rivers,</i>	<i>The students will be able to:</i> <i>SLO-3: Identify actions to reduce their carbon footprint, calculate their daily transportation emissions, and compare results with classmates to understand the</i>	<i>The students will be able to:</i> <i>SLO-3: Arrange healthy eating activities for vulnerable groups of kids and develop a sense of responsibility for reducing food waste among them.</i>	<i>The students will be able to:</i> <i>SLO-3: Create a public service announcement promoting sustainable building practices.</i>

					<i>lakes) to help protect nature.</i>	<i>environmental impact of different choices.</i>		
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Domain 4: Building Resilience

Themes

- I. Social impacts of climate change
- II. Strategies for safety and resilience
- III. Climate anxiety and constructive coping
- IV. Community action

V. **Standard:** *The students will have the skills (cognitive and social/emotional), and behaviours related to heatwaves, smog and heavy rains/no-rains because of human activities and negatively impact life, climate change varies from region to region affecting people differently, countries' economic development level & climate change, and climate change is an opportunity for social change.*

Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
	<i>Theme I - Social impacts of climate change</i>							
	<i>Benchmark I: Heatwaves, smog and heavy rains/no-rains are because of human activities and negatively impact life</i>			<i>Benchmark I: climate change affects families, schools, communities, social and economic activities,</i>		<i>Benchmark I: climate change varies from region to region affecting people differently, countries' economic development level and climate change. Climate change is an opportunity for social change.</i>		
	<i>Student Learning Outcomes</i>							
<i>Cognitive</i>	<i>The students will be able to: SLO-1: Learn that floods and heat affect people's</i>	<i>The students will be able to: SLO-1: Identify the effects of no rain or scarcity of rain</i>	<i>The students will be able to: SLO-1: know about smog occurrences in Pakistan and</i>	<i>The students will be able to: SLO-1: Describe what weather patterns and</i>	<i>The students will be able to: SLO-1: Identify that climate change can</i>	<i>The students will be able to: SLO-1: Understand what climate change</i>	<i>The students will be able to: SLO-1: Compare the climate change impacts on a rich</i>	<i>The students will be able to: SLO-1: Identify opportunities for collaboration</i>

	<i>health and life (talk about the health issues they have observed like heat stroke, feeling tired and thirsty, losing homes/cattle/crops in floods,</i>	<i>(talk about schools, homes, offices and people working outside in the open air. Like farmers and labourers etc.)</i>	<i>their impact on human health, life and activities (unhealthy air to breathe, breathing issues and lung diseases, school closure/learning loss, reduced outdoor economic activity and travelling etc.)</i>	<i>climate change is and how they can affect people's lives in different ways, such as how climate impacts can affect our health, jobs and communities.</i>	<i>have varied impacts on our physical and mental health, economy and relationships.</i>	<i>crises occur in different provinces of Pakistan and how they impact people's lives</i>	<i>well-developed country and a poor developed country and how it impacts their social aspects.</i>	<i>between the developed and less developed countries during this time with climate change and its benefits to both</i>
<i>Social and Emotional</i>	<i>The students will be able to: SLO-2: Feel the pain of people's loss in climate change and other disasters</i>	<i>The students will be able to: SLO-2: Realize that natural resources like water are a blessing and are not infinite that's why they need care and mindfulness in their consumption and strategies to save them when available.</i>	<i>The students will be able to: SLO-2: Realize that Smog, heavy fires (like in jungles) and smoke are injurious to health and impact outdoor activities that is why it is important to address this issue.</i>	<i>The students will be able to: SLO-2: Realize weather patterns are altering the ways people used to spend their life SLO-3: Realize that the deprived/vulnerable communities like people with less money, women/girls, and people with disabilities may get affected more by extreme weather, especially while moving outside.</i>	<i>The students will be able to: SLO-2: Recognize the health (physical and psychological), economic and relationship issues people face during disasters and show empathy.</i>	<i>The students will be able to: SLO-2: Empathize the difficulties people face in harsh areas like mountains, glaciers, and deserts and how climate change makes it even more difficult.</i>	<i>The students will be able to: SLO-2: Realize that less developed countries have minor or no contribution to climate change but are suffering the most which need to be cared for and addressed with empathy.</i>	<i>The students will be able to: SLO-2: Recognize that developed countries need to show more responsibility and empathy for Mother Nature and smaller/less developed countries.</i>
<i>Behavioural</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>

