



Erasmus+

FutureMinds: Cultivating Innovative Leaders in STEAM and Active Citizenship

Project n° 2024-2-BE01-KA210-SCH-000286437

Activity Template

Reading the Land

School: Institut Notre-Dame du Sacré-Coeur (INDSC), Beauraing

Teacher Name and surname: Erasmus team

Activity objectives:

- Develop observational skills to identify visible signs of human impact on local biodiversity and climate
- Understand the connections between everyday choices (waste, mobility, water use) and environmental change
- Practice data collection and simple environmental monitoring methods
- Foster a sense of responsibility and agency for local environmental stewardship

General framework: This activity is linked with the FutureMinds project's 1st mobility theme hosted in Beauraing, which centered on environmental education through outdoor, on-site observation of human impact on climate and biodiversity, complemented by related topics such as soft mobility, waste sorting, and water treatment.

Cross-curricular subjects involved: Biology/environmental science, geography, mathematics (data recording and simple statistics), French/mother tongue + english (field journal writing), and civic education.

Material needed to develop the activity:

Clipboards, pencils and printed observation sheets
Field guides or ID cards for local plants/insects (or a nature ID phone app if devices allowed)
Measuring tape or quadrat frames (1m x 1m, can be made from string/sticks)
Small collection bags/gloves for litter sampling
Camera or smartphones for photo documentation
Water testing kit (simple pH/clarity strips) if a stream or pond is accessible nearby
Large map of the school surroundings or local nature area
Flipchart paper and markers for the final synthesis

Timing:

Total 2.5–3 hours:

- 15 min – Introduction and briefing
- 20 min – Indoor mini-lesson: local ecosystems, climate impact indicators, and mission briefing
- 90 min – Outdoor fieldwork in rotating stations (biodiversity transect, litter/waste audit, water quality check, mobility observation)
- 15 min – Return, data compilation in groups
- 30 min – Group presentations and class synthesis map
- 10 min – Reflection and commitment-setting

Groups:

Participants divided into 4 groups of 4–5 students, each group rotating through all 4 outdoor stations (biodiversity, waste, water, mobility) in 20–25 minute intervals, or each group specializing in one station if time/logistics are limited.

Procedure to develop the activity:

Briefing (15 min): Introduce the day's mission: "You are environmental detectives investigating how human activity shapes our local landscape." Explain safety rules for outdoor work.

Mini-lesson (20 min): Short input on how to read environmental signs (e.g., biodiversity indicators, litter as pollution evidence, water clarity as a health indicator, transport choices' carbon footprint). Introduce the 4 stations.

Station rotations outdoors (90 min):

- *Biodiversity transect:* using a quadrat, count plant/insect species present and note any invasive or stressed species.
- *Waste audit:* collect and categorize litter found in a defined area (biodegradable, plastic, glass, etc.), tally counts.
- *Water check:* observe a nearby stream/pond, note clarity, smell, presence of algae, test pH if possible.
- *Mobility observation:* count and categorize vehicles/pedestrians/cyclists passing a chosen point over 10 minutes, discuss soft mobility alternatives.

Data compilation (15 min): Groups return indoors, organize their findings into simple charts or tallies on flipchart paper.

Presentations and synthesis (30 min): Each group presents their station's findings. Together, build a collective "environmental impact map" of the area on the board, connecting all four themes.

Reflection and commitments (10 min): Each student writes one personal or class-level action they commit to (e.g., "I will bike to school twice a week," "Our class will do a monthly litter clean-up").

-

Competences and skills to be acquired:

Environmental observation and basic field research methods

Data collection, organization and interpretation

Systems thinking: connecting human behavior to environmental outcomes

Collaborative teamwork and public presentation skills

Personal responsibility and civic engagement toward sustainability

Pitfalls and strengths:

Strengths: Strongly experiential and place-based, directly connecting classroom concepts to the students' own environment; multi-station design keeps engagement high and covers multiple environmental themes in one session; builds transferable scientific skills (observation, data recording) alongside civic values.

Pitfalls: Weather-dependent — needs an indoor backup plan (e.g., analyzing pre-collected data/photos) in case of rain; requires advance scouting of a suitable outdoor site near the school; station rotation timing must be tightly managed to avoid rushing; water testing requires basic safety supervision near streams/ponds; equipment (quadrats, test kits) should be prepared in advance to avoid wasting outdoor time.