



Urban Micro Forest Toolbox Appendix 2 – Workshop 2







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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.









Tool Box / Workshop 2 activities

1. Welcome and Introduction

Estimated duration: 30 minutes

Learning objectives and curriculum relevance

By participating in the welcome activity and shared song, students will begin to understand the importance of collective environmental action, practice oral language in a social context, and engage in active citizenship through community forest creation. This activity supports several key learning goals across subjects:

- Science & Nature Studies: Students reflect on forest ecosystems and their role in planting a new habitat.
- Language & Communication: Singing and spoken presentations help develop oral skills and confidence.
- **Social & Emotional Learning**: Students take part in a collective action that strengthens belonging, empathy and environmental responsibility.
- **Civic Engagement**: Children practice democratic values by participating in a community-centered initiative.

Teacher guidance

- Use a warm and inclusive tone. This is a celebration as well as a teaching moment.
- Help students connect emotionally with the task: they are not just planting trees; they are creating a home for nature and future generations.
- Encourage shy students to sing along or move by modelling participation yourself. Invite "shy" students to take on a "secret role" where they help nature by encouraging others without using (too many) words. Give them a small token (e.g., a pinecone badge or green ribbon) and let them do quiet tasks like: Passing out lyrics, pairing up with a buddy to mirror movements, giving thumbs up or drawing how they feel on a board
- If using a visual agenda, point to each step and say it aloud, to support different learning styles.

Materials

- Visual program overview on a roll-up banner or whiteboard
- Music player and speaker (optional)
- Printed lyrics or poster with planting songs
- A circle-shaped gathering space outdoors or indoors

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Activity description

1. Arrival and welcome

As students and parents arrive, welcome them with smiles and calm energy. Once gathered, the teacher or facilitator speaks directly to the group:

"Welcome, everyone! Today is a special day. We're going to plant a forest together - not a big one, but one that matters. A forest full of life, planted by you. By the end of the day, this place will be changed - and so will you. So let's start by gathering as one group - humans who are ready to help nature grow."

If students have worked with the "forest ranger" role beforehand, remind them of their role as guides and caretakers.

2. Shared song

Singing creates a sense of community and can calm nerves. Choose a simple, repetitive song that celebrates nature or tree planting. If possible, sing the same song again at the end of the day for closure. Suggested Danish songs (translated versions or nature-themed alternatives can be used in other countries):

- "Livstræet" (The Tree of Life)
- "Vi vil plante et træ" (We Want to Plant a Tree)
- "Du skal plante et træ" (You Shall Plant a Tree)

Let students lead the verses if they know them - encourage clapping or gentle swaying to engage the group physically.

3. Visual agenda

Show the full planting day program using symbols and drawings - a shovel for planting, a sun for snack break, an envelope for the time capsule, etc. Walk students through each phase so they understand what's coming and feel secure.

This also helps students with different learning styles - especially visual learners or those who benefit from structure.

4. Optional icebreaker: Move like a tree

Do a light movement-based activity to loosen up and energize:

- Grow like a Tree: Everyone crouches as a seed, slowly rises into a sprout, then becomes a strong tree with waving arms.
- Mirror Trees: Pair up and take turns mirroring each other's tree-like movements.
- **Wind Game**: Pretend to be trees in different types of wind (breeze, gust, storm). Let the students guess or act out together.

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Keep the tone playful - this is a celebration of nature and teamwork.

2. Introduction to the Forest and the Planting Plan

Estimated duration: 20 minutes

Learning objectives and curriculum relevance

This activity introduces foundational ecological concepts and places students within a real-world environmental action.

- Science & Ecology: Students learn about forest layers, biodiversity, and the Miyawaki method.
- **Geography**: Orientation in space and understanding land use.
- Visual Literacy: Interpreting maps, diagrams, and spatial plans.
- Responsibility and Ownership: Students begin to see the site as "their" forest-in-progress.

Teacher guidance

- Keep explanations short and visual most of the day will be hands-on.
- Invite questions and dialogue during the site walk.
- Frame this moment as "before" later in the day, the space will look completely different.

Materials

- Large illustrated map of the planting site (on poster board, banner, or digital projection)
- Simple poster or slideshow explaining "What is a forest?" and "What is a Miyawaki forest?"
- Color markers or zone indicators (can be reused for group assignments)

Activity description

1. Set the context

Begin by gathering students around the large site map or drawing.

