GreenComp School

Cross-sectoral Greencomp training of primary school Stakeholders, for the promotion of a sustainability mindset

GreenComp Teachers' Handbook
"Participatory Activities and Tools"

Acknowledgements and Remarks

Information about the project GreenComp School

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Introduction

This handbook "Participatory Activities and Tools" has been designed to support teachers in integrating sustainability principles into classroom practices through interdisciplinary, and participatory learning approaches. This handbook provides teachers with activities that engage elementary school pupils in meaningful learning experiences across various disciplines, aligned with the **GreenComp framework**.

What does this handbook include?

This handbook presents three sets of participatory activities, tailored for different age groups (Grades 1-2, 3-4, and 5-6). These activities are designed to be integrated into subjects such as mathematics, geography, literature, physical education, languages, informatics, and arts. Each activity follows an interdisciplinary pathway, demonstrating how sustainability challenges can be explored through different perspectives and disciplines. Each grade group focuses on a specific Sustainable Development Goal (SDG) topic as presented in the handbook.

How to use this handbook?

This material is designed to be adaptable to national curricula and classroom contexts. Teachers are encouraged to customise these activities to ensure meaningful and relevant learning experiences for their pupils. These resources will support in creating dynamic, pupil-centered classrooms that empower young learners to become agents of change for a sustainable future.

Moving forward

By incorporating these activities into teaching, teachers will help cultivate a sustainability mindset among pupils, equipping them with the tools and motivation to make a positive impact on their communities. Through an interdisciplinary integration, and a focus on real-world issues, this handbook aims to inspire long-lasting transformations in the mindset and practices of Pupils and the wider school community. Ultimately, this handbook sets the foundation for a more sustainable future, equipping the next generation with the knowledge, skills, and mindset to make a positive impact on the environment.

We invite you to explore these activities, experiment with them in your classrooms, and inspire your pupils to take action for a better world.

This deliverable is part of a broader initiative to provide educators with innovative tools for fostering sustainability education and participatory learning. The materials provided here are designed to be engaging, adaptable, and impactful, ensuring that sustainability becomes an integral part of elementary education.

Aligning participatory activities with 2030 Sustainable Development Goals

The participatory activities presented in this handbook have been designed in line with the key Sustainable Development Goals of the United Nations 2030 Agenda. The aim was to address all sustainability pillars central to the project; environmental, social and economic, fostering a holistic understanding of sustainability in education.

Grades 1-2
Desertification, Land Degradation, and Drought

Desertification, Land Degradation and Drought for Grades 1 and 2 The early years of elementary education are critical for building an understanding of natural ecosystems. By focusing on SDG 15, teachers provide pupils with the opportunities to explore the importance of land preservation and environmental resilience. This aligns with the green focus of the project; teaching pupils how human actions can impact the land and what can be done to mitigate these negative effects from an early age.

Grades 3-4
Cultural Sustainability and Environment

This goal was selected to introduce pupils to the idea that sustainability is not just about nature but also about human systems, including cultural and urban environments. SDG 11 emphasises the importance of preserving cultural heritage while ensuring that cities and communities develop in environmentally sustainable ways. By focusing on cultural sustainability, we bridge the gap between environmental protection and social responsibility, demonstrating how both must work together for sustainable futures.

Grades 5-6
Sustainable Production and Consumption

in these grades, pupils are able to engage with more complex concepts such as resource management, waste reduction, and the global supply chain. SDG 12 was selected for Grades 5 and 6 to deepen pupils' understanding of how individual consumption patterns influence global sustainability. This SDG aligns strongly with the green focus of the project by encouraging practical applications of sustainability principles, reducing waste, reusing materials, and making conscious choices as consumers.

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Grades 1-2

Participatory activity 01
Shaping my ideal world: from droughts to green horizons

Shaping my ideal world: from droughts to green horizons

Grades 1 and 2

Activity overview

.This activity aligns with the Agenda 2030's goals, especially 15 (Life on Land), inspiring them to envision and contribute to a world where communities work together to protect natural resources, reduce degradation, and foster resilience in ecosystems.

Activity Topic

Sustainable Production and Consumption

It is about doing more and better with less.

GreenComp competence area

Embodying Sustainability Values
Embracing Complexity in Sustainability
Acting for Sustainability

Contribution to SDGs

15 LIFE ON LAND

GreenComp Competences

Promoting nature
Systems thinking
Critical thinking
Problem framing
Political agency
Individual initiative

Shaping my ideal world: from droughts to green horizons

Objective

The purpose of the activity is to help children understand the impact of water and soil on ecosystems and the importance of environmental balance, connecting their learning to the collaborative initiatives of the 2030 Agenda for Sustainable Development. Through hands-on creation of models representing desertification, flooding, and an ideal balanced world, children are introduced to the concepts of sustainability and global responsibility.

Expected Learning Outcomes

Knowledge (to be able to):
- Tell how nature, people, and places are interconnected.
- Describe how lack of water affects everyday life.
- Explain why certain environmental problems may seem insignificant or go unnoticed by people.
- Define sustainability by examining the impact of drought and its long-term consequences on the environment.

Skills (to be able to):
- Figure out simple ways to protect the Earth and make the world a better place, by understanding the effects of desertification, land degradation and drought on the environment.
- Take care of nature and make their neighborhood a better place through fun and enjoyable activities.
- Handle difficult situations by making wise choices that promote sustainability, even in times of uncertainty or risk.

Attitudes (to be able to):
- Make environmentally- friendly choices that benefit the Earth.
- Value working together to address sustainability issues can strengthen schools and communities and make them better for everyone.

Shaping my ideal world: from droughts to green horizons

Activity description

In this activity, pupils will explore the phenomena of desertification, land degradation, and drought, understanding how water and soil affect the lives of plants and animals. They will be introduced to the concept of global water imbalances: some areas suffer from desertification and drought, while others experience flooding.

The practical part of the activity involves building three models or multi-material ensembles: one representing a desert landscape, one depicting a flooded landscape, and one showing the world as they envision it—a balanced environment with thriving plants and adequate water resources.

Pupils will work in groups to create these models, using easily accessible materials like sand, soil, small rocks, water, recycled cardboard or plastic containers, and other natural elements. They can also incorporate artificial scrap materials from home, such as pieces of plastic, paper, fabric, and other items to enrich the representations.

This simple setup allows pupils to build the models without complex tools, encouraging them to engage in hands-on work that enhances their visual and tactile understanding of both challenging and ideal environmental conditions.

Assembled models: small three-dimensional representations that illustrate natural landscapes in miniature. In this activity, the dioramas will represent three contrasting environments: one affected by desertification and drought, the other by flooding, and the third one modelling the ideal world.

Shaping my ideal world: from droughts to green horizons

Examples of models for the activity:

Desert Landscape Models:
This model might include sand or dry soil, small rocks, and representations of dry plants or cacti made from paper or other natural materials. The goal is to depict a dry, barren landscape to illustrate water scarcity.

Flooded Landscape Models:
It could be created with a thin layer of water (in a waterproof container), pieces of soaked or muddy soil, and some vegetation elements. It represents an excess of water and the degradation of soil due to flooding.

Materials to be used:
- Containers (cardboard, recycled plastic) for the base.
- Sand, soil, and small stones for the ground.
- Water for the flooded diorama.
- Recycled materials (like paper or fabric) to create small plants or other elements.

Primary pedagogical approach

Inquiry-based learning with hands-on activities

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Shaping my ideal world: from droughts to green horizons

GEOGRAPHY

Children will explore maps to identify areas affected by desertification and flooding, observing where these phenomena are most intense in Italy and worldwide. The activity will include viewing photos and videos to make these concepts more tangible, focusing on recent floods in Italy and drought in Italian and international areas, highlighting the "environmental paradox" between water excess and scarcity.

LANGUAGE

Throughout the activity, children will describe the observed phenomena using specific words and phrases. They will read simple texts and news articles on Italian and international floods and droughts, developing vocabulary to express their reflections on the models they created and the climate imbalances

FOREIGN LANGUAGE

By introducing key environmental terms in a foreign language, children will understand that issues like desertification and flooding are global topics. By reading simplified or translated articles, they can compare local experiences with similar situations abroad, reinforcing awareness of a shared global challenge.

ARTS

Children will build models of desert, flooded, and balanced environments using natural and recycled materials. Images and videos of recent floods and drought in Europe and around the world will serve as visual inspiration, helping them represent various environments and their characteristics tangibly.

Note to teachers: Subject names may vary slightly depending on your national curriculum, but the core skills and learning objectives remain the same. No matter what the subject is called in your school, you can easily adapt the activities with minor modifications to fit your classroom context. This handbook is also available in other languages, where subject names are aligned with local terminology for greater relevance.

Shaping my ideal world: from droughts to green horizons

🫶 MATHS

Guided to measure the water retention capacity of different soil types, children will compare the water-holding capacity of dry and saturated soils, simulating drought and flood situations. With the support of articles and videos, they will reflect on the impact of recent Italian floods compared to drought conditions.

⚗️ ENVIRONMENTAL SCIENCES

Children will analyze soil samples to understand how the lack or excess of water affects local ecosystems. Using photos and videos, they will observe the physical impacts of floods and droughts, comparing soil damage and changes in Italy and abroad to grasp the global scope of climate imbalances.

🌱 PHYSICAL EDUCATION

In an outdoor space, children will engage in activities simulating water scarcity and abundance by using objects like buckets, sand, and water to represent different soil conditions. This physical component reinforces the contrast between drought and flood, while discussions tied to recent Italian floods and droughts bring real-world context.

Note to teachers: Subject names may vary slightly depending on your national curriculum, but the core skills and learning objectives remain the same. No matter what the subject is called in your school, you can easily adapt the activities with minor modifications to fit your classroom context. This handbook is also available in other languages, where subject names are aligned with local terminology for greater relevance.

Shaping my ideal world: from droughts to green horizons

INTERDISCIPLINARY APPROACH

The activity guides pupils step-by-step through each subject to build their models of a desert, a flooded landscape, and an ideal balanced environment.

Geography: Pupils start by examining maps and photos of drought and flood-prone areas, especially in Italy, to decide which features to recreate in their models.

Environmental Sciences: They observe real soil samples, testing how much water each type holds, to understand what dry, cracked soil versus muddy soil should look like in the models.

Mathematics: Pupils measure and compare water retention in the soil samples. These measurements help them make decisions on how to shape and layer soils in the desert and flood models.

Physical Education: Outside, they simulate drought and flood effects with buckets, sand, and water, practicing how these elements will appear in their models.

Arts: Using materials like sand, recycled paper, and stones, they construct the three models, incorporating details from their Geography, Science, and Math activities to accurately show desert and flooded areas.

Language: Pupils describe their models, using vocabulary from articles on floods and droughts to explain each model's features.

Foreign Language: They add key environmental terms in a foreign language to label parts of the models, showing the global aspect of these issues.

Shaping my ideal world: from droughts to green horizons

GEOGRAPHY

Resources: Maps of drought and flood areas, photos of Italian floods and droughts

Facilities: Classroom projector or screen for map and photo display

FOREIGN LANGUAGE

Resources: Flashcards with key environmental terms in foreign language, vocabulary lists

Facilities: Classroom wall space for displaying labelled terms, small handouts

PHYSICAL EDUCATION

Resources: Sand, water, and recycled containers (e.g., buckets, small plastic bins) for outdoor activity

Facilities: Outdoor space, access to water source

Shaping my ideal world: from droughts to green horizons

ENVIRONMENTAL SCIENCES

Resources: Soil samples (different types), water, small containers for testing water retention

Facilities: Lab tables, measuring cups, and droppers for water testing

LANGUAGE

Resources: Simple articles on floods and droughts in Italy, vocabulary flashcards

Facilities: Reading corner, classroom blackboard or whiteboard

MATHS

Resources: Rulers, measuring spoons, and water measurement sheets

Facilities: Classroom desks for group work, small buckets

ARTS

Resources: Recycled materials (paper, cardboard), natural elements (sand, small stones, leaves), glue, markers, paint

Facilities: Art tables, scissors, glue sticks, and trays for holding materials

SUBJECT: GEOGRAPHY

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Objective: Introduce pupils to the global distribution of drought and flood areas, with a focus on recent events in Italy, to help them understand key geographical features they'll include in their environmental models.

Phase 1: Introduction (5 minutes)

Teacher's role: Display a large world map, zoom in on Italy, and present photos of areas impacted by drought and flooding, emphasizing recent events in Italy. Explain concepts of drought, desertification, and flooding.

Pupils' role: Identify Italy on the map and locate areas affected by these conditions. Each pupil marks these regions on an individual outline map of Italy provided by the teacher.

Output: Individual Marked Maps of Italy – Each pupil marks specific regions prone to drought and flooding. These maps will serve as references for later phases and other subjects, guiding soil and water feature placements in the models.

Phase 2: Guided Reading/Research (10 minutes)

Teacher's role: Hand out short articles or newspaper clippings on recent floods and droughts in Italy, guiding pupils through reading key passages. Provide support with new vocabulary and context.

Pupils' role: Highlight regions mentioned in the text and note specific effects of drought and flooding on the land. Pupils underline key phrases and take notes on how these conditions affect soil, plants, and communities.

Output: Highlighted Articles and Notes – Pupils produce annotated articles, with key phrases and regions highlighted, and add notes on the effects of water imbalances. These notes will be useful for understanding the specific environmental impacts to model later in Science and Art.

SUBJECT: GEOGRAPHY

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3: Class Discussion (10 minutes)

Teacher's role: Facilitate a discussion by asking questions like, "What did you notice about the areas that experience drought versus flooding?" and "How might these conditions impact local ecosystems?"

Pupils' role: Share observations from their reading and maps, discuss reasons behind water scarcity and excess, and record three main points on how these conditions affect the land.

Output: Summary of Main Points – Pupils compile three points from the discussion in their notebooks (e.g., "Drought leads to dry soil and plant loss," "Flooding creates muddy, waterlogged areas"). This summary will directly inform the materials and features they'll include in the desert and flood models.

Phase 4: Creating a Visual Map or Diagram (10 minutes)

Teacher's role: Instruct pupils to create a detailed map of Italy on paper, marking drought and flood areas with specific colors or icons (e.g., sun icon for drought, raindrop icon for flooding). Guide them to add short labels or symbols based on their reading notes.

Pupils' role: In pairs, pupils create a collaborative map of Italy, clearly marking drought and flood regions and using their notes to label specific characteristics of each area (e.g., "dry, cracked soil" for drought, "muddy ground" for floods).

Output: Collaborative Map with Labels – Each pair produces a detailed map with desert labeled drought and flood zones. This map will serve as a reference for accurately placing different landscape elements in the models during Art and Science.

SUBJECT: GEOGRAPHY

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 5: Sharing and Reflection (15 minutes)

Teacher's role: Lead a reflection session where each pair shares their map and explains their icon choices and labelled characteristics. Prompt pupils to consider questions like, "How will these insights shape our models?" and "What materials might we need to show these features?"

Pupils' role: Present their maps, describe their observations on drought and flood characteristics, and discuss with classmates how these details will influence the construction of their models.

Output: Reflection Notes – Pupil's jot down ideas on specific materials (e.g., dry soil, stones for drought; water, mud for floods) to use in their models. These notes will guide their material selection and model building in Science and Art.

SUBJECT: LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Objective: To help Pupils develop text comprehension and enrich vocabulary related to natural phenomena and climate change. By reading simple articles on floods and droughts in Italy and using vocabulary flashcards, Pupils will explore key concepts and better understand environmental impacts.

Phase 1: Introduction to Flood and Drought Concepts (5 minutes)

Teacher's role: Introduce the topic of floods and droughts in Italy. Show some pictures of areas affected by these phenomena to stimulate an initial discussion and introduce key terms such as 'flood,' 'drought,' 'desertification' and 'alluvium.'

Pupils' role: Observe the pictures and participate in the discussion, sharing their ideas about what these terms mean and what the effects of floods and droughts are.

Output: Introductory vocabulary sheet - Each pupil compiles a list of key terms about natural phenomena, which they will use to enrich their vocabulary during subsequent activities.

Phase 2: Guided Reading of Articles (10 minutes)

Teacher role: Distribute simple articles describing recent episodes of floods and droughts in Italy, divided into short paragraphs. Read the first paragraphs together with the class, explaining the meaning of new words and phrases. Provide vocabulary flashcards with key words such as 'evaporation,' 'soil,' 'erosion' and 'precipitation.'

Pupils' role: Read the article, using the flashcards to understand difficult words and underline key terms in the text. Note down new words and write a short definition next to each word.

Output: Annotated articles - Each Pupil completes the reading by annotating key terms, using flashcards to improve comprehension and enrich their vocabulary.

SUBJECT: LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3: Text Comprehension Activity (10 minutes)

Teacher's role: Propose comprehension questions on the article, asking pupils to identify the causes and consequences of floods and droughts and the regions most affected. Encourage the use of learned keywords.

Pupils' role: Answer questions, discussing with peers and referring to the text. Take notes on the main points about the environmental and social effects of floods and droughts.

Output: Comprehension Answers - Each pupil writes answers to the questions and summarises the main information, helping to consolidate understanding of the content read.

Phase 4: Creating a Concept Map (15 minutes)

Teacher's role: Teach how to create a concept map to organise information on the effects of floods and droughts. Suggest using the key terms learned and linking them together to show causes and consequences.

Pupil role: Create a concept map in which they link the terms learned (e.g. 'rainfall' → 'flooding' → 'soil erosion' and 'lack of water' → 'drought' → 'desertification'), visually representing the information.

Output: Concept map - Each Pupil creates a map that organises the new vocabulary and shows the connections between the phenomena of flood and drought, useful as a reference for future discussions.

SUBJECT: LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 5: Discussion and Reflection (10 minutes)

Teacher's role: Facilitate a discussion on ways in which Italy could address the problems of floods and droughts. Encourage pupils to use the vocabulary learned and reflect on possible solutions to reduce environmental impact.

Pupils' role: Share ideas and suggestions, using the new vocabulary to express their opinions. Note down practical solutions emerging from the discussion.

Output: Reflection notes - Each pupil notes three possible actions or solutions to prevent or mitigate the effects of floods and droughts, developing environmental awareness and reinforcing thematic vocabulary.

SUBJECT: FOREIGN LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Objective: To enrich pupils' foreign language vocabulary on environmental issues, using flashcards and vocabulary lists to introduce and reinforce key terms related to the environment, such as "pollution," "drought," "forest," and 'renewable energy.' Through comprehension and conversation activities, pupils will develop the ability to discuss environmental and sustainable issues in the foreign language.

Phase 1: Introduction to Environmental Vocabulary (10 minutes)

Teacher role: Present flashcards with the main environmental terms in the chosen foreign language (e.g. 'pollution' for pollution, 'drought' for drought, 'forest' for forest, 'renewable energy' for renewable energy). Pronounce and explain the meaning of each term, using pictures to facilitate understanding.

Pupils' role: Repeat the terms aloud and associate each word with the corresponding image, taking notes on the meanings.

Output: Vocabulary sheet - Each pupil notes down the key terms with the translation and a brief description, creating a list that will serve as a reference for subsequent activities.

Phase 2: Matching and memorisation exercises (10 minutes)

Teacher's role: Organise a matching activity in which pupils associate environmental terms with their respective definitions or images. Distribute vocabulary lists in which terms are categorised as 'environmental problems' and 'ecological solutions.'

Pupils' role: Complete the matching activity, pairing each term with the correct definition or image, and sort the terms into categories.

Output: Completed matching sheet - Each pupil completes the exercise, consolidating vocabulary knowledge and strengthening the ability to remember environmental terms.

SUBJECT: FOREIGN LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3: Text comprehension activity (10 minutes)

Teacher's role: Distribute short texts or articles on environmental issues, such as air pollution or deforestation in the foreign language. Guide the reading of the texts, emphasizing key terms and encouraging Pupils to identify words they have already learned.

Pupils' role: Read the text, underline key terms and answer comprehension questions to check understanding of concepts and use of new vocabulary.

Output: Annotated article - Each Pupil annotates key terms in context, reinforcing understanding and ability to use environmental vocabulary.

Phase 4: Creating an Environmental Phrase Poster (10 minutes)

Teacher's role: Ask pupils to create a poster in a foreign language using the vocabulary learnt, with short phrases to raise awareness of environmental issues (e.g. 'Save water to prevent droughts'). Show an example of a poster with pictures and sentences.

Pupils' role: Create a poster in groups, writing sentences describing environmental problems and possible solutions, using vocabulary learned. Add images or symbols to represent the concepts.

Output: Thematic poster - Each group produces a poster showing environmental phrases, applying the vocabulary in a practical context and promoting sustainability.

SUBJECT: FOREIGN LANGUAGE

Phase 5: Guided Conversation and Reflection (10 minutes)

Teacher role: Facilitate a guided conversation in which Pupils use new vocabulary to discuss questions such as 'What are the main environmental problems in your community?' and 'What can be done to reduce pollution?'

Pupils' role: Participate in the discussion, using the vocabulary to express their opinions and reflect on possible solutions. Write down answers or ideas that emerge during the conversation.

Output: Reflection notes - Each Pupil notes their ideas and solutions discussed in class, developing a greater ability to use environmental vocabulary fluently and reflecting on sustainability in the foreign language.

SUBJECT: ARTS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Objective: To guide Pupils in the creation of artistic models of ecosystems, representing desert, flooded and balanced environments. Through the use of natural and recycled materials and inspired by images and videos of recent events such as droughts and floods, Pupils will explore concepts of sustainability and the impact of environmental changes on landscapes.

Phase 1: Introduction to Environmental Modelling (10 minutes)

Teacher's role: Present images and videos of deserts, flooded environments and balanced territories, explaining the main characteristics of each ecosystem. Discuss how droughts and floods affect the landscape and introduce the use of natural and recycled materials to represent these environments.

Pupils' role: Observe images/videos and take notes on how desert, flooded and balanced environments differ. Discuss the characteristics that make each environment unique.

Output: Observation sheets - Each pupil completes a sheet with key characteristics of the three types of environment, useful for designing models.

Phase 2: Choosing Natural and Recycled Materials (10 minutes)

Teacher's role: Distribute natural materials (sand, leaves, small branches) and recycled materials (cardboard, paper, plastic) and explain how each material can represent specific elements of the desert, flooded and balanced environment. Discuss the importance of using sustainable materials.

Pupils' role: Explore the materials distributed, reflecting on how each element can be used to represent different aspects of environments (e.g. sand for desert, coloured paper for flood water). Annotate material choices.

Output: List of materials and ideas - Each Pupil compiles a list of materials chosen for the model and notes how they intend to use them to represent the elements of each environment.

SUBJECT: ARTS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3: Designing Environmental Models (10 minutes)

Teacher's role: Guide Pupils in designing their models of desert, flooded and balanced environments. Provide instruction on how to arrange materials and represent specific elements, such as plants, rocks, water and soil.

Pupils' role: Draw a sketch of their model, choosing which materials to use to represent each element of the landscape. Share ideas with a partner to receive feedback and improve the design.

Output: Sketches and model plans - Each Pupil produces a detailed sketch of their model with a list of materials, preparing the basis for the construction phase.

Phase 4: Construction of Ecosystem Models (15 minutes)

Teacher's role: Supervise the construction of the models, providing technical assistance and creative suggestions. Encourage Pupils to use materials sustainably, avoiding waste and experimenting with new assembly techniques.

Pupils' role: Make their own ecosystem model, using natural and recycled materials to represent their chosen environment (desert, flooded or balanced). Working collaboratively, exchanging materials and ideas.

Output: Sustainable ecosystem models - Each Pupil creates a tangible model representing a specific environment, highlighting the effects of drought and flooding or the state of balance.

SUBJECT: ARTS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 5: Sharing and Reflecting on Environmental Models (5 minutes)

Teacher's role: Organise a short presentation of the models in class, where Pupils present their creations and explain their material choices. Invite Pupils to reflect on how climate change affects ecosystems and how we can contribute to sustainability.

Pupils' role: Present their model, describing the environment represented, the materials chosen and the environmental message. Discuss how these models can raise awareness of sustainability issues.

Output: Reflection notes - Pupils jot down ideas on how to continue using sustainable materials in their artistic creations, developing a lasting awareness of the importance of representing and protecting ecosystems through art.

SUBJECT: PHYSICAL EDUCATION

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Objective: Guide pupils in a hands-on outdoor activity to simulate drought and flood conditions. Through controlled physical tasks, sensory engagement, and safe exposure to natural elements, pupils experience how environmental conditions impact landscapes. This activity aims to help them connect physical sensations to real-world challenges, informing the construction of their environmental models.

Phase 1: Introduction and Setup (5 minutes)

Teacher's role: Gather pupils in a safe outdoor area equipped with sand, water, and small buckets. The teacher explains the goal of the activity: simulating drought and flood effects on land while experiencing the effort required in handling natural materials. The teacher briefly discusses how drought and floods impact landscapes, linking this to previous lessons.

Pupils' role: Listen carefully to instructions and form small groups of 3-4, each receiving a bucket, some sand, and water. Pupils are encouraged to note their initial observations about the materials.

Safety:
Ensure each group has only lightweight containers and small amounts of sand and water to avoid excessive lifting. Confirm that the area is free from hazards and that pupils wear proper footwear to prevent slips. Provide shade if it's sunny, and instruct pupils on safe carrying techniques.

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 2: Drought Simulation Activity (10 minutes)

Teacher's role: Instruct pupils to create an area of "dry land" by spreading a thin layer of sand on the ground. Encourage them to feel the loose texture, noticing how it scatters without moisture. The teacher prompts them to consider how plants and animals might struggle in this environment.

Pupils' role: Spread the sand in a designated area, observing how it shifts easily, making the ground unstable. They discuss as a group how the lack of water affects soil and vegetation.

Output: Drought Simulation Observations – Each group records keywords like "loose," "dry," and "unstable," which will later inform their drought model's design.

Phase 3: Flood Simulation Activity (10 minutes)

Teacher's role: Instruct pupils to slowly pour water over the sand to simulate a flood. Ask them to observe how the sand reacts, forming clumps, puddles, or mud. The teacher encourages pupils to notice the increased weight and how hard it is to handle wet sand, connecting this to real flood challenges.

Pupils' role: Work together to pour water over the sand and observe changes in texture and weight, discussing how waterlogged soil becomes heavy and difficult to manage.

Output: Flood Simulation Observations – Pupils record terms like "clumpy," "muddy," and "heavy." This experience will guide their material selection in later model construction.

Safety:
Ensure pupils have water and encourage them to wear hats and sunscreen if sunny. Remind pupils to pour water gradually and to keep water-contained to prevent slipping.

SUBJECT: PHYSICAL EDUCATION

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 4: Comparison Discussion (5 minutes)

Teacher's role: Lead a class discussion comparing dry and waterlogged sand. The teacher asks questions like, "Which condition felt easier to work with?" and "How might drought or flood conditions affect people and animals?" This step helps pupils connect physical sensations with environmental impacts..

Pupils' role: Share observations and discuss the challenges of handling dry versus muddy sand, noting how each condition affects the soil's stability. Pupils identify key features they'll replicate in their desert and flood models.

Output: Comparison Notes – Each group writes a short comparison of dry versus wet sand, which they will reference in later model-building phases.

Phase 5: Reflection and Material Planning (15 minutes)

Teacher's role: Ask pupils to reflect on what they've learned and consider materials for representing drought and flood conditions in their models. The teacher prompts them to recall sensations like heaviness and texture, guiding them to choose materials that capture these qualities.

Pupils' role: Write down ideas for materials and textures (e.g., sand for drought, mud or clay for flood) to represent these conditions, applying their physical experience to their model design.

Output: Material Planning Sheet – Pupils compile a list of materials and textures for their models, solidifying their understanding of drought and flood environments.

Safety: Rotate tasks within groups (e.g., pouring, carrying) to prevent fatigue. Encourage collaboration to share the effort. Provide hand sanitizer or access to handwashing facilities after handling sand and water.

SUBJECT: ENVIRONMENTAL SCIENCES

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Objective: To explore how different types of soil retain water by simulating drought and flood situations. Through the analysis of soil samples and water retention tests, Pupils will understand the importance of soil structure and how it affects environmental sustainability.

Phase 1: Introduction to Soil Types and Water Retention Capacity (10 minutes)

Teacher's role: Introduce the different types of soil (sandy, loamy, silty) and discuss how soil structure affects its ability to retain water. Briefly show the materials available: soil samples, water and test containers.

Pupils' role: Observe the different types of soil and reflect on the visible characteristics (e.g., fine-grained, coarse-grained). Note the properties of different soils and make assumptions about their water-holding capacity.

Output: Preliminary observation sheets - Each Pupil notes the characteristics of each type of soil and hypothesises which retains more or less water.

Phase 2: Water Retention Experiment (15 minutes)

Teacher's role: Explain how to perform the experiment by pouring a known amount of water into each soil sample and observing how much is retained. Instruct the students on how to pour the water slowly and measure the excess collected in the containers.

Pupils' role: In small groups, pour water over the soil samples in the containers, collect and measure the excess water to calculate the amount retained by each soil type.

Output: Measurement tables - Each group compiles a table showing the amount of water retained by each soil type, comparing the results for the different samples

SUBJECT: ENVIRONMENTAL SCIENCES

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3: Calculation of water retention percentages (10 minutes)

Teacher's role: Explain how to calculate the water retention percentage by dividing the amount of water retained by the total volume of water poured, multiplying by 100. Practical examples are given on the blackboard.

Pupils' role: Use the data collected to calculate the water retention percentage for each soil type, recording the results and comparing the different samples.

Output: Percentage calculation sheets - Each Pupil completes calculations to determine water retention percentages, developing a quantitative understanding of the capacity of each soil type.

Phase 4: Creating a Comparative Graph (10 minutes)

Teacher's role: Teach Pupils how to represent water retention data in a bar graph. Show how each bar represents a soil type and the height of the bar shows the amount of water retained.

Pupils' role: Create a bar graph representing the data collected, using different colours for each soil type. Note down the retention rates and identify which soil type is best at preventing erosion or retaining water during droughts.

Output: Comparative bar graph - Each Pupil produces a graph visualising the differences in water retention between soil types, highlighting the importance of soil choice for environmental purposes.

SUBJECT: INFORMATICS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Objective: Engage pupils in using digital tools to explore drought and flood patterns, visualizing real-world environmental issues, and creating their vision of an ideal world or "The Land I Would Like" using online maps and digital presentations. The Informatics component engages pupils in a digital exploration of real and ideal environments, developing both their technical skills and environmental awareness. By using digital maps and data tools, pupils can visualize environmental issues like drought and flooding while also defining personal criteria for sustainable, appealing places. This reinforces the importance of technology in understanding and addressing real-world issues, empowering pupils to envision "The Land I Would Like" and make informed choices about environmental sustainability.

Phase 1: Introduction to Digital Mapping Tools (5 minutes)

Teacher's role: Introduce an online map platform (e.g., Google Earth) and demonstrate basic navigation tools. The teacher explains that today's task involves exploring both real-world areas affected by droughts and floods and envisioning places they would love to live – "The Land I Would Like."

Pupils' role: Practice navigating the map, focusing first on regions impacted by drought or flooding in Italy and then shifting to locations they consider ideal for living. Pupils identify features that make these places attractive (e.g., lots of green areas, water availability, balanced climates).

Output: List of Ideal Places and Features – Pupils record places they find appealing and why. This list will serve as a basis for creating "The Land I Would Like" in their digital models and discussions in later phases, linking real environmental issues with personal aspirations.

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 2: Guided Exploration of Digital Layers and Data (10 minutes)

Teacher's role: Show pupils how to activate layers that display vegetation, water bodies, and urban areas. The teacher guides them in comparing real drought or flood regions with their chosen ideal places, discussing how certain features (e.g., lush vegetation) make an area more balanced.

Pupils' role: In pairs, toggle layers on and off, focusing on contrasts between harsh environments and ideal, balanced locations. They take screenshots of both types of areas, annotating with labels like "ideal place" or "drought area" and noting what makes each environment desirable or challenging.

Output: Annotated Screenshots – Each pair saves labelled screenshots of drought/flood regions and ideal places. These will be used to inform Science and Art phases as pupils design models that contrast harsh and balanced environments, linking the real and aspirational aspects of the project.

Phase 3: Data Comparison and Reflection on Ideal Environments (10 minutes)

Teacher's role: Lead a comparison activity where pupils discuss key differences between drought/flood areas and their ideal places. Provide a template for recording observations and encourage pupils to think critically about what makes an environment sustainable and appealing.

Pupils' role: Pupils complete the template, listing features like water availability, greenery, and balanced soil conditions, comparing their ideal locations to flood/drought areas. They write brief notes on how these qualities make a place ideal for living, connecting to the concept of "The Land I Would Like."

Output: Observation Sheet with Ideal Environment Notes – Pupils compile observations about real and ideal places. This helps them define features for the "ideal world" model they will create in Art, drawing from both practical and aspirational elements.

SUBJECT: INFORMATICS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 4: Digital Presentation on "The Land I Would Like" (10 minutes)

Teacher's role: Guide pupils in using their screenshots and notes to create a presentation slide summarizing "The Land I Would Like." Provide examples of how to structure slides with sections for "Real-World Challenges" (drought/flood areas) and "Ideal Environment" (features they desire).

Pupils' role: Pairs create slides using their screenshots, labelling sections like "Drought Region" and "Ideal Place" with features that make each environment unique. They write short captions to explain why they'd prefer to live in the ideal locations they chose.

Output: Digital Slide on Ideal and Real Environments – Each pair produces a slide that will be referenced in the Art and Science phases, giving them a visual summary of the features they'll incorporate into the balanced environment model.

Phase 5: Sharing and Reflection (15 minutes)

Teacher's role: Facilitate a sharing session where each pair presents their slide, explaining what they learned about drought/flood conditions and how these contrast with their ideal place. Encourage them to discuss how they will use these insights to create "The Land I Would Like" model in Art.

Pupils' role: Present their slides, sharing observations on environmental challenges and describing features they'd include in an ideal environment (e.g., green landscapes, ample water sources). Pupils jot down ideas on specific materials to represent these features in their models.

Output: Reflection Notes on Model Ideas – Pupils record ideas on materials and design elements for their ideal world model, directly influencing their Art phase and reinforcing sustainable, balanced environments.