	<i>SLO-3: Stay ready to help others and do charity.</i>	<i>SLO-3: Save water and share it with others if they have issues accessing clean water</i>	<i>SLO-3: Stay safe and keep talking about the Smog/fire hazards to create awareness and take action.</i>	<i>SLO-4: Identify the role they can play in supporting the vulnerable during climate change</i>	<i>SLO-3: Develop skills like empathy, patience, listening, and problem-solving and advocate for the need to acquire these skills during climate change.</i>	<i>SLO-3: Focus on being creative and innovative in solving problems and practice it from the beginning to find solutions to complex problems.</i>	<i>SLO-3: Have dialogue in the classroom about how the developed countries approach this issue (reducing their carbon footprint and supporting smaller/less developed countries to adapt and mitigate better).</i>	<i>SLO-3: Debate in the classroom about the role youth can play in the national and international discourse on climate change.</i>
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Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
	Theme II - Strategies for safety and resilience							
	Benchmark II: <i>Preparation for emergencies, safety and protection</i>			Benchmark II: <i>Preparing ahead of extreme weather and disasters and specific actions for preparation.</i>		Benchmark II: <i>Emergency response, youth as a change agent, risk reduction behaviours and systems, climate change adaptation and mitigation</i>		
	Student Learning Outcomes							
Cognitive	<i>The students will be able to: SLO-1: Learn ways people can prepare to protect themselves from heavy</i>	<i>The students will be able to: SLO-1: Describe protection measures that people can take for areas</i>	<i>The students will be able to: SLO-1: Describe measures to protect people's health, and</i>	<i>The students will be able to: SLO-2: Access information and data on the extreme weather conditions and</i>	<i>The students will be able to: SLO-1: Collect information on the preparatory activities conducted by the government/other</i>	<i>The students will be able to: SLO-1: Prepare a list of activities, together with peers in a group, for steps required to be taken after a natural</i>	<i>The students will be able to: SLO-1: Brainstorm actions that could be taken to reduce harmful risks in the home or classroom (e.g. sandbags, cooling</i>	<i>The students will be able to: SLO-1: Investigate to identify changes, improvements and modifications required in the infrastructure, systems, lifestyles and economic activities that can make</i>

	<i>rain, floods and heatwaves.</i>	<i>with very low/no rains and water scarcity/lack of water.</i>	<i>social and economic activities during smog and fires/smoke.</i>	<i>disasters that people face on their own or in any other area in the province and how people prepare to avoid damage to life and assets.</i>	<i>organizations to prepare communities before any disaster in their or any other region in the province/country to avoid life and asset loss. SLO-2: Identify the role that youth and community can play in disaster preparedness.</i>	<i>disaster takes place (select one or two local emergencies to work on in this group/teamwork). SLO-2: Identify roles that the community and youth can play in emergency response.</i>	<i>strategies, going to the basement or a secure structure). SLO-2: Research for local and international organizations/departments working on emergency preparedness and response (NDMA, PDMAs, UNICEF, Non-government Organizations, etc.)</i>	<i>people resilient and adapt to climate change.</i>
Social and Emotional	<i>The students will be able to: SLO-2: Feel empathy for the people living in areas with extreme weather conditions and the difficulties they face.</i>	<i>The students will be able to: SLO-2: Realize the importance of rain and water sources. SLO-3: Empathize the pain people face in arranging for water in such areas.</i>	<i>The students will be able to: SLO-2: Realize the smog/fire and heavy smoke hazards and the ways these can be avoided SLO-3: Feel the urgency to address smog issues.</i>	<i>The students will be able to: SLO-3: Express understanding of the emotions others might feel during a climate disaster.</i>	<i>The students will be able to: SLO-3: -Commit to support the family and neighbours in preparing for any emergency SLO-4: Identify areas of support for vulnerable people in preparing for any emergency</i>	<i>The students will be able to: SLO-3: Foster empathy for disaster-affected communities</i>	<i>The students will be able to: SLO-3: Develop confidence to prepare for and respond to extreme weather and climate disasters, building resilience and adaptive capacity.</i>	<i>The students will be able to: SLO-2: Develop a commitment to mitigation and adaptation strategies solutions. SLO-3: Be committed to continuing to learn about new developments in mitigation and adaption strategies.</i>
Behavioural	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to:</i>	<i>The students will be able to: SLO-4: Share ideas with their family and</i>	<i>The students will be able to: SLO-4: Develop the habit of reading and keeping abreast</i>

