

Mathematics and Numeracy Matrix Northern Ireland - KS1 Curriculum For Sustainability Complementing the KS1 Framework



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Please note we have not included RE in our curriculum plan .

Language and Literacy	Mathematics and Numeracy	The World Around Us (Science, Geography, and History)	Personal Development and Mutual Understanding (PDMU)	Physical Education	Art and Design/Music/ Dance / Drama
Language and Literacy Speaking and Listening: Developing communication skills through conversation, discussion, role-play, and storytelling. Reading: Learning to read with understanding, developing a love for books, and building phonics and comprehension skills.	Mathematics and Numeracy Number: Understanding numbers, counting, place value, and simple operations (addition, subtraction, etc.). Measures: Exploring length, weight, capacity, time, and money. Shape and Space: Recognising and working with 2D	The World Around Us (Science, Geography, and History) Interdependence: Understanding relationships between people, animals, plants, and places. Place: Exploring the local and wider environment,	Personal Development and Mutual Understanding (PDMU) Personal Understanding and Health: Building confidence, self-awareness, and healthy lifestyle choices. Mutual Understanding in the Local and Wider Community: Respecting others,	Physical Education Fundamental Movement Skills: Running, jumping, throwing, catching, and coordination. Games: Basic team and individual sports skills. Gymnastics and Dance: Exploring movement, balance, and creativity.	The Arts (Music, Drama, and Art & Design) Music: Singing, rhythm, instruments, and listening to different music types. Drama: Role-play, storytelling, and expressing emotions through drama. Art & Design: Exploring creativity using different media, drawing, painting, and making.

Writing: Developing handwriting, spelling, punctuation, sentence structure, and early creative writing. Using ICT (Cross-Curricular) Developing early digital literacy (e.g., using tablets, computers, and interactive whiteboards). Learning to use simple software for writing, drawing, or problem-solving. Exploring safe and responsible use of technology. Introducing basic coding and problem-solving through	and 3D shapes and spatial awareness. Handling Data: Collecting, organising, and interpreting simple data in charts and graphs. Using ICT (Cross-Curricular) Developing early digital literacy (e.g., using tablets, computers, and interactive whiteboards). Learning to use simple software for writing, drawing, or problem-solving. Exploring safe and responsible use of technology.	mapping, and geography basics. Movement and Energy: Investigating motion, forces, electricity, light, sound, and transport. Change Over Time: Looking at history, seasons, life cycles, and environmental changes. Technology in "The World Around Us" (WAU) Exploring how things are made and how they work. Investigating simple design and engineering concepts (e.g.,	developing social skills, and learning about responsibilities.	Outdoor Play: Engaging in active learning in outdoor spaces.	Using ICT (Cross-Curricular) Developing early digital literacy (e.g., using tablets, computers, and interactive whiteboards). Learning to use simple software for writing, drawing, or problem-solving. Exploring safe and responsible use of technology. Introducing basic coding and problem-solving through age-appropriate tools (e.g., Bee-Bots, ScratchJr). Encouraging creative ICT use in storytelling, music, or drawing.
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age-appropriate tools (e.g., Bee-Bots, ScratchJr). Encouraging creative ICT use in storytelling, music, or drawing.	Introducing basic coding and problem-solving through age-appropriate tools (e.g., Bee-Bots, ScratchJr). Encouraging creative ICT use in storytelling, music, or drawing.	building structures using construction kits). Using materials to design and make simple models. Learning about energy, movement, and forces through play and experimentation. Exploring everyday technologies in the environment (e.g., transport, communication devices, and renewable energy).			
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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)
Mathematics
Mathematics and Numeracy Number <i>(SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action)</i> Count and compare numbers related to sustainability, such as the number of trees in a park, recycling bins, or water bottles saved. Use simple addition and subtraction to solve sustainability-related problems, e.g., "If we save 2 litres of water today and 3 litres tomorrow, how much have we saved?" Explore place value using real-life sustainability examples, such as measuring electricity or water usage. Use counting activities to understand waste reduction, e.g., "How many plastic bottles did we collect for recycling?"

Measures

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land)

Compare and measure lengths, weights, and capacities using real-world sustainable materials (e.g., measuring rainwater collection, weighing food waste).

Explore time through sustainability actions, such as tracking how long a tap is left running or how long plants take to grow.

Use money-related problems to discuss fair trade, sustainable shopping, and the cost of waste.

Shape and Space

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production)

Recognise and explore 2D and 3D shapes in nature and sustainable materials (e.g., circles in tree rings, cubes in packaging).

Identify shapes in buildings designed to be energy efficient, such as solar panels and wind turbines.

Use spatial awareness to plan simple eco-friendly spaces, such as a school garden or a recycling station.

Handling Data

(SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land)

Collect and organise data about class sustainability efforts, such as counting how many items are recycled each week.

Create simple pictograms and bar charts to show data, such as water usage or the number of different types of trees in a park.

Interpret data to make sustainability decisions, e.g., "Which material do we waste the most?"

Using ICT (Cross-Curricular)

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 12: Responsible Consumption and Production, SDG 13:

Climate Action)

Use digital tools such as tablets, computers, and interactive whiteboards to explore sustainability concepts through numbers and data.

Learn to use simple software to write, draw, or create digital charts about sustainability (e.g., making a pictogram of food waste in the classroom).

Understand the safe and responsible use of technology when collecting and sharing data about sustainability.

Develop basic coding skills with Bee-Bots or ScratchJr to model sustainable actions, such as sorting recyclables or reducing energy use.

Create digital stories, animations, or artwork that use numbers and data to highlight sustainability topics.

Environmental Awareness (SUS2)

Mathematics

Mathematics and Numeracy

Number

(SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land, SDG 14: Life Below Water)

Count and compare numbers related to environmental topics, such as the number of trees in a park, birds spotted in a school garden, or items collected during a litter pick.

Use simple addition and subtraction to solve environmental problems, e.g., "If we plant 3 trees this week and 2 next week, how many will we have altogether?"

Explore place value using real-life environmental examples, such as tracking how much water is used in a day.

Understand multiplication and division in environmental contexts, such as grouping recyclable materials into sets.

Measures

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land, SDG 14: Life Below Water)

Compare and measure lengths, weights, and capacities using real-world environmental materials (e.g., measuring the height of plants, weighing food waste, or estimating rainfall).

Use non-standard and standard units to track changes in the environment, such as how much water is saved by turning off taps.

Explore time by recording the growth of plants, the weather over a week, or how long it takes to decompose different materials.

Investigate money in the context of buying sustainable products or comparing the cost of wasting versus saving resources.

Shape and Space

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 15: Life on Land)

Recognise and explore 2D and 3D shapes in natural and built environments (e.g., shapes of leaves, beehives, recycling bins, and eco-friendly buildings).

Identify shapes in nature and discuss their importance (e.g., circles in tree rings, spirals in seashells, hexagons in honeycombs).

Use spatial awareness to explore outdoor spaces, planning areas for wildlife, gardening, or play.

Explore symmetry in natural patterns, such as butterfly wings or flower petals.

Handling Data

(SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Collect and organise environmental data, such as how many plastic items are used in a week or how many birds visit a bird feeder.

Represent environmental data in pictograms, bar charts, or simple tables to compare different sustainability actions.

Interpret data to make sustainability decisions, e.g., "Which class recycles the most paper?"

Sort and classify objects based on environmental impact, such as recyclable vs non-recyclable materials.

Using ICT (Cross-Curricular)

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Use digital tools such as tablets, computers, and interactive whiteboards to explore environmental awareness topics through numbers and data.

Learn to use simple software to write, draw, or create digital charts about environmental data (e.g., making a pictogram of the types of litter found in the school grounds).

Understand the safe and responsible use of technology when collecting and sharing environmental data.

Develop basic coding skills with Bee-Bots or ScratchJr to model sustainable actions, such as sorting recyclables or planting trees.

Create digital stories, animations, or artwork that use numbers and data to highlight environmental topics.

Earth Stewardship (SUS 3)

Mathematics

Mathematics and Numeracy

Number

(SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land, SDG 14:

Life Below Water)

Count and compare numbers related to Earth stewardship, such as the number of trees planted, bins emptied for recycling, or litres of water saved.

