

Passageway

A Path to Adventure

Key words:

LEGO, passage, construction, creativity, imagination

Target group:

primary school pupils
(ages 6-11)

Objectives:

This activity aims to introduce children to the fundamental concept of passages and their crucial role in urban infrastructure while encouraging creative exploration through LEGO construction. By building their own passage designs, participants will discover basic principles of engineering and architecture, stimulating their creativity, imagination, and critical thinking skills. The hands-on experience develops essential construction and design abilities while promoting teamwork and collaboration as children work together. Through playful problem-solving and decision-making challenges, the activity fosters cognitive development in an engaging, fun learning environment that blends education with imaginative play.



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:

- Various Lego pieces in different colors and shapes.
- Lego bases (optional).
- Lego miniatures representing explorers, adventurers, animals, etc.
- Lego objects representing treasures, traps, natural elements, etc.
- Lego plants and flowers or other materials to decorate the environment.
- Lego signs with symbols indicating the path or representing clues.
- Paper and pencils for drawing (optional).

Note: In the absence of elements in Lego pieces, invite children to draw, color, and cut out on paper, or build using other materials.

Introduction:

A passage is a path or corridor that allows people or vehicles to cross an obstacle, such as a street, a river, or a mountain. These passages are important for facilitating traffic and improving accessibility in urban and rural areas. In this activity, we will explore the theme of passages by building our own passage with LEGO. Let's imagine different types of passages and how they can be designed and constructed.

Talk with the children about what a tunnel is, relating it to a secret passage and how it can be used in adventure stories. Explain that secret passages are often hidden and lead to mysterious and interesting places.

Procedure:

Preparation

Introduce the theme of passages and briefly discuss their importance in urban and rural infrastructure.


Present the available LEGO sets and explain that the children will use these blocks to build a passage.

Construction

Divide the children into groups of 2 to 4 people.

Allow the children to explore the LEGO pieces and start building their passage. Encourage creativity and imagination as they construct different types of passages, such as a bridge, a tunnel, or an elevated passage.

Encourage them to think about the functionality and aesthetics of the passage while designing it.





Details

Once the basic structure of the secret passage is ready, the groups can add details such as:

LEGO miniatures representing explorers who are discovering the passage, uncovering traps, and finding treasures.

LEGO objects representing treasures, traps, natural elements (rocks, plants, etc.), mysterious symbols, etc.

LEGO plants and flowers or other materials to decorate the environment and make it more realistic.

Signs with symbols indicating the path or providing clues for the explorers to solve.

Play

When the secret passage is complete, the children can play and create stories about the adventures happening there.

Encourage role-playing and interaction between the groups. The children can imagine different situations, such as discovering the secret passage, exploring the location, solving puzzles, and searching for treasures.

Presentation

After the constructions are completed, ask the children to present their passages to the group.

Each child can explain the different elements of their construction and how their passage facilitates traffic and accessibility.

Tips:

- The secret passage can have a specific theme, such as a pirate cave, a time tunnel, or an entrance to a magical world.
- Children can use materials other than LEGO to decorate the secret passage, such as cardboard, paint, glitter, etc.
- Hide a treasure in the secret passage and create a map for the children to find.



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.

Curriculum Connections:

