

Designing Animal Habitats with Care

Keywords:

animal care, biodiversity, species, environmental responsibility

Target group:

primary school pupils (ages 6-11)

Objectives:



This activity introduces pupils to sustainability and animal care through creative design. Using LEGO bricks and reused materials such as clean food packaging and expired pasta, pupils will build imaginative zoo habitats and animal models. They will explore how waste can be given a second life and how public spaces — like zoos — can inspire care for biodiversity.

By the end of the activity, pupils will understand the principles of upcycling, describe the needs of different animals, and design miniature enclosures that reflect thoughtful, eco-friendly planning.

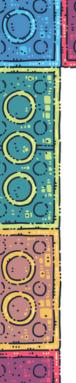
General Guideline on Time Allocation:

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.







- LEGO bricks of various types
- Expired pasta (different shapes)
- Googly eyes, glue, scissors, paint, markers
- Clean, dry food packaging (e.g. trays, boxes, bottle caps), cardboard or wooden bases
- Optional natural materials (pebbles, twigs, moss)
- Reference pictures of animals and zoo environments

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 with a discussion: "Have you visited a zoo? What did you notice about where the animals live?" Introduce the idea that zoos are not just for entertainment — they help protect animals, teach people about nature, and can also lead by example in sustainability.

Procedure:

Preparation

Invite pupils to think about what different animals need. What kind of environment does a zebra, monkey, or polar bear require? Use questions like:

- What makes the animal feel safe and comfortable?
- How can we recreate that using LEGO and other materials?
- Where could we place water, shelter, or food stations?

Construction

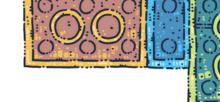
Divide pupils into small groups and provide them with LEGO bricks, recycled materials, and optional pasta or natural items. Each group will:

- Choose one or more animals to focus on
- Build their animal using LEGO bricks or pasta (or a mix)
- Design a habitat using LEGO and packaging waste (e.g. fences, ponds, caves, tree structures)
- Add signs, decorations, or educational panels using cardboard or paper
- Place everything on a shared zoo base or inside a tray

Encourage creativity in combining materials — e.g. a LEGO giraffe in a pastabuilt savannah, or a cardboard cave with LEGO bats.







Details

As groups build and shape their zoo exhibits, support them in adding thoughtful and realistic details. Encourage them to think beyond basic comfort and include enrichment elements that help animals stay mentally and physically active — like climbing structures, water features, or quiet zones. Guide them in designing pathways, signage, or viewing areas for visitors that keep a respectful distance from the animals.

Introduce the idea of protected and endangered species. Ask:

- Are any of your animals endangered or threatened in the wild?
- What special care might they need in a zoo?
- How can your model help teach visitors about conservation?

Pupils can choose to include a "protected zone" or "education corner" in their zoo to raise awareness about animal protection. They might add information signs, posters, or a rescue centre area. Encourage each group to think of their model not just as an exhibit, but as a message: "This is how we take care of the world's animals — with creativity, kindness, and knowledge."

Stories

Invite pupils to invent a story featuring one of their animals. The story could follow a new arrival at the zoo, a baby animal discovering its surroundings, or a zookeeper preparing the habitat. Stories can explore feelings, learning moments, or small challenges. Pupils may present their story alongside their model to help others connect emotionally with their design.

Presentation

Each group presents their exhibit to the class. Pupils should explain which animals they chose, what materials they used, and how their habitat meets the needs of the species. Groups can share their story, and everyone is invited to give feedback or ask questions.



Tips:

- Encourage pupils to view waste as a resource. Ask: "What animal could you build with this bottle cap?" or "Could this piece of LEGO be a feeding station?" Show examples of mixed-material animal models and highlight that thoughtful design is more important than perfection.
- Remind pupils that caring for animals goes hand in hand with caring for the planet.







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:

- Invite a zookeeper, vet, or wildlife conservationist to speak to the class. Pupils could research endangered animals and create "rescue habitats."
- Organise a school campaign to collect safe materials for future reuse projects.

Curriculum Connections:

This activity integrates:

Science (animal classification, ecosystems, and habitats) **Social Studies** (empathy, cooperation, and environmental responsibility)

Art (design, creativity, construction)

Language (storytelling, discussion, presentation skills)

SDG Connections:

- **SDG 11:** Sustainable Cities and Communities Pupils build spaces that connect people with nature in meaningful ways.
- **SDG 12:** Responsible Consumption and Production Pupils learn to reuse creatively and reduce waste.
- **SDG 15:** Life on Land Pupils show care for animals and design for biodiversity.