GUIDANCE FOR TEACHERS

🔵 GEOGRAPHY

·Prepare a large world map and zoomed-in maps according Countries eventually, showing areas affected by drought and flooding.

·Print simple articles or news excerpts about recent droughts and floods in Italy and globally.

Facilitation and Implementation:

1. Introduce the Map and Images: Guide pupils in identifying specific areas prone to drought and flooding. Explain these locations' characteristics using straightforward terms.

2. Guided Reading: Assist pupils in reading the articles, focusing on new vocabulary. Emphasize how drought and flood conditions shape the landscape.

3. Supportive Questions:

- "What makes some areas more likely to flood than others?"
- "How might people and animals struggle in areas with too much or too little water?"

💡 LANGUAGE

Provide simple articles or vocabulary lists on drought and flood impacts.

Descriptive Writing: Guide pupils in describing their models, using vocabulary learned from the articles. Encourage them to capture the feel and purpose of each model.

Structured Expression: Help pupils organize thoughts, using terms that reinforce what they observed and modeled.

Supportive Questions:

"What words best describe the conditions in your model?"

"How does this language help you communicate the impact of drought or floods?"

Reflection: Pupils share descriptions with classmates, reinforcing language skills and environmental concepts.

GUIDANCE FOR TEACHERS

🔷 FOREIGN LANGUAGE

Vocabulary Cards: Prepare flashcards or visual aids with essential terms (e.g., "drought," "flood," "sustainable," "ideal environment") in the target foreign language.

Translation Guide: Provide a simple list of translations and example sentences to help pupils understand and use the vocabulary in context.

Guiding Questions Examples:

"Why is it important to know these environmental words in another language?"

"How can these terms help us communicate environmental issues with others?"

Pronunciation Practice: Model pronunciation of key terms and allow pupils to practice as a group to build confidence.

Consistent Labeling: Encourage pupils to label their models consistently with foreign language terms to reinforce vocabulary retention.

Reflection: Conclude with a discussion on the value of knowing environmental terms in different languages, linking it to global environmental responsibility.

🌱 ARTS

Collect natural and recycled materials for model construction (e.g., sand, stones, water, paper). Facilitation and Implementation:

Model Construction: Guide pupils as they create desert, flood, and ideal world models. Encourage them to use textures and materials reflecting their Geography, Science, and Physical Education observations.

Creative Expression: Encourage creativity in representing different environmental conditions, emphasizing the connection between visual elements and environmental impact.

Supportive Questions:

"How can you show the difference between a drought area and a flood area?"

"What materials will best represent your ideal world?"

Reflection: Pupils explain their model choices, discussing which materials represent ideal or challenging environments and why.

GUIDANCE FOR TEACHERS

👪 PHYSICAL EDUCATION

Set up an outdoor area with sand, water, and small buckets for a safe, controlled simulation of drought and flood conditions.

Facilitation and Implementation:

Drought and Flood Simulation: Guide pupils as they create "dry" and "waterlogged" soil areas. Emphasize the sensory experience (e.g., weight, texture) to help them relate to the challenges posed by drought and flooding.

Encourage Physical Observations: Allow pupils to feel the effects of handling dry versus wet soil, helping them understand how these conditions impact the land's stability and usability.

Supportive Questions:

"How does the soil feel when it's dry versus wet?"

"What challenges would animals or people face with dry or flooded soil?"

Reflection: Pupils discuss how these sensations influence their model design choices (e.g., sandy areas for drought, muddy areas for floods).

🧪 ENVIRONMENTAL SCIENCES

Collect soil samples (varied types if possible) and water containers. Prepare a space where pupils can test soil properties safely.

Facilitation and Implementation:

Observe Soil Conditions: Guide pupils as they explore soil texture and water retention. Have them compare dry, loose soil with saturated, muddy samples to understand how drought and flood impact soil.

Encourage Documentation: Ask pupils to write down descriptive words (e.g., "crumbly," "sticky") for each type of soil condition.

Supportive Questions:

"How does the soil change when water is added?"

"What happens to plants if the soil becomes too dry or too wet?"

Reflection: Pupils discuss which soil type matches their vision of an ideal environment versus a challenging one, linking observations to model-building

GUIDANCE FOR TEACHERS

INFORMATICS

Set Up Digital Tools
Ensure all computers or tablets are equipped with a simple digital mapping tool (e.g., Google Earth) with layers for viewing different geographic features (e.g., vegetation, water bodies). Verify access and familiarize yourself with the specific layers or data options to guide pupils effectively.

Prepare Visual Aids: Have visual examples ready, like screenshots of drought and flood-affected areas, and mark specific features you want pupils to focus on (e.g., soil color, vegetation density, water sources).

Introduce Key Vocabulary and Functions: Briefly review key terms (e.g., "drought," "flood," "vegetation") and functions of the mapping tool. This will give pupils a clear sense of the goal and basic navigation skills they'll need.

Facilitation Tips
Clear Instructions for Each Task: Outline the activity in steps, ensuring pupils know they will explore real-world drought and flood areas first and then search for places they would consider ideal to live in—"The Land I Would Like."
Encourage Focused Exploration: Prompt pupils to focus on specific details, such as differences in soil, water, and plant coverage. Remind them that they'll need these observations later to accurately build their environmental models.

Supportive/Guiding Questions:
"What differences do you notice between the drought and flood areas?"
"Why might some places have more water while others have very little?"
Check for Understanding: Move around the room, assisting pupils with navigation or answering questions about the mapping layers. Confirm that they're capturing screenshots and labeling areas correctly.

Implementation Tips
Structure the Activity with Timed Segments: Divide the hour into specific tasks (e.g., exploration, data recording, presentation). Set a timer for each segment, so pupils stay on track.
Encourage Precise Data Collection: Remind pupils to annotate each screenshot with brief labels (e.g., "Drought area—sparse vegetation") to create clear digital notes for later use.

REFLECTION SESSION

ASSESSMENT METHOD

Class Discussions/Debates
Group Presentations
Teacher Observation and Feedback based on pupils' engagement and performance during the activity

DESCRIPTION

To make the assessment phase engaging and hands-on, we'll use a combination of a "Puzzle Map" and "Reflection Cards," allowing pupils to review and reflect on what they've learned in a playful, collaborative way. This approach requires simple preparation and materials that can be reused for future activities.

1. Puzzle Map Summary (20 minutes)
Objective: Pupils create a visual summary of key environmental concepts by assembling a puzzle map of Italy (or the world) marked with specific environmental conditions.

Preparation and Materials:
Puzzle Map: Prepare a sturdy map printed on thick paper or cardboard, cut into puzzle pieces. Each piece should represent regions with different conditions (e.g., drought-prone, flood-affected) and include small icons, vocabulary words, or images (e.g., "drought," "flood," "vegetation," "water sources").

Who Prepares It: The teacher or support staff can print and cut the map in advance. If cutting is needed, this can be done with the help of an assistant or volunteer.
Reusability: The Puzzle Map can be laminated or printed on thicker material so it can be reused in similar activities.

REFLECTION SESSION

Distribute Puzzle Pieces: Each pupil or small group receives a few pieces, representing different regions or environmental conditions.
Match Vocabulary and Features: Pupils use markers or stickers to label each piece based on their observations from previous lessons (e.g., "dry soil" for drought areas, "muddy" for flooded areas).

Assemble the Puzzle: Once all pieces are labeled, pupils work together to assemble the map, creating a comprehensive picture of environmental conditions in different regions.
Reflection and Explanation: Pupils take turns explaining how each region on the map represents specific conditions, using the vocabulary and icons. They can add sticky notes or stickers to highlight areas showing real environmental challenges versus ideal places for living.

Output: The assembled Puzzle Map becomes a visual summary of the activity, linking geography and environmental concepts in an interactive way.

2. Reflection Cards Game (15 minutes)
Objective: Pupils review and reflect on their learning by drawing and answering questions related to each phase of the activity.

Preparation and Materials:
Reflection Cards: Prepare a set of cards on thick paper or card stock, each containing a prompt related to the activity (e.g., "Describe your ideal environment," "What did you learn about drought areas?" "What makes a place good for living?").
Who Prepares It: The teacher or an assistant can print and cut these cards. Laminating them ensures durability, allowing for future use.
Tokens or Stickers: Small items to reward each pupil's response.

Activity Instructions:
Card Draw: Pupils take turns drawing a reflection card. Each card has a question or prompt linked to a specific part of the activity (e.g., Geography, Science, Informatics).
Respond and Reflect: Pupils answer the prompt, summarizing their learning or describing aspects of the models they built.
Reward with Tokens: After each response, pupils receive a token or sticker, which they can place on a "Reflection Chart" to track their responses.
Output: The Reflection Cards Game encourages pupils to share insights and reinforces key concepts, allowing each pupil to contribute in a supportive, interactive environment.

3. Final "Ideal World" Display (10 minutes)

Objective: Pupils display their models and final reflections, reinforcing the concepts of environmental challenges and ideal sustainable environments.

Preparation and Materials:
Display Board or Wall Space: Designate an area for pupils to place their models and assembled Puzzle Map.
Sticky Notes: Provide sticky notes for pupils to write their final reflections.

Activity Instructions:
Display Models: Pupils arrange their models next to the Puzzle Map and Reflection Chart.
Sticky Note Reflections: Each pupil writes a brief final reflection on a sticky note, describing what they learned or enjoyed most about creating their "ideal world" and exploring environmental conditions.

Group Discussion: Conclude with a group discussion where pupils share highlights from their notes, celebrating the work they've done and the insights gained.
Output: The "Ideal World" display serves as a meaningful and visual summary of the activity, allowing pupils to see all their learning outcomes and contributions together.

REFLECTION SESSION

Logistics and Preparation Summary
Materials:
Print maps and cut into puzzle pieces.
Prepare Reflection Cards with prompts and laminate them if possible.
Designate an area for the final display, with enough space for models, maps, and sticky notes.

Roles:
Teacher: Leads the preparation, assembles materials, and guides the activities.
Support Staff (if available): Assists with cutting maps or preparing cards and helps manage the final display setup.
Time and Reusability: By laminating the Reflection Cards and Puzzle Map, you create reusable resources that save preparation time for future activities, making these materials easy to set up again.

Laminating: How to Do It, Costs, and Where to Buy
Laminating covers paper or cardstock with a protective plastic layer, making materials like Reflection Cards and the Puzzle Map durable for repeated use.
To laminate, you can use a laminator: place your paper in a laminating pouch, run it through the machine, and trim any extra edges. A basic laminator costs €30-€60, and laminating pouches cost about €5 per 100 A4 sheets. Laminators and supplies are available at electronics stores, supermarkets, or online.

Alternatively, use clear adhesive tape or self-adhesive contact paper. Apply it carefully on both sides of the sheet to create a smooth, durable surface. Contact paper costs around €3-€5 per roll, available in stationery and DIY stores. For schools without a laminator, contact paper works well as a reusable, affordable option for protecting classroom materials.

Annex A: Supporting materials
Participatory activity 01

Geography (Maps of drought and flood areas):

https://reliefweb.int/updates?
https://emergency.copernicus.eu/mapping/list-of-components/EMSR192
https://drought.emergency.copernicus.eu/tumbo/edo/map/
https://www.esa.int/Applications/Observing_the_Earth/Italy_s_drought_seen_from_space

(Photos of drought and flood areas):

https://www.gettyimages.com/photos/italy-flood
https://www.gettyimages.com/photos/italy-drought
Italian Language (Simple articles on flood and droughts in Italy):
https://www.youtube.com/watch?v=lHUih-VTWt4
https://www.Pupili.it/tema-siccita-cause-conseguenze.html
https://www.savethechildren.it/blog-notizie/siccita-ondate-di-calore-quale-futuro-per-bambini

Grades 3-4

Participatory activity 02
Green decision-makers in the community

GreenComp School

Green decision-makers in the community

Grades 3 and 4

Activity overview

Pupils role-play as community decision-makers, balancing economic growth, cultural heritage, and sustainability while developing critical thinking and civic engagement skills through collaboration and problem-solving.

Activity Topic

Cultural Sustainability and Environment

Preserving the past, shaping a sustainable future.

GreenComp competence area

Embodying Sustainability Values
Embracing Complexity in Sustainability
Acting for Sustainability

Contribution to SDGs

GreenComp Competences

Promoting nature
Systems thinking
Critical thinking
Problem framing
Political agency
Individual initiative

Green decision-makers in the community

Objective

To help pupils understand the decision-making processes in community management and develop critical thinking, collaboration, and civic engagement skills by exploring the interplay between economic, cultural, and environmental factors.

In the example with the natural landmark of a mid-sized provincial town: To help pupils collaboratively develop a plan that balances economic growth, cultural heritage preservation, and environmental sustainability for the area of interest and its surroundings. Through this, pupils learn how different stakeholders contribute to decision-making processes and the importance of considering diverse perspectives when addressing environmental issues.

Primary pedagogical approach

Inquiry-based learning with hands-on activities

Experiential Learning

Collaborative Learning

Problem-Based Learning

Green decision-makers in the community

Expected Learning Outcomes

Knowledge (to be able to):
- Explain the connection between caring for the planet and cultural heritage and (our) personal values (like being kind and responsible), and how this can make the world a better place for everyone.
- Describe the three key aspects of caring for the Earth – nature, people, and money – and explain their significance.
- Discuss how nature, environment, humans, and cultural heritage are interconnected, affecting each other, and understand the impact of our actions on the environment.
- State why it is important for governments and leaders to make decisions that protect nature and cultural heritage and promote the well-being of people both in our towns and all over the world.

Skills (to be able to):
- Solve real-life problems, including problems related to cultural sustainability and environment, to make the world a more sustainable place.
- Develop ideas to protect both the planet and cultural heritage while enhancing the lives of others by incorporating your personal values, such as kindness and responsibility.

Attitudes (to be able to):
- Embrace others' ideas on cultural sustainability and environment, even when they differ from your own ideas.
- Take care of the planet by being responsible and continually learning new ways to help, even when circumstances change.
- Argue about the importance of cultural heritage, by exploring its role in promoting understading and respect among diverse groups of people.

GreenComp School

Green decision-makers in the community

Activity description

Pupils role-play as community decision-makers tasked with addressing an environmental and cultural issue in their town. They take on various roles, such as mayor, environmental scientist, local business owner, and community citizen, to collaboratively develop a plan that balances economic growth, cultural heritage preservation, and environmental sustainability.

Example:
In this activity, pupils from a mid-sized town, engage in a role-playing exercise where they act as community decision-makers tasked with addressing environmental and cultural issues surrounding a significant natural landmark in their city. The natural landmark, which can be a mountain, a forest, river or anything else, is a central feature of their town, known for its scenic beauty and importance as a recreational space for citizens and an attraction for tourists. However, like many natural resources, it faces challenges related to urban development, environmental preservation, and cultural heritage.
Note 1: This may be adapted according to the region/city where the school is located.

Roles with different viewpoints:
- **Mayor**: Pupil playing the mayor is responsible for considering the overall development of the city. They must balance economic growth, infrastructure, and the well-being of citizens while ensuring the long-term sustainability of the natural landmark of their city.
- **Environmental Scientist:** Pupil focuses on the environmental health of the area. They bring scientific data on pollution levels, biodiversity in the area, and the impacts of human activities on the local ecosystem. Their priority is to preserve the landmark's natural state and promote sustainable practices.
- **Local Business Owner**: Pupil in this role represents business interests, particularly those that may benefit from tourism or commercial activities along the natural landmark. They must consider how to attract more visitors or develop natural areas for business while addressing environmental concerns.
- **Community Citizen:** This role is played by multiple Pupils who represent different groups of citizens. They voice concerns about public spaces for recreation, cultural events held near the natural landmark, and their desire for a clean, safe environment.

Green decision-makers in the community

GEOGRAPHY

Geography provides context on local ecosystems and cultural landmarks for sustainable planning. This subject helps Pupils understand the relationship between people and their environment.

Pupils study local and global ecosystems, climate zones, and biodiversity.

·Learn about natural resources and their sustainable use.

·Explore human impact on the environment, such as deforestation and pollution, and how different communities address these challenges. Map out local green spaces and discuss urban planning that prioritizes sustainability.

·Compare with other cities/regions all over the world and find applications there.

LANGUAGE

·Encouraging Creative Writing on Local Nature: Guide Pupils to write stories or poems about the river, forest, or other natural areas in their community. Encourage them to focus on its importance to local wildlife, the environment, and the community. This activity will help Pupils express their understanding of nature's value through storytelling.

·Exploring Environmental Themes in Fables and Stories: Introduce Pupils to fables and stories with environmental themes, such as caring for nature. Discuss the lessons in these tales, including sustainability, respect for nature, and the impacts of neglect.

Note to teachers: Subject names may vary slightly depending on your national curriculum, but the core skills and learning objectives remain the same. No matter what the subject is called in your school, you can easily adapt the activities with minor modifications to fit your classroom context. This handbook is also available in other languages, where subject names are aligned with local terminology for greater relevance.

Green decision-makers in the community

FOREIGN LANGUAGE

Through language exchange programs or virtual collaborations with schools in other countries (integrating informatics skills), teachers can guide their Pupils in discussing and sharing ideas about river/forest conservation, environmental preservation, and sustainability. These activities can foster cross-cultural understanding and collaborative problem-solving among Pupils.

