

A decorative border made of colorful LEGO bricks in red, green, blue, and yellow, arranged in a stepped pattern around the edges of the page.

Bus Stop

Better Bus Stops for People and the Planet

Keywords:

collaborative learning, creativity, problem solving, transportation, sustainability

Target group:

primary school pupils
(ages 6-11)

Objectives:

This activity introduces pupils to the concept of public transportation as an essential part of a sustainable city. Through the design and construction of a model bus stop, pupils learn how infrastructure can support accessibility, comfort, and environmental responsibility. The activity also promotes collaboration, creativity, and critical thinking. By the end, pupils will be able to identify key features of an inclusive and eco-friendly bus stop and explain how thoughtful urban design supports community needs and environmental goals.

General Guideline on Time Allocation:

The duration needed to carry out this activity may vary depending on the specific group of children. Teachers are encouraged to adapt the implementation according to the needs, interests, and dynamics of the group.

In the preparatory phase, teachers may use a variety of activities to introduce and contextualize the chosen topic. These can include discussions, videos, drawings, storytelling, or even a field trip, depending on the age and background knowledge of the children.

The main construction phase, during which children plan and build their urban element using LEGO bricks, should typically not exceed 45 to 60 minutes. However, this phase often stimulates further curiosity and questions among the children, potentially leading to extended engagement or follow-up activities. For more detailed instructions and pedagogical support on how to implement activities of INNO-kids project, please download the Teacher's Methodological Guide.

Materials and Resources Needed:

- LEGO bricks (various sizes, including windows, roof pieces, wheels, minifigures)
- Pictures of real-life bus stops from around the world (printed or digital)
- Paper, markers, crayons, and coloured pencils, scissors and glue, recycled materials such as cardboard, plastic bottles, bottle caps, or packaging
- Tablets or books (optional – for researching innovative or green transport infrastructure)

Note: Encourage pupils to repurpose available materials creatively. If LEGO bricks are not available, pupils may use basic craft supplies to bring their ideas to life through drawings and handmade models.

Introduction:

Start by asking: “Who has taken a bus before? What did the bus stop look like?” Lead a short discussion about what bus stops are for and how they are used in everyday life. Explain that well-designed bus stops help cities function better — they provide shelter, support safety, and make travel more comfortable for everyone. Then introduce the idea of sustainable bus stops — spaces that are inclusive, environmentally friendly, and designed for the needs of different people. Show examples from around the world and challenge pupils to imagine what a bus stop of the future could look like.



Procedure:

Preparation

Following the introduction, guide pupils to think more deeply about what makes a bus stop not only functional, but also thoughtful and people-friendly. Focus on identifying the needs of different users — children, elderly people, cyclists, people using wheelchairs, or someone caught in the rain. Invite pupils to reflect on the practical aspects of using a bus stop: comfort, safety, visibility, protection from the weather, and access to information.

Use guiding questions to support critical thinking:

- What would make waiting more pleasant and inclusive?
- What small features can make it better?

Construction

Divide pupils into small groups. Provide each group with LEGO bricks, and any available supplementary materials. Explain that each group will design and build their own sustainable bus stop. Each group should:

- Decide on the location and purpose of their bus stop (e.g. near a school, park, or shopping area)
- Build a covered waiting area with space to sit or stand
- Include elements such as an information panel, bicycle parking, wheelchair access, or bins for sorting waste
- Add sustainable features like solar panels, green roofs, shaded areas, or water collection systems

Details

As models take shape, ask questions to deepen reflection:

- How is your bus stop accessible for everyone?
- What makes it safe and welcoming?
- How do your features help protect the environment?



Stories

Ask each group to invent a story about someone using their bus stop. It could be a student going to school, an elderly person heading to the market, or a family taking a trip together. What happens at the stop? Is there a problem they solve? How do the sustainable features make the journey better?

Presentation

Each group presents their bus stop to the class, describing their design, pointing out sustainable and inclusive features. Encourage other pupils to ask questions and offer compliments.



Tips:

- Encourage pupils to think about who uses bus stops and when—on a rainy day, late in the evening, or while carrying shopping.
- Reinforce the idea that small details — shade, comfort, clear information— can make a big difference in people's lives.

Additional Considerations:

Differentiation:

Provide additional support or simplified instructions for pupils who may require extra assistance. For advanced pupils, offer extension tasks such as researching further sustainable practices or designing more complex models.

Assessment:

Assess pupils based on their participation and engagement during discussions and hands-on activities. Evaluate the creativity, effort, collaboration, depth of understanding demonstrated in their models, critical thinking, ability to provide constructive feedback and presentation skills.

Extension Activities:

Observe real bus stops—what could be improved? Invite a transport planner or architect to discuss how stops are designed and maintained. Pupils could also create posters or awareness campaigns encouraging the use of public transport for a greener future.

Curriculum Connections:

This activity integrates:

Science (*materials, energy use, and sustainable design principles*)

Social Studies (*urban planning, infrastructure, public transportation*)

Art (*design, creativity, construction*)

Language (*storytelling, discussion, presentation skills*)

SDG Connections:

- **SDG 9:** Industry, Innovation, and Infrastructure – Pupils design better public infrastructure that serves real needs.
- **SDG 11:** Sustainable Cities and Communities – Pupils explore how inclusive, accessible design supports safer, more resilient cities.
- **SDG 12:** Responsible Consumption and Production – Pupils incorporate green solutions using recycled and efficient materials.



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