Meadow

Exploring and Protecting Biodiversity in Flower-Rich Grasslands

Keywords:

biodiversity, ecosystem, pollination, habitat, nature observation, conservation, meadow

Target group:

primary school pupils (ages 6-11)

Objectives:

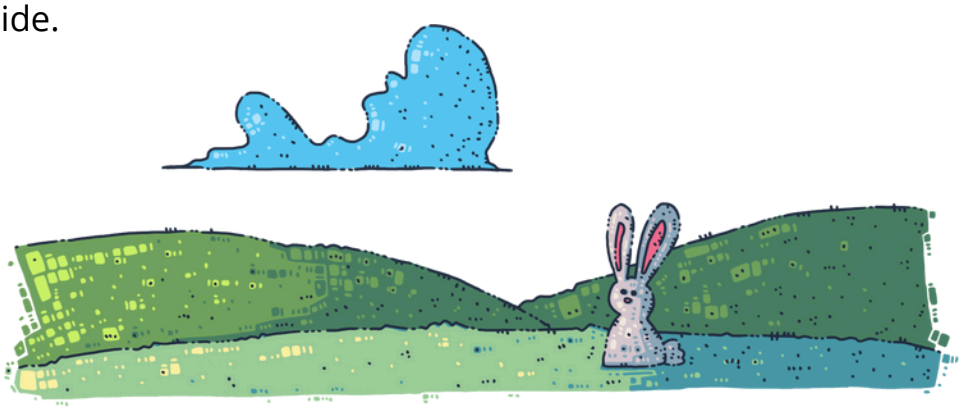
This activity helps pupils discover the beauty and ecological value of meadows. Through direct observation and creative construction, they will learn about the diverse life found in grassland habitats, the role of pollinators, and the importance of conservation. Pupils will explore how meadows support ecosystems, connect this knowledge to real-world issues such as species protection and climate change, and express their understanding by designing their own meadow scenes filled with animals, plants, and seasonal changes.

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 of various colours, shapes, and sizes (including pieces to represent flowers, insects, animals, and terrain)
- Magnifying glasses (for outdoor observation, if possible)
- Printed photos or short videos of real meadows and meadow species
- Books or storybooks about meadows and pollinators
- Chart paper, markers, coloured pencils, glue
- Natural items collected during field exploration (optional): leaves, feathers, dry grass

Note: If LEGO bricks are not available, pupils can use drawings, collage materials, or clay to represent meadow life. For safety during outdoor activities, ensure proper supervision and get necessary permissions from guardians or school administration.

Introduction:

Begin with an open question: “Have you ever walked through a meadow? What did you see, hear, or smell?” Show pupils vivid photos or short videos of meadows in different seasons. Guide them to notice the variety of colours, flowers, buzzing insects, and movement. Explain that meadows are rich ecosystems full of life — they are home to bees, butterflies, birds, small mammals, and many flowering plants.

Introduce key concepts such as biodiversity, pollination, and habitat. Ask: “Why are meadows important for animals — and for us?” “What would happen if meadows disappeared?” “How can we protect them?”

Procedure:

Preparation

If possible, take pupils on an outdoor visit to a nearby meadow or grassy area. Equip them with magnifying glasses, observation sheets, and markers. Encourage them to look closely at flowers, grasses, insects, and animal traces.

Back in the classroom, pupils sketch what they saw or learned. They can list the species they want to include in their LEGO meadow, plan the layout, and consider adding special features like water sources, insect shelters, or pollinator zones.

Construction
Provide pupils with LEGO bricks and other available materials to begin building their meadow scenes. Each pupil or group creates a 3D model that represents a healthy, biodiverse meadow. Encourage them to include: Different types of plants and flowers; Insects such as bees, butterflies, beetles; Small animals like birds, mice, frogs, or lizards; Natural features like a pond, a pile of rocks, or a fallen log. Let pupils adapt their models freely — every meadow is different, and creativity is encouraged.

Details
Once the basic structure of the meadow is in place, pupils enhance their models with small, meaningful details that bring the habitat to life. These details open space for deeper reflection:

- “What makes this a healthy meadow?”
- “How can people enjoy it without harming it?”

Stories
Invite pupils to create a short story set in their meadow. The story can be told orally, drawn as a comic, or written as a short narrative. It should reflect life in the meadow and include interactions between animals, plants, and people. The story can be calm, funny, mysterious, or educational — as long as it shows the meadow as a living, interconnected environment.
Examples might include: A butterfly looking for the perfect flower to land on; A hedgehog waking up from hibernation and exploring the blooming meadow; A child visiting the meadow with their grandparent and learning about insects

Presentation
Each pupil or group presents their meadow to the class. During the presentation, they should explain what species and elements they included and why, and describe how their meadow supports biodiversity and pollinators. After each presentation, open the floor for questions:

- “What inspired your design?”
- “Which part was the hardest to build?”
- “What would you add if you had more time or space?”

Tips:

If working indoors, display meadow sounds (e.g. birdsong, buzzing bees) in the background to set the atmosphere. If working outdoors, take a moment to sit silently and listen to nature before starting the build.

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:

- Start a mini wildflower patch or insect-friendly corner in the schoolyard.
- Invite a local conservationist or beekeeper to speak about pollinators.
- Compare different meadow types (alpine, urban, coastal) and their species.
- Create a class book titled “Stories from Our Meadow” with photos and texts.

Curriculum Connections:

This activity integrates:
Science *(habitats, pollination, biodiversity, food chains)*
Art and Design *(creativity, 3D modelling, visual expression)*
Language *(storytelling, vocabulary development, oral presentation)*
Social Studies *(environmental responsibility, community care)*
Mathematics *(categorisation, counting species, spatial awareness)*

SDG Connections:

SDG 4: Quality Education – Pupils learn through observation, creativity, and hands-on experience
SDG 11: Sustainable Cities and Communities – Pupils imagine how green spaces improve urban life and connect people with nature
SDG 13: Climate Action – Pupils understand how natural ecosystems support climate resilience
SDG 15: Life on Land – Pupils explore and protect biodiversity in meadow ecosystems

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