Say something like:

"This spot we're standing on will become a living forest. Not next year - but today, the first trees will take root. You are helping nature come back to life."

Then, briefly explain:

- What a forest is a community of trees, plants, fungi, animals, and micro-life.
- The idea of a **Miyawaki Forest** planted very densely, with native species, using different heights and layers to mimic a natural forest.
- Why this method works: faster growth, higher biodiversity, and stronger ecological balance.









Visual aids are key here: a poster showing forest layers (ground cover, shrubs, small trees, canopy) helps students understand the concept at a glance.

2. Walk the site

Take the group on a slow, guided tour around the planting area. Stop at key points:

- **Boundaries**: Show where the forest begins and ends.
- Planting zones: Explain how parts may be planted in stages or by different student teams.
- Tool area: Show where gloves, shovels, and mulch will be picked up.
- Water access and paths: Point out if there's a hose, rain barrels, or walking paths.

If possible, assign small roles already:

- "You'll help carry the map"
- "You can show people the mulch area later"
 This builds anticipation and responsibility.

3. Engage with the map

Let students ask questions about the zones and help explain:

- Which areas will have the tallest trees?
- Where will the wildflowers go?
- Will there be space to sit or walk through the forest later?

This is also a good time to correct any misconceptions and spark excitement:

"You'll each be planting a tree, maybe two or three. And they'll grow together into something much bigger than any one of us."

3. Tree Planting Instructions & Tools

Estimated duration: 15 minutes

Learning objectives and curriculum relevance

Students receive hands-on instruction in tree planting techniques and begin to take ownership of the micro forest project.

- Science & Biology: Understanding root systems, soil layering, and plant care.
- Practical Skills: Learning how to use garden tools safely and correctly.
- Collaboration: Practicing cooperation in teams of two.
- Environmental Citizenship: Taking action to restore ecosystems.







Teacher guidance

- Keep demonstrations short and interactive let students repeat key steps aloud.
- Model careful and respectful treatment of the saplings.
- Use clear visual markers for each planting team's tools and area.

Materials

- Saplings (sorted by species)
- Spades or small shovels (1 per pair)
- Gardening gloves (1 pair per student)
- Straw or hay mulch (for covering planted areas)
- Color-coded sticks or flags (optional for marking planting spots)
- Watering cans or access to water
- Instruction posters or laminated step-by-step guides (optional but helpful)

Activity description

1. Demonstration circle

Gather students in a semi-circle around the instructor and planting demonstration zone. Use a real sapling and tool for the demo.

Explain and model the following steps:

1. Dig a hole

- o About 30 cm deep and wide deeper and wider than the roots.
- o Keep the topsoil and subsoil separate if possible.

2. Place the sapling

- o Gently loosen the root ball if it's in a container.
- o Roots should be spread downward not bent or twisted.

3. Fill the hole

- o Cover roots completely.
- Press the soil gently but firmly enough to hold the tree upright, but not too tightly so that the roots get compressed.

4. Mark the spot

Place a colored stick next to the tree.

5. Mulch / top-soil

 Add 15-20 cm of straw or similar over the soil around the tree (do this later when multiple trees are in).

6. Water

o Each tree should be watered immediately after planting, especially if the weather is dry.

Encourage questions - e.g. "What happens if we plant too shallow?" or "Why do we mulch?"

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If plants break?

If a sapling breaks or soil is too rocky, simply reassign that pair to help another group or support the mulch team

2. Tool distribution

Use a **color-coded ticket system** to hand out tools. For example:

- Each student pair receives a color card.
- They must find the matching bucket or pile containing their tools.

This avoids chaos and keeps students focused on the instruction before grabbing tools.

Explain clearly:

- "Tools stay in the marked zones."
- "When you're done planting a tree, raise your hand for a check."
- "If your tree falls over plant again. That's part of learning."

4. Planting Phase 1

Estimated duration: 45-90 minutes

Teacher guidance

- Circulate throughout the area to observe, assist, and encourage.
- Use positive reinforcement when students follow planting steps correctly.
- Help troubleshoot issues like crooked saplings, poor soil fill, or forgotten mulch.

Materials

- Saplings (sorted and distributed in planting zones)
- Shovels or hand tools
- Color-coded sticks or flags
- Mulch (for use later in the session)
- Water supply
- Gloves, water bottles, hats (students should be equipped)

Activity description

1. Pair-based planting

Students work in pairs. Each pair is given a colored stick to mark their planting spot.

- One student digs the hole using the correct technique (as shown in the demo).
- The other student collects a sapling and prepares it for planting.

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After planting, they mark the spot with the stick.

Pairs plant **1-2 trees per round**. After each planting, they return to the tool zone and receive a **new colored stick** for their next tree.

This rotation ensures:

- Fair division of labor
- Opportunities for multiple planting repetitions
- Smooth use of limited tools and saplings

2. Teacher/student roles

Teachers, staff, or parent volunteers are encouraged to:

- Help pairs troubleshoot challenges (rocky soil, roots too large, unclear spacing)
- Remind students about spacing (approx. 30-40 cm apart if not otherwise marked)
- Monitor safety: shovels are tools, not toys

Consider assigning older students or confident volunteers as "tree buddies" to assist younger children.

3. Progress markers

Set a goal: e.g. "Let's plant 50 trees before break!"

You can mark progress on a poster or board as motivation.

Optional variation:

Play soft background music to create a focused and positive atmosphere.

5. Planting Phase 2 & Finishing Touches

Estimated duration: 45-90 minutes

Teacher guidance

- Ensure students rotate tasks to stay engaged and avoid fatigue
- Use encouraging language to motivate those who may tire
- Highlight how their work today shapes the forest's long-term success
- Support accurate straw spreading and hedging techniques

Materials

- · Remaining tree saplings
- Straw or other organic mulch
- Wooden sticks or branches for marking boundaries
- Gloves, spades, and watering equipment









Activity description

1. Continue planting

Students pick up where they left off in Phase 1.

Those who planted early can now help others or assist in mulch spreading.

Teachers should circulate to guide, support, and supervise safety.

Tips for engagement:

- Rotate pairs: allow new pairings so students meet others
- Let students switch between digging and carrying saplings
- Praise careful planting more than speed

2. Laying mulch

Once 20-30 trees are planted in a section, begin laying a 15-20 cm layer of straw around the base of each tree

Make sure mulch is not pressed tightly against the stem, to avoid rot.

This step helps retain soil moisture and suppress weeds.

Optional group challenge: Can your team mulch 10 trees neatly in 10 minutes?

3. Mid-activity break (if needed)

Offer a brief pause for water or stretching after 45-60 minutes.

4. Celebrate visible progress

Before moving on to the fence-building section, invite students to look over what they've accomplished. Ask reflective questions such as:

- How does the space look now compared to this morning?
- What do you think this forest will look like in a year?

6. Time Capsule and Letters to the Forest

Estimated duration: 30 minutes

Learning objectives and curriculum relevance

This activity supports reflection, emotional connection to the environment, and creative expression. It creates a sense of legacy and long-term thinking.

- Language Arts: Writing for purpose and audience
- Environmental Education: Articulating personal connections to nature
- History & Citizenship: Creating a message for future generations



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• Social-Emotional Learning: Reflecting on one's values, hopes, and role in nature

Teacher guidance

- Invite students to express emotions, dreams, or promises.
- Encourage honesty and simplicity. Spelling or grammar is not important.
- Celebrate all contributions equally, whether written or drawn.
- Make space for quiet time and personal focus.

Materials

- Pre-written letters or drawings (optional, from previous lessons)
- Paper, pens, colored pencils, crayons
- Permanent marker to label the capsule with date.
- Weatherproof container (tin, jar, box) for the time capsule
- · Small spade or trowel to bury it
- Flag, stone, or marker for the capsule spot

Activity description

1. Sharing pre-written letters (optional)

If students prepared letters or drawings earlier:

- Invite a few volunteers to read their letters aloud.
- This models the activity and builds emotional resonance.

2. On-site writing or drawing

If the letters are made during the planting day:

- Set up a letter station in a quiet, shaded space.
- Students can sit alone or in small groups to write/draw a message to the forest.

Suggested sentence starters:

- "Dear forest, I hope you will..."
- "One day someone might find this letter and..."
- "I helped plant you because..."

Prompt ideas:

- What kind of forest will this be in 10 years?
- What animals do you hope will live here?
- What do you want other people to feel when they visit this forest?