Use simple addition and subtraction to calculate sustainability actions, e.g., "If we plant 5 trees and 3 more, how many trees do we have?"

Explore place value through real-world stewardship examples, such as tracking energy savings in the classroom.

Use multiplication and division in sustainability activities, such as grouping recycled items into sets of five or sharing out seeds for planting.

Measures

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Compare and measure lengths, weights, and capacities using natural resources (e.g., measuring rainfall, weighing food waste, or tracking plant growth).

Use non-standard and standard units to track changes in the environment, such as measuring how much water is used when washing hands.

Explore time through Earth stewardship activities, such as how long different materials take to decompose.

Investigate money by discussing the cost of sustainable shopping, fair trade products, or reducing waste.

Shape and Space

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 15: Life on Land, SDG 14: Life Below Water)

Recognise and explore 2D and 3D shapes in natural and built environments (e.g., shapes in solar panels, wind turbines, beehives, and tree trunks).

Identify patterns and symmetry in nature, such as butterfly wings or the arrangement of petals in flowers.

Use spatial awareness to design an eco-friendly garden or a nature-friendly space.

Investigate sustainable buildings and discuss their shapes, such as domes for energy efficiency.

Handling Data

(SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Collect and organise data about class Earth stewardship efforts, such as the number of reusable bottles brought to school each week.

Represent data in simple pictograms, bar charts, or tables to track progress in reducing waste or saving energy.

Interpret environmental data to make decisions, such as identifying the most common type of litter collected during a clean-up.

Sort and classify objects based on their environmental impact, such as recyclable vs non-recyclable materials.

Using ICT (Cross-Curricular)

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Use digital tools such as tablets, computers, and interactive whiteboards to explore Earth stewardship topics through numbers and data.

Learn to use simple software to write, draw, or create digital charts about Earth stewardship (e.g., making a pictogram of waste collected in the school playground).

Understand the safe and responsible use of technology, including energy-saving actions like turning off devices when not in use.

Develop basic coding skills with Bee-Bots or ScratchJr to create simple programmes that show actions like planting trees, cleaning up litter, or sorting recycling.

Create digital stories, animations, or artwork that use numbers and data to highlight Earth stewardship themes.

Waste Management

(SUS4)

Mathematics

Mathematics and Numeracy

Number

(SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Count and compare numbers related to waste, such as the number of items recycled, composted, or thrown away each day.

Use simple addition and subtraction to track waste reduction efforts, e.g., "If we recycled 4 plastic bottles yesterday and 3 today, how many have we saved?"

Explore place value through real-world examples, such as recording how much paper is saved by printing on both sides.

Use multiplication and division to group recyclable materials (e.g., putting paper into stacks of five).

Measures

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Compare and measure the weight of different types of waste, such as food waste, paper, and plastic.

Use non-standard and standard units to track the amount of waste produced in a day, week, or month.

Explore time in the context of waste management, such as how long different materials take to decompose.

Investigate money by discussing the cost of waste disposal, recycling, and reusing materials.

Shape and Space

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production)

Recognise and explore 2D and 3D shapes in packaging and waste materials (e.g., cylinders in cans, cubes in boxes).

Identify shapes in recycling symbols and containers, discussing their importance in sorting waste.

Use spatial awareness to organise waste into different categories, such as plastics, paper, glass, and compost.

Explore symmetry and patterns in recyclable materials, such as repeating logos or packaging designs.

Handling Data

(SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land, SDG 14: Life Below Water)

Collect and organise data about classroom waste management, such as counting how many plastic bottles are reused.

Represent data in pictograms, bar charts, or tables to track progress in recycling and reducing waste.

Interpret data to make decisions, e.g., "Which type of waste do we produce the most?"

Sort and classify objects based on their recyclability, creating simple charts to compare materials.

Using ICT (Cross-Curricular)

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action)

Use digital tools such as tablets, computers, and interactive whiteboards to explore waste management topics through numbers and data.

Learn to use simple software to write, draw, or create digital charts about waste management (e.g., making a pictogram of the most

common waste items found in the school playground).

