



**Urban Micro Forest Toolbox** 







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# Introduction to the Tool Box

## Micro Forest schools

The Urban Micro Forest Toolbox was developed as part of the Micro Forest Schools project, funded by Erasmus+. The Micro Forest Schools project supports the EU Biodiversity Strategy 2030 and the Education for Climate Action, by developing a new teaching material and an eLearning course which combines biodiversity action and community involvement in primary schools, through the establishment and cocreation of micro forests. The Tool Box promotes relevant green skills and mindsets needed to motivate children and youth to take action and gain experience that they can contribute to relevant solutions.

# Tools and activities teachers can use for students in grades 3-5: The Urban Micro Forest and the Miyawaki Method

Important! This is a list of different tools and activities that align with the pre, during and post establishing of the Micro Forest. It has to be adopted and personalized by each country, school and teacher. In other words, it's a highly general plan that is also flexible and serves as inspiration.

Structurally, the Tool Box is mainly focused on practical activities - not classic in-class teaching:

#### 1. Four main workshops

- a) each consisting of different activities and tools
- b) highly flexible and adaptable for each school and country
- c) based on the pre-, during, and post-planting phases







#### 2. Seasonal / Additional / Extracurricular activities

In other words, this **Urban Micro Forest Toolbox** provides teachers with **flexible**, **adaptable and practical** activities and tools designed for **pre-**, **during**, **and post-planting phases** of an urban micro forest. The toolbox is designed to:

- Foster ecological awareness and biodiversity knowledge.
- Integrate STEM learning, art, Al tools, and cultural history.
- Be adaptable to the cultural and environmental contexts of Greece, Denmark, and Italy while also providing examples of possible cultural activities.

# General Seasonal Tools and Games

These activities are only for additional inspiration. Many of them are within the Tool Box activities, however, here teachers will be inspired in regards to the different seasons.

# **Spring Activities**

- Nest Helper:
  - Exercise: Collecting twigs and natural materials for birds to use in nesting.
  - **Teacher's Instruction:** Guide students in identifying useful nesting materials and placing them in safe areas.
  - Relevance to Miyawaki Method: Supports biodiversity by providing habitats for birds, an essential part of forest ecosystems.

## Biodiversity Exploration:

- o **Exercise:** Identifying newly sprouted plants and early insects.
- Teacher's Instruction: Encourage students to take notes and compare findings across seasons.
- Relevance to Miyawaki Method: Highlights the rapid ecological changes and the importance of dense planting.

#### • Tree Measurements:

- o **Exercise:** Using measuring tape to track growth over time.
- o **Teacher's Instruction:** Teach students to record data systematically.
- o **Relevance to Miyawaki Method:** Demonstrates the accelerated growth of Miyawaki forests compared to traditional plantings.

#### **Autumn Activities**

- Shelter Building for Small Animals:
  - o **Exercise:** Using logs and leaves to create hiding spots for hedgehogs and insects.
  - o Teacher's Instruction: Discuss why small mammals and insects need winter shelters.







- Relevance to Miyawaki Method: Encourages natural biodiversity and supports the ecosystem balance.
- Leaf Identification Game:
  - Exercise: Recognizing different tree species through fallen leaves.
  - o **Teacher's Instruction:** Guide students in sorting and categorizing leaves.
  - o Relevance to Miyawaki Method: Enhances students' understanding of forest diversity.
- Seed Collection & Dispersal:
  - Exercise: Learning about seed spread mechanisms in forests. Students act as wind, animals, or water dispersing seeds.
  - o **Teacher's Instruction:** Explain how different tree species propagate naturally.
  - Relevance to Miyawaki Method: Reinforces the importance of diverse plantings in selfsustaining forests.

## Winter Activities

- Bird Feeder Workshop:
  - o **Exercise:** Creating and hanging feeders with natural food.
  - o **Teacher's Instruction:** Discuss which foods are best for birds in winter.
  - Relevance to Miyawaki Method: Helps sustain local bird populations, supporting pollination and biodiversity.
- Tree Bark Rubbings:
  - o **Exercise:** Exploring how trees protect themselves during the cold months.
  - o Teacher's Instruction: Guide students in identifying tree species based on bark patterns.
  - o Relevance to Miyawaki Method: Encourages a deeper understanding of tree adaptations.
- Tracking Animals in Snow/Mud:
  - o **Exercise:** Identifying footprints of local wildlife.
  - Teacher's Instruction: Teach students how to recognize different animal tracks and their significance.
  - Relevance to Miyawaki Method: Connects students to the ecosystem interactions occurring in their forest.

# International Exchange Activities

Proposal on how teachers could exchange internally and externally.

**Objective:** Foster cross-country collaboration between schools in Denmark, Italy, and Greece.

## **Activities:**

- "Micro Forest Across Borders" (Ongoing):
  - o Schools upload progress updates (videos, photos, student reflections).
  - o Compare forests across different climates.
- Virtual Student Presentations (Yearly):







o Schools present creative projects (poetry, music, digital art) to international partners.

# Final Notes for Teachers

- Encourage students to document their Micro Forest journey through photos, drawings, and journaling.
- Regularly compare their Urban Micro Forest with a non-forested area to highlight ecological impact.
- Connect lessons with subjects like math (tree measurements), language (writing reflections), and social studies (community engagement).
- Strengthen creativity & cross-curricular learning.
- Adjust activities based on local culture & environment.
- Leverage AI & digital tools for deeper engagement.

This toolbox integrates **scientific inquiry**, **creativity**, **and care for nature**, ensuring students **actively engage** in the development of their urban micro forests by integrating hands-on learning with core ecological principles, fostering student curiosity and responsibility for the well-being of nature through the Miyawaki method.

# Tool Box / workshop activities - quick navigation

## Workshop 1 - appendix 1

- 1. Welcome and ice-breaker
- 2. Song Activity
- 3. What is a Forest?
- 4. Treasure Hunt
- 5. Art with Leafs
- 6. Leaf and tree identification game
- 7. Tree Species Theory
- 8. Tree Origin
- 9. Site Exploration
- 10. Forest Design
- 11. Naming and Presenting Designs
- 12. Writing a Letter to The Forest

## Workshop 2 - appendix 2

- 1. Welcome and Introduction
- 2. Introduction to the Forest and Planting Plan







- 3. Tree Planting Instructions and Tools
- 4. Time Capsule
- 5. Fence around the Forest and Cleanup
- 6. Celebrations and Ceremony

# Workshop 3 - appendix 3

- 1. Maintenance
  - a) Denmark
  - b) Italy and Greece
- 2. Litter Cleanup
- 3. BioBlitz
- 4. Soil Moisture test
- 5. Building Insect Hotels
- 6. Brushwood Fence
- 7. Introduction to Biodiversity in the Micro Forest

# Workshop 4 (can be repeated as a "workshop 5" and 6) - appendix 4

- 1. Produce Content and Exchange Online
- 2. Al-generated Music and Storytelling
- 3. Seasonal Changes and Documentation
- 4. Creative Engagement
- 5. Comparative Data Collection
- 6. Maintenance and Litter Cleanup from Workshop 3 should all be repeated in Workshop 4 as well
- 7. BioBlitz, Insect Hotel and Brushwood Fence could be continued/expanded in Workshop 4





















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