

Growing Healthy Food in a Small Space

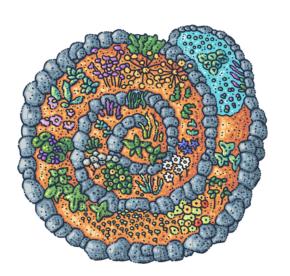
Keywords:

herbs, spiral, gardening, planning, healthy food, permaculture, soil layers, microclimate

Target group:

primary school pupils (ages 6-11)

Objectives:



This activity introduces pupils to the idea of growing their own food, even in limited spaces. They will learn about the concept of a herb spiral, a permaculture-based planting structure that allows different herbs to grow in one spot with varying sun, shade, and water needs. By designing and building a spiral model, pupils gain hands-on experience in spatial planning, sustainable food practices, and the basics of soil care. The activity also helps them develop respect for nature and responsibility for living plants.

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
- Paper, markers, crayons, and coloured pencils, scissors and glue
- Recycled cardboard or a flat base
- Small stones, sticks, bark, moss
- Clay, soil, sand, pebbles (optional, for layering effect)

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:

Ask pupils:

- "Do you know where the herbs in your tea or your food come from?"
- "Have you ever tried growing your own mint, chives, or basil?"

Introduce the concept of a herb spiral – a raised, circular planting bed shaped like a snail shell. It saves space and creates microclimates: dry and sunny at the top, moist and shady at the bottom. It's a perfect solution for growing many herbs in one spot — even in a school yard or balcony.

Show images or a short video of real herb spirals and discuss why they are smart, beautiful, and efficient.

Procedure:

Preparation

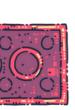
Each group:

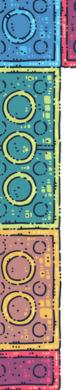
- Draws a top-view plan of their herb spiral
- Learns basic permaculture rules (plant dry-loving herbs on top, shade-tolerant herbs at the base)
- Selects which herbs they want to include in their model and where they will place them
- Learns about which herbs need sun, shade, more or less water

Suggested planting zones:

- Top: lavender, thyme, rosemary, sage
- Middle: coriander, chives, dill, caraway, fennel
- Bottom: mint, lemon balm, basil, chamomile
- Shady spot nearby: wild garlic, nettle, tall mint









Construction

Pupils build a 3D model of the spiral using natural or recycled materials. They:

- Create the spiral wall from pebbles, bark, or cardboard strips
- Fill the interior with visible layers of soil or coloured paper
- Place herbs (drawings or paper cutouts) in the correct zones
- Label each herb clearly

Details

Encourage pupils to reflect on why growing herbs is valuable:

- They help us eat healthier
- They are used in tea, medicine, and cooking
- They attract bees and butterflies
- They make our space smell good and feel alive

Let pupils add:

- A small compost bucket or rainwater barrel
- Tiny walking paths or signs that say "Do not step" or "For tea only!"
- A shade area with taller plants or a rock

Stories

Each group creates a story about their spiral:

- A grandmother uses lemon balm from the spiral to make lemonade
- A bee visits thyme flowers and helps pollinate other plants
- A child discovers the smell of basil for the first time
- A group harvests mint and makes tea after school

Presentation

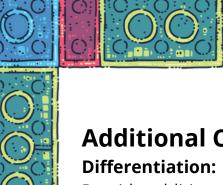
Each group presents:

- How they planned and built the spiral
- Why the plants are placed the way they are
- What they learned about herbs

Tips:

Ask guiding questions:

- "Which herb would you like to grow at home?"
- "How can we take care of this garden over time?"
- "Which herbs are for tea, which for cooking, and which help insects?"









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 real herb spiral or herb patch at school
- Prepare lemonade or herb butter using garden herbs
- Interview a gardener or herbalist about common mistakes in growing herbs

Curriculum Connections:

This activity integrates:

Science (plant types, growth needs, ecosystems, biodiversity)

Art (design, creativity, construction)

Language (storytelling, discussion, presentation skills)

Health Education (nutrition, healthy choices, taste and smell exploration)

SDG Connections:

- **SDG 3:** Good Health and Well-being Pupils grow herbs for healthy food and drinks.
- **SDG 11:** Sustainable Cities and Communities Pupils use small spaces for green, productive activities.
- **SDG 12:** Responsible Consumption and Production Pupils understand seasonal food and avoid waste.
- **SDG 15:** Life on Land Pupils support biodiversity by choosing bee-friendly herbs.