Students can also:







- Draw their planted tree
- Include a favorite memory from the day
- · Add a "promise" or "wish" for the forest

3. Creating and burying the time capsule

Once the letters and drawings are done:

- Place all messages in a sealed, weather-resistant container.
- Choose a small group of students to dig a shallow hole (20-30 cm).
- Bury the capsule and mark the location clearly (ideally bury the capsule underneath the informative sign located at the forest.)

Tip: Use a permanent sign or stone marked "Time Capsule - Do not open before [year +10]". Optional: Invite students to create a "**Return Date"** poster to display at school, inviting them to return when the forest is 10 years old.

7. Fence Around the Forest

Estimated duration: 60-90 minutes

Learning objectives and curriculum relevance

This activity supports hands-on understanding of environmental design, construction principles, and protection of ecosystems.

- Science & Ecology: Understanding why young forests need protection from animals and human disturbance
- Technology & Craft: Applying basic principles of building and securing structures
- Collaboration & Citizenship: Strengthening teamwork and a sense of shared ownership over a natural space

Teacher guidance

- Safety first: closely supervise the use of tools and lifting of materials
- Demonstrate proper fence-building techniques at the start
- Encourage teamwork and task-sharing among students
- Allow for creativity in fence design, especially with brushwood

Materials

- Wooden fence posts or metal rods (pre-measured and counted)
- Brushwood bundles, twigs, or flexible branches

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- Twine, wire, or zip ties for binding
- Mallets or hammers (for teachers/adults only)
- · Gardening gloves for each student
- Optional: reused materials such as old bamboo sticks, pallets, or natural logs

Activity description

1. Introduction and purpose

Explain why the forest needs a fence:

- To protect young plants from trampling or animal browsing
- To clearly mark the forest's boundaries
- To give the planted area a sense of completion and care

Use a visual example or sketch to show students what the final result might look like.

2. Mark the perimeter

Together, walk the edge of the forest plot.

Use string or a chalk line to indicate where the fence should go.

Divide the area into manageable sections for smaller groups.

Tip: Let students use sticks to "draw" the line in soil or sand before beginning.

3. Fence building

Assign pairs or trios to sections of the fence.

Let them work on:

- Holding and positioning the vertical poles
- Passing twine or wire to tie brushwood
- Arranging the brushwood to overlap and form a barrier

Brushwood fencing is ideal for areas up to 100 m². For larger plots, focus fencing on key vulnerable sides (e.g. near paths or open areas). See description of the <u>brushwood fencing here</u>

Teacher or adult role:

- Hammer or drive posts securely into the ground
- Check structural safety as each section is built

4. Celebrate completion

Once the fence is fully or partially installed:

- Walk the perimeter with the class
- Ask: "What does this fence protect?"









Take a group photo with students standing along their completed fence

Optional challenge

Let students "name" their section of the fence with small wooden tags or decorative string.

8. Cleanup - Wrapping Up with Care

Estimated duration: 15 minutes

Learning objectives and curriculum relevance

Cleanup is an essential part of stewardship education. It teaches responsibility, respect for shared space, and follow-through after action.

- Civic Engagement: Taking responsibility for the environment
- Practical Life Skills: Organizing, sorting, and team cooperation
- Environmental Education: Learning that planting includes long-term care
- Health and Safety: Understanding safe tool handling and hygiene outdoors

Teacher guidance

- Frame cleanup as the last important contribution to the forest
- Emphasize care for tools and nature this is part of being a "forest ranger"
- Encourage cheerfulness this isn't punishment but a proud conclusion
- If energy is low, turn it into a lighthearted competition

Materials

- Collection buckets or bags (for trash or leftover materials)
- Tool crate or box
- Hand sanitizer or handwashing station
- Optional: small reward for the "most helpful cleanup crew"

Activity description

1. Collecting tools and materials

- Ask each pair or small group to collect:
 - o Shovels and hand trowels
 - o Buckets and watering cans
 - o Gloves (gathered into a laundry bag or container)
 - o Any remaining mulch materials









• Appoint a few students as "tool leaders" to oversee that everything returns safely

2. Clean the planting area

- Pick up any litter, leftover packaging, or lost items
- Straighten the planting zones if any tools or markers remain
- Optional challenge: "Who can collect the most stray straw pieces?"

