

The World About Us Matrix Northern Ireland - KS2 Curriculum For Sustainability Complementing the KS2 Framework



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Language and Literacy	Mathematics and Numeracy	Physical Education	The World Around Us	Art and Design/Music/ Dance / Drama and PE	Personal Development and Mutual Understanding
Language and Literacy This area supports children in developing essential communication skills for learning and life, covering Talking and Listening, Reading, and Writing. Talking and Listening: Engage in purposeful conversations, discussions, and presentations.	Mathematics and Numeracy This area helps children develop mathematical knowledge, problem-solving skills, and logical reasoning. Processes in Mathematics: Develop problem-solving strategies. Make and test predictions using	Physical Education This area promotes physical well-being, teamwork, and active lifestyles. Movement and Fundamental Skills: Develop coordination, balance, and agility. Learn skills for running, jumping, throwing, and catching.	The World Around Us This area integrates Geography, History, and Science and Technology, encouraging curiosity about the world. Geography: Investigate local and global environments. Understand climate, ecosystems, and sustainability. Explore maps, landscapes, and	The Arts This area encourages creativity, self-expression, and appreciation of cultural heritage through Art and Design, Drama, and Music. Art and Design: Explore and experiment with a variety of artistic techniques (drawing, painting, sculpture, printmaking).	Personal Development and Mutual Understanding This area focuses on emotional well-being, social skills, and personal responsibility. Personal Understanding and Health: Develop self-awareness, confidence, and resilience. Understand physical and mental health and well-being. Learn about healthy

Listen actively and respond appropriately in different contexts. Use reasoning and persuasive language effectively. Develop confidence in expressing opinions, thoughts, and feelings. Reading: Read fluently, confidently, and with understanding. Develop comprehension and critical thinking skills. Explore different text types (fiction, non-fiction, poetry, media). Develop strategies for decoding, predicting,	mathematical models. Explore patterns and relationships in numbers and shapes. Number: Understand place value and number operations (addition, subtraction, multiplication, division). Use fractions, decimals, and percentages. Develop mental maths and estimation skills. Understand financial literacy (money, budgeting).	Games and Sports: Participate in team sports, individual sports, and recreational activities. Develop cooperation, strategy, and sportsmanship. Gymnastics and Dance: Explore movement, flexibility, and expression through dance and gymnastic routines. Outdoor and Adventure Activities: Engage in problem-solving and	geographical processes. Study human and environmental interactions. History: Explore past events, historical figures, and timelines. Understand how history has shaped societies and cultures. Develop research, investigation, and critical thinking skills. Compare different historical perspectives. Science and Technology:	Develop observational and imaginative skills. Learn about different artists, styles, and cultural influences. Reflect on and evaluate personal and others' artwork. Drama: Engage in role-play, improvisation, and storytelling. Develop confidence in expressing emotions, opinions, and creativity. Explore dramatic techniques such as mime, movement, and voice. Collaborate and perform in group	eating, hygiene, and personal safety. Mutual Understanding in the Local and Global Community: Explore relationships with family, friends, and the wider community. Understand diversity, respect, and inclusion. Develop empathy and conflict resolution skills. Learn about rights, responsibilities, and global citizenship.
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inferring, and summarizing. Foster an appreciation of literature and storytelling. Writing: Develop clear, structured, and coherent writing skills. Use a range of sentence structures, grammar, punctuation, and spelling conventions. Write for various audiences and purposes (e.g., narrative, reports, persuasive texts). Plan, draft, revise, and improve written work.	Measures: Work with length, weight, capacity, time, and temperature. Use standard and non-standard units. Convert between units and understand practical applications. Shape and Space: Recognise, describe, and work with 2D and 3D shapes. Understand symmetry, angles, coordinates, and transformations. Handling Data:	team challenges in outdoor settings. Develop navigation, risk assessment, and leadership skills. Health and Fitness: Understand the benefits of exercise for physical and mental well-being. Set personal fitness goals and track progress.	Investigate living things, materials, forces, and energy. Develop scientific inquiry skills through observation, questioning, and experimentation. Understand the role of technology in daily life and innovation. Explore sustainability and environmental responsibility.	activities and presentations. Music: Explore rhythm, melody, and harmony through singing and instrumental work. Create and perform compositions using a range of musical elements. Listen to and appraise various musical genres and traditions. Develop an appreciation for cultural and historical musical influences.	
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Use digital tools to enhance writing and presentation.	Collect, organise, and interpret data using graphs, charts, and tables. Understand probability and real-life applications of statistics.				
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The Sustainability Curriculum Headings

Understanding Sustainability (SUS1)	Environmental Awareness (SUS2)	Environmental Stewardship (SUS3)	Waste Management (SUS4)	Energy Conservation (SUS5)	Biodiversity and Ecosystems (SUS6)
Climate Change and Adaptation (SUS7)	Food and Agriculture (SUS8)	Water Conservation (SUS9)	Sustainable Transport and Urban Planning (SUS10)	Citizenship / Global Responsibility and Sustainable Development (SUS11)	Outdoor Learning and Connection to Nature (SUS12)

Understanding Sustainability

(SUS1)

The World Around Us

Geography (SDGs 4, 6, 7, 11, 12, 13, 14, 15, 17)

Learning Objectives:

Investigate local and global environments by exploring ecosystems, climate zones, and how human activity impacts nature (**SDG 13 & 15**).