Understand the safe and responsible use of technology, including reducing e-waste by taking care of electronic devices.

Develop basic coding skills with Bee-Bots or ScratchJr to model waste sorting and recycling routes.

Create digital stories, animations, or artwork that use numbers and data to highlight waste management issues.

Energy Conservation (SUS5)

Mathematics

Mathematics and Numeracy

Number

(SDG 4: Quality Education, SDG 7: Affordable and Clean Energy, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action)

Count and compare numbers related to energy use, such as the number of lights turned off in the classroom or appliances left on.

Use simple addition and subtraction to track energy-saving actions, e.g., "If we switch off 4 lights and 2 more, how many have we turned off altogether?"

Explore place value by recording daily or weekly energy-saving efforts, such as the number of times a door is closed to keep heat in.

Use multiplication and division to work out savings, e.g., "If one light bulb uses 5 units of energy in an hour, how much do 3 bulbs use?"

Measures

(SDG 4: Quality Education, SDG 7: Affordable and Clean Energy, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action)

Compare and measure the length of time different appliances are used and discuss how reducing usage saves energy.

Use non-standard and standard units to track energy use, such as how long a light is switched on each day.

Explore capacity by discussing how much water is used when taps are left running and how much is saved by turning them off.

Investigate money by discussing the cost of electricity and the benefits of using less energy.

Shape and Space

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action)

Recognise and explore 2D and 3D shapes in energy-saving devices, such as solar panels (rectangles), wind turbines (cylinders), and batteries (cubes).

Identify shapes used in eco-friendly buildings, such as windows designed to let in natural light.

Use spatial awareness to explore how energy flows in a room, e.g., where heat is lost through open doors or windows.

Explore patterns and symmetry in renewable energy structures, such as wind turbines or solar farms.

Handling Data

(SDG 4: Quality Education, SDG 7: Affordable and Clean Energy, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action)

Collect and organise data about classroom energy use, such as counting how many times computers, lights, or taps are left on.

Represent data in simple pictograms, bar charts, or tables to show energy-saving progress over time.

Interpret data to make decisions, e.g., "Which classroom saved the most energy this week?"

Sort and classify different types of energy sources (e.g., renewable vs non-renewable) using simple tables and diagrams.

Using ICT (Cross-Curricular)

(SDG 4: Quality Education, SDG 7: Affordable and Clean Energy, SDG 9: Industry, Innovation and Infrastructure, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action)

Use digital tools such as tablets, computers, and interactive whiteboards to explore energy conservation topics through numbers and data.

Learn to use simple software to write, draw, or create digital charts about energy-saving habits (e.g., making a pictogram of how many lights are switched off daily).

Understand the safe and responsible use of technology, including turning off electronic devices when not in use.

Develop basic coding skills with Bee-Bots or ScratchJr to create simple programmes that model energy-saving actions.

Create digital stories, animations, or artwork that use numbers and data to highlight energy conservation themes.

Biodiversity and Ecosystems (SUS6)

Mathematics

Mathematics and Numeracy

Number

(SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Count and compare numbers related to biodiversity, such as different types of animals or plants in a school garden.

Use simple addition and subtraction to track changes in nature, e.g., "If we plant 3 flowers and 2 more grow, how many do we have?"

Explore place value through biodiversity surveys, such as counting how many birds visit a feeder each day.

Use multiplication and division in real-life scenarios, such as "If each tree has 4 birds, how many birds are in 3 trees?"

Measures

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Compare and measure the height of plants, the weight of soil samples, or the capacity of a pond in a nature area.

Use non-standard and standard units to track the growth of plants over time.

Explore time by recording the life cycle of an animal or plant, such as the stages of a butterfly's transformation.

Investigate money by discussing the cost of planting trees or maintaining a wildlife-friendly area.

Shape and Space

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 15: Life on Land, SDG 14: Life Below Water)

Recognise and explore 2D and 3D shapes in nature, such as circles in tree rings, hexagons in honeycombs, and spirals in shells.

Identify patterns in natural environments, such as leaf arrangements and animal markings.

Use spatial awareness to plan a mini-habitat or wildlife-friendly garden.

