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micro forest school

Urban Micro Forest Toolbox

Appendix 1 - Workshop 1

Indhold

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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 co-creation 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.

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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**, **AI 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 1 activities

1. Welcome and movement-based ice-breaker

Learning objective

To warm up the body, mind and soul, to promote playful connection through movement and imagination as well as to connect spiritually to nature and life. This will also create a sense of community through shared activity.

Intro Speech

(Speak with energy and a bit of storytelling tone)

> *"Hello everyone!*
> *Today, we're going on a little journey through the forest - but not as ordinary people. No, we are going to be trees!*
> *We begin as tiny sprouting seeds, struggling to grow big and strong.*

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You'll challenge each other in fun little duels to see who can grow the fastest and become a mighty tree in the forest!
Later, we'll grow into a whole forest together - some of us are young, slender birch trees, others are old, heavy oak trees.
But watch out... a storm is coming! How do we withstand the wind, the rain, and the lightning?
It's not about winning - it's about having fun, supporting one another, using your body, and being creative together.
Are you ready? Let's grow!"

Icebreaker 1: Tree Evolution - Rock-Paper-Scissors with Movement (10 minutes)

Suggestion: Continue playing with new partners after each round to keep the game flowing.

Theme:

Children evolve from a seed → sprout → small tree → big tree through "rock, paper, scissors" duels.

How to do it:

Starting position: Everyone starts as a seed. They squat low and rock gently back and forth.

Game

Find another "seed" and play rock, paper, scissors.

The winner moves up to the next development level (sprout, then small tree, then big tree).

The loser stays at their current level.

Stages and movements

- Seed: Crouched down, gently swaying.
- Sprout: Rise slightly, flutter your arms like small leaves (arms).
- Small tree: Standing but slightly wobbly (small jumps).
- Big tree: Stretch arms high, move slowly and calmly (large, calm movements).

Goal

Once you're a big tree, you can help others by playing against them and encouraging them.

Tip

Consider using fabricated leaves, simple props or playing forest sounds in the background (birdsong, wind in trees) for atmosphere. Furthermore, if your class is greater than 20 students it might be preferable to split into smaller groups.

Icebreaker 2: Forest in a Storm (5-7 minutes)

Theme

Children imitate different types of trees and respond to various wind strengths.

How to do it

Explain the tree types (choose 3-4):

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- Young birch trees: Thin, flexible, sway a lot in the wind
- Old oak trees: Thick and almost unmovable, but may creak a little
- Pine trees: Stiff in the wind, stand more upright
- Shrubs: Small and quick movements near the ground

Instruction
Call out different “wind strengths”:

- Gentle breeze: