

Cycling Path

Weaving a Wheel-Friendly Sustainable Network

Keywords:

cycling paths, sustainable transportation, urban planning, eco-friendly, active transportation

Target group:

primary school pupils
(ages 6-11)

Objectives:

This activity introduces pupils to the environmental and health benefits of cycling paths and their role in sustainable urban transportation. Through creative teamwork and model-building, pupils will design their own network of cycling paths that supports active travel, reduces pollution, and connects important community spaces.

They will learn about key features such as connectivity, accessibility, and safety, and how thoughtful urban planning can make cities healthier and more inclusive.



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:

- Maps of urban areas and existing cycling path networks
- Paper, coloured pencils, markers, glue, scissors
- LEGO sets or other building materials
- Visual aids showing real-world examples of cycling paths and eco-friendly transportation

Note: Encourage pupils to use their imagination and repurpose available materials in creative and functional ways. If LEGO bricks are not available, pupils may draw, cut, and construct using paper and craft supplies.

Introduction:


Start the activity by asking pupils how they usually get to school or visit nearby places. Has anyone ever used a bicycle for transport? What makes a cycling route feel safe? Introduce the concept of cycling paths and explain how they help reduce traffic, cut carbon emissions, and promote physical activity. Show examples of cycling infrastructure from different cities and discuss how these networks connect homes, schools, parks, and shops. Pose the key question: “What would a perfect cycling path network in our community look like?”

Procedure:

Preparation:

Begin by introducing the idea of cycling as a form of sustainable, active transportation. Show real-life examples of well-designed cycling path networks and explain how they improve public health, reduce pollution, and make cities more liveable. Discuss important features such as safety, connectivity, and visibility. Ask pupils to reflect on their own experiences: Where would they like to cycle? What places should be connected by bike paths?

Construction:



Divide pupils into small groups and provide maps, craft materials, and LEGO or other building blocks. Each group should:

- Plan key destinations to connect (e.g. schools, parks, shops, homes)
- Design safe and direct cycling paths between these locations
- Add safety features such as bike signals, crossings, and clear signage
- Include green infrastructure—trees, benches, rest areas, and parking spaces for bikes
- Consider how their design is inclusive for all users, including children and people with disabilities



Details:

As pupils build their cycling networks, support them in refining the details.

Ask: How does your design prevent accidents? What makes it easy for people to switch from cars to bikes? Where can someone stop and rest? Help them label their models and consider challenges such as busy intersections or areas without green space.

Stories:

Invite pupils to create a story about someone using their cycling path network. The main character could be a pupil biking to school, a parent running errands, a tourist exploring the town, or even a delivery cyclist. Ask pupils to describe the journey: Where do they go? What do they see along the way? How does the design of the cycling path help them feel safe, comfortable, and connected to nature? The story can include positive moments — like discovering a new green space — or small challenges that are solved thanks to smart planning.

Presentation:

Invite each group to present their cycling path model and share the story they created. Pupils should explain how their network connects key places in the community, what features make it safe and accessible, and how it helps protect the environment. Encourage them to highlight design choices — such as shaded areas, protected lanes, or signs — that improve comfort and usability. After each presentation, allow time for questions, comments, or compliments from classmates.

Tips:

- Encourage pupils to think from the perspective of different users — children, elderly people, tourists, or delivery riders — when designing their cycling paths.
- Use visual examples and real-world success stories to spark ideas.
- Ask guiding questions like “Would you feel safe biking here?” or “How does your design make cycling easier than driving?”
- Reinforce the message that small improvements — like a rest bench or safe crossing — can make a big difference in people’s everyday 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:

- Plan a walk or bike ride along a local cycling path to observe design features firsthand.
- Invite a local urban planner, cyclist, or transport expert to speak to the class.
- As a class project, pupils can redesign a part of the school's surroundings to make it more bike-friendly. Pupils may also create posters or campaigns to encourage cycling in their community.

Curriculum Connections:

This activity integrates:

Science (*cycling paths, air pollution, greenhouse gas emissions, eco-friendly transportation*)

Social Studies (*urban planning, community health and mobility*)

Art (*design, creativity, construction*)

Language (*oral communication, storytelling, and listening skills*)

Physical Education (*active travel, physical health, and well-being*)

SDG Connections:

- **SDG 3:** Good Health and Well-being – Cycling supports active lifestyles and improves air quality.
- **SDG 11:** Sustainable Cities and Communities – Pupils design inclusive, safe, and green mobility networks.
- **SDG 13:** Climate Action – Cycling paths help reduce transport emissions and support cleaner urban living.