



freeland

Promoting STEAM through participatory urban regeneration

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Resilience of the places



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Resilience of the places

Description of the module:

In this module, the selected place is analysed through the concept of **resilience**. In psychology, resilience is the process of successfully adapting to challenges and difficulties thanks to mental, emotional and behavioural flexibility. This is linked to a broader concept of resilience that can be applied to natural and urban landscapes. Urban resilience concerns community development and the inclusion of residents in designing the future of the neighbourhoods. Nature resilience is linked to the adaptation of species to different habitats (*e.g. native plants that grow through cracks in the pavement*). The key words of resilience are *adaptation* and *flexibility*.

Learning objectives:

Students will be able to understand the concept of resilience and the social implications. With outdoor science laboratories, students can analyze, conduct experiments, and monitor environmental parameters such as the climate of the site, vegetation, air quality and temperature, make people survey, soil observation, analyze the use of materials for buildings and public space furnishings. Students will reflect on it, compare the data and design a project in that place.

Methods that will be used: Circle time, outdoor activities, IBL, PJBL.

School subjects involved: English, Economy, Sociology, Civic/Environmental education, Literature (storytelling) and Science (e.g.: Biology, Chemistry)

Evaluation: students' work can be evaluated during the implementation after step 2 following the school's evaluation grid. The final project (step 5) will be evaluated by the teacher in charge of the project but can also be evaluated by other teachers for the interdisciplinary parts of the project.

Module duration and suggested time allocation

Step	Duration (hours)	Description of methods
Presentation of the place & problem discussion	1	Circle time
Outdoor laboratories & research	1-4	Group work Hands-on Data analysis and discussion
Designing	<i>homework</i>	Group work, at home or in the chosen place
Evaluation	1-3	Public presentation, participatory event
Project delivery	1-3	Participatory event

Step by step implementation

Step 1: Presentation of the place & problem discussion

In this step, the real-world problem of urban neglect is presented and conceptualised. The presentation/orientation could be in person (outdoor activity) or virtual. The goal of this step is to describe the place in terms of problems and opportunities.

To identify the problem, a guided discussion utilizing the [Circle Time](#) tool is recommended. During the Circle Time activities, questions can be used to start the discussion.

The discussion can be oriented towards the themes of social resilience (*the ability to respond to crises in ways that strengthen community bonds, resources and the community's capacity to cope*), urban resilience or nature resilience (the resilience of the environment to urbanization).

Duration: 1 hour

Activities and methods:

Outdoor in the selected place; the students are given 5 min to observe the place, then the *circle time* is used to stimulate the opinion of each student about the **resilience** in the selected urban space.

Example of questions to connect the place with resilience: *Have you ever been to that place? Why? Can you describe this place? What do you know about this place? Have you seen anything happen that could be useful to us? What does this place tell us/teach us about resilience? How can we build a more resilient society/city?*

A problem or a potentiality regarding the place should emerge.

Tips & Tricks:

- invite the students to create a tale or short story about resilience, starting from the place. The students take turns inserting elements to create a story that has an introduction (or initial situation), the development, and the conclusion (or resolution).
- Stimulate a discussion to describe the society that gravitates around the location and whether there have been any changes over the years.
- create a social campaign to speak about the resilience of the place and questions to run interviews.

Resources needed: sheets/cloths or blankets for sitting on the floor

Cross-curricular links: Civic/Environmental education, Literature (storytelling) and Science (e.g.: Biology, Chemistry).

Step 2: Outdoor laboratories & research

One or more outdoor laboratories are proposed by the science teacher. The students investigate the selected indicators following the steps of **Inquiry Based Learning** and they begin to focus on the topics emerged during the first step.

One student group will recreate the place virtually with the support of the [Platform](#), while other groups focus on data collection and analysis.

The groups compare the results and put them into the platform. The result is an output in the form of report, presentation or video, that can be evaluated by teachers following the school's evaluation grid.

Suggested laboratories: Climate of the town/specific site, Vegetation, Air quality and temperature, People survey, Soil observation, Use of materials for buildings and public space furnishings (Architects).

Duration: 1-4 hours, depending on the chosen laboratory.

Activities and methods: Outdoor activities applying FREELAND scientific laboratories to better define the potentiality of the places in terms of biodiversity, soil and ecosystem quality, temperature and hit island. Students are invited to interview schoolmates, parents, relatives and stakeholders as workers or users of the place.

Students work in groups to:

- Interview local users or passersby (IMPORTANT guidelines: introduce themselves and the school project. Ask for voluntary participation. Explain responses will be used anonymously and clarify how. Avoid recording names or taking photos/audio without permission. Skip sensitive or intrusive questions)
- Run the scientific laboratories chosen to investigate the vegetation resilience and the potentiality of the place.
- Recreate the place virtually
- Communicate the research on social

The groups compare the results and put them into the platform. Students write hypotheses or questions based on their observations. The result could be an output in the form of a report, presentation or video.

Tips & Tricks:

- Invite students to contact school staff, parents local stakeholders (workers of shops near the area, users of the place) and local authorities responsible for the place

Resources needed:

- 1) Consent forms or scripts for citizen interviews
- 2) Questions for the interview
- 3) Recording devices (phones, tablets)
- 4) Facilitator to support group reflection

Cross-curricular links: science, mathematics, sociology, civic education, language, media education

Step 3: Designing

With the support of teachers, students think of possible solutions to the problems that have been conceptualised in previous steps through the analysis of data from scientific laboratories and interviews.

The **Platform** is used to visualise the variations of the place (e.g. lowering of temperature, growth of different plants)

The project must impact the social aspect of the place. The work must be inclusive, collecting different experiences and knowledge from native and foreign students and citizens (family members, stakeholders that follow the project).

Suggested projects: events to communicate the research results to citizens, actions to raise awareness on climate change, games or events that include different cultures, actions to revitalize the place.

Duration: 4 hours as homework

Activities and methods: elaborate the data and modify the 3D visualization to implement changes that solve the problem emerged in previous steps (e.g.: inserting objects, changing colours). Design a project to highlight the resilience of the place in a way that gives the local population a positive message.

Students work in groups to:

- Work on the platform to create a new design of the place or the elaboration of the data
- Design one or more social event in the place
- Programming a social campaign on the decision taken

Tips & Tricks: Pay attention to the creation of the groups to ensure the participation and contribution of each student.

Resources needed: No specific materials are needed

Cross-curricular links: ICT and Civic education, sociology and communication

Step 4: Data Evaluation

This is a work-in-progress step where the project is proposed to peers, teachers or the local community in a participatory discussion. Schools are in charge of inviting citizens and stakeholders, collecting feedback and improving the final design of the project.

Duration: 1 hour+ workshops

Activities and methods: Students organize a time to share the project developed in step 3 with teachers, other students, and local stakeholders invited by the teacher.

Students prepare a presentation or a talk and choose a location for the presentation. This could be the school's auditorium, the neglected place chosen, or the office of one of the stakeholders.

With the help of their teachers, they organize this meeting as a focus group with representatives of the school (teachers and students), local stakeholders and/or citizens community.

Tips & Tricks: Could not be easy to involve stakeholders. Depending on their skills, some students directly invite stakeholders to come to the meeting.

Resources needed: no specific resources are needed.

Cross-curricular links: social and communication skills, active citizenship

Step 5: Project delivery & civic engagement plan announcement

The students run the final project.

Schools with stakeholders propose a civic engagement plan or actions to solve the problems of the place through an approach based on actions, civic engagement and, if possible, urban regeneration principles and resilience topics.

Suggested civic engagement plan: *monthly a competition or photographic exhibition (or printed materials from the digital platform, designing material), books exchange, cultural exchanges in talks with experts, open air courses deals with circular economy, project or artistic expositions on specific themes deal with sustainability, inclusion and renovation of the place.*

Duration: 4–6 hours (includes event and preparation)

Activities and methods:

Students implement part of the project or hold a Community Engagement Day, e.g.:

- Host an open-air event with music, food, storytelling, games
- Present a gallery of community stories or photo exhibit
- Offer multilingual signage or activity guides created by students

The Civic Engagement Plan is presented, such as:

- Monthly “Inclusive Saturdays” with board games, intergenerational stories, and cultural sharing
- A permanent “Open Bench” where strangers are encouraged to talk
- “Community Language Tree” where each leaf is a new word in another language contributed by a local resident

Tips & Tricks:

- Involve students in logistics and communication to build ownership.
- Use both creative/artistic and practical elements for visibility and impact.

Resources needed:

- Event setup supplies (tables, posters, sound)
- Printed materials from earlier steps
- Support from families, teachers, or local authorities
- Community invitation list
- Sponsors

Cross-curricular links: art, civic education, entrepreneurship