Explore symmetry in plants, animals, and ecosystems, such as butterfly wings and flower petals.

Handling Data

(SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Collect and organise data about local wildlife, such as the number of different insects found in a bug hotel.

Represent biodiversity data using pictograms, bar charts, or tables.

Interpret environmental data to make decisions, such as which plants attract the most bees.

Sort and classify objects based on their role in an ecosystem, such as herbivores, carnivores, and decomposers.

Using ICT (Cross-Curricular)

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Use digital tools such as tablets, computers, and interactive whiteboards to explore biodiversity topics through numbers and data.

Learn to use simple software to write, draw, or create digital charts about biodiversity (e.g., making a pictogram of different types of leaves).

Understand the safe and responsible use of technology when collecting and sharing biodiversity data.

Develop basic coding skills with Bee-Bots or ScratchJr to create simple programmes that model food chains or pollination journeys.

Create digital stories, animations, or artwork that use numbers and data to highlight biodiversity themes.

Climate Change and Adaptation

(SUS7)

Mathematics

Mathematics and Numeracy

Number

(SDG 4: Quality Education, SDG 7: Affordable and Clean Energy, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG

15: Life on Land, SDG 14: Life Below Water)

Count and compare numbers related to climate change, such as the number of trees planted or the amount of water saved by turning off taps.

Use simple addition and subtraction to calculate carbon-saving actions, e.g., "If we use the bus 3 times instead of a car, how much fuel do we save?"

Explore place value through real-world examples, such as tracking energy use in the classroom.

Use multiplication and division in climate-related contexts, such as "If each tree absorbs 10 kg of carbon dioxide per year, how much do 3 trees absorb?"

Measures

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 7: Affordable and Clean Energy, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land, SDG 14: Life Below Water)

Compare and measure temperature changes over a period of time, discussing how climate change affects weather patterns.

Use non-standard and standard units to track changes in water levels or rainfall over days, weeks, or months.

Explore time through seasonal changes, discussing how different times of year affect animals and plants.

Investigate money by discussing the cost of using renewable energy versus fossil fuels.

Shape and Space

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land, SDG 14: Life Below Water)

Recognise and explore 2D and 3D shapes in structures designed for climate adaptation, such as solar panels (rectangles), wind turbines (cylinders), and water-saving devices (cones).

Identify patterns in nature, such as the way trees grow to absorb maximum sunlight.

Use spatial awareness to discuss how green spaces, trees, and rivers help to reduce the effects of climate change.

Explore symmetry in nature and its role in sustainable designs, such as leaves and butterfly wings.

Handling Data

(SDG 4: Quality Education, SDG 7: Affordable and Clean Energy, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Collect and organise data about environmental actions, such as how many times lights are switched off in a day.

Represent climate-related data in pictograms, bar charts, or tables to compare different sustainability actions.

Interpret data to make climate-friendly decisions, such as "Which season has the most rainfall?"

Sort and classify objects based on their impact on climate, such as renewable vs non-renewable energy sources.

Using ICT (Cross-Curricular)

(SDG 4: Quality Education, SDG 7: Affordable and Clean Energy, SDG 9: Industry, Innovation and Infrastructure, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land, SDG 14: Life Below Water)

Use digital tools such as tablets, computers, and interactive whiteboards to explore climate change through numbers and data.

Learn to use simple software to write, draw, or create digital charts about climate adaptation (e.g., making a pictogram of how weather changes across the seasons).

Understand the safe and responsible use of technology, including energy-saving actions like turning off devices when not in use.

Develop basic coding skills with Bee-Bots or ScratchJr to create simple programmes that model climate adaptation, such as planting trees or reducing waste.

Create digital stories, animations, or artwork that use numbers and data to highlight climate change and adaptation themes.

Food and Agriculture

(SUS8)

Mathematics

Mathematics and Numeracy

Number

(SDG 2: Zero Hunger, SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 14: Life Below Water, SDG 15: Life on Land)

Count and compare numbers related to food production, such as the number of vegetables grown in a school garden or fish in a pond.

Use simple addition and subtraction to calculate food quantities, e.g., "If we collect 5 eggs today and 3 tomorrow, how many do we have?"