Understand climate, ecosystems, and sustainability by studying the effects of deforestation, urbanisation, and conservation efforts (**SDG 11 & 13**).

Explore maps, landscapes, and geographical processes by tracking changing coastlines, river pollution, and land use (**SDG 6 & 15**).

Study human and environmental interactions by examining how communities adapt to climate change, such as flood defences and drought-resistant crops (**SDG 12 & 13**).

Compare renewable and non-renewable resources and evaluate their environmental and economic impacts (**SDG 7 & 12**).

Develop map skills by identifying conservation areas, global biodiversity hotspots, and the effects of rising sea levels (**SDG 11 & 14**).

History (SDGs 4, 8, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by studying ancient sustainable farming methods, industrial pollution, and early

conservation efforts (**SDG 8 & 12**).

Understand how history has shaped societies and cultures by investigating how past civilisations managed resources and how this compares to modern sustainability efforts (**SDG 11 & 13**).

Develop research, investigation, and critical thinking skills by evaluating historical environmental disasters, such as the Dust Bowl, and their long-term effects (**SDG 12 & 15**).

Compare different historical perspectives on environmental responsibility, including indigenous sustainability practices and industrial development (**SDG 15 & 17**).

Examine how technology has changed over time and its impact on resource use, pollution, and sustainable innovation (**SDG 9 & 12**).

Analyse how transportation, trade, and energy use have evolved and their effects on the environment (**SDG 9 & 11**).

Science and Technology (SDGs 4, 6, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by exploring the science behind biodiversity, pollution, and energy efficiency (**SDG 6 & 15**).

Develop scientific inquiry skills through **observation, questioning, and experimentation** on renewable energy sources, water purification, and food production (**SDG 7 & 12**).

Understand the role of technology in daily life and innovation by studying how green technologies, such as solar panels and electric transport, are shaping the future (**SDG 9 & 11**).

Explore sustainability and environmental responsibility by designing and testing eco-friendly solutions, such as biodegradable materials or upcycled products (**SDG 12 & 17**).

Investigate the impact of human activity on natural processes by conducting experiments on soil erosion, air pollution, and the

greenhouse effect (**SDG 13 & 15**).

Analyse sustainable design solutions by studying biomimicry, green architecture, and nature-based engineering projects (**SDG 9 & 11**).

Environmental Awareness

(SUS2)

The World Around Us

Geography (SDGs 4, 6, 11, 12, 13, 14, 15, 17)

Learning Objectives:

Investigate local and global environments by examining forests, oceans, rivers, and cities, and how they are affected by human activity (**SDG 13 & 15**).

Understand climate, ecosystems, and sustainability by studying deforestation, pollution, conservation, and climate change impacts (**SDG 12 & 13**).

Explore maps, landscapes, and geographical processes by tracking changing coastlines, water cycles, and the impact of extreme weather (**SDG 6 & 15**).

Study human and environmental interactions by analysing how land use, urbanisation, and industry affect natural resources (**SDG 11 & 12**).

Compare different ecosystems (e.g., rainforests, deserts, coral reefs) and explore how biodiversity is being threatened (**SDG 14 & 15**).

Investigate sustainable cities and how urban planning can reduce pollution, conserve resources, and create green spaces (**SDG 11 & 17**).

History (SDGs 4, 8, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by studying the Industrial Revolution's impact on the environment and early conservation movements (**SDG 8 & 12**).

Understand how history has shaped societies and cultures by researching ancient civilisations and their use of natural resources (**SDG 11 & 13**).

Develop research, investigation, and critical thinking skills by examining the causes and consequences of historical environmental disasters (**SDG 12 & 15**).

Compare different historical perspectives on environmental responsibility, including indigenous knowledge and modern conservation efforts (**SDG 15 & 17**).

Analyse how major technological developments have changed the way humans interact with the environment, such as agriculture, industry, and transport (**SDG 9 & 12**).

Explore how past societies adapted to climate change (e.g., the Maya civilisation's drought adaptation and the Netherlands' flood defences) (**SDG 13 & 15**).

Science and Technology (SDGs 4, 6, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by studying the impact of pollution on ecosystems and the role of plants in the carbon cycle (**SDG 6 & 15**).

Develop scientific inquiry skills through **observation, questioning, and experimentation** on water conservation, renewable energy,

and recycling (**SDG 7 & 12**).

Understand the role of technology in daily life and innovation by examining how sustainable energy, eco-friendly transport, and biodegradable materials reduce environmental harm (**SDG 9 & 11**).

Explore sustainability and environmental responsibility by designing and testing ways to reduce waste, conserve water, and protect biodiversity (**SDG 12 & 17**).

Investigate the effects of human activity on natural processes by conducting experiments on soil erosion, air quality, and greenhouse gases (**SDG 13 & 15**).

Analyse the role of renewable energy sources (e.g., wind, solar, hydro) and compare their benefits to fossil fuels (**SDG 7 & 12**).

Environmental Stewardship
(**SUS3**)

The World Around Us

Geography (SDGs 4, 6, 11, 12, 13, 14, 15, 17)

Learning Objectives:

Investigate local and global environments by exploring forests, oceans, and urban spaces, and how they are impacted by human activity (**SDG 13 & 15**).

Understand climate, ecosystems, and sustainability by studying the effects of deforestation, pollution, and conservation efforts (**SDG 12 & 13**).

Explore maps, landscapes, and geographical processes by tracking the effects of rising sea levels, river pollution, and deforestation (**SDG 6 & 15**).

Study human and environmental interactions by examining how different communities rely on and manage their natural resources

(SDG 11 & 12).

Compare different ecosystems (e.g., rainforests, coral reefs, wetlands) and their importance to biodiversity and human survival (SDG 14 & 15).

Investigate sustainable living and urban planning to explore how cities can be designed to support nature and reduce pollution (SDG 11 & 17).

History (SDGs 4, 8, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by researching individuals and movements that have protected the environment (SDG 8 & 12).

Understand how history has shaped societies and cultures by investigating how past civilisations managed resources, such as ancient irrigation systems and early farming techniques (SDG 11 & 13).

Develop research, investigation, and critical thinking skills by examining historical environmental disasters (e.g., the Dust Bowl) and their long-term effects (SDG 12 & 15).

Compare different historical perspectives on environmental responsibility, from indigenous knowledge to industrial development (SDG 15 & 17).

Analyse how technological advancements have affected sustainability, such as the transition from coal to renewable energy (SDG 9 & 12).

Examine how societies have adapted to climate change throughout history, such as flood control methods and drought-resistant farming (SDG 13 & 15).

Science and Technology (SDGs 4, 6, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by exploring the role of biodiversity in a healthy planet (**SDG 6 & 15**).

Develop scientific inquiry skills through **observation, questioning, and experimentation** on water conservation, energy use, and food waste reduction (**SDG 7 & 12**).

Understand the role of technology in daily life and innovation by studying how renewable energy, sustainable farming, and biodegradable materials help protect the planet (**SDG 9 & 11**).

Explore sustainability and environmental responsibility by testing ways to reduce waste, conserve water, and protect local wildlife (**SDG 12 & 17**).

Investigate the impact of human activity on ecosystems by conducting experiments on soil health, air quality, and ocean acidification (**SDG 13 & 15**).

Analyse the role of sustainable energy sources (e.g., wind, solar, hydro) and compare their benefits to fossil fuels (**SDG 7 & 12**).

Waste Management

(SUS4)

The World Around Us

Geography (SDGs 4, 6, 11, 12, 13, 14, 15, 17)

Learning Objectives:

Investigate local and global waste management practices by exploring landfill sites, recycling centres, and composting systems (**SDG 12 & 11**).

Understand climate, ecosystems, and sustainability by analysing how waste disposal affects biodiversity, air quality, and water pollution (**SDG 13 & 15**).

Explore maps, landscapes, and geographical processes by tracking the journey of waste from household bins to landfill, incineration, or recycling (**SDG 11 & 12**).

Study human and environmental interactions by investigating how different communities manage waste and promote sustainable living (**SDG 12 & 17**).

Compare waste generation across different regions and explore how climate, population density, and industry affect waste levels (**SDG 14 & 15**).

Investigate the impact of plastic pollution on marine and terrestrial environments and discuss solutions such as biodegradable materials and circular economy principles (**SDG 12 & 14**).

History (SDGs 4, 8, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by studying how waste was managed in ancient civilisations and how industrialisation changed waste production (**SDG 9 & 12**).

Understand how history has shaped societies and cultures by examining how attitudes towards waste have evolved, from reuse and repair cultures to the rise of single-use plastics (**SDG 11 & 12**).

Develop research, investigation, and critical thinking skills by analysing the environmental impact of the Industrial Revolution and the

development of modern waste management (**SDG 12 & 13**).

Compare different historical perspectives on waste disposal, from indigenous zero-waste practices to the impact of consumerism in modern society (**SDG 15 & 17**).

Examine key historical moments in waste reduction (e.g., the introduction of recycling laws, the plastic bag ban, and global movements against single-use plastics) (**SDG 12 & 17**).

Explore how technological advancements have improved waste management over time, such as the development of composting, energy-from-waste plants, and plastic alternatives (**SDG 9 & 11**).

Science and Technology (SDGs 4, 6, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by examining the decomposition rates of different materials and their impact on ecosystems (**SDG 12 & 15**).

Develop scientific inquiry skills through **observation, questioning, and experimentation** on the effects of waste on soil, water, and air quality (**SDG 6 & 13**).

Understand the role of technology in daily life and innovation by exploring how modern recycling processes, composting, and upcycling reduce waste (**SDG 9 & 11**).