	<i>SLO-3: List down the safety measures for heavy rains, floods and heat waves and follow them as needed.</i>	<i>SLO-4: List the safety measures to protect in dry areas like deserts and with no/low rainfall.</i>	<i>SLO-4: List down the safety measures during smog and fire and take timely safety measures. SLO-5: Keep updated on the environmental forecasts.</i>	<i>SLO-4: Prepare a checklist of activities depending on the likely emergencies and disasters in the area and do the drills in school and at home.</i>	<i>SLO-5: Volunteer and support families, neighbours and people with disabilities during emergency preparations.</i>	<i>SLO-4: Think ahead to make arrangements for items needed during an emergency/disaster in the area.</i>	<i>school members on how to reduce risks at home or in classrooms and present to family members emergency plans for different situations, such as floods, tornadoes, hurricanes, fire drills and learn about how emergency services respond (e.g. alert systems, police or fire warnings and the news).</i>	<i>with current affairs and the situation around, especially about climate risks and threat alerts for any climate change related issues.</i>
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Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	
Theme III - Climate anxiety and constructive coping									
Benchmark III: <i>It is ok to express climate-related emotions, recognizing and working on anxiety is important.</i>						Benchmark III: Climate emotions can be complex and can invite anxiety, supporting ourselves and others in anxiety			
Student Learning Outcomes									
Cognitive	<i>The students will be able to:</i> <i>SLO-1: Identify and label basic emotions (happy, sad, scared, angry) when discussing climate and nature-related topics.</i> <i>SLO-2: Describe simple mindfulness</i>			<i>The students will be able to:</i> <i>SLO-1: Discuss the fears and anxiety management strategies and the support needed to practice them.</i>		<i>The students will be able to:</i> <i>SLO-1: Research and discuss about the strategies/techniques to help others in</i>	<i>The students will be able to:</i> <i>SLO-1: Research about the emotions that people may have after going</i>	<i>The students will be able to:</i> <i>SLO-1: Develop a basic understanding of the healing process and its complexities with the help of teachers and elders</i>	<i>The students will be able to:</i> <i>SLO-1: Analyse the philosophy behind “safety first” during any emergency and disaster while</i>

	<p><i>techniques, such as breathing exercises, and how they can help to manage emotions.</i></p> <p>Note: <i>The SLOs for grades 1-3 are the same as we want children to practice the same skills and behaviours in these years using different activities (to be outlined in textbooks) to repeat and make it a routine/habit for them.</i></p>		<p><i>managing climate change-related anxiety and test each other in a role play.</i></p>	<p><i>through climate change loss and damage to their families and assets.</i></p>	<p><i>(schools can invite a psychologist to have this dialogue and help children learn about emotions after trauma and loss)</i></p>	<p><i>responding to such situations.</i> <i>SLO-2: Discuss with the teachers/elders (possibly a psychologist that schools can invite) about strategies to maintain self-control and self-regulate emotions to be able to help themselves and others in a disaster/emergency.</i></p>
Social and Emotional	<p><i>The students will be able to:</i></p> <p><i>SLO-3: Understand that it is normal to have climate anxiety or to feel intense emotions about climate uncertainties.</i></p> <p><i>SLO-4: Trust that being mindful and doing some exercise and deep breathing helps in coping with anxiety.</i></p>	<p><i>The students will be able to:</i></p> <p><i>SLO-2: Reflect on using some of the anxiety and fear management strategies they used before and how they felt after using these strategies.</i></p>	<p><i>The students will be able to:</i></p> <p><i>SLO-2: Discuss with peers, friends and family members about the strategies/techniques that work for them to manage anxiety so that these techniques can be used with them when they need it.</i></p> <p><i>SLO-3: Show empathy and recognize what others go through during disasters.</i></p>	<p><i>The students will be able to:</i></p> <p><i>SLO-2: Be a good listener and learn to recognize others' feelings.</i></p> <p><i>SLO-3: Understand that listening alone is a highly effective technique to help others deal with their feelings.</i></p>	<p><i>The students will be able to:</i></p> <p><i>SLO-2: Recognize that every trauma needs healing</i></p> <p><i>SLO-3: Learn healing strategies for trauma, loss and other issues humans face.</i></p>	<p><i>The students will be able to:</i></p> <p><i>SLO-3: Recognize that we can help others when we are safe and, in a position, to help others.</i></p> <p><i>SLO-4: Commit to achieving self-control and managing/regulating emotions</i></p>
Behavioural	<p><i>The students will be able to:</i></p>	<p><i>The students will be able to:</i></p>	<p><i>The students will be able to:</i></p>	<p><i>The students will be able to:</i></p>	<p><i>The students will be able to:</i></p>	<p><i>The students will be able to:</i></p>