Explore place value by tracking the number of litres of water used for irrigation or fish farming.

Use multiplication and division in real-life scenarios, such as "If each fish lays 20 eggs, how many eggs will 3 fish lay?"

Measures

(SDG 2: Zero Hunger, SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 12: Responsible Consumption and Production, SDG 14: Life Below Water, SDG 15: Life on Land)

Compare and measure the weight of different food items, such as weighing fruit and vegetables.

Use non-standard and standard units to track the growth of plants over time.

Explore capacity by measuring the amount of water needed for crops or fish tanks in aquaculture.

Investigate money by discussing the cost of buying locally grown food versus imported food.

Shape and Space

(SDG 2: Zero Hunger, SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 12: Responsible Consumption and Production, SDG 14: Life Below Water, SDG 15: Life on Land)

Recognise and explore 2D and 3D shapes in farming and aquaculture (e.g., the shapes of fishing nets, irrigation pipes, or packaging).

Identify patterns in nature, such as rows of crops or the way fish swim in schools.

Use spatial awareness to design a simple garden or aquaculture system, arranging shapes to create growing areas.

Explore symmetry in natural structures, such as leaves, shells, and fish.

Handling Data

(SDG 2: Zero Hunger, SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 14: Life Below Water, SDG 15: Life on Land)

Collect and organise data about food and farming, such as how many different types of fruit and vegetables are grown in a garden.

Represent farming and aquaculture data in pictograms, bar charts, or tables.

Interpret environmental data to make decisions, such as "Which vegetable grows the fastest?"

Sort and classify food items based on where they come from (e.g., land, sea, farm, or garden).

Using ICT (Cross-Curricular)

(SDG 2: Zero Hunger, SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 12: Responsible Consumption and Production, SDG 14: Life Below Water, SDG 15: Life on Land)

Use digital tools such as tablets, computers, and interactive whiteboards to explore food production through numbers and data.

Learn to use simple software to write, draw, or create digital charts about farming and aquaculture (e.g., making a pictogram of different fish species).

Understand the safe and responsible use of technology when exploring food and farming.

Develop basic coding skills with Bee-Bots or ScratchJr to model food journeys, such as tracking food from farm to plate.

Create digital stories, animations, or artwork that use numbers and data to highlight sustainable food production.

Water Conservation

(SUS9)

Mathematics

Mathematics and Numeracy

Number

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Count and compare numbers related to water conservation, such as the number of taps turned off or the number of water bottles refilled instead of thrown away.

Use simple addition and subtraction to track water-saving actions, e.g., "If we save 3 litres today and 2 litres tomorrow, how much have we saved?"

Explore place value through real-world water conservation examples, such as measuring how many litres of water a dripping tap wastes in a week.

Use multiplication and division to compare water usage, e.g., "If a bath uses 50 litres of water and a shower uses 25 litres, how many showers equal one bath?"

Measures

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Compare and measure water levels in different containers to understand capacity and water usage.

Use non-standard and standard units to measure rainfall and discuss how it fills rivers, lakes, and reservoirs.

Explore time through activities that track how long different water-related actions take, such as filling a bucket or washing hands.

Investigate money by discussing the cost of water and how saving water can reduce bills.

Shape and Space

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 14: Life Below Water, SDG 15: Life on Land)

Recognise and explore 2D and 3D shapes found in water-related structures, such as water droplets (spheres), ponds (circles), and dams (rectangles).

Identify patterns in nature, such as ripples on a pond or the movement of waves.

Use spatial awareness to explore how water flows through pipes, rivers, and drainage systems.

Explore symmetry in natural water formations, such as reflections in lakes and the patterns in seashells.

Handling Data

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Collect and organise data about water use in the classroom, such as counting how many taps are left running.

Represent water conservation data in pictograms, bar charts, or tables to track progress in reducing water waste.

Interpret environmental data to make decisions, such as "Which activity uses the most water?"

Sort and classify different sources of water (e.g., rivers, lakes, oceans, and rainfall) using simple tables and diagrams.

Using ICT (Cross-Curricular)

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 9: Industry, Innovation and Infrastructure, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water, SDG 15: Life on Land)

Use digital tools such as tablets, computers, and interactive whiteboards to explore water conservation through numbers and data.