Teachers encourage their Pupils to create bilingual posters or presentations highlighting the importance of protecting local rivers, forests, or mountains. By doing so, Pupils not only enhance their language and digital skills but also contribute to raising awareness about environmental conservation both locally and internationally. This approach empowers Pupils to become advocates for sustainability, sharing their messages with a global audience.

ARTS

Pupils use digital tools for research and design visual proposals, combining informatics skills.

Guiding Poster Design for Environmental Awareness: Encourage Pupils to create posters to raise awareness about protecting the local environment, such as rivers, seas, and forests. Help them focus on important topics like preventing pollution, conserving water, and protecting wildlife.

Fostering Creativity and Responsibility: Support Pupils in expressing their environmental messages visually through art, allowing them to explore creative ways to communicate these important ideas. This project will help them build both their artistic skills and their sense of responsibility toward the environment

Green decision-makers in the community

🌱 **PHYSICAL EDUCATION**

Physical Education activities help pupils connect their physical well-being with the natural world, fostering a mindset of environmental stewardship as they learn about their local ecosystem.

·**Connecting Physical Activity to Environmental Awareness:** Organize physical education activities that encourage pupils to explore the local environment, such as nature walks near rivers, seas, mountains, or forests. This helps pupils connect physical well-being with environmental stewardship.

·**Organizing Community Clean-Ups:** Lead clean-up events in natural areas like riversides or forests to teach Pupils the importance of maintaining clean public spaces. This hands-on activity fosters a sense of responsibility for the local environment.

·**Integrating Fitness with Nature:** Encourage pupils to participate in jogging, cycling, or hiking in natural settings. These activities promote physical fitness while helping pupils appreciate and learn about their local ecosystems.

·**Mindfulness and Yoga in Nature:** Introduce yoga or mindfulness exercises along rivers, forests, or the sea. This can help pupils develop a calm, respectful relationship with nature and foster a sense of gratitude for their surroundings.

Note to teachers: Subject names may vary slightly depending on your national curriculum, but the core skills and learning objectives remain the same. No matter what the subject is called in your school, you can easily adapt the activities with minor modifications to fit your classroom context. This handbook is also available in other languages, where subject names are aligned with local terminology for greater relevance.

Green decision-makers in the community

👥 MATHS

Pupils learn how to calculate budgets and resources needed for the proposed community plans.

·**Budgeting with pupils**: Guide pupils to calculate the costs of small community projects, like planting trees or cleaning a playground. Encourage them to practice addition and subtraction with real examples to make budgeting fun and meaningful.

·**Introducing Environmental Data:** Help pupils explore simple data about air and water cleanliness in your community. Use examples close to home, like a nearby park, river, or playground, to make the learning more relatable.

·**Visualizing Data with Charts:** Teach pupils to create simple charts or drawings to represent changes in air or water quality over time or compare different areas (e.g., the river, a park, or near the school). This make the data easy for them to see and understand.

🧪 INFORMATICS

Enables pupils to research international examples and practice speaking and listening as they share their ideas.

·**Using Digital Tools for Data Collection**: Encourage pupils to use digital tools and sensors to collect real-time data on things like water quality in a river or sea, local temperatures, or pollution levels in their city. Guide them in using these tools safely and help them understand the data they collect.

·**Researching Ecosystem Importance:** Introduce pupils to safe, child-friendly search engines where they can look up simple information on the role of rivers, forests, and the sea in ecosystems. Encourage them to explore how these natural resources help plants, animals, and people, making the learning experience more meaningful and connected to real life.

Note to teachers: Subject names may vary slightly depending on your national curriculum, but the core skills and learning objectives remain the same. No matter what the subject is called in your school, you can easily adapt the activities with minor modifications to fit your classroom context. This handbook is also available in other languages, where subject names are aligned with local terminology for greater relevance.

Green decision-makers in the community

INTERDISCIPLINARY APPROACH

Pupils combine Social Studies (learning about city planning), Art (drawing their ideas), and Language (communicating their plans) in one fun and hands-on activity.

The different disciplines (1) Geography, (2) Language, (3) Foreign Language, (4) Arts (5)Physical Education (6) Maths (7) Informatics in an interdisciplinary approach don't just coexist—they intertwine to create a richer, more holistic learning experience, as follows:

1. **Art, Geography, Physical Education, and Informatics:**
Pupils can create artwork, such as a poster (**Art**) to demonstrate their ideas regarding the city project about the local river/mountain (**Geography**), inspired by an eco-hikes across the river/mountain (**Physical Education**). The poster could be based not only on the pupils' observation but also on related images from web (**Informatics**). Alternatively, after a nature hike, they can use found objects such as wood, stones etc to create a mural or sculpture (**Physical Education and Art**); then could use photoreprting (informatics) in YouTube channel to rise citizens awareness.

2. **Physical Education and Informatics (Technology):**
 While engaging in outdoor activities such as eco-hikes across the river/the mountain or scavenger hunts (**Physical Education**), pupils use technology to record their findings—whether it's photos of local plants, air quality data, or identifying wildlife. For example, different kind of bird species, present in riparian areas or the plethora of different wild herbs that grow in the mountains. They then upload these findings into digital platforms such as YouTube, tik-tok etc. (**Informatics**) to raise awareness of citizens regarding environmental issues.

Green decision-makers in the community

INTERDISCIPLINARY APPROACH

3. Language, Foreign Language and Informatics:
Pupils could read eco-themed stories or poems in different languages, comparing cultural perspectives on environmental issues.
- For example, there may be traditional songs written to celebrate the natural beauty of an area (**Language and Informatics**), such as its rivers, mountains or the sea. Especially places that awe residents for their natural beauty and wildness, such as high mountains or dense forests, or they are of a historical or archaeological interest as well.
- There are also many legends, tales or narratives (**Language**) driven from local nature landscapes in all languages (**Foreign Language**). Pupils use technology to find out myths of the same thread in different cultures (**Informatics**).

A literature/mythology example in different languages: the god who could transform into any form he desired such as Proteus from Greek mythology. Proteus was a sea god, a servant of Poseidon, who had the power to change shapes at will. He could transform into animals, plants, and even natural phenomena such as water or fire. This ability made him elusive, as mortals had to immobilize him while he was transforming to make him tell the truth or reveal prophecies.

This myth highlights flexibility and adaptability, as well as the connection to nature. The myth of a god who can change shapes, like Proteus in Greek mythology, appears in other literatures and cultures, although each mythology adapts it to its own characteristics

Norse Mythology – Loki: Loki is one of the gods in Norse mythology, known for his ability to change shapes. Loki is not just the god of trickery and deceit, but he can also transform into various forms, including animals like horses, birds, and fish. This flexibility is similar to the shape-shifting ability of Proteus.

Green decision-makers in the community

INTERDISCIPLINARY APPROACH

Celtic Mythology – Taliesin: Taliesin, a great poet and magician in Celtic tradition, also has the ability to transform. In one of his most famous myths, he transforms into various animals and objects during a chase, such as a hawk, fish, and a grain of wheat, in order to escape from Ceridwen, a goddess in the Celtic tradition.

Hindu Mythology – Vishnu: The god Vishnu in Hindu mythology often incarnates in various forms (the so-called "avatars") to protect the world from evil. These forms include animals, humans, and demigods, such as the fish Matsya, the turtle Kurma, and the man-lion Narasimha. Similar to Proteus, Vishnu adapts his form based on the needs of the moment.

Roman Mythology – Virtus: In Roman tradition, the deity Virtus could also appear in various forms, representing war, bravery, and strategy. This flexibility in form and meaning is more symbolic but is related to the ability to adapt and change according to circumstances.

Arabian Tradition – Jinn: In Arabian literature and folklore, Jinn (or Genies) are spirits that can take many forms, such as animals or humans, and appear as natural elements like smoke or fire. This shape-shifting ability gives the Jinn great power and makes them similar to the myth of Proteus, though Jinn have more freedom in their forms.

Green decision-makers in the community

INTERDISCIPLINARY APPROACH

4. Maths, Informatics and Geography:
Pupils use mathematical calculations to quantify the environmental impact of the city project (**Maths**). These numbers are then linked to geographic studies, where pupils explore which areas of the world face similar challenges (**Geography and Informatics**).

How they interconnect overall:
·Shared Themes: Each subject revolves around a central environmental theme - whether it is conservation, sustainability, or climate change.
For example, the significant damage and concern caused by flooding rivers due to the storms in several regions, affecting populated areas, agricultural lands, and infrastrucutre. Pupils as engaged citizens in decision making procedures, discuss the reasons of this phenomenon.
Note 2: Of caurse this is an example of a central environmental theme and it could be tailored to each school region.

The reasons behind these floods include:
Climate Change: The increase in extreme weather events, such as heavy rainfall, contributes to the river's overflow.
Urbanization: Extensive development and urbanization near the riverbanks have reduced natural drainage, leading to water accumulation.
Drainage Works: The lack of sufficient drainage and cleaning infrastructure for streams can exacerbate the situation during rainy periods.

Green decision-makers in the community

INTERDISCIPLINARY APPROACH

Water Management: The absence of a strategy for effective management of water resources and flood risks has contributed to the frequent flooding.

The consequences of these floods include the destruction of homes, damage to infrastructure, loss of crops, and impacts on public health. Mayor, local stakeholders and local authorities typically activate emergency plans and work to restore the situation, but prevention and adaptation to climate change are crucial for protecting the area in the future.

This ensures that pupils see connections between different forms of knowledge and skills while focusing on one overarching goal: environmental awareness.
·Collaborative Learning: Pupils work on projects that require input from multiple disciplines. For example, to create an infographic (Informatics), they need Maths (for data) and Geography (to understand the environmental impact), enhancing their teamwork and holistic understanding.

·Real-World Application: Combining these subjects mimics real-world problem-solving, where tackling environmental issues requires Art (for awareness campaigns), Math (for data), Physical Education (to understand ecosystems), and communication (in multiple languages). This interdisciplinary approach helps Pupils see that no subject exists in isolation—everything is interconnected, just like our planet's ecosystems.

·By combining disciplines, pupils grasp that different skills and knowledge areas come together to tackle complex global issues like environmental conservation, reinforcing the idea that protecting the planet is a multi-faceted task.

Green decision-makers in the community

RESOURCES&MATERIALS

GEOGRAPHY

Maps of the chosen landmark, city's/region's rural and urban areas, and the surrounding environment, thematic maps about climate, population density, natural resources, studies on land use, water flow, pollution data, and local ecosystems to help "environment scientists" make informed decisions

LANGUAGE

Stories, plays, and poems about nature and community. Local legends, myths, or historical accounts of the chosen landmark, to help Pupils understand its cultural significance.
Writing guides for drafting speeches, presentations, or public notices regarding their role (e.g., the mayor or community citizen).

FOREIGN LANGUAGE

Bilingual or foreign language materials on environmental conservation or urban development policies from other countries (e.g., English sources for international examples), language tools for writing speeches or reports in another language, promoting environmental sustainability to foreign investors or tourists.

ARTS

Drawing supplies (sketchbooks, markers, paints) for visual representations of the chosen landscape before and after proposed development, sculpture materials/clay for modelling sustainable development projects

Green decision-makers in the community

RESOURCES&MATERIALS

🧪 PHYSICAL EDUCATION

Information on how environmental changes affect physical activities (e.g., how pollution impacts outdoor sports along the river), resources promoting eco-friendly recreational activities along the point of interest (e.g., cycling paths, running tracks)

💛 INFORMATICS

Computers and internet access for researching similar case studies of natural landmarks preservation & sustainable development, data analysis software for evaluating pollution levels, biodiversity, and economic data, websites and online databases on environmental science, urban development, and public policies

🌱 MATHS

Calculators, worksheets on budgeting for environmental and cultural projects e.g. Pupils calculate costs for preserving the natural landscape while developing the surrounding area, resources on statistics and data analysis for measuring pollution, water quality, and economic benefits of tourism, geometry and measurement tools for planning and designing new infrastructure that minimizes environmental impact.

Green decision-makers in the community

EQUIPMENT&FACILITIES

GEOGRAPHY

Maps and atlases for visualizing the geography of the chosen landmark and understanding areas impacted by development,
Google Earth, local geography and geology field guides for hands-on learning

LANGUAGE

Classroom library, book display shelves, access to local literature and materials related to local culture and environment.

FOREIGN LANGUAGE

Language Lab for practicing conversations or debates on the environmental issue in a foreign language, multimedia tools for creating bilingual presentations or brochures to attract international attention to the project, online language platforms to research global environmental campaigns in the target language and use them as inspiration for local initiatives

ARTS

Storage Units: shelves to organize and store supplies, art studio for visual representations of Pupils plans (e.g. posters promoting eco-friendly practices, murals depicting the natural landmark's importance), cameras/photography equipment to document and present changes in the environment or cultural events along the sight of interest, digital tools for graphic designs, logos, or campaigns advocating for environmental preservation

Green decision-makers in the community

EQUIPMENT&FACILITIES

PHYSICAL EDUCATION

Outdoor facilities like parks and riverside areas where students can observe or propose new recreational spaces, sports equipment to plan environmentally sustainable sports facilities along the landmark, health monitoring tools for assessing the health benefits of preserving clean public spaces for physical activity.

MATHS

Access to computers or tablets with spreadsheet software (e.g., Excel, Google Sheets) for digital budgeting, computers and tablets for financial modelling and data analysis, allowing students to compare different development scenarios, projector/whiteboard for presenting budget plans, graphs, and statistical models to the class and getting feedback on their proposals.

INFORMATICS

Computer lab for researching, designing presentations, and using simulation tools to predict the outcomes of various development plans, Internet access for gathering information on global best practices in environmental management and sustainable business and digital presentation tools to share findings with the rest of the class.

SUBJECT: GEOGRAPHY

ACTIVITY IMPLEMENTATION INSTRUCTIONS

In this activity, you will role-play as community decision-makers tasked with addressing environmental and cultural issues around a natural landmark of your region. Your goal is to develop a plan that balances economic growth, cultural heritage preservation, and environmental sustainability. This activity helps you understand the importance of geography in real-world decision-making and how different perspectives contribute to community management.

Phase 1. Introduction and Group Formation (10 minutes)

Listen to the teacher: The teacher explains the problem concerning the point of interest in your town. You learn about challenges like pollution, urban growth, and the need to protect natural and cultural sites.

Form groups: You are assigned one of the following roles:
–Mayor
–Environmental Scientist
–Local Business Owner
–Community Citizen
Each group analyze the area based on the assigned role.

SUBJECT: GEOGRAPHY

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 2. Map Analysis (15 minutes)

Get your maps: Your group receive a map of the natural landmark and the surrounding area. This includes land use, topography, and areas where people live or work.

Mark key areas on the map:
- Mayor's group: Find areas where new buildings, roads, or parks might be built. Where could development happen?
- Environmental Scientist's group: Identify places with natural importance like forests or rivers or the sea. These might be in danger from pollution or human activity.
- Local Business Owner's group: Locate areas that might be good for tourism or businesses near your area.
- Community Citizen's group: Mark places important to the community, like parks, walking paths, or where cultural events happen.

Write down reasons: For each area you mark, write down why it should be developed or protected based on your role.

Phase 3. Impact Assessment (10 minutes)

Assess the impact: Think about what will happen if you change things in the area.
- Mayor's group: Will building roads or shops cause more pollution or traffic?
- Environmental Scientist's group: Will human activities damage water quality, wildlife, or the forest? How can we prevent that?
- Local Business Owner's group: How could tourism or businesses help the economy without hurting nature?
- Community Citizen's group: Will changes make the natural landscape more fun and safer for people to use, or could it harm the local culture?

Write your report: Each group writes a short impact report about what will happen if their ideas are put into place and how they will handle any problems

SUBJECT: GEOGRAPHY

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 4. Present Your Plan (10 minutes)

Prepare your presentation: Each group will share their ideas with the class. Use the maps and impact report to explain your decisions.

Roles during the presentation:
- Mayor: Explain the new developments and why they are important for the city's future.
- Environmental Scientist: Explain the environmental challenges, how they can be fixed.
- Local Business Owner: Present how new businesses will help the economy and why it's good for the town.
- Community Citizen: Share how the changes will affect local people and their culture.

Answer questions: After your presentation, be ready to answer questions from your classmates about why you made your choices.

Phase 5. Wrap-Up Reflection (5 minutes)

Class discussion: After the presentations, discuss with the class:
- What was the hardest part of making decisions?
- How did geography help us make better choices for the community?
- Did all groups agree on the best way forward?

SUBJECT: LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

In this activity, pupils use their skills in language and storytelling to create a narrative that reflects the perspectives of different stakeholders involved in the development of the region's natural area. Your role is to write creatively and collaboratively, expressing ideas about the balance between economic growth, cultural heritage, and environmental preservation.

Phase 1. Introduction to the Activity (5 minutes)

Listen to the teacher's introduction: Today, you engage in a creative writing exercise where you craft a story that represents the views of various community members regarding the natural landmark. Your narrative explore how these perspectives influence decision-making about the natural area's development.

Phase 2. Brainstorm and Plan Your Story (10 minutes)

Discuss with your group:
Talk with your group about the different roles you will represent:
- Mayor: Focus on city development and economic growth while considering community needs.
- Environmental Scientist: Highlight environmental concerns and the need for sustainability.
- Local Business Owner: Address the potential for tourism and economic benefits from development.
- Community Citizen: Represent the general public's interest in preserving the area for recreation and cultural significance.