	<i>SLO-5: Share the feelings with family because feeling fear and anxiety is normal during situations that are not normal.</i>	<i>SLO-3: Practice anxiety, stress and fear management techniques in daily life to get more self-control and understand yourself better.</i>	<i>SLO-4: Be available to listen to others in trouble and anxiety and help them manage their feelings</i>	<i>SLO-4: Practice effective listening skills and use it at school, home and the</i>	<i>SLO-4: Practice healing strategies through role play and in real life with friends/siblings/classmates.</i>	<i>SLO-5: Practice self-control activities with peers, siblings and the family.</i>
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Learning Domain	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
	Theme IV - Community action							
	Benchmark III: Taking climate action in schools and at homes			Benchmark III: Taking action on climate change in urgent and critical,		Benchmark III: Climate change action as a collective responsibility. Volunteerism and leadership in climate action. National and international policies and action on climate change.		
	Student Learning Outcomes							
Cognitive	<i>The students will be able to: SLO-1: Identify the climate action that can be done at schools with peers/schoolmates/teachers (plantation, gardening, waste</i>	<i>The students will be able to: SLO-1: Identify activities that can make the home clean and green (waste management, avoiding</i>	<i>The students will be able to: SLO-1: Identify activities that can create awareness among children for taking action and protect their environment (drama,</i>	<i>The students will be able to: SLO-1: Explain why taking action with others in your community is more powerful than individual action alone.</i>	<i>The students will be able to: SLO-1: Identify actions that they can take to reduce greenhouse gas emissions at school (e.g.</i>	<i>The students will be able to: SLO-1: Apply critical thinking and problem-solving skills to assess school climate action plan to guide policy</i>	<i>The students will be able to: SLO-1: Apply critical thinking and problem-solving skills to assess whether the</i>	<i>The students will be able to: SLO-1: Assess whether national and subnational climate policy and action</i>

	<i>management, conserving water and avoiding food wastage).</i>	<i>dust/smoke, gardening/tree plantation)</i>	<i>drawing competition/exhibition, developing pamphlets, songs or any other art/communication activity)</i>	<i>SLO-2: Identify what climate plans or actions the community has in place.</i>	<i>reduce food waste, walk to school, eat a plant-based diet, conserve energy, etc.).</i>	<i>and practice to meet climate targets? Is there professional development funding put towards teacher Climate Change Education (CCE) training? Is there funding available for the schoolyard Greening? What alternatives are there if the schools don't have funding for CCE).</i>	<i>municipality or local community leaders are urgently taking climate action (For example has the community declared a climate emergency? Does the community have a climate action plan or climate adaptation plan? Is there funding available for community-based climate initiatives?)</i>	<i>are in alignment with internationally agreed-upon climate targets (e.g. reducing GHGs by 45% by 2030 or limit warming to 1.5 degrees Celsius). SLO-2: Analyze the national and sub-national policies for youth participation and leadership for their active role in climate action.</i>
Social and Emotional	<i>The students will be able to: SLO-2: Know the importance of supporting elders and working together</i>	<i>The students will be able to: SLO-2: Realize that making our environment clean and green is a</i>	<i>The students will be able to: SLO-2: Be creative in making others understand their responsibility in a</i>	<i>The students will be able to: SLO-3: show a sense of responsibility for</i>	<i>The students will be able to: SLO-2: Show a sense of agency and ability</i>	<i>The students will be able to: SLO-2: feel confident and capable of asking school or leaders to develop climate</i>	<i>The students will be able to: SLO-2: demonstrate a sense of responsibility</i>	<i>The students will be able to: SLO-3: Develop an appreciation for the need to</i>