Explore sustainability and environmental responsibility by designing and testing ways to reduce, reuse, and recycle materials in school and at home (**SDG 12 & 17**).

Investigate how human activity affects the environment by studying landfill gas emissions, microplastic pollution, and the impact of illegal dumping (**SDG 13 & 15**).

Analyse how waste-to-energy technology works and compare the benefits and drawbacks of incineration, biogas production, and

composting (**SDG 7 & 12**).

Energy Conservation (**SUS5**)

The World Around Us

Geography (SDGs 4, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate local and global environments by exploring different sources of energy (fossil fuels, wind, solar, hydro, and geothermal) and their impact on the environment (**SDG 7 & 13**).

Understand climate, ecosystems, and sustainability by examining how energy use affects climate change and natural habitats (**SDG 12 & 15**).

Explore maps, landscapes, and geographical processes by identifying where energy resources are found and how they are transported globally (**SDG 7 & 9**).

Study human and environmental interactions by investigating how communities around the world use and conserve energy differently (**SDG 11 & 12**).

Compare renewable and non-renewable energy sources and evaluate their advantages and disadvantages (**SDG 7 & 12**).

Analyse global energy consumption and discuss ways to reduce energy waste at home, school, and in cities (**SDG 11 & 17**).

History (SDGs 4, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by studying the history of energy use, from fire and watermills to steam engines and nuclear power (**SDG 9 & 12**).

Understand how history has shaped societies and cultures by examining how industrialisation increased energy demand and led to pollution (**SDG 11 & 13**).

Develop research, investigation, and critical thinking skills by analysing historical events that led to the rise of energy conservation awareness, such as the oil crisis and climate change conferences (**SDG 12 & 17**).

Compare different historical perspectives on energy use, including traditional methods of energy production and modern renewable energy innovations (**SDG 7 & 15**).

Examine how past energy inventions influenced modern life, such as the light bulb, steam engine, and electric grid (**SDG 9 & 11**).

Explore the history of environmental movements and their role in promoting renewable energy and energy conservation (**SDG 13 & 17**).

Science and Technology (SDGs 4, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by exploring how different energy sources work and their effects on the environment (**SDG 7 & 12**).

Develop scientific inquiry skills through **observation, questioning, and experimentation** on solar power, wind turbines, and battery storage (**SDG 9 & 12**).

Understand the role of technology in daily life and innovation by studying how smart technology and energy-efficient appliances help

conserve energy (**SDG 9 & 11**).

Explore sustainability and environmental responsibility by designing and testing ways to reduce energy waste, such as insulating homes or using solar panels (**SDG 7 & 12**).

Investigate the greenhouse effect and climate change by experimenting with heat absorption and how carbon dioxide affects temperature (**SDG 13 & 15**).

Analyse energy efficiency in buildings by measuring insulation effectiveness and exploring passive solar design (**SDG 11 & 12**).

Biodiversity and Ecosystems (**SUS6**)

The World Around Us

Geography (SDGs 4, 6, 11, 12, 13, 14, 15, 17)

Learning Objectives:

Investigate local and global environments by studying different ecosystems (forests, wetlands, oceans) and how they support biodiversity (**SDG 13 & 15**).

Understand climate, ecosystems, and sustainability by examining how climate change affects biodiversity and ecosystem balance (**SDG 12 & 13**).

Explore maps, landscapes, and geographical processes by tracking biodiversity hotspots and mapping areas of deforestation, desertification, and conservation (**SDG 15**).

Study human and environmental interactions by analysing how agriculture, urbanisation, and pollution impact local and global ecosystems (**SDG 11 & 12**).

Investigate the importance of keystone species and how their loss affects entire ecosystems (**SDG 14 & 15**).

Compare ecosystems in different climates (e.g., rainforests, coral reefs, tundra) and their role in supporting biodiversity (**SDG 13 & 15**).

History (SDGs 4, 8, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by studying key conservationists, such as Jane Goodall and Sir David Attenborough (**SDG 15 & 17**).

Understand how history has shaped societies and cultures by researching how ancient civilisations lived in harmony with or harmed their ecosystems (**SDG 11 & 12**).

Develop research, investigation, and critical thinking skills by examining the causes and consequences of species extinctions throughout history (**SDG 12 & 15**).

Compare different historical perspectives on land and wildlife use, including indigenous knowledge and industrial development (**SDG 15 & 17**).

Analyse how the Industrial Revolution changed ecosystems through urban expansion, pollution, and habitat destruction (**SDG 9 & 11**).

Examine conservation efforts through history, such as the creation of national parks, reforestation projects, and species protection laws (**SDG 15 & 17**).

Science and Technology (SDGs 4, 6, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by exploring food chains, life cycles, and species adaptations to different habitats (**SDG 15**).

Develop scientific inquiry skills through **observation, questioning, and experimentation** on plant growth, soil health, and water ecosystems (**SDG 6 & 15**).

Understand the role of technology in daily life and innovation by studying how satellite imagery, camera traps, and genetic research help protect endangered species (**SDG 9 & 11**).

Explore sustainability and environmental responsibility by designing and testing conservation projects, such as creating wildlife corridors or pollinator gardens (**SDG 12 & 17**).

Investigate how ecosystems respond to human impact by studying pollution effects on marine life, deforestation's impact on oxygen levels, and climate change's role in biodiversity loss (**SDG 13 & 15**).

Analyse rewilding and habitat restoration projects that are helping to bring back species and restore balance to ecosystems (**SDG 15 & 17**).

Climate Change and Adaptation

The World Around Us

Geography (SDGs 4, 6, 11, 12, 13, 14, 15, 17)

Learning Objectives:

Investigate local and global environments to understand how different regions are being affected by climate change, such as rising sea levels,

droughts, and extreme weather (**SDG 13 & 15**).

Understand climate, ecosystems, and sustainability by exploring how human activities contribute to climate change and how nature-based solutions can help mitigate its effects (**SDG 12 & 15**).

Explore maps, landscapes, and geographical processes by tracking temperature changes, rainfall patterns, and natural disasters across different parts of the world (**SDG 13 & 14**).

Study human and environmental interactions by examining how communities adapt to climate change through flood defences, reforestation, and urban planning (**SDG 11 & 12**).

Compare different adaptation strategies (e.g., floating villages, drought-resistant crops, and mangrove restoration) and evaluate their effectiveness (**SDG 6 & 15**).

Investigate the impact of extreme weather events and how different regions prepare for and recover from hurricanes, heatwaves, and wildfires (**SDG 11 & 13**).

History (SDGs 4, 8, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by researching historical climate changes, such as the Ice Age and the Little Ice Age (**SDG 13 & 15**).

Understand how history has shaped societies and cultures by studying how ancient civilisations adapted to changing climates, such as the Maya and Mesopotamians (**SDG 11 & 12**).

Develop research, investigation, and critical thinking skills by analysing historical records of climate change and comparing them to modern scientific data (**SDG 12 & 17**).

Compare different historical perspectives on environmental responsibility, from indigenous knowledge of land conservation to industrialisation and deforestation (**SDG 15 & 17**).

Examine how past societies adapted to extreme weather through innovations like terraced farming, irrigation systems, and flood barriers (**SDG 6 &**

13).

Investigate the history of climate activism and how organisations and individuals have worked to raise awareness and promote change (**SDG 13 & 17**).

Science and Technology (SDGs 4, 6, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by exploring how climate change affects habitats, food chains, and biodiversity (**SDG 15**).

Develop scientific inquiry skills through **observation, questioning, and experimentation** on greenhouse gases, ocean acidification, and the effects of temperature changes (**SDG 6 & 13**).

Understand the role of technology in daily life and innovation by studying renewable energy sources, carbon capture, and sustainable transport solutions (**SDG 7 & 9**).

Explore sustainability and environmental responsibility by designing experiments to measure heat absorption, insulation, and how different materials affect temperature (**SDG 11 & 12**).

Investigate the effects of human activity on natural processes by examining soil erosion, glacier melting, and deforestation (**SDG 13 & 15**).

Analyse climate adaptation technologies such as seawalls, smart irrigation systems, and urban green roofs to understand how science is helping communities adapt (**SDG 9 & 11**).

Food and Agriculture

(SUS8)

The World Around Us

Geography (SDGs 2, 6, 11, 12, 13, 14, 15, 17)

Learning Objectives:

Investigate local and global environments to understand how different climates and landscapes support various types of food production, including crops, livestock, and aquaculture (**SDG 2 & 15**).

Understand climate, ecosystems, and sustainability by exploring how farming and fishing practices affect biodiversity and food security (**SDG 12 & 15**).

Explore maps, landscapes, and geographical processes by identifying key agricultural and aquaculture regions, and understanding how soil, water, and weather influence food production (**SDG 6 & 14**).

Study human and environmental interactions by analysing the impact of deforestation, overfishing, and climate change on global food supply (**SDG 11 & 13**).

Compare traditional and modern farming and fishing methods and assess their environmental and economic impacts (**SDG 2 & 12**).

Investigate sustainable food systems by looking at organic farming, regenerative agriculture, and sustainable fisheries (**SDG 2 & 15**).

History (SDGs 2, 4, 8, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by researching the history of farming and fishing, from early agriculture to modern industrial farming (**SDG 2 & 9**).

Understand how history has shaped societies and cultures by examining how the development of agriculture and aquaculture led to the growth of civilisations (**SDG 11 & 12**).

Develop research, investigation, and critical thinking skills by analysing how farming methods have evolved due to scientific and technological advancements (**SDG 8 & 12**).

Compare different historical perspectives on food production, from indigenous knowledge of sustainable farming to the impact of industrial farming on food supply (**SDG 15 & 17**).

Examine the role of food in historical trade and migration by exploring how crops, livestock, and fishing industries shaped economies and global connections (**SDG 9 & 12**).

Study the history of food preservation and storage by investigating how different cultures developed methods to store food and prevent waste (**SDG 12 & 15**).