3. Hand hygiene and wind-down

- · Gather the students for handwashing or sanitizing
- Offer water and a short moment to sit down or breathe deeply before heading home

4. Reflective closing (optional)

- Ask the group:
 - "What was the best part of today?"
 - o "What surprised you?"
 - o "How will this forest change over time?"
- Use a soft tone to end on a peaceful, grounded note

9. Informative Sign

Estimated duration: 15 minutes

Learning objectives and curriculum relevance

This short activity promotes student involvement in environmental communication and identity-building for the forest space.

- Language Arts: Understanding the importance of communication and storytelling in environmental contexts
- **Visual Design**: Recognizing the role of visual tools in conveying information
- Civic Education: Practicing public responsibility and pride in shared spaces

Teacher guidance

- Ensure the final sign is durable, weather-resistant, and clearly visible
- Prepare the final sign in advance (printed or hand-written on wood or metal) → use the <u>Canva.com</u> template from 2030skov.
- Give students a moment of pause and ceremony when placing the sign

Materials

Two strong wooden posts

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- Screws or nails
- Pre-made sign (preferably waterproof)
- Screwdriver or hand drill (used by adult only)
- Optional: small decorations, paint or markers to personalize the area

Activity description

1. Introduction

Explain the purpose of the sign:

- To inform visitors what the forest is
- To give identity and visibility to the forest
- To recognize the work of students and volunteers

Examples of sign content:

- "This Miyawaki Micro Forest was planted by Class 5B in 2025"
- "A forest for nature, people, and the future"
- "Watch us grow tiny forest in action!"

Let students reflect on:

• What would they like others to know when they see the forest?

2. Erect the signposts

With help from teachers or adults:

- Place the wooden posts firmly in the ground (students can help hold them)
- Use a level if available to ensure the sign sits straight

3. Secure the sign

- Screw or nail the sign onto the posts
- Involve students by letting them hand over the tools or help with alignment

Optional: Decorate the sign area with rocks, small flags, or flowers. Students can also leave a thumbprint or signature on the post base.

4. Take a break

- Gather around the sign for a short reflection or group photo
- Say: "This sign marks more than just a forest. Below it, a time capsule is buried. In ten years, another class may stand here, read your letters, and see how your forest has grown."
- Ask: "What do you want people to feel when they see this sign and this forest?"







10. Celebration and Closing - Community Engagement

Estimated duration: 15-30 minutes

Learning objectives and curriculum relevance

This final segment emphasizes reflection, communication, celebration, and inclusion. Students practice public speaking, social interaction, and community appreciation.

- Civic and Social Learning: Understanding the power of collective action and community celebration
- Language and Expression: Practicing gratitude and presenting achievements
- Arts and Culture: Expressing identity through song and ceremony
- Environmental Education: Strengthening emotional and symbolic connection to nature

Teacher guidance

- This activity can be simple or more festive depending on the setting
- Encourage students to reflect on what they've done and to express it with pride
- Make space for family participation without forcing performance
- Use music, visual props, and certificates to mark the occasion
- Optional activity: If time allows, let students sketch ideas for what they want on the sign their slogans, forest name, or illustrations. This builds ownership and connection.

Materials

- Camera or phone for group photos
- Certificates or handmade badges (optional)
- Musical playback device (if using recorded music)
- Printed lyrics if students sing again
- Forest sign (if not yet inaugurated)

Activity description

1. Group photo

- Take a picture while everyone is still relatively clean and energized
- Include teachers, students, and parents if present
- Optional: take small group or buddy photos with planted trees or the sign

2. Singing together

- Revisit the song from the opening (e.g. "Livstræet" or another local nature song)
- Singing together provides emotional closure and joy
- Teachers may lead or play recorded music

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3. Inauguration ceremony

- Gather everyone near the informative sign
- Invite 1-2 students to reveal the sign or read it aloud
- Optionally add small decorations (flower garland, ribbon, natural materials)

Ceremony script (example):

"We declare this forest open - a gift to nature, planted by young hands with care and love."

4. Hand out forest certificates or badges

- Each student can receive a simple certificate: "Tiny Forest Ranger Planting Hero"
- Make sure to acknowledge all contributions planting, supporting others, creativity, and cleanup.
 Everyone has helped grow this forest.
- Optional: include their tree number or a fun badge with their forest nickname

5. Thank you speech and next steps

- Teacher or organizer thanks students, volunteers, and parents
- Mention the importance of continued care and observation
- Encourage families to return and follow the forest's growth
- Share link or hashtag to follow updates (school blog, social media, posters)





















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