	<i>to take climate action.</i>	<i>collective responsibility.</i>	<i>lighter, softer, more interesting and entertaining way.</i>	<i>participating in climate action at the community level. -Appreciate the importance of working together with others to undertake climate action.</i>	<i>to contribute to community climate actions.</i>	<i>policies and plans to ensure schools are responsive to the urgency of action.</i>	<i>and the ability to ask the community leaders/elders to develop climate policies and plans to ensure communities are responsive to the urgency of action.</i>	<i>support strong climate leadership.</i>
Behavioural	<i>The students will be able to: SLO-3: Participate in school-based climate action activities like plantation, gardening, waste management, conserving water and avoiding food wastage.</i>	<i>The students will be able to: SLO-3: Participate in activities to make their home clean and green.</i>	<i>The students will be able to: SLO-3: Develop and run an awareness campaign in the school to make schools and homes clean and green, with no waste of water and food.</i>	<i>The students will be able to: SLO-4: Initiate conversations with peers, teachers and community leaders about the importance of climate action, what actions, practices, and policies are in place, and what might be done at the community level.</i>	<i>The students will be able to: SLO-3: Adopt sustainable practices such as turning off appliances when not in use, use water sparingly during handwashing and brushing teeth, and avoid unnecessary waste by using reusable containers instead of single-use items.</i>	<i>The students will be able to: SLO-3: Present their thinking/ideas/rationale for their school's climate actions and suggest improvements.</i>	<i>The students will be able to: SLO-3: Present their thinking/ideas/rationale for how they assessed the community's climate actions and possible areas of improvement.</i>	<i>The students will be able to: SLO-4: Take leadership roles and exercise agency within the local community contexts, mobilizing knowledge and research from university into public/society. SLO-5: Propose innovative strategies and</i>

								<i>solutions for climate challenges, from a breadth of academic resources, integrating cross-disciplinary knowledge.</i>
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Domain 5: Environmental Economics

Themes:

- I. Economic growth and development
- II. Carbon credits and carbon markets
- III. Circular economy
- IV. Green and Blue Economy

Standard: *The students will have the skills (cognitive, social/emotional) and behaviours related to the complex interplay between economic activities and environmental sustainability, assess the impact of human actions on ecosystems and communities, develop and implement solutions for a sustainable future in Pakistan by applying principles of resource management, circular economy, carbon reduction, and blue/green economies.*

Learning Domains	Grade 6	Grade 7	Grade 8
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Theme I: Economic growth and development

Benchmark I: Students will analyze the interconnectedness of economic activities, natural resources, and environmental sustainability, evaluating the impact of human actions on ecosystems and communities, and proposing and implementing solutions for responsible resource management and sustainable development in Pakistan.

Student Learning Outcomes:

Cognitive

Students will be able to:

SLO-1: Analyze how economic activities (e.g., industrial production, transportation, agriculture) affect the environment and contribute to climate change. (industrial by-products like carbon and other greenhouse gases in the air and liquids mixed in water streams/canals/rivers etc).

SLO-2: Discuss waste management challenges, including issues related to recycling and landfills in their locality.

Students will be able to:

SLO-1: Recognize that industries generate different types of waste (e.g., biodegradable, non-biodegradable, hazardous) and their impact on the environment.

SLO-2: Compare and contrast different composting methods (e.g., backyard composting, vermicomposting, industrial composting) from the perspective of urban vs. rural.

SLO-3: Categorize natural resources consumed in some economic activities and production. (fossil fuel, plants/trees, animals and animal products, elements and minerals etc.)

Students will be able to:

SLO-1: Differentiate between economic growth and development by analyzing real-world examples.

SLO-2: Explain the principles of sustainable development, including resource conservation, renewable energy, and equitable growth with the help of contextual examples.

SLO-3: Explain the concept of sustainable development, particularly in the context of Pakistan.

<p>Social & Emotional</p>	<p><i>Students will be able to:</i></p> <p><i>SLO-3: Discuss how different communities across various regions and climates meet their needs and wants.</i></p> <p><i>SLO-4: Appreciate the connection between available resources and their daily lives, recognizing regional and cultural variations.</i></p> <p><i>SLO-5: Develop an awareness of the finite nature of some resources and the need for conservation.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-4: Discuss the impact of resource extraction on different ecosystems and communities.</i></p> <p><i>SLO-5: Feel concerned about pollution and waste accumulation, recognizing their role in environmental protection.</i></p> <p><i>SLO-6: Identify and propose actions they can take in their school or community to contribute to sustainable practices related to resource use, waste reduction, and energy conservation.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-4: Recognizing how individual and collective actions impact environment sustainability, emphasizing the need for stewardship in consuming natural resources.</i></p> <p><i>SLO-5: Be open to understanding varied perspectives on development and environmental protection, considering factors such as economic benefits, human rights, and sustainability.</i></p> <p><i>SLO-6: Develop empathy for communities affected by environmental degradation and explore possible solutions.</i></p>
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Behavioral

Students will be able to:

SLO-6: Suggest simple ways to conserve resources by estimating their usage (e.g., water and energy consumption) and creating awareness campaigns.