Science and Technology (SDGs 2, 6, 7, 9, 11, 12, 13, 14, 15, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by exploring plant growth, soil health, and the role of microorganisms in food production (**SDG 15**).

Develop scientific inquiry skills through **observation, questioning, and experimentation** on soil fertility, water quality in aquaculture, and crop yields (**SDG 6 & 12**).

Understand the role of technology in daily life and innovation by studying how advances in irrigation, aquaponics, and hydroponics improve food production (**SDG 9 & 11**).

Explore sustainability and environmental responsibility by testing ways to reduce food waste, improve composting, and grow food using eco-friendly techniques (**SDG 12 & 17**).

Investigate the impact of fertilisers, pesticides, and pollution on ecosystems and explore natural alternatives such as permaculture (**SDG 13 & 15**).

Analyse the role of sustainable fishing and aquaculture in protecting marine life and ensuring a stable food supply (**SDG 14**).

Examples of Learning in the Environment:

Outdoor Learning Activities:

Growing a School Garden: Plant fruits, vegetables, and herbs while investigating soil health, plant growth, and pollination (**SDG 2 & 15**).

Composting Workshop: Set up a compost bin to explore food waste reduction and the role of decomposers in soil health (**SDG 12 & 15**).

Measuring Water Usage in Farming: Compare how different irrigation systems affect plant growth and water conservation (**SDG 6 & 12**).

Field Visit to a Farm or Fishery: Learn how farmers and fishers sustainably produce food, including organic and regenerative practices (**SDG 2 & 14**).

Environmental Investigations:

Investigating Overfishing: Research how overfishing affects ocean ecosystems and explore sustainable seafood choices (**SDG 14 & 15**).

Aquaponics or Hydroponics Experiment: Create a small-scale aquaponics system to explore how fish and plants can grow together in a closed-loop system (**SDG 9 & 12**).

Soil and Fertility Testing: Compare soil from different locations to analyse nutrients, water retention, and pH levels (**SDG 15**).

Comparing Traditional vs. Modern Farming: Research different farming techniques, from subsistence farming to industrial-scale food production (**SDG 2 & 9**).

Historical and Geographical Studies:

Ancient Farming Techniques: Investigate how early humans grew food and how these methods compare to today's techniques (**SDG 2 & 9**).

Mapping Global Food Production: Study where different foods come from and how climate affects what can be grown in different regions (**SDG 2 & 13**).

The Green Revolution: Explore how modern agricultural science increased food production and its impact on global hunger and the environment (**SDG 2 & 12**).

Impact of Climate Change on Agriculture: Study how droughts, floods, and changing temperatures are affecting food supply and what solutions exist (**SDG 13 & 15**).

Water Conservation

(SUS9)

The World Around Us

Geography (SDGs 4, 6, 11, 12, 13, 14, 15, 17)

Learning Objectives:

Investigate local and global environments by exploring rivers, lakes, wetlands, and oceans and understanding their role in ecosystems (**SDG 6 & 14**).

Understand climate, ecosystems, and sustainability by examining how water scarcity and pollution affect people, animals, and plants worldwide (**SDG 12 & 15**).

Explore maps, landscapes, and geographical processes by identifying sources of freshwater, tracking water usage, and analysing drought-affected regions (**SDG 6 & 13**).

Study human and environmental interactions by investigating how agriculture, industry, and daily activities impact water resources (**SDG 12 & 15**).

Compare water conservation practices used in different countries and cultures, including rainwater harvesting and desalination (**SDG 6 & 11**).

Investigate the impact of climate change on water resources by studying rising sea levels, glacier melt, and changing rainfall patterns (**SDG 13 & 14**).

History (SDGs 4, 6, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by researching ancient water management systems, such as Roman aqueducts and Egyptian irrigation (**SDG 6 & 9**).

Understand how history has shaped societies and cultures by examining how access to clean water influenced the growth of civilisations (**SDG 11 & 12**).

Develop research, investigation, and critical thinking skills by comparing how different historical periods dealt with water shortages and pollution (**SDG 12 & 15**).

Compare different historical perspectives on water use, from indigenous knowledge of sustainable water management to industrial expansion (**SDG 15 & 17**).

Examine the effects of water-related disasters such as floods, droughts, and tsunamis on communities throughout history (**SDG 6 & 13**).

Study the history of water laws and rights and how access to water has been a factor in conflicts and cooperation between nations (**SDG 6 & 17**).

Science and Technology (SDGs 4, 6, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by studying how water supports life and how pollutants affect aquatic ecosystems (**SDG 6 & 15**).

Develop scientific inquiry skills through **observation, questioning, and experimentation** on water filtration, evaporation, and conservation (**SDG 6**

& 12).

Understand the role of technology in daily life and innovation by exploring how water purification, desalination, and wastewater treatment work (SDG 9 & 11).

Explore sustainability and environmental responsibility by testing different water conservation methods, such as using rainwater collection systems (SDG 12 & 17).

Investigate the water cycle and its role in climate regulation by modelling precipitation, evaporation, and groundwater flow (SDG 13 & 15).

Analyse the impact of human activity on freshwater supplies by researching the causes of water pollution, deforestation, and urbanisation (SDG 6 & 14).