Outline your story: As a group, create a basic outline for your narrative. Decide on:
- Characters: Who are your main characters, and what roles do they play?
- Setting: Where and when does your story take place?
- Conflict: What challenges do the characters face regarding the area's development?
- Resolution: How do the characters come together to address the issues?

SUBJECT: LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3. Write Your Story (20 minutes)

Begin writing collaboratively: Use a large piece of paper or a shared digital document to start writing your story as a group. Assign different parts of the narrative to each group member based on their chosen role. Focus on creating dialogue that reflects each character's perspective. Think about how they would express their concerns, hopes, and ideas.

Incorporate literary elements: Use descriptive language to vividly portray the natural landmark, its surroundings, and the emotions of the characters. Employ dialogue to showcase different viewpoints, making the story engaging and dynamic. Here are some suggestions for how each character might speak:

- Mayor: "As your mayor, I believe we can find a way to grow our economy while still protecting our precious natural landmark."
- Environmental Scientist: "The data shows that pollution levels are rising. If we don't act now, we risk losing the biodiversity that makes our point of interest special."
- Local Business Owner: "Investing in eco-tourism could bring in more visitors and create jobs. We just need to find a way to balance it all."
- Community Citizen: "I just want a clean area for my family to enjoy. We need to prioritise public access and safety."

Finalise your narrative: Add any finishing touches to your story, ensuring it is polished and read for presentation. Decide who reads each part of the story when presenting to the class.

Phase 4. Presentation and Wrap-Up (10 minutes)

Present your story to the class: Each group will take turns sharing their narrative with the class. Be sure to express the different viewpoints represented in your story.
Encourage your classmates to listen actively and think about how the various perspectives contribute to the discussion about the area.

Class discussion: After each presentation, engage in a brief discussion about the different narratives shared. What insights did the stories provide regarding the challenges and opportunities for the area?

SUBJECT: LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

This activity helps you appreciate the power of literature in communicating important social and environmental issues, allowing you to express your ideas creatively while considering the viewpoints of various stakeholders.

Additional tips for pupils:
- Be respectful and open-minded during group discussions, as different perspectives enrich your narrative.
- Stay focused on the themes of economic growth, cultural heritage, and environmental sustainability while writing your story.
- Remember, storytelling is a collaborative effort, so ensure everyone contributes to the narrative!

SUBJECT: FOREIGN LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 1. Introduction to the Activity (5 minutes)

Listen to the teacher's introduction: Today, you will work together to create a dissemination strategy for the "City's Natural Landmark Revitalization Campaign." Your goal is to effectively communicate the river's importance to the community and promote participation in its protection.

Phase 2. Assign Roles and Discuss Perspectives (10 minutes)

Receive your roles: Each Pupil will take on one of the four roles: Mayor, Environmental Scientist, Local Business Owner, or Community Citizen.

Discuss your perspectives: In your groups, spend 10 minutes discussing the significance of the campaign from your role's perspective. Use the following guiding questions:
- Mayor: How can you use your position to gain support for the campaign?
- Environmental Scientist: What scientific data will you use to inform the community about the natural landmark's condition?
- Local Business Owner: How can businesses benefit from a healthy environment in the area?
- Community Citizen: What concerns do residents have, and how can they participate in the campaign?

SUBJECT: FOREIGN LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3. Prepare your dissemination strategy (15 minutes)

Collaboratively develop a strategy: As a team, define a dissemination strategy that includes:
- Target audience: Who are the people you want to reach (e.g., residents, tourists, schools)?
- Key messages: What are the main points you want to communicate about the natural landmark's importance and the campaign?
- Communication channels: How will you disseminate your messages (e.g., social media, community meetings, flyers, local businesses)?
- Engagement activities: Plan activities that encourage community participation (e.g., clean-up events, workshops, educational programs).

Draft your presentation: Create a brief presentation (3-5 minutes) that summarizes your strategy. Each role should contribute relevant points to the presentation.

Phase 4. Present your dissemination strategy (10 minutes)

Share your strategy with the class: Each group will present their dissemination strategy. Focus on clear communication and community engagement.

Encourage feedback: After each presentation, invite classmates to ask questions or provide constructive feedback. Use this opportunity to practice using the foreign language.

SUBJECT: FOREIGN LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 5. Conclusion and Reflection (5 minutes)

Reflect on the activity: As a class, discuss what you learned about the different roles in creating a dissemination strategy.

Consider:
- What unique perspectives did each role add?
- How can effective communication promote community involvement in environmental issues?

Encourage ongoing language use: Think about how you can use the skills developed in real-world contexts, especially in community engagement and environmental awareness.

Additional tips for pupils:
- Be engaged: actively participate and respect other's perspectives.
- Use the language: try to communicate in the foreign language during the activity.

Scenario: Dissemination Strategy for the "City's natural landmark Revitalization Campaign" (Using a Foreign Language)

Objective: Develop a comprehensive dissemination strategy in a foreign language to raise awareness about the environmental and cultural significance of the Natural Landmark of your town and encourage community involvement in its revitalisation.

Roles:
- Mayor: Responsible for overall community development and support for the campaign.
- Environmental Scientist: Provides scientific data and insights on the area's ecological health and its importance.
- Local Business Owner: Represents business interests and emphasizes the economic benefits of a healthy local environment.
- Community Citizen: Voices the concerns and aspirations of local residents regarding the area's future.

SUBJECT: ARTS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Objective: This activity helps you understand how art can communicate important messages about real-world issues, like environmental sustainability and cultural heritage, in a way that is creative and accessible to everyone.

Phase 1. Introduction to the Activity (5 minutes)

Listen to the teacher's introduction: In today's class, you use art to help your group present ideas for developing the area. You create visuals (drawings, posters, or collages) that represent the plans and goals of your group. Your artwork shows how the environment, culture, and economy can come together in the development plan for the river.

Phase 2. Brainstorm and Plan Your Artwork (10 minutes)

Discuss with your group: Talk to your group about their ideas for the natural area development.
- What are they planning?
- What message do they want to convey about balancing growth with environmental and cultural protection?

Think about key elements that are important for your artwork. For example:
- How can you show the natural beauty of your point of interest?
- How can you represent the businesses or tourism your group is proposing?
- How can you include cultural symbols of the city or the natural landmark?

Sketch your ideas: Make a quick sketch of what your artwork might look like. Decide what images, colours, or symbols you use to show your group's ideas.

SUBJECT: ARTS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3. Create your artwork (20 minutes)

Begin drawing or creating: Use the art supplies provided (colored pencils, markers, paints, etc.) to create a detailed drawing, poster, or collage. Your goal is to make your group's ideas about the area come to life through art.

Focus on these elements:
- Nature: Show the river, trees, plants, and wildlife.
- Culture: Include symbols of the city's heritage, like historical buildings, cultural landmarks, or local traditions.
- Economy: Illustrate any businesses, tourism activities, or development plans your group proposes.

Work carefully:
- Take your time to add details that make your artwork clear and beautiful.
- Think about colors: Use bright colors to show a vibrant, healthy environment or calm colors for the peaceful beauty of nature.

Phase 4. Presentation and Feedback (5 minutes)

Present your artwork to your group: Show your group what you created and explain how your art supports their ideas. Talk about the symbols, colors, and images you used. Help your group understand how the artwork can be part of their final presentation to the class.

Class discussion: After all groups have shared, discuss how art helps make the plans for the Pineios River more visually appealing and meaningful. How did different pupils use their creativity to represent important ideas about the environment and culture?

Phase 5. Wrap-Up (Final 5 minutes)

Reflect on how using art helped you express complex ideas in a creative and visual way. How did the process of creating your artwork help your group's project?

SUBJECT: PHYSICAL EDUCATION

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Objective: In this activity, you engage in a physical role-playing exercise that integrates physical fitness with your understanding of the perspectives of different stakeholders regarding the natural landmark of your region. Your objective is to design a physical activity that reflects the interests and needs of various roles in the community while promoting health and environmental awareness.

Phase 1. Introduction to the Activity (5 minutes)

Listen to your teacher: The teacher gathers the pupils and explains that they are standing near the point of interest, on this precious natural landmark of their town, and they are going to take a walk on it. This could be a walk on the seaside, or on the banks of a river, or into a forest, or hiking a hill. They will observe different parts of the environment, interact with nature, and then discuss what they have learned as well as giving some ideas for improvement depending on their respective role.

Phase 2. Exploring the Ecosystem (20 minutes)

Water and Wildlife: Observe and identify local animals, noting their behaviors and roles in the ecosystem. Look for insects, birds, mammals, or tracks.

Plants and Trees: Identify different plant species and discuss their contributions, such as providing food, shelter, or oxygen. Highlight region-specific plants and their ecological importance.

Soil and Ground: Feel the soil's texture - dry or moist? Discuss soil types (sandy, clay, loamy) and their role in supporting plant life.

Pollution and Impact: Identify pollution signs like litter or deforestation. Discuss its effects on the environment and human impact on ecosystems.

SUBJECT: PHYSICAL EDUCATION

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3. Exploring Perspectives on Protecting Nature (15 minutes)

Discuss your observations with your group and share your perspective based on your assigned role:

- Mayor: Protecting natural areas benefits both the community and economy. Sustainable policies and investments are needed to balance tourism and conservation.
- Environmental Scientist: Biodiversity and ecosystem health are at risk due to pollution and climate change. Research, conservation, and reducing human impact are essential.
- Local Business Owner: Nature attracts customers and eco-tourists, supporting businesses. Community programs and awareness initiatives can help protect these spaces.
- Community Citizen: Green spaces are vital for well-being and recreation. Organizing clean-ups, tree planting, and waste reduction can help preserve them.

Phase 4. Wrap it Up! (5 minutes)

Emotional connection: Being in nature reduces stress, enhances mental clarity, and deepens appreciation for the environment.

Health benefits: Outdoor activities boost physical health and promote a sense of well-being and balance with nature.

Key takeaways: Protecting natural landmarks requires collective effort. Understanding different perspectives highlights that environmental responsibility is shared by all.

SUBJECT: MATHS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 1. Introduction to the Activity (5 minutes)

Listen to the teacher's introduction:
- You work as community decision-makers and must help your group (Mayor, Environmental Scientist, Business Owner, or Community Citizen) make choices by using math.
- Your main task is to budget for different projects and make sure the development is both affordable and good for the community.

Phase 2. Group work and budget calculations to make decisions (25 minutes)

Review your Plan: Each group proposes improvements for the city's natural landmark (e.g., parks, roads, pollution cleanup) and calculates costs.

Use the Budget Worksheet: Check listed costs for roads, parks, shops, cleanup, and environmental protection.

Calculate & Adjust Costs: Ensure your plan fits the budget. If it exceeds the limit,
- Choose cheaper options or adjust the project.
- Balance spending between development & sustainability.

Analyse Data & Predict Impact: Use pollution, visitor, and traffic data to ensure long-term sustainability.

Finalize the Budget: Use math to justify spending and ensure the plan is realistic and beneficial.

Example: If the budget is €20,000 but costs €25,000, find ways to cut €5,000, such as downsizing a project.

SUBJECT: MATHS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3. Presentations, Reflection and Wrap-Up (15 minutes)

Prepare a short report: Write a summary of your calculations and explain how you stayed within the budget. Be ready to defend your choices in front of the class.
- Make sure you can explain why you chose to spend money on certain things.
- Use numbers to show that your plan is realistic and beneficial for the community.

Class discussion:
- After presentations, the class will discuss the different plans.
- What were the most difficult decisions about the budget? How did math help you make better decisions?

This activity helps you see how math is used in real-life problems, such as managing money for environmental and community projects.

SUBJECT: INFORMATICS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Objective: In this activity, you use computers and internet resources to help your group make decisions about developing the natural area you are interested in. You will research, create digital materials, and use online tools to support your group's proposal, focusing on how technology can help address environmental, economic, and cultural issues.

Phase 1. Introduction to the Activity (5 minutes)

-Listen to the teacher's introduction: In this class, you are the technology experts. Your role is to help your group by gathering information from the internet and creating digital resources (maps, presentations, or data reports). You use online tools to support your group's decisions and make the plan for the natural area more convincing.

Phase 2. Research and Data Collection (15 minutes)

Use computers to research: Each group has different needs, depending on their role. You need to find specific information that can help your group make better decisions. Search for environmental data (e.g., pollution levels, biodiversity near the landmark), or look for examples of how other cities have developed similar areas. Find images, maps, and statistics that support your group's plan.

Tips for research:
- If you are in the Environmental Scientist group, find data on how pollution affects rivers or sustainable development practices.
- If you are in the Business Owner group, research ways to attract tourists or develop commercial areas without harming the environment.
- If you are in the Mayor or Community Citizen groups, look for information on urban development or public spaces that combine economic and environmental benefits.

Collect data: Find important statistics or examples and save them. You need to use these in your presentation later. Organize the information in a document, spreadsheet, or simple report.

SUBJECT: INFORMATICS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3. Create Digital Materials (15 minutes)

Create a presentation or digital map: Use your computer skills to help your group present their ideas clearly. You can create:
- Digital maps: Show what parts of the natural area you plan to develop.
- Graphs or charts: Visualise the budget, environmental data, or expected visitor numbers.
- Slides: Summarise your group's plan with pictures and key points.
- If your group wants to build a park, you can create a digital map showing where the park will be located and add statistics about how many people it will benefit.
- If you researched pollution, create a chart showing how the natural area's health changes based on different actions.

Make your information clear: Organise the information in a way that makes it easy for others to understand. Use visuals like images, maps, or graphs to explain complex ideas.

Phase 4. Presentation and Wrap-Up (10 minutes)

Help your group present the final proposal: Your role is to present the digital materials and explain how the information supports the group's decisions. Show the maps, graphs, or slides you created and explain why the data is important.

Be ready to answer questions: if your classmates or teacher ask about the data or information, explain how you found it and why it supports your group's plan.

Class discussion: After all groups have presented, discuss how using technology helped improve the proposals. How did digital materals make the ideas clearer or more convincing?

GUIDANCE FOR TEACHERS

GEOGRAPHY

Geography Class Role-Playing Activity (45 minutes)

This role-playing activity helps Pupils explore real-world decision-making processes regarding environmental and cultural issues. Pupils take on roles to balance economic growth, cultural heritage preservation, and environmental sustainability for the surroundings of the natural landmark of their town or a nearby town that they are familiar with. Below there is a guidance on preparing, facilitating, and implementing the activity, along with questions to keep pupils on track.

Preparation (Before the Activity)

Materials:

-Maps of the area: Include landmarks, land-use zones (residential, commercial, natural areas), and existing infrastructure.

-Role Description Sheets: Clearly define the responsibilities of the Mayor, Environmental Scientist, Local Business Owner, and Community Citizen as above

-Writing Materials: Worksheets or notebooks.

-Colored markers or pens: For marking maps.

-Room Setup: Arrange desks in small groups, allowing each role to work together.

Teacher's Preparation:

-Familiarize yourself with the roles and the specific goals of each (economic growth, environmental protection, and cultural heritage).

-Be ready to offer real-world examples of similar situations, either local or global, to help Pupils understand the complexity of balancing these factors.

Support Materials:

Optional: Videos or articles on local environmental issues affecting the area under study.

Supplementary Materials: Photos or examples of areas where urban development has impacted natural resources.

GUIDANCE FOR TEACHERS

GEOGRAPHY

1. Introduction - Group Formation (10 minutes)
Start with a brief overview of the natural area's importance to the city. Explain the goals of the activity, emphasizing the need for collaboration to solve the environmental and cultural issues while considering economic factors.
-Guiding Questions:
"Why do you think preserving the natural landmark is important to the community?"
"How can development around it, impact the environment, economy, and local culture?"

2. Group Role-Play - Map Analysis & Land Use Evaluation (15 minutes)
-**Mayor's Group:**
"Where do you think the city should focus on development?"
"How will building roads or shops impact the area's environment?"
-**Environmental Scientist's Group:**
"What natural resources are at risk near the point of interest?"
"How can you ensure any development doesn't harm the environment?"
-**Local Business Owner's Group:**
"Which areas could be attractive for new businesses or tourism?"
"How can we develop these areas without damaging the natural landmark?"
-**Community Citizen's Group:**
"What do you think the community needs most around the area under study?"
"How can cultural events or public spaces be improved while keeping the environment safe?"
Encourage groups to actively mark maps and discuss solutions together.
Troubleshooting:
-If groups struggle to start, prompt them with a specific scenario (e.g., a developer wants to build a hotel by the point of interest—what should they do?).
-Help the Pupils see how different roles might conflict and guide them to find compromise solutions.

GUIDANCE FOR TEACHERS

GEOGRAPHY

3. Impact Assessment (10 minutes)

-Help Pupils focus on the potential positive and negative consequences of their decisions. Encourage them to reflect on both short-term and long-term impacts.
Guiding Questions:
All Groups:
"What could happen if we change this area in the way you suggest?"
"Who will benefit most from these changes?"
"What will the negative consequences be, and how can they be minimized?"
Prompt Pupils to write a short impact report outlining their decisions and what consequences they foresee.

Facilitation Tips:
-Ensure each group explains their decisions clearly, focusing on how their role influenced their choices.
-Ask other groups to question or challenge the presenting group. This will foster critical thinking and understanding of different perspectives.