Students will be able to:

SLO-7: Track their own household waste, classify it, and propose practical waste reduction, reuse, and recycling methods using data analysis.(through this exercise, students will learn about conducting the waste audit)

SLO-8: Identify and analyze actions that promote sustainability, such as calculating carbon footprints.

Students will be able to:

SLO-7: Present case studies of sustainable industrial practices, using statistics, and charts, to advocate for responsible development.

*SLO-8: Measure their resource consumption (e.g., water, energy) and suggest practical ways to use resources responsibly. (it is about conducting **water and energy audits** that children can do with the help of teachers at school)*

Learning Domains

Theme II: Carbon credits and carbon markets

Benchmark I: Students will analyze the carbon cycle, its disruption by human activities, and the resulting impact on climate change, evaluating various mitigation strategies, including carbon markets and technological innovations, to propose and implement solutions for reducing carbon footprints and transitioning towards a zero-carbon economy.

Student Learning Outcomes

<p>Cognitive</p>	<p><i>Students will be able to:</i></p> <p><i>SLO-1: Describe the basic processes of the carbon cycle, including carbon sinks, sources, and the role of ecosystems.</i></p> <p><i>SLO-2: Define carbon emissions, identify their natural and human-made sources, and explain their role in the greenhouse effect.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-1: Define carbon credits, explain their purpose, and describe how they are used to offset emissions.</i></p> <p><i>SLO-2: Identify various strategies for reducing carbon emissions, such as renewable energy, afforestation, and sustainable transport.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-1: Identify international agreements related to climate action, such as the Paris Agreement and COP meetings or the steps taken nationally to take climate action like the National Action Plan by the Ministry of Climate Change and Environmental Coordination, Pakistan.</i></p> <p><i>SLO-2: Explain the technological and economic pathways to a zero-carbon economy, such as renewable energy, carbon capture, and green infrastructure.</i></p> <p><i>SLO-3: Understand the concept of Green Jobs</i></p> <p><i>SLO-4: Identify emerging green jobs and technologies, such as solar energy technicians, sustainable agriculture, and carbon capture engineering.</i></p>
<p>Social & Emotional</p>	<p><i>Students will be able to:</i></p> <p><i>SLO-3: Show concern over human activities such as deforestation and burning fossil fuels alter the natural carbon cycle.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-3: Appreciate the role of carbon markets in reducing global emissions and their impact on different countries.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-5: Be vigilant of the social implications of transitioning away from fossil fuels, considering employment, equity, and economic stability.</i></p>

	<i>SLO-4: Develop an awareness of how carbon affects climate change and express their thoughts through written reflections.</i>	<i>SLO-4: Recognize market-based solutions to environmental problems and explore the ethical implications of carbon trading.</i>	<i>SLO-6: Recognize the role of innovation in addressing climate change and how different industries are adapting to sustainability challenges.</i>
Behavioral	<p><i>Students will be able to:</i></p> <p><i>SLO-5: Identify human activities that contribute to carbon emissions and estimate their impact using simple calculations (e.g., carbon output from transportation choices).</i></p> <p><i>SLO-6: Suggest ways to reduce their carbon footprint by analyzing data on personal or school carbon use and proposing solutions.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-5: Research and present real-world examples of potential carbon credit projects, including how emissions are measured and offset.</i></p> <p><i>SLO-6: Implement personal strategies for reducing their carbon footprint.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-7: Propose and share innovative solutions to address challenges related to achieving a zero-carbon future, such as energy storage, transportation, or agriculture.</i></p> <p><i>SLO-8: Design a model of a green technology or product that addresses a specific environmental challenge, explaining how it could contribute to a green economy.</i></p>
Learning Domains	Theme III: Circular economy		
	Benchmark I: Students will explain waste generation and management practices, identify the environmental impact of linear versus circular economic models, and apply principles of reduction, reuse, recycling, and the sharing economy to design and implement solutions for minimizing waste and promoting sustainable consumption in their communities.		
Student Learning Outcomes			