Examples of Learning in the Environment:

Outdoor Learning Activities:

Water Quality Testing: Collect water samples from rivers, ponds, or lakes and test for pollutants such as pH levels, nitrates, and microplastics (SDG 6 & 14).

Rainwater Collection and Measurement: Set up a rain gauge at school or home and track rainfall patterns over time (SDG 6 & 13).

Investigating Local Water Use: Map out water sources in the community and discuss how water is used in homes, schools, and businesses (SDG 11 & 12).

Exploring Wetlands and Their Role in Filtration: Visit a local wetland or nature reserve to observe how plants and soil help purify water (SDG 15).

Water Conservation Investigations:

Water Footprint Challenge: Track personal or school water usage and develop strategies to reduce waste (SDG 12 & 6).

Comparing Water Filtration Methods: Test different materials to see how well they filter dirty water (SDG 6 & 9).

Drought and Irrigation Experiment: Grow plants using different watering techniques to see which is the most water-efficient (**SDG 2 & 12**).

Investigating the Impact of Plastic Pollution on Water Sources: Collect plastic waste from a nearby waterway and analyse its impact on wildlife (**SDG 14 & 15**).

Historical and Geographical Studies:

Comparing Ancient and Modern Water Management: Research how ancient civilisations (e.g., Romans, Chinese, Mayans) managed water compared to modern cities (**SDG 6 & 11**).

The Role of Rivers in Human Settlements: Investigate how major cities developed along rivers and how they manage water today (**SDG 11 & 12**).

The Impact of Climate Change on Water Supply: Study case studies of countries experiencing droughts or floods due to climate change (**SDG 13 & 15**).

Investigating Sustainable Water Solutions Worldwide: Research how different countries use desalination, rainwater harvesting, and greywater recycling to conserve water (**SDG 6 & 17**).

Sustainable Transport and Urban Planning

(SUS10)

The World Around Us

Geography (SDGs 4, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate local and global environments by exploring how transport systems affect pollution, congestion, and accessibility in cities and rural areas (**SDG 11 & 13**).

Understand climate, ecosystems, and sustainability by examining how different types of transport impact air quality, energy use, and wildlife (**SDG**

12 & 15).

Explore maps, landscapes, and geographical processes by identifying key transport routes, urban growth patterns, and green spaces (**SDG 11 & 12**).

Study human and environmental interactions by investigating how car use, cycling, and public transport shape communities and sustainability efforts (**SDG 11 & 13**).

Compare sustainable transport solutions (e.g., electric buses, bike-sharing, pedestrianised areas) and assess their benefits and challenges (**SDG 9 & 12**).

Investigate the role of smart cities and how technology is used to improve urban transport, traffic flow, and energy efficiency (**SDG 9 & 17**).

History (SDGs 4, 8, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by researching the development of transport systems, from horse-drawn carriages to high-speed trains (**SDG 9 & 11**).

Understand how history has shaped societies and cultures by examining how transport innovations influenced trade, migration, and urban expansion (**SDG 8 & 12**).

Develop research, investigation, and critical thinking skills by analysing how historical cities adapted to growing populations and changing transport needs (**SDG 11 & 12**).

Compare different historical perspectives on urban development, from ancient Roman roads to modern car-dependent cities (**SDG 11 & 17**).

Examine how industrialisation changed transport and city planning and its impact on pollution and public health (**SDG 9 & 13**).

Study the history of transport policies and their effects on sustainability, such as the rise of public transport, car-free zones, and pedestrian-friendly areas (**SDG 11 & 12**).

Science and Technology (SDGs 4, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by exploring how transport systems rely on fuel, electricity, and human power (**SDG 7 & 9**).

Develop scientific inquiry skills through **observation, questioning, and experimentation** on how friction, aerodynamics, and energy efficiency impact transport (**SDG 9 & 12**).

Understand the role of technology in daily life and innovation by studying how electric cars, hydrogen buses, and smart traffic lights improve urban mobility (**SDG 7 & 11**).

Explore sustainability and environmental responsibility by designing and testing eco-friendly transport ideas, such as solar-powered vehicles (**SDG 12 & 17**).

Investigate the impact of road traffic and air pollution by measuring CO₂ levels in different areas and discussing solutions (**SDG 13 & 15**).

Analyse renewable energy use in transport and compare emissions from petrol, diesel, electric, and hydrogen-powered vehicles (**SDG 7 & 12**).

Citizenship / Global Responsibility and Sustainable Development (**SUS11**)

The World Around Us

Geography (SDGs 1, 2, 4, 6, 10, 11, 12, 13, 15, 16, 17)

Learning Objectives:

Investigate local and global environments to understand the differences in access to natural resources, clean water, food, and housing across the

world (**SDG 1 & 6**).

Understand climate, ecosystems, and sustainability by exploring how human actions impact global biodiversity and natural resources (**SDG 12 & 15**).

Explore maps, landscapes, and geographical processes by studying migration, population growth, and global trade networks (**SDG 10 & 11**).