GUIDANCE FOR TEACHERS

GEOGRAPHY

5. Reflection and Wrap-Up (10 minutes)

Close the activity with a summary of key takeaways.
-Emphasize the importance of geography in community planning.
-Highlight how balancing different interests—economic, environmental, and cultural—requires careful thought and collaboration.

Final Reflection Questions:
-"What was the most surprising thing you learned today?"
-"How does what you learned apply to real-life situations, not just in your region but globally?"

Additional Implementation Tips
Time Management: Keep track of time and ensure each group moves through the steps within the allocated time limits. Give reminders for when to wrap up discussions or map analysis.
-Encouraging Participation: Ensure that each Pupil within a group participates in some way (e.g., map marking, presenting, or writing).
-Adaptability: Be ready to adjust the activity if Pupils are struggling to grasp certain concepts or need more support in their roles.

By following these steps, you ensure Pupils not only understand the geographic and environmental aspects but also the complex decision-making processes involved in managing public spaces like the area they are studing.

MATHS

Math Class Role-Playing Activity (45 minutes)
This role-playing activity helps Pupils apply their math skills to real-world decision-making, focusing on budgeting and data analysis for an environmental and cultural issue. Your role as the teacher is to guide Pupils through the process, ensuring they stay focused on the calculations and practical decision-making.

Preparation (Before the Activity)

Materials:
-Budget Worksheets: Include costs for different project options (e.g., building roads, cleaning the area, building parks). Ensure these are tailored to your lesson plan.
-Role Description Sheets: Make sure Pupils have a clear understanding of their role's objectives (Mayor, Environmental Scientist, Business Owner, Community Citizen).
-Calculators (optional): For Pupils to make their calculations.
-Charts or Whiteboard: To track overall class progress.

Teacher's Preparation:
·Review the budget worksheet and ensure costs reflect realistic scenarios, but remain simple enough for your class to understand and work with.
·Be prepared to offer guidance on basic math skills (addition, subtraction, multiplication) and explain how to approach budgeting.
·Ensure you're familiar with the potential conflicts that might arise from each group's decisions (e.g., environmentalists might disagree with business owners) to facilitate discussion.

GUIDANCE FOR TEACHERS

MATHS

1. Introduction (5 minutes)
-Begin by explaining the goal: Pupils act as decision-makers to create a plan for developing the area of interest. They need to use their math skills to budget for projects.
-Encourage them to think about how math plays a role in decision-making and how their calculations will influence their group's choices.

Supportive Questions:
"How can we use math to decide what projects are possible?"
"What happens if we don't have enough money for all the things we want to do?"

2. Group Work and Budget Calculations (25 minutes)
-Monitor & Guide: Support groups while letting them lead their budget decisions.
-Encourage Collaboration: Keep the focus on cost calculations and adjustments.
-Budget Analysis: IF over budget, explore cost-cutting or scaling down.
Critical Thinking Prompts:
- "Is there a cheaper way?"
- "How will you adjust if funds are limited?"
-Guiding Questions:
- Mayor: Can we afford this? What should we cut?
- Environmental Scientist: What does pollution control cost?
- Local Business Owner: How can we invest in tourism profitably?
- Community Citizen: What's the best budget-friendly way to improve public spaces?
-Supportive/Guiding Questions for all groups:
- "How do your plan impact the community's long-term finaces?"
- "What future problems could arise based on your decisions today?"

GUIDANCE FOR TEACHERS

MATHS

3. Presentations, Reflection and Wrap-Up (15 minutes)

-Have each group present briefly their final budget, explaining how they made their decisions.

-After each presentation, encourage peer feedback. Use guiding questions to stimulate discussion:

"Do you think their budget is realistic?"

"Did they make good decisions to balance costs and community needs?"

As the teacher, moderate the discussion and ensure that sutdents understand how math was applied in their decision-making process.

-Summarize they key learning points: Emphasize how math helped the students balance competing needs and make decisions that consider both the present and future impact on the community.

Reflection Questions:

"What was the most challening part of creating a budget?"

"How can we use these skills in real life to make decisions?"

Tips for teachers:

-Facilitation: Ensure students stay focused on the math aspect of the activity by frequenlty checking in with each group. Encourage students to clearly explain their calculations nad reasoning.

-Time Management: Keep track of time and provide reminders for when groups should move on to the next step.

-Encouraging Collaboration: Encourage each student to participate by assigning specific tasks, such as one student writing down costs, another presenting, and anohter calculating.

GUIDANCE FOR TEACHERS

🌱 INFORMATICS

Informatics Class Role-Playing Activity (45 minutes)

This activity integrates technology with problem-solving skills, as Pupils use computers and online tools to support their role-play as community decision-makers. Your role as the teacher is to guide Pupils in effectively using technology to research, organize, and present data that supports their group's plan for developing the area.

Preparation (Before the Activity)
Materials:
-Computers with internet access: Ensure each group has access to at least one computer or device with internet connectivity.
-Presentation software or online tools: Tools like PowerPoint, Google Slides, Excel, or online mapping platforms should be accessible.
-Roles and Tasks: Provide a clear explanation of what each group needs to research and create, tailored to their roles (e.g., Environmental Scientist, Mayor, Business Owner, Citizen).
Teacher's Preparation:
-Familiarize yourself with the tools the Pupils will be using, such as mapping or data visualization tools.
-Prepare a sample presentation or example of how digital tools can be used to support decision-making in this type of activity.
-Ensure the technology works properly (internet connection, functioning devices, etc.) and that Pupils can access websites or resources for research.

GUIDANCE FOR TEACHERS

🌱 INFORMATICS

Facilitation (During the Activity)

1. Introduction (5 minutes)

-Explain the objective: Pupils use technology to research and create digital materials that support their group's proposal. Each group use the internet to gather data, create maps or charts, and present their findings.
-Emphasize that the focus is on using technology to gather information and make their presentations more convincing.
Supportive Questions:
"How can technology help you make a better plan for developing the area?"
"What kind of digital tools help you present your ideas clearly?"

2. Research and Data Collection (15 minutes)

-Monitor Pupil progress as they research online. Ensure they stay on task and are collecting relevant information based on their group's role.
-Facilitate efficient searching: If Pupils are struggling to find relevant data, guide them with specific keywords or websites to use for their research.

Guiding Questions:
"What kind of data or examples are you looking for to support your group's decisions?"
"How can you find reliable information that will help your group?"
Additional Tips:
Suggest Pupils save or bookmark important data and examples they find during their research. Ensure they understand how to collect and organize information in a way that will be useful later in the activity.

GUIDANCE FOR TEACHERS

INFORMATICS

3. Creation of Digital Materials (15 minutes)
-**Encourage creativity:** Help Pupils understand how they can use different digital tools to present their information effectively (maps, charts, slides, etc.).
-**Provide guidance on how to create clear and visually appealing digital materials.** Offer tips for using presentation software (e.g., simple, organized slides with bullet points and images).

Supportive Questions:
"How can you organize the data you've found to make it easy for your group to use?"
"What digital tools will help you communicate your ideas clearly?"

-**Guide Pupils:** As they integrate their digital materials into their group's overall presentation. Ensure the materials are aligned with the group's role and objectives.
-**Check in with each group:** Ensure they understand how to use the digital materials during their presentation.
-**Guiding Questions:**
"How will you explain the information you found to your group?"
"What's the most important data or chart your group should use in hte presentation?"

GUIDANCE FOR TEACHERS

🌱 INFORMATICS

4. Presentations and Wrap-Up (10 minutes)
- During presentations, encourage students to explain how technology helped them in their decision-making process. Ask questions to reinforce the importance of the digital tools they used.
- Facilitate peer feedback by asking other groups to comment on how the digital materials improved the proposal's clarity or effectiveness.

Supporitive/Guiding Questions:
"What did you learn by using technology to support your decisions?"
"Did the maps, charts, or presentations make the arguments clearer?"

Tips for Teachers:
- **Facilitation**: Keep students on track with their research by providing specific guidance and troubleshooting any technical issues they encounter.
- **Encouraging Technology Use**: Highlight how technology helps in gathering and presenting data. Reinforce the connection between the skills they're using today and real-world problem-solving.
- **Time Management**: Keep the class moving by giving clear time cues for each section of the activity. Offer help to groups that are falling behind in either research or creation of digital materials.

By providing this guidance, you'll help students understand how to use technology to support collaborative decision-making, while also developing their research and presentation skills.

GUIDANCE FOR TEACHERS

ARTS

ART Class Role-Playing Activity (45 minutes)
This activity focuses on using art as a medium for Pupils to express their ideas about the development of the natural area. As the teacher, your role is to facilitate creativity, guide Pupils in their artistic expression, and ensure that their artwork effectively communicates the group's vision of balancing economic growth, cultural heritage, and environmental preservation.

Preparation (Before the Activity)
Materials:
-Art Supplies: Colored pencils, markers, paints, large paper, glue, scissors, and magazines for collages.
-Examples of Art: Display artwork showcasing environmental, cultural, or economic themes.
-Roles and Tasks: Provide clear group guidelines for the art project.
Teacher's Preparation:
-Familiarize yourself with the themes of the activity: environmental preservation, cultural heritage, and economic development.
-Set up the classroom in a way that encourages collaboration, with enough space for groups to work together on their art projects.

Facilitation (During the Activity)
1. Introduction (5 minutes)
Explain the Objective: Explain that pupils have to create artwork depicting their vision for developing the natural landmark of their region, balancing nature, culture, and economy.
Supportive Questions:
"What Message should your artwork convey about the specific area or nature?"
"How can you integrate nature, culture, andeconomy into your art?"

GUIDANCE FOR TEACHERS

ARTS

2. Brainstorm and Plan (10 minutes)
-Guide Group Discussions: Encourage groups to discuss their ideas openly. Walk around the room to monitor conversations, providing feedback and helping groups focus on key elements to include in their artwork.
Guiding Questions:
"What specific features of the landmark and the surrounding area can you highlight in your artwork?"
"How can your art reflect the importance of preserving cultural heritage while promoting economic development?"

3. Creation of Artwork (25 minutes)
-Encourage Creativity: Remind Pupils to think outside the box and use their artistic skills to creatively express their ideas. Encourage them to use different materials and techniques.
-Monitor Progress: Walk around the classroom to check on Pupils' work. Offer suggestions and encouragement, and ensure they are on task.
-Provide Support: If a group is struggling with their ideas or artistic techniques, step in to help or offer resources. Share tips on using color, symbolism, and composition effectively.
Supportive Questions:
"How does the choice of colors in your artwork enhance the message you want to convey?"
"What symbols will you use to represent economic growth, and how can you balance that with environmental themes?"

GUIDANCE FOR TEACHERS

ARTS

4. Presentations, Feedback and Wrap-Up (10 minutes)
-**Facilitate Presentations:** Allow each group to present their artwork and explain the ideas behind it. Encourage classmates to ask questions and provide feedback.
-**Class Reflection:** After all presentations, facilitate a discussion about the role of art in communicating complex ideas about environmental and cultural issues. Highlight the importance of creativity in problem-solving.
Supportive/Guiding Questions:
"What did you learn from your peers' artwork about the Natural landmark?"
"How does art help us understand and address real-world issues?"

Tips for Teachers:
-Encouragement: Foster a supportive environment where all Pupils feel comfortable expressing their ideas artistically. Praise creativity and unique interpretations.
-Time Management: Keep an eye on the clock and provide gentle reminders about time limits to ensure that Pupils stay on track throughout the activity.
-Connecting Art to Concepts: Reinforce the connection between the artwork and the broader themes of the project (economic growth, environmental sustainability, and cultural heritage) to deepen Pupils' understanding of the subject matter.

By following this guidance, you can help Pupils effectively use their artistic skills to engage with and communicate important ideas about the Pineios River development project, enhancing their understanding of the interplay between art and real-world issues.

GUIDANCE FOR TEACHERS

💡 LANGUAGE

Language Class Role-Playing Activity (45 minutes)

As a teacher, your role is to facilitate the creative writing activity in a way that encourages Pupils to engage with different perspectives regarding the landmark of your city and the surrounding area. Here are some tips and guiding questions to ensure a successful implementation of the activity.

Preparation:
-Review the Context: Familiarize yourself with the various roles (Mayor, Environmental Scientist, Local Business Owner, Community Citizen) and their perspectives on the area.
Understand the broader themes of economic growth, cultural heritage, and environmental sustainability.
-Materials Needed:
·Large paper or digital documents for collaborative writing.
·Writing tools (pens, pencils, or computers).
·Access to reference materials (books, articles, or online resources) related to environmental issues and community decision-making, if necessary.
-Set the Classroom Environment: Arrange seating in groups to promote collaboration and discussion.
Create an inviting atmosphere for creativity by displaying examples of narratives or poetry related to environmental themes.

GUIDANCE FOR TEACHERS

💡 LANGUAGE

Facilitation:
-**Introduce the Activity:** Clearly explain the objectives of the activity and the importance of storytelling in exploring community issues.
Emphasize the roles each Pupil will take on and how these roles will influence their writing.

-**Monitor Group Discussions:** Walk around the classroom to observe group interactions and discussions.
Encourage quieter Pupils to share their ideas and ensure all voices are heard.
-Provide Support: Offer guidance on narrative structure and literary elements as needed.
Help Pupils brainstorm ideas for their characters and plotlines.

-**Implementation Tips:**
Encourage Collaboration: Remind Pupils that storytelling is a collaborative process. Each member's contribution is vital to the narrative.

GUIDANCE FOR TEACHERS

💡 LANGUAGE

Use prompts to encourage dialogue, such as:

"How does the mayor feel about balancing development with community needs?"
"What specific data might the environmental scientist present to support their case?"
-Focus on Literary Techniques: Suggest literary elements that can enhance their stories, such as descriptive language, figurative speech, and dialogue.
Encourage Pupils to use their creativity to depict their characters' emotions and motivations.
-Manage Time Effectively: Keep track of time for each section of the activity to ensure Pupils complete their narratives within the allotted 45 minutes.
Provide time warnings as each segment approaches its end.

Guiding Questions:
-During Brainstorming:
"What are the main concerns each character has regarding the point of interest?"
"How does each character's background influence their perspective?"
-During Writing:
"How can you express your character's viewpoint through dialogue?"
"What descriptive details will help readers visualize the landmark?"

GUIDANCE FOR TEACHERS

💡 LANGUAGE

-**During Revision:**
"Does your story effectively communicate the conflict and resolution?"
"Have you included the different perspectives clearly in your narrative?"
-After Presentations:
"What new insights did you gain about the different roles involved in decision-making?"
"How can these narratives inform our understanding of community issues and environmental challenges?"

-**Wrap-Up:**
Reflect on the Process: After the activity, lead a class discussion about the narratives created. Ask Pupils to share what they learned about the interplay of different perspectives.
Encourage Pupils to think about how literature can play a role in addressing real-world issues.
By providing structured guidance and fostering an inclusive and creative environment, you will help Pupils gain valuable skills in collaboration, critical thinking, and storytelling while exploring the important themes surrounding the natural landmark.

GUIDANCE FOR TEACHERS

💛 PHYSICAL EDUCATION

Physical Class Role-Playing Activity (45 minutes)
Preparation:
Ensure students are wearing comfortable shoes, hats, or sunscreen if needed.
-Discuss safety rules (e.g., stay within a certain distance from the water, do not touch or disturb wildlife, respect the environment).

Materials needed:
-Notebooks and pencils, for observations and ideas.
-Some small bags or trash bags, if needed.
-First aid kit, for safety.
-Water bottles, to stay hydrated.
-Sunscreen and hats, for sun protection, if needed.
-Comfortable shoes.
-Camera, optional, for documenting the experience.

Introduction (5 minutes)
- setting the Scene: gather the pupils in a circle, and introduce the concept of escaping the city and being on the nature, the physical and psychological benefits of exercising in nature.
-Explain briefly the activity: a walk on or by their local natural landmark that will allow the pupils to get in touch with nature and discover its wildlife as well as the impact that human actions have had on this natural area.

Supportive Questions:
"Have you ever noticed how being outside makes you feel?"
"What do you see, hear, and feel while you are walking into the nature?"

GUIDANCE FOR TEACHERS

PHYSICAL EDUCATION

Facilitation

Interactions with nature during the outdoor walk (20 minutes)

-Encourage pupils to use all their sense to explore the environment. As they walk, ask them to pay attention to the following:

- Sight
- Sound
- Touch
- Smell

Guiding Questions:

"What animals do you see?"

"What do you think they are doing?"

"Do you see any insects? Why do you think they like to be here?"

"What types of plants grow in the area? Are they different from the ones further away?"

"Do you see anything that doesn't belong here, like plastic or trash?"

"How do you think it ended up here?"

"What can we do to keep the place clean?"

GUIDANCE FOR TEACHERS

PHYSICAL EDUCATION

Exploring Perspectives on protecting the area (15 minutes)

Each group should discuss their role and come up with a point that explain their perspective on the subject. Encourage them to think about their role's needs and concerns about the area and take notes.

-For the Mayor: "As you are responsible for the entire city, incuding the area of the natural landmark, how does it impact the city's people, economy, and environment? What should the city do to protect it?"

-For the environmental Scientist: "You care about the health of the area under study and the surrounding ecosystem. How does pollution affect their wildlife?"

-For the local business owner: "Your business depends on the area's health (e.g., sightseeing, hiking, tourism, agriculture), how might the area's condition impact your business, and what can you do to support its protection?"

-Community Citizen: "You live hear the landmark and use it for various activities. How do you feel about the its health? What actions can you and your neighbors take to protect it?"

Wrap it Up! (5 minutes)

-**Class Reflection:** How did this activity deepen your appreciation for the area? What's the best way to protect it?

-**Encourage Action:** Protecting nature is a shared responsibility - what small steps can you take today?

GUIDANCE FOR TEACHERS

FOREIGN LANGUAGE

Foreign Language Class Role-Playing Activity (45 minutes)
Guidance for Teachers: Dissemination Strategy for the "City's Natural Landmark Revitalization Campaign"
Objective: To guide Pupils in developing a dissemination strategy in a foreign language, emphasizing the environmental and cultural importance of the natural area of their town and fostering community engagement.

Preparation:
-**Familiarize Yourself with Roles:** Understand the perspectives of each role: Mayor, Environmental Scientist, Local Business Owner, and Community Citizen.
Prepare key points or background information on the important natural spot of interest and the revitalization campaign to help guide Pupil discussions.
-**Set Up the Classroom:** Arrange the classroom to facilitate group discussions, ensuring each group has space to collaborate and present their strategies.
-**Gather Resources**: Provide materials such as charts, markers, and access to technology (computers or tablets) for research and presentation creation.
Prepare any relevant handouts in the foreign language that can assist Pupils in their presentations.
Facilitation Tips:
-**Introduction to the Activity**: Clearly explain the objectives and the significance of the natural landmark.
Emphasize the importance of community involvement in environmental issues.
-**Role Assignment:** Assign roles and ensure that each Pupil understands their responsibilities.
Encourage Pupils to consider how their role contributes to the overall goal of the campaign.
-**Guiding Discussions:** Circulate among the groups during discussions, providing support and encouraging the use of the foreign language.

GUIDANCE FOR TEACHERS

FOREIGN LANGUAGE

Use supportive questions to keep Pupils on track, such as:

"How does your role impact community awareness?"

"What specific actions can your character take to engage the community?"

-**Encourage Collaboration:** Remind Pupils to actively listen to each other and value diverse perspectives.

Encourage them to build on each other's ideas when developing their dissemination strategy.

Implementation Tips:

-Presentation Preparation: Allocate time for groups to draft their presentations, and circulate to offer feedback and ensure clarity in their messages.

Emphasize the importance of articulating their ideas in the foreign language.

-Presenting Strategies: Encourage confidence in presentations. Remind Pupils to maintain eye contact, use gestures, and speak clearly in the foreign language.

Provide constructive feedback after each presentation, focusing on language use, content clarity, and engagement strategies.

-Reflection and Discussion: Facilitate a class discussion after the presentations to reflect on the experience.

Encourage Pupils to share what they learned about communication strategies and the roles of various stakeholders in environmental issues.

Supportive Questions:

-During Group Discussions:

"What challenges might you face in engaging the community, and how can you overcome them?"

"How can your role influence public perception about the city's natural landmark?"

-During Presentations:

"What strategies did you find most effective for reaching your target audience?"

"How do your key messages align with the goals of the revitalization campaign?"

GUIDANCE FOR TEACHERS

FOREIGN LANGUAGE

-**Conclusion:**

Reinforce the importance of using the foreign language throughout the activity to develop Pupils' language skills in a real-world context.

Highlight the relevance of their efforts in raising awareness about environmental issues and fostering community engagement, preparing them for active citizenship in their local community.

REFLECTION SESSION

ASSESSMENT METHOD

Additional 1-hour Teaching Session ⊠

DESCRIPTION

This 45-minute assessment allows Pupils to synthesize their learning across seven subjects: Geography, Math, Informatics, Art, Literature, Physical Education, and Foreign Languages. The activity focuses on applying interdisciplinary knowledge to develop a balanced plan for the Pineios River area, fostering critical thinking, collaboration, and problem-solving.

Assessment Objectives
· Geography: Land-use planning and environmental impact assessment.
· Math: Budget creation and financial decision-making.
· Informatics: Data analysis and digital presentation.
· Art: Visual communication through creative representations.
· Literature: Narrative construction to highlight stakeholder perspectives.
· Physical Education: Designing community activities promoting health and sustainability.
· Foreign Languages: Crafting a dissemination strategy in a foreign language to engage the community.

1. Introduction (5 minutes)
Objective: Set the stage for the assessment.
Teacher's Role:
- Recap the activity's goal: creating a sustainable development plan.
- Emphasize the importance of collaboration across disciplines.
- Script:
- "Today, you'll present your plan about the development of the natural landmark of the town and its surroundings. Each subject will showcase its unique contribution to solving real-world problems."

Supportive Questions:
- "Why is interdisciplinary learning important in solving community issues?"
- "How do different subjects help us see the problem from various angles?"

2. Group Presentations (35 minutes total, 5 minutes per group)
Each group presents their development plan, integrating all subjects.
Teacher's Role: Facilitate and assess each subject's contribution during the presentations.

REFLECTION SESSION

DESCRIPTION

1. Geography (5 minutes per group)

Show the marked map and explain land-use decisions.

Key Points: Zoning for development, conservation areas.

Teacher's Questions:

"Why did you choose these areas for development?"

"How will your plan impact the environment and local communities?"

2. Math (5 minutes per group)

Present the project's budget.

Key Points: Allocation of funds, financial trade-offs.

Teacher's Questions:

"Did your group stay within budget?"

"How did you prioritize spending?"

3. Informatics (5 minutes per group)

Display digital visuals (charts, graphs, or slides).

Key Points: Data to support decisions, visual representation.

Teacher's Questions:

 "What does the data tell us about the impacts of your plan?"

 "How did technology help you present your ideas clearly?"

4. Art (5 minutes per group)

Present the group's poster or artistic representation.

Key Points: Visual balance of economy, culture, and environment.

Teacher's Questions:

"How does your artwork represent your group's vision?"

"What symbols did you use to communicate your ideas?"

REFLECTION SESSION

DESCRIPTION

5.   Literature (5 minutes per group)

Perform a short narrative or dialogue.

Key Points: Perspectives of different stakeholders.

Teacher's Questions:

"What challenges did your characters face in balancing interests?"

"How did your story show the importance of collaboration?"

6.   Physical Education (5 minutes per group)

Describe and demonstrate a physical activity for community engagement.

Key Points: Promoting health and sustainability.

Teacher's Questions:

"How will your activity benefit the community?"

"How does it promote environmental awareness?"

7.   Foreign Languages (5 minutes per group)

Share a campaign slogan and a short message in a foreign language.

Key Points: Encouraging community involvement.

Teacher's Questions:

"How does your message inspire action?"

"Why is it important to communicate in different languages?"

REFLECTION SESSION

DESCRIPTION

3. Class Discussion, Peer Feedback and Wrap-Up (5 minutes)

Objective: Peer Feedback (2 minutes)

Teacher's Role:

Guide a brief discussion and encourage constructive feedback.

Supportive Questions:

- "Which group presented the most balanced plan? Why?"
- "What new ideas did you learn from other groups?"
- "How did each subject contribute to solving the problem?"

Objective: Wrap-Up and Key Takeaways

Teacher's Role:

Highlight the importance of interdisciplinary thinking and connect learning to real-world issues.

- "This activity shows how different subjects work together to solve complex problems. In real life, creating a sustainable future requires collaboration, critical thinking, and creativity."

Final Reflection Questions:

- "What was the most valuable skill or insight you gained today?"
- "How can you use these skills in real-world situations?"

REFLECTION SESSION

DESCRIPTION

Assessment Criteria

1) Content Knowledge: Correct application of concepts from each subject.
2) Interdisciplinary Integration: How well subjects were combined to form a cohesive plan.
3) Presentation Skills: Clarity, creativity, and engagement during the presentation.
4) Teamwork and Collaboration: Effective group dynamics and equal participation.
5) Critical Thinking and Problem-Solving: Balancing economic, environmental, and cultural goals.

Teacher's Tips for Successful Implementation

·Time Management: Keep presentations on track with clear time signals.
·Encouraging Participation: Ensure every Pupil speaks and contributes to their group's presentation.
·Providing Support: Offer prompts and examples to help struggling groups.
·Adapting the Activity: Simplify or provide extra support for Pupils who need it.

Conclusion

This comprehensive assessment evaluates pupils' interdisciplinary learning and teamwork. By facilitating thoughtful discussions and providing constructive feedback, teachers can ensure Pupils leave with a deeper understanding of sustainable development and its real-world applications
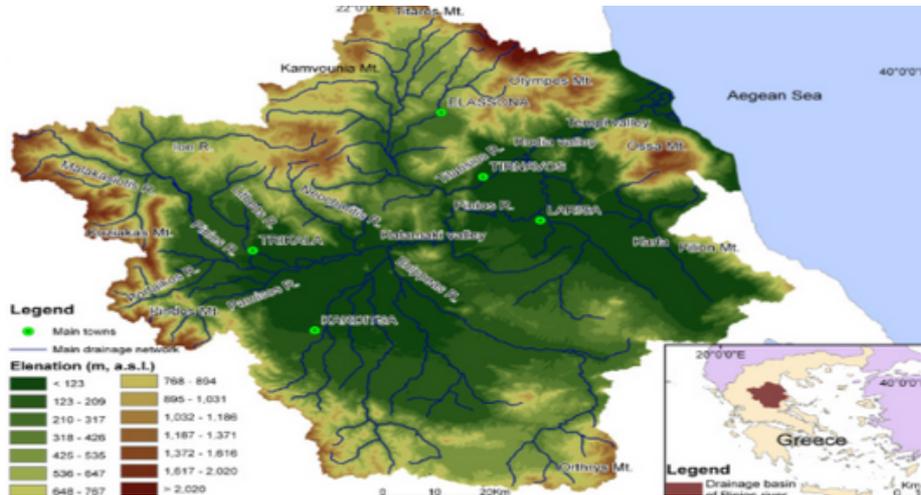
Annex B: Supporting materials
Participatory activity 02

Geography

Instructions:

1. Examine the Map:
   - Review the provided map of the Pineios River area, including landmarks, residential, commercial, and natural zones.

2. **Mark the Map**:-
   - **Mayor**: Mark where to build roads, parks, or buildings.
   - **Environmental Scientist**: Highlight areas needing environmental protection.
   - **Local Business Owner**: Identify spots for shops or tourism.
   - **Community Citizen**: Highlight cultural or recreational spaces.

3. **Explain Your Choices**:
- Write why you chose these areas and how they benefit the community.

Role	Marked areas on map	Reason for choice
Mayor		
Environmental scientist		
Local business owner		
Community citizen		

Budget Worksheet

Instructions:

1. Review Your Group's Plan: Look at the proposed projects (parks, roads, etc.).
2. Calculate Costs:
   - Use the table to add up the total cost of your projects.
   - Ensure you stay within the €20,000 budget.
3. Adjust Your Budget: If over budget, find ways to reduce costs.
4. Explain Your Budget Decisions: Write a very brief explanation of your choices.

Budget Worksheet

	Budget Limit: €20000		
Project	**Description**	**Cost (€)**	**Selected (√)**
Build a Park	Recreational green space	€ 10,00	
Clean the area (e.g., the river)	Remove pollution from the river	€ 5,000	
New Road Construction	Improve transport and access	€ 7,000	
Tourist information Center	Promote eco-tourism	€ 8,000	
Install Recycling Bins	Encourage waste reduction	€ 1,500	
Plant Trees	Improve air quality and biodiversity	€ 3,000	
Community Playground	Space for children's activities	€ 4,500	
Educational Signboards	Teach about local culture and nature	€ 1,000	
Renewable Energy Installation	Solar panels or wind turbines	€ 6,000	
Cultural Event Sapce	Host local festivals and gatherings	€ 3,500	

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Budget Worksheet

Step 1: Calculate Your Total Cost

Selected Projects	Cost (€)
Total Cost (€):	_____

Step 2: Analyze Your Budget

Is your total cost within the budget limit of €20,000?
☐ Yes
☐ No

If No, answer the following questions:

1. Which projects can be adjusted or removed?
2. How can your group cut costs to stay within budget?

Step 3: Predictions and Future Costs
Use the provided data to predict future costs:
- Pollution Costs: €100 per 10 visitors
- Expected New Visitors: _____
- Predicted Pollution Control Cost (€): _____

Other future costs (e.g., maintenance, traffic control):

Step 4: Summary of Budget Choices
Write a brief explanation of your decisions:
- Why did your group choose these projects?
- How does your plan benefit the community and environment?

Final Reflection
Questions for Discussion:
1. What was the hardest decision your group made?
2. How did math help you create a realistic and balanced plan?

Grades 5-6

Participatory activity 03
Eco-Wise adventure: Journey into a sustainable living

GreenComp School

Eco-Wise adventure: Journey into a sustainable living

Grades 5 and 6

Activity overview

This activity engages Pupils in seven subjects—Geography, Language, Foreign Language, Informatics, Arts, Physical Education, and Maths—to explore sustainability through practical tasks and discussions. They learn about responsible resource use, overconsumption, and waste reduction. For example, they study Earth Overshoot Day in Geography, investigate e-waste in Informatics, create art from recycled materials, and go "plogging" (jogging while collecting litter) in Physical Education. By connecting these subjects, Pupils gain a broad understanding of sustainability and develop a sense of environmental responsibility.

Activity Topic

Sustainable Production and Consumption

It is about doing more and better with less.

GreenComp competence area

Embodying Sustainability Values
Embracing Complexity in Sustainability
Acting for Sustainability

Contribution to SDGs

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

GreenComp Competences

Promoting nature
Systems thinking
Critical thinking
Problem framing
Political agency
Individual initiative

Eco-Wise adventure: Journey into a sustainable living

Objective

The aim of this activity is to support pupils in understanding the impact overconsumption has on the world and the of sustainable consumption and production, recognize the role of sustainable actions in everyday life, learn to act in a responsible environmental manner, promote sustainability within their community, and advocate for a shift from a linear to a circular economy by utilizing water resources.

Expected Learning Outcomes

Knowledge (to be able to):
- List the skills necessary for people to develop effective plans for the future, ensuring sustainable consumption and production.
- Tell how sustainability relates to everyday life, including consumption and production, extending beyond merely caring for the environment.
- Elaborate on how different communities and countries can work together to address global challenges associated particularly with consumption and production.

Skills (to be able to):
- Demonstrate to others how to take care of the planet and make smart choices.
- Solve real-world problems related to sustainable production and consumption, by putting practical measures into action.
- Implement creative activities that promote sustainability in local community and around the world.

Attitudes (to be able to):
- Justify why future generations have the right to have the same or greater opportunities than those available to people today.
- Advocate for the rights of future generations to enjoy the same opportunities as those available to people today.
- Defend the necessity for transitioning from the current linear economy to a circular economy.

Eco-Wise adventure: Journey into a sustainable living

Activity description

This activity involves Pupils in seven different subjects—Geography, Language, Foreign Language, Informatics, Arts, Physical Education, and Maths. Through practical tasks and discussions, Pupils learn about important topics like using global resources wisely, the effects of overconsumption, and reducing waste. They study things like Earth Overshoot Day in Geography, e-waste in Informatics, make art using recycled materials in Arts, and go "plogging" (jogging while picking up litter) in Physical Education. These activities give Pupils a broad view of sustainability, helping them see how different subjects connect to build a sense of responsibility for the environment and a more sustainable lifestyle.

Primary pedagogical approach

Inquiry-based learning with hands-on activities

Collaborative Learning

Eco-Wise adventure: Journey into a sustainable living

GEOGRAPHY

Pupils learn about Earth Overshoot Day, seeing how resource overuse differs across different countries. They see how high consumption affects the planet based on unique parameters and learn why balancing resource usage is important not only at a local level but globally.

LANGUAGE

By reading an article about sustainable consumption and production, Pupils explore the effects of wasteful habits. Writing their own article will help them with language skills while at the same time expressing their point of view about protecting our resources and reducing waste from what they have learned from the activity.

FOREIGN LANGUAGE

Pupils practice using a foreign language, like English, to discuss sustainability and overconsumption. They build vocabulary that is related to sustainability and overconsumption.

ARTS

Using natural DIY glue and recycled materials, Pupils create art projects that show creativity without waste. This experience helps them understand how overproduction of art supplies can be reduced by using materials that will not harm the environment.

Note to teachers: Subject names may vary slightly depending on your national curriculum, but the core skills and learning objectives remain the same. No matter what the subject is called in your school, you can easily adapt the activities with minor modifications to fit your classroom context. This handbook is also available in other languages, where subject names are aligned with local terminology for greater relevance.

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PHYSICAL EDUCATION

Plogging is an exercise with picking up litter, teaching Pupils to take action against environmental waste. This is a reactive action to lessen the problem instead of a proactive action that is primarily taking place with the rest of the subject activities

MATHS

During mathematics pupils use an online carbon footprint calculations to connect personal behavior with environmental impact.

INFORMATICS

Pupils study e-waste, the value of materials in electronics, and upcycling. They learn that high consumption of technology leads to electronic waste and harm to the environment exploring ways to reuse electronic devices for different purposes.

Interdisciplinary approach involved

This activity combines 7 different subjects to help Pupils understand Sustainable Production and Consumption and Overconsumption.

Each subject explores overconsumption's impact on resources, waste, and the environment, helping Pupils build the skills to make responsible choices by educating them on the matter.

By studying and looking at the topic from different subjects, Pupils learn how these areas connect and support each other in understanding and practicing sustainability.

Note to teachers: Subject names may vary slightly depending on your national curriculum, but the core skills and learning objectives remain the same. No matter what the subject is called in your school, you can easily adapt the activities with minor modifications to fit your classroom context. This handbook is also available in other languages, where subject names are aligned with local terminology for greater relevance.

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GEOGRAPHY

Large A3 paper for graphs and visuals or multiple A4 pages for each Pupil or each group of Pupils.
Printed worksheets with questions for the group discussion.
Evaluation forms for the post-activity questionnaire
Video projector

LANGUAGE

Printed copies of the article for each Pupil.
Pencil and sheet of Paper

FOREIGN LANGUAGE

Question sheets for each Pupil.
A prepared video on sustainable production and consumption in the target language
Projector

ARTS

Instruction sheet
Milk old or leftover
Vinegar
Baking soda
Mixing bowl
Spoon
Recycle materials (cardboard, paper rolls,etc.)
Drop cloths
Measuring cups for each group

Eco-Wise adventure: Journey into a sustainable living

PHYSICAL EDUCATION

- A pair of disposable or reusable gloves for each Pupil
- Sufficient trash bags for collecting litter
- Hand sanitizers or clean wipes
- Littered route

MATHS

- Access to an online carbon footprint calculator link
- Computer lab with internet access for pupils to use the online carbon footprint calculator.

INFORMATICS

- Video on e-waste
- Video ideas on how to repurpose old devices.
- A projector to show the videos
- Large flip chart sheets or blackboard

SUBJECT: GEOGRAPHY

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 1. Introduction (10 minutes)

Teacher starts by explaining Earth Overshoot Day. They mention that it marks the date when humanity has used more of the Earth's resources than the planet can regenerate in a year. The teacher is encouraged to use a simple analogy: "Imagine Earth as a bank account that gets "overextracted" when we use too many resources. The teacher engages pupils with questions like:
- Can you think of examples of things we use every day that come from nature?
- What might happen if we run out of those things?
- What happens when we use up all of our savings in the bank?
- Why do you think it's important to know about Earth Overshoot Day?

Phase 2. Watch or read (10 minutes)

The teacher shows a brief, age-appropriate video that explains Earth Overshoot Day in simple terms. If a video is not available, provide printed handouts or a brief reading excerpt with simple graphics showing when Earth Overshoot Day occurred in recent years. Then, the teacher asks pupils to think about the video or reading material and respond to these prompts:

- How does using too many resources affect animals and plants?
- What can we do to prevent Earth Overshoot Day from coming earlier?
- Why is it important to work together as a global community to reduce resource use?

SUBJECT: GEOGRAPHY

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3. Group Activity (15 minutes)

The teacher divides pupils into small groups (4-5 Pupils each). The teacher provides each group with a large piece of colored paper, markers, and scissors. Then, he/she assigns each group a specific year from the past (e.g., 1990, 2000, 2010, 2020).

Each group must create a mini-poster showing the date Earth Overshoot Day occurred in that year. All groups must attach their posters to a wall calendar or poster board arranged by year, creating a class-wide timeline that visualizes how Earth Overshoot Day has moved earlier over time.

Phase 4. Sharing and Reflection (10 minutes)

After completing the timeline, the teacher asks pupils to share their thoughts:
- Why do you think Earth Overshoot Day is getting earlier?
- What are some actions we can take to delay Earth Overshoot Day?

Then, he/she writes down suggestions from Pupils on the board, such as reducing waste, saving energy, using fewer plastic products, walking or biking instead of driving. The teacher encourages pupils to think about actions they can take at school or home.

Then the teacher wraps up the key takeaways and encourages further thought. More specifically, the teacher recaps the importance of Earth Overshoot Day and how small changes can help delay it. The teacher emphasises that every person can contribute to protecting the planet.

SUBJECT: LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 1. Introduction (5 minutes)

The teacher will begin with a brief recap of the previous lesson, focusing on key concepts pupils have learned about sustainability. The teacher will then introduce an article on sustainable consumption and production (appendix) that discusses wasteful habits and the importance of resource conservation. This material is indicative, and teachers may select similar content relevant to their language and classroom needs.

Phase 2. Independent Reading (5 minutes)

The teacher will provide each pupil with a printed copy of the article (appendix). Pupils will read the material independently, making notes on key points that highlight the importance of sustainability and waste reduction.

Phase 3. Group Reading and Class Discussion (10 minutes)

Once pupils complete the independent reading, the teacher will lead a group reading of the article to reinforce understanding. Following this, the teacher will have a class discussion, asking questions such as:
- What steps can we take to live more sustainably?
- How can these actions impact our school or our community?

Pupils should be encouraged to connect their responses to real-world examples.

SUBJECT: LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 4. Writing activity (20 minutes)

The teacher will instruct pupils to write an essay as if they were submitting it to a local newspaper. This essay should outline why sustainability is important in their school and community and suggest practical steps for reducing waste. Pupils should use insights from the article and the class discussion to support their points.

Phase 5. Sharing and reflection (5 minutes)

The teacher will invite a few pupils to read their essays in the class. Afterward, the teacher will collect the essays for review, assessing pupils' grasp of sustainability concepts and their communication skills.

SUBJECT: FOREIGN LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 1. Introduction (5 minutes)

The teacher will start by introducing a video on sustainable production and consumption, emphasising its relevance to pupils to sustainability. The video is suggested in Appendix, however teachers may use a video in their preferred language that also aligns with an objective and is appropriate for the target language.

The teacher will then introduce key vocabulary words such as:
- sustainability
- resources
- waste.

In this way, pupils will be familiarised with essential words and concepts of sustainability .

Phase 2. Video viewing and note-taking (10 minutes)

The teacher will instruct pupils to watch the video, focusing on the vocabulary and phrases related to sustainable practices. Pupils should write down any new terms or phrases that capture important ideas about sustainability.

SUBJECT: FOREIGN LANGUAGE

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 3. Class discussion (15 minutes)

After the video, the teacher will lead a discussion, using questions such as:
- What was the main message of the video?
- Can you name one sustainable practice mentioned?

Pupils are encouraged to use the vocabulary they noted from the video, reinforcing their language skills in a real-world context.

Phase 4. Vocabulary reinforcement and summary (10 minutes)

The teacher will summarize the main vocabulary and key points discussed, ensuring pupils understand the terms and their relevance. Pupils will be encouraged to share one term they learned or something they thought it was an interesting concept from the video they watched.

Phase 5. Reflection and closing (5 minutes)

The teacher will ask pupils to reflect on how comfortable they felt using the new vocabulary. They may share one idea on how these sustainability practices could apply in their daily lives. The teacher can assess pupils understanding of the concept through this discussion in class.

SUBJECT: ARTS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 1. Introduction (5 minutes)

The teacher will introduce the concept of sustainable art, explaining how natural and recycled materials can reduce environmental impact. The teacher will then discuss casein glue, a natural adhesive made from milk, as an example of eco-friendly materials. Instructions for making casein glue are provided in Appendix, but teachers may choose alternative natural adhesives if more suitable for their situation/ classroom.

Phase 2. Demonstration and Preparation (10 minutes)

The teacher will demonstrate the process of making glue (or a similar natural adhesive) with pupils, following the steps outlined in the materials provided (see Appendix). Pupils will observe each step, noting the eco-friendly benefits of using natural materials.

Phase 3. Group Project – Building with Recycled Materials (20-25 minutes)

The teacher will divide pupils into small groups and distribute a selection of recycled materials, such as cardboard, paper rolls, and plastic bottles. Each group will be tasked with building the tallest, most stable tower using the casein glue and recycled materials. The teacher will supervise, providing guidance.

SUBJECT: ARTS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 4. Class Discussion on Sustainable Art (5-10minutes)

After the activity, the teacher will lead a discussion on the benefits of using natural and recycled materials in art. Guiding questions might include:
- How did using recycled materials change the way you approached this building activity?
- Why natural materials could be better for the environment?

Phase 5. (optional) Display in the classroom (post activity – following day)

The teacher will create a small display area in the classroom to showcase the towers. Pupils could reflect on the process and share what they enjoyed about using sustainable materials and build the tower.

SUBJECT: PHYSICAL EDUCATION

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 1. Introduction to plogging (5 minutes)

The teacher will introduce the concept of plogging—a combination of jogging and picking up litter, how plogging benefits both physical health and the environment, helping pupils understand the dual impact of this activity.

Phase 2. Preparation and Safety Instructions (5 minutes)

The teacher will showcase safety guidelines to the pupils, including the correct technique for picking up litter (they will watch video appendix) and the importance of wearing gloves. Pupils will be reminded to avoid potentially hazardous items like broken glass. The teacher will distribute gloves and trash bags, ensuring all pupils are properly equipped. A safe route around the school grounds will be designated for the activity.

Phase 3. Plogging activity (15 - 20 minutes)

The teacher will lead pupils on a supervised jog along the pre-planned route, encouraging them to pick up litter they encounter. Pupils will be reminded to pace themselves and collect litter carefully. The teacher will monitor the group throughout the activity to ensure safety.

Phase 4. Group Reflection on Environmental Impact (5-10 minutes)

After completing the plogging route, the teacher will gather pupils for a reflection session, asking questions such as:
* What impact do you think litter has on our community?
* How did it feel to take action to improve our environment?

This discussion will aid pupils to think about the long-term effects of their actions on the environment. The teacher will encourage pupils to consider how they could incorporate similar environmentally conscious activities into their everyday lives. Pupils will discuss possible ideas for future community clean-ups or individual actions they could take to reduce waste.

SUBJECT: MATHS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 1. Introduction to Carbon Footprint (5 minutes)

The teacher will start by explaining the concept of a carbon footprint, discussing how different daily activities contribute to our environmental impact. Examples like long showers, car rides, and using energy-efficient appliances will be introduced.

Phase 2. Using an Online Carbon Footprint Calculator (15 minutes)

In the computer lab, pupils will be directed to an online carbon footprint calculator (see Appendix for a suggested link). They will input data about their own OR even hypothetical daily behaviors (e.g., shower time, transportation, and electricity usage) to calculate a carbon footprint score. The teacher will guide pupils through the input process and answer questions as needed

Phase 3. Mathematical Exercise – calculating reduction scenarios (10 minutes)

The teacher will write a set of mathematical exercises on the blackboard, where pupils will calculate the impact of reducing one high-carbon activity they identified by 25%, 50%, and 75%. For example, if taking long showers contributes 20 kg CO_2 monthly, they will calculate the new footprint after reducing this behavior by specific percentages. This exercise will help pupils understand the potential environmental benefits of making even small changes. The teacher will distribute blank sheets of paper for pupils to solve the exercises. At the end of the activity, the teacher will collect the completed papers to assess the pupils' understanding and accuracy in solving the problems.

Phase 4. Group Reflection and Sharing (10 minutes)

Pupils will then discuss which behaviors they identified as having the biggest impact. The teacher then can ask questions such as:
- Which changes are the easiest to make?
- How would these changes add up if we all made similar adjustments in our everyday lives?

SUBJECT: INFORMATICS

ACTIVITY IMPLEMENTATION INSTRUCTIONS

Phase 1. Introduction to e-waste and valuable materials (5 minutes)

The teacher will introduce the topic of e-waste, explaining how electronic devices contain valuable materials like gold, copper, and other rare metals. The teacher will briefly discuss why responsible disposal and recycling of electronics are important for both the economy and the environment. A video on e-waste (see Appendix) for an indicative example) can be shown to illustrate these concepts, though similar resources may be used.

Phase 2. Video Viewing and Initial Discussion (10 minutes)

The teacher will play a video that explains the value of materials in electronics and the environmental impact of improperly disposed e-waste. After the video, the teacher will lead a brief discussion with questions like, "What happens to these materials if we throw electronics away?"

Phase 3. Upcycling concepts and video on repurposing (10 minutes)

The teacher will introduce the concept of upcycling and show a second video (see Appendix) that demonstrates practical examples, such as turning old phones into home security cameras or other creative projects. This video is indicative; the teacher may select alternative content that suits the class. Afterward, the teacher will ask pupils to brainstorm ways they could repurpose old electronics.

Phase 4. Brainstorming and group discussion (10 minutes)

The teacher will facilitate a brainstorming session, encouraging pupils to come up with ideas for repurposing old electronic devices. Ideas will be listed on a whiteboard or large flip chart, and pupils will share their thoughts on practical ways to reuse or recycle electronic items.

GUIDANCE FOR TEACHERS

FOREIGN LANGUAGE

The teacher should watch the suggested video (Appendix) or the chosen alternative before the lesson to ensure they understand the content and its relevance to sustainability. If using a different video, ensure it aligns with the objectives.

The teacher should prepare a list of key vocabulary words before class in the appropriate language such as "sustainability," "resources," and "waste."

The teacher must test the projector and the electronic equipment in the class.

LANGUAGE

The teacher should read the article on sustainable consumption and production (suggested in Appendix B) beforehand to ensure they understand the key points and messages. If choosing an alternative article, the teacher should review it to ensure it aligns with the lesson's objectives.

The teacher should print a copy of the article for each pupil before the class.

the teacher should test the equipment (projector).

GEOGRAPHY

The teacher should visit the website of Earth Overshoot Day (suggested in Appendix) and learn about this concept.

They should prepare to explain it using simple language and relatable analogies.

GUIDANCE FOR TEACHERS

PHYSICAL EDUCATION

The teacher should familiarize themselves with the proper techniques for picking up litter safely and review general safety guidelines for handling hazardous items like glass or sharp objects.

Then the teacher must plan a safe, accessible route around the school for the plogging activity in order to ensure the safety of the pupils.

Finally, the teacher will need to prepare and gather gloves and trash bags for each pupil.

ARTS

The teacher should read the instructions for making casein glue (Appendix) and collect a variety of recycled materials (e.g., cardboard, paper rolls, plastic bottles) and ensure there are enough supplies for each group to use during the tower-building activity.

Additionally, the teacher should prepare all necessary materials for the casein glue demonstration including milk, vinegar, baking soda, mixing bowls, and spoons.

MATHS

The teacher should visit the online carbon footprint calculator (suggested in Appendix) and explore its functionality.

The teacher should have blank sheets of paper for the Pupils.

The teacher must ensure that the computer lab is booked and all computers have internet access.

INFORMATICS

The teacher should watch the suggested videos (**Appendixes**)

Gather Necessary Equipment:

The teacher should ensure the projector and other equipment are set up and tested before class.

The teacher should have handy a whiteboard or flip chart to record for the brainstorming session

REFLECTION SESSION

ASSESSMENT METHOD

Additional 1-hour Teaching Session

DESCRIPTION

The assessments will involve group discussions and hands-on activities, this will allow Pupils a chance to share what they have learned about sustainable production and consumption.

After each activity, Pupils will participate in discussions to summarize the main ideas for each subject, such as how sustainability fits into everyday life or how waste can be minimized. They will also work on tasks like short essays, presentations and creative art projects to show their understanding and skills. Lastly, Pupils will reflect on ways they can apply sustainable practices within their communities. This approach is a combination of class discussions, creative tasks, and personal reflections for the teacher to assess pupils learning

Annex C: Supporting materials
Participatory activity 03

SUBJECT GEOGRAPHY – APPENDIX A
EARTH OVERSHOOT DAY HOME - #MOVETHEDATE

SUBJECT LANGUAGE - APPENDIX B
HTTPS://WWW.WEFORUM.ORG/AGENDA/2019/09/WHY-RESPONSIBLE-CONSUMPTION-IS-EVERYONE-S-BUSINESS/
HTTPS://WWW.GLOBALGOALS.ORG/GOALS/12-RESPONSIBLE-CONSUMPTION-AND-PRODUCTION/

SUBJECT FOREIGN LANGUAGE - APPENDIX C
HTTPS://WWW.YOUTUBE.COM/WATCH?V=RX2ELSVJY-C
HTTPS://WWW.YOUTUBE.COM/WATCH?V=JFSWI8XGQYO
HTTPS://WWW.YOUTUBE.COM/WATCH?V=DN-HLQK49EA

SUBJECT ARTS – APPENDIX D
HTTPS://WWW.INSTRUCTABLES.COM/KID-SAFE-GLUE-FROM-MILK/

SUBJECT PHYSICAL EDUCATION – APPENDIX E
HTTPS://WWW.CLEANUP.ORG.AU/PLOGGING-GUIDE

SUBJECT MATHS – APPENDIX F
HTTPS://WWF.ORG.AU/GET-INVOLVED/ECOLOGICAL-FOOTPRINT-CALCULATOR/

SUBJECT INFORMATICS – APPENDIX H
HTTPS://WWW.YOUTUBE.COM/WATCH?V=-UYIZKIW0XY
HTTPS://WWW.YOUTUBE.COM/WATCH?V=S2LMPIA1IWE
HTTPS://WWW.YOUTUBE.COM/WATCH?V=U3KUJTDPSSE
HTTPS://WWW.YOUTUBE.COM/WATCH?V=PD5-LLKYZLW
HTTPS://WWW.YOUTUBE.COM/WATCH?V=V8JJCBFILWS

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