<p>Cognitive</p>	<p><i>Students will be able to:</i></p> <p><i>SLO-1: Classify different types of waste (e.g., organic, recyclable, hazardous), and trace the journey of waste from disposal to its final destination (landfill, recycling plant, or incineration) using a waste flow diagram.</i></p> <p><i>SLO-2: Explain the meaning of each of the 4 R's (Refuse/Reduce, Repair, Reuse, Recycle) and their hierarchical relationship in waste management (Aluminium, plastic, rubber etc).</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-1: Compare and contrast the linear and circular economy by creating a Venn diagram.</i></p> <p><i>-Explore real-world examples of waste being used as a resource (e.g., composting, upcycling, waste-to-energy) and analyze their effectiveness.</i></p> <p><i>SLO-2: Interview local businesses or organizations about their waste management strategies and present their findings (select any local business with the help of teachers to interview. The school may think of inviting a representative of one such business to have a session with students)</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-1: Explain the environmental impact of a few man-made products (like a plastic water bottle vs. a reusable metal bottle), using basic Life Cycle Assessment (LCA) principles).</i></p> <p><i>SLO-2: Explain how “sharing” helps in making the economy more sustainable (e.g., renting tools instead of buying them, using public transport instead of personal vehicles).</i></p> <p><i>SLO-3: Calculate how sharing things (like carpooling to school or using a community garden) can reduce the use of materials and help the environment.</i></p> <p><i>SLO-4: Evaluate how a rapidly growing population impacts a country’s economic development and growth. (teachers may use the example of a large family to explain the concept of overpopulation and its stress on the household economy)</i></p>
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<p>Social & Emotional</p>	<p><i>Students will be able to:</i></p> <p><i>SLO-3: Develop awareness of the environmental consequences of waste accumulation through reflective writing, fostering responsibility for sustainable practices.</i></p> <p><i>SLO-4: Appreciate communities managing waste and applying the 3 Rs, comparing local and global approaches.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-3: Recognize the consequences of a linear economy by analyzing real-world case studies and writing personal reflections on sustainable alternatives.</i></p> <p><i>SLO-4: Show concern over daily use materials made of synthetic materials that are not biodegradable and avoid using them.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-5: Feel motivated to interview people in their community to find out what they know about the concept of sharing in an economy (e.g., Do they use public transport often? Have they heard of clothing rental services?)</i></p> <p><i>SLO-6: Show concern about the rapidly growing population in Pakistan and the stress it creates on the environment.</i></p>
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<p>Behavioral</p>	<p><i>Students will be able to:</i></p> <p><i>SLO-5: Conduct a waste audit (measure how much and what is wasted in what frequency) at school or home.</i></p> <p><i>SLO-6: Calculate the percentage of waste that can be reduced, reused, or recycled, and track their improvements over time.</i></p> <p><i>SLO-7: Explore how plastic can be recycled and reused within a circular economy model</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-5: Analyze everyday products and classify them as examples of a linear or circular economy, explaining their reasoning and suggesting ways to shift linear products towards a circular model.</i></p> <p><i>SLO-6: Design and implement a small-scale waste repurposing project (e.g., turning old materials into new products) and evaluate its impact by tracking waste reduction through data collection.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-6: Compare the environmental impact of different products (e.g., plastic bags vs. reusable cloth bags) using data and create a simple guide for others to make eco-friendly choices.</i></p> <p><i>SLO-7: Apply the principles of the sharing economy (e.g., collaborative consumption, access over ownership, resource optimization) by designing and implementing a plan to share or borrow goods and services within their family, school, or community</i></p>
<p>Learning Domains</p>	<p>Theme IV: Green and Blue Economy</p>		
<p>Benchmark I: Students will familiarize the concepts of blue and green economies, exploring their interconnectedness and various sectors, evaluating the challenges and opportunities for sustainable development in aquatic and terrestrial environments, and designing and implementing projects to promote responsible resource use and environmental stewardship in Pakistan.</p>			
<p>Student Learning Outcomes</p>			