Study human and environmental interactions by investigating how different communities respond to climate change, deforestation, and pollution (**SDG 13 & 15**).

Compare the distribution of wealth and resources worldwide and discuss global inequalities and how they can be addressed (**SDG 10 & 16**).

Investigate the role of international cooperation and organisations (e.g., UN, UNICEF, WWF) in solving global challenges like poverty, hunger, and conflict (**SDG 17**).

History (SDGs 1, 4, 8, 10, 11, 12, 13, 16, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by researching individuals who have made a difference in global citizenship (e.g., Nelson Mandela, Malala Yousafzai, Wangari Maathai) (**SDG 10 & 16**).

Understand how history has shaped societies and cultures by examining how past conflicts, colonisation, and trade have influenced modern global issues (**SDG 8 & 11**).

Develop research, investigation, and critical thinking skills by analysing key historical movements, such as human rights campaigns and environmental conservation efforts (**SDG 16 & 17**).

Compare different historical perspectives on global responsibility, from early conservation efforts to modern sustainability laws (**SDG 12 & 15**).

Examine the role of migration and refugees in history and discuss the responsibilities of countries in providing aid and support (**SDG 10 & 16**).

Investigate the history of fair trade and ethical consumerism and how global economies have changed over time (**SDG 8 & 12**).

Science and Technology (SDGs 4, 6, 7, 9, 11, 12, 13, 16, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by exploring how pollution, waste, and deforestation impact ecosystems and human communities (SDG 12 & 15).

Develop scientific inquiry skills through **observation, questioning, and experimentation** on sustainable farming, energy use, and waste management (SDG 6 & 12).

Understand the role of technology in daily life and innovation by studying how solar energy, water purification, and recycling innovations help solve global challenges (SDG 7 & 9).

Explore sustainability and environmental responsibility by designing eco-friendly solutions to reduce waste and promote sustainable living (SDG 12 & 17).

Investigate the impact of industrialisation on global health and well-being by examining pollution, disease control, and food safety (SDG 3 & 9).

Analyse the impact of digital technology in global communication and how it connects people, spreads awareness, and supports activism (SDG 16 & 17).

Outdoor Learning and Connection to Nature (SUS12)

The World Around Us

Geography (SDGs 3, 4, 6, 11, 12, 13, 14, 15, 17)

Learning Objectives:

Investigate local and global environments by comparing natural features, human-made structures, and biodiversity in rural and urban areas (SDG

11 & 15).

Understand climate, ecosystems, and sustainability by studying how different landscapes (forests, rivers, cities, farms) support life and resources (SDG 12 & 15).

Explore maps, landscapes, and geographical processes by using orienteering, digital mapping, and fieldwork to track changes in urban and rural environments (SDG 6 & 13).

Study human and environmental interactions by investigating how green spaces, parks, and conservation projects improve air quality, well-being, and community life (SDG 3 & 11).

Compare rural and urban land use and explore how agriculture, transport, and industry affect biodiversity and local environments (SDG 11 & 12).

Investigate the importance of green infrastructure (e.g., urban trees, wildlife corridors, nature reserves) and their role in promoting sustainability and climate adaptation (SDG 13 & 15).

History (SDGs 3, 4, 8, 9, 10, 11, 12, 13, 15, 17)

Learning Objectives:

Explore past events, historical figures, and timelines by researching conservationists, explorers, and environmental pioneers who influenced sustainable practices (SDG 13 & 15).

Understand how history has shaped societies and cultures by examining how people have used and managed natural resources in rural and urban settings over time (SDG 11 & 12).

Develop research, investigation, and critical thinking skills by exploring how climate and geography influenced the development of cities and rural communities (SDG 8 & 9).

Compare different historical perspectives on land use, from indigenous conservation practices to industrial expansion and urbanisation (SDG 10 & 15).

Examine how past societies adapted to climate challenges by studying ancient water management systems, sustainable farming, and renewable

energy sources (**SDG 6 & 13**).

Investigate the history of public parks and urban planning and their role in promoting health, recreation, and environmental protection (**SDG 3 & 11**).

Science and Technology (SDGs 3, 4, 6, 7, 9, 11, 12, 13, 15, 17)

Learning Objectives:

Investigate living things, materials, forces, and energy by studying how urban and rural ecosystems support biodiversity and human life (**SDG 15**).

Develop scientific inquiry skills through **observation, questioning, and experimentation** in outdoor environments, such as measuring soil health, air quality, and water pollution (**SDG 6 & 12**).

Understand the role of technology in daily life and innovation by exploring how urban green spaces, smart cities, and renewable energy help reduce environmental impacts (**SDG 7 & 9**).

Explore sustainability and environmental responsibility by testing conservation techniques, such as rewilding, water-saving irrigation, and energy-efficient building design (**SDG 11 & 17**).

Investigate human impact on nature by studying waste management, deforestation, and pollution in local environments (**SDG 12 & 15**).

Analyse urban farming and sustainable agriculture to explore how food can be grown in cities, such as rooftop gardens and hydroponic farms (**SDG 2 & 11**).