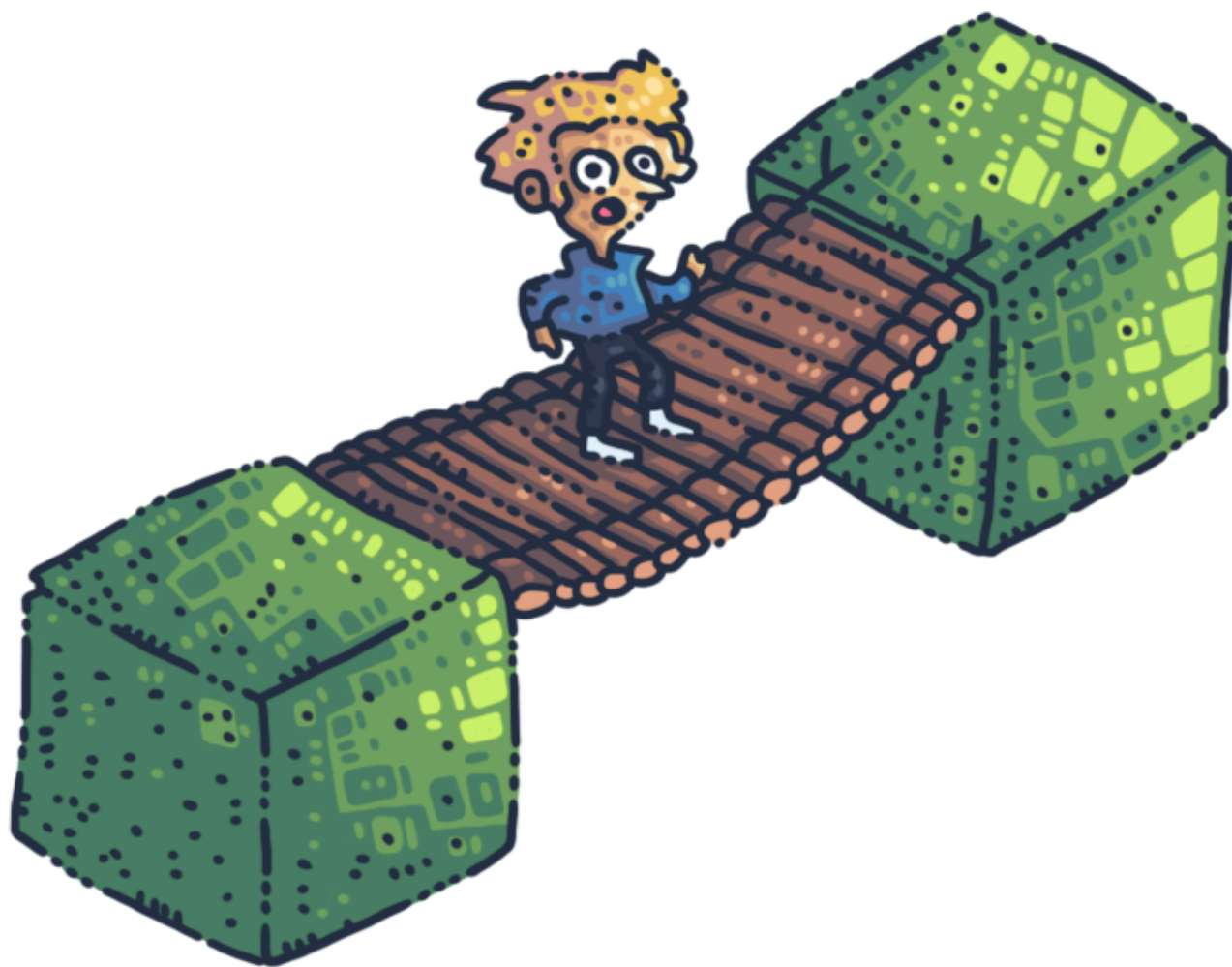
This activity integrates:

Environmental Studies (urban and rural infrastructure, transport, natural environments, legends and storytelling)

Art (creativity, visual expression, LEGO construction)

Mathematics (geometry, spatial reasoning, counting, measurement, area calculation)

Language (oral communication, project presentation)





SDG Connections:

- **SDG 4** - Quality Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- **SDG 10** - Reduced Inequalities: Reduce inequality within and among countries.
- **SDG 11** - Sustainable Cities and Communities: Making cities and communities inclusive, safe, resilient and sustainable.
- **SDG 16** - Peace, Justice, and Strong Institutions: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.
- **SDG 17** - Partnerships for the Goals: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development, mobilizing all levels of society.

Note: By exploring the construction of a passage, children are learning about the importance of infrastructure for the sustainable development of communities. Additionally, the activity promotes creativity and problem-solving, essential skills for innovation and technological progress.