<p>Cognitive</p>	<p><i>Students will be able to:</i></p> <p><i>SLO-1: Explain the concept of the “blue economy”, explaining how it involves the responsible use of ocean and river resources to benefit people and the environment. (teachers should explain in a way that humans should use water-based activities like fishing and canal-making carefully so that the natural balance of the water-based ecosystem is not disturbed)</i></p> <p><i>SLO-2: Explain the concept of the "green economy" in simple terms, explaining its connection to environmental sustainability and economic development. (Teachers can explain that every work/job that humans do should either protect/not harm the greenery/plants or add more plants/greenery in the environment so that nature’s balance is not disturbed)</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-1: Analyze the concept of the blue economy, describing how it aims to balance economic growth, job creation (livelihoods), and the health of marine and riverine ecosystems.</i></p> <p><i>SLO-2: Compare and contrast the challenges and opportunities for the blue economy in coastal areas versus river systems.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-1: Investigate various sectors within the blue economy, including offshore renewable energy (e.g., wind, wave, hydropower from rivers), sustainable fisheries, green shipping, marine tourism, and aquaculture.</i></p> <p><i>SLO-2: Describe different sectors of the green economy (e.g., renewable energy, sustainable agriculture, eco-tourism).</i></p>
<p>Social & Emotional</p>	<p><i>Students will be able to:</i></p>	<p><i>Students will be able to:</i></p>	<p><i>Students will be able to:</i></p>

	<p><i>SLO-3: Appreciate the incredible biodiversity of marine and river environments and explain why it is important to respect and protect all aquatic life</i></p> <p><i>SLO-4: Explore opportunities in the Blue Economy, including rivers and coastal resources, by demonstrating curiosity and problem-solving in simple entrepreneurial activities.</i></p>	<p><i>SLO-3: Show concern for an endangered aquatic species found in Pakistan, discussing the threats it faces and what can be done to help it.</i></p> <p><i>SLO-4: Appreciate the social and economic benefits of transitioning to a green economy in Pakistan.</i></p>	<p><i>SLO-3: Develop and propose solutions to address critical challenges facing the blue economy, such as overfishing in the ocean and rivers, and marine and river pollution.</i></p> <p><i>SLO-4: Develop a sense of responsibility for creating a sustainable future for Pakistan through the lens of a green economy.</i></p>
Behavioral	<p><i>Students will be able to:</i></p> <p><i>SLO-5: Engage in activities that promote responsible fishing habits, such as respecting fishing limits and using sustainable methods to protect marine and river ecosystems.</i></p> <p><i>SLO-6: Practice simple eco-friendly habits at home and school that maintain the green elements in the environment like trees and plants.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-5: Design and implement a small-scale project related to the blue/green economy.</i></p> <p><i>SLO-6: Reflect on the process of creating the project, identifying challenges faced and solutions implemented.</i></p>	<p><i>Students will be able to:</i></p> <p><i>SLO-5: Design and implement a small-scale project to promote a green initiative in their community (e.g., organizing a recycling program, and raising awareness about energy conservation).</i></p> <p><i>SLO-6: Participate in a class debate on the pros and cons of different energy sources.</i></p>

**TO BE PUBLISHED IN THE NEXT GAZETTE
OF PAKISTAN PART-I**

Government of Pakistan
National Curriculum Council Wing
Ministry of Federal Education and Professional Training

Islamabad, 4th March, 2025

NOTIFICATION

No. F.1-1/2022(NCC) In exercise of the powers conferred under the Federal Supervision of Curricula, Textbooks and Maintenance of Standards of Education Act, 1976 Section 3 (2) (a), the competent authority i.e. Director, NCC Wing, M/o FE&PT has approved the Curriculum "Environment for Living" for Grades I-VIII. The curriculum will be implemented as non-credit curriculum/supplementary learning material in all Public and Private Educational Institutions of Islamabad Capital Territory (ICT) and the educational institutions under Federal Government across the country w.e.f academic year 2025-26. This non-credit curriculum is available at ncc.gov.pk

2. The spirit of this curriculum is to acquaint the learners with the essence of Environment and its key importance in their daily life activities.


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Printing Corporation of Pakistan Press,
University Road, Karachi

Distribution:

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2. The Chairman, Federal Board of Intermediate & Secondary Education, Islamabad
3. The Executive Director, Inter-Board Coordination Commission, Islamabad (with the request to circulation with IBCC members)
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