Learn to use simple software to write, draw, or create digital charts about water usage (e.g., making a pictogram of how much water is used in different activities).

Understand the safe and responsible use of technology, including how digital devices can help track and manage water use.

Develop basic coding skills with Bee-Bots or ScratchJr to model how water moves from rain to rivers and taps.

Create digital stories, animations, or artwork that use numbers and data to highlight water conservation themes.

Sustainable Transport and Urban Development (SUS 10)

Mathematics

Mathematics and Numeracy

Number

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water)

Count and compare numbers related to transport and urban planning, such as the number of buses, bicycles, or boats used in a day.

Use simple addition and subtraction to calculate sustainable travel choices, e.g., "If 3 people take the train instead of driving, how many fewer cars are used?"

Explore place value through real-world examples, such as tracking the number of journeys taken using different types of transport.

Use multiplication and division to compare transport use, e.g., "If a ferry can carry 10 cars and there are 3 ferries, how many cars can travel?"

Measures

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water)

Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water)

Compare and measure distances between different locations in a town or city, including water-based transport routes.

Use non-standard and standard units to track how long different types of transport take to reach a destination.

Explore capacity by measuring how many passengers fit on a bus, train, ferry, or bicycle rack.

Investigate money by discussing the cost of public transport, cycling, and car journeys and comparing eco-friendly options.

Shape and Space

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water)

Recognise and explore 2D and 3D shapes in transport infrastructure, such as bridges (rectangles), tunnels (cylinders), and ferry boats (cuboids).

Identify patterns in sustainable urban planning, such as cycle paths, pedestrian walkways, and bus lanes.

Use spatial awareness to explore how transport systems are planned in towns, cities, and along waterways.

Explore symmetry in urban designs, such as bridges, train stations, and ferry terminals.

Handling Data

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water)

Collect and organise data about transport choices, such as how many people walk, cycle, or take public transport to school.

Represent transport and urban planning data in pictograms, bar charts, or tables.

Interpret environmental data to make decisions, such as "Which transport method produces the least pollution?"

Sort and classify transport options based on their sustainability, such as electric vs petrol-powered vehicles.

Using ICT (Cross-Curricular)

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 14: Life Below Water)

Use digital tools such as tablets, computers, and interactive whiteboards to explore sustainable transport through numbers and data.

Learn to use simple software to write, draw, or create digital charts about transport usage (e.g., making a pictogram of how people travel to school).

Understand the safe and responsible use of technology, including how digital apps help people choose eco-friendly transport.

Develop basic coding skills with Bee-Bots or ScratchJr to model transport routes, such as directing a bus or ferry to its stop.

Create digital stories, animations, or artwork that use numbers and data to highlight sustainable transport and urban planning.

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

Mathematics

Mathematics and Numeracy

Number

(SDG 4: Quality Education, SDG 10: Reduced Inequalities, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 16: Peace, Justice and Strong Institutions, SDG 17: Partnerships for the Goals)

Count and compare numbers related to citizenship and global responsibility, such as the number of children who walk to school compared to those who travel by car.

Use simple addition and subtraction to track actions that help others, e.g., "If 5 people donate food today and 3 tomorrow, how many donations have been made?"

Explore place value through real-world examples, such as the population of different communities or the number of countries participating

in global initiatives.

Use multiplication and division to model fair sharing, e.g., "If 12 pieces of fruit are shared between 4 people, how many does each person get?"

Measures

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 10: Reduced Inequalities, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 16: Peace, Justice and Strong Institutions, SDG 17: Partnerships for the Goals)

Compare and measure distances people travel to school or work in different parts of the world.

Use non-standard and standard units to track time spent on community service or environmental activities, such as planting trees or picking up litter.

Explore capacity by discussing how much food, water, or supplies are needed to help communities affected by natural disasters.

Investigate money by comparing the cost of living in different countries and discussing the concept of fair trade.

Shape and Space

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 10: Reduced Inequalities, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 16: Peace, Justice and Strong Institutions, SDG 17: Partnerships for the Goals)

Recognise and explore 2D and 3D shapes in everyday life, such as buildings, transport, and packaging from different countries.

Identify patterns in different cultures, such as traditional weaving, art, and community layouts.

Use spatial awareness to explore how urban and rural areas are designed to meet people's needs.

Explore symmetry in national flags, world landmarks, and cultural symbols.

Handling Data

(SDG 4: Quality Education, SDG 10: Reduced Inequalities, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible

Consumption and Production, SDG 13: Climate Action, SDG 16: Peace, Justice and Strong Institutions, SDG 17: Partnerships for the Goals)

Collect and organise data about actions that promote citizenship, such as tracking how many classmates recycle or help others.

Represent global responsibility data in pictograms, bar charts, or tables to compare how different communities live.

Interpret data to make responsible decisions, e.g., "Which activity helps the most people in need?"

Sort and classify different forms of support (e.g., food aid, clean water, education, and healthcare) and discuss their importance.

Using ICT (Cross-Curricular)

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 10: Reduced Inequalities, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 16: Peace, Justice and Strong Institutions, SDG 17: Partnerships for the Goals)

Use digital tools such as tablets, computers, and interactive whiteboards to explore global citizenship through numbers and data.

Learn to use simple software to write, draw, or create digital charts about fairness, kindness, and global responsibility.

Understand the safe and responsible use of technology, including using digital maps to explore different communities worldwide.

Develop basic coding skills with Bee-Bots or ScratchJr to model actions such as delivering food, collecting donations, or providing clean water.

Create digital stories, animations, or artwork that use numbers and data to highlight themes of citizenship and global responsibility.

Outdoor Learning and connectedness to nature (SUS12)

Mathematics

Mathematics and Numeracy

Number

(SDG 4: Quality Education, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land)

Count and compare numbers related to nature, such as the number of trees, plants, or birds in urban and rural environments.

Use simple addition and subtraction in hands-on activities, e.g., "If we plant 5 trees today and 3 tomorrow, how many trees have we planted?"

Explore place value by counting seeds, logs, or leaves during outdoor learning activities.

Use multiplication and division in real-world nature tasks, such as grouping sticks into bundles of five for craftwork.

Measures

(SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land)

Compare and measure the height of trees, the weight of natural materials, or the capacity of water in different outdoor settings.

Use non-standard and standard units to measure objects in nature, such as recording the length of sticks for woodcraft projects.

Explore time by observing seasonal changes, measuring how long it takes for seeds to sprout, or tracking the duration of outdoor activities.

Investigate money by discussing the cost of natural and sustainable materials compared to synthetic ones.

Shape and Space

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 15: Life on Land)

Recognise and explore 2D and 3D shapes in nature, such as circles in tree rings, triangular leaves, or cube-shaped wood blocks.

Identify patterns in natural materials, such as the arrangement of petals, tree bark, or beehives.

Use spatial awareness to plan outdoor learning spaces, such as creating a nature-friendly play area or mapping out a forest walk.

Explore symmetry in natural objects, such as butterfly wings, leaf structures, and animal tracks.

Handling Data

(SDG 4: Quality Education, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land)

Collect and organise data about nature, such as counting different types of plants, animals, or insects in urban and rural areas.

Represent outdoor learning findings in pictograms, bar charts, or tables, such as recording the number of different tree species.

Interpret data to make environmental decisions, e.g., "Which tree attracts the most birds?"

Sort and classify natural materials (e.g., leaves, twigs, seeds) using simple tables and diagrams.

Using ICT (Cross-Curricular)

(SDG 4: Quality Education, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 13: Climate Action, SDG 15: Life on Land)

Use digital tools such as tablets, computers, and interactive whiteboards to explore outdoor learning topics through numbers and data.

Learn to use simple software to write, draw, or create digital charts about nature-based projects (e.g., making a pictogram of leaves collected).

Understand the safe and responsible use of technology, including taking digital photographs of outdoor learning experiences.

Develop basic coding skills with Bee-Bots or ScratchJr to model outdoor navigation, such as directing a Bee-Bot through a nature trail.

Create digital stories, animations, or artwork that use numbers and data to highlight outdoor learning experiences.