

Learning Situation

Bringing Old Buildings Back to Life

In many cities, abandoned or underused historic buildings represent both a challenge and a powerful opportunity. These structures often carry architectural and cultural value, but time, neglect, and changing needs have left them without a clear purpose. At the same time, the world is facing an urgent climate challenge: buildings account for about 40% of global CO₂ emissions from energy use, and the International Energy Agency warns that 20% of all existing buildings must be renovated by 2030 to make them “zero-carbon-ready.” Adding to this pressure is the accelerating pace of rapid urbanisation, as more people move into cities, especially in developing regions, the world’s total building stock is projected to double by 2060. This surge in construction demand makes it even more critical to prioritise the renovation and reuse of existing buildings. Revitalising old structures is therefore not only about preserving history; it is also essential for reducing emissions, limiting waste, and building a sustainable future.

This Learning Situation invites students to explore how unused historic buildings in their own city could be meaningfully revitalised and transformed into functional, culturally valuable and sustainable community spaces.

Driving Question

How can we turn unused historic buildings into assets for a young, smart city community?

Scenario

Many cities face the dual challenge of meeting a growing demand for buildings due to urbanisation, while also reducing CO₂ emissions. Revitalisation and reuse of existing structures can be essential for preserving heritage, cutting emissions, limiting waste, and supporting a sustainable future.

To address this growing challenge, the local cultural heritage and urban regeneration office has launched a public call for innovative ideas to transform unused historic buildings into meaningful and sustainable community assets. The aim is to protect the building’s cultural and architectural heritage while upgrading it into a functional, energy-efficient space that contributes to both environmental goals and the needs and well-being of residents.

Task

Students design an evidence-based proposal responding to their local heritage authority's call for ideas to revitalise an unused historic building in their city. Working in groups, they select one specific building and develop a clear, research-informed concept for how it could be transformed into a restored, functional, and community-oriented space that respects its cultural value while contributing to environmental sustainability.

The goal is to demonstrate that the proposal is feasible, sustainable, and beneficial for both the environment and the wider community.

This activity implies a holistic approach.

Students explore the Driving Question by considering several interconnected aspects of proposing a viable solution — such as understanding the building's historical and cultural significance, identifying community needs, exploring sustainable renovation options, assessing environmental benefits, and addressing long-term use and maintenance considerations.

This Learning Situation is intentionally broad and flexible, allowing each group of students to take agency in choosing which building to focus on and what type of revitalisation to propose. This encourages students to lead their own inquiry, make creative decisions, and explore topics and solutions according to their interests.

To support this process, teachers may use the Lesson Plan developed for this topic, which guides the activity step by step while leaving the students with agency to steer their own work and learning.

[Link to Lesson Plan](#)

Alternative Approach

Teachers may design their own Learning Situation within this topic and design a different Driving Question considering local challenges that better reflect students' environment and community needs. **Teachers may also consult local authorities or stakeholders to identify a meaningful and realistic focus for their students.**

A good Driving Question should:

- be relevant and motivating for students;
- be feasible within available time and resources;
- support structured group work;
- involve accessible stakeholders (families, municipality, transport providers, community members);
- be linked to at least one of the five project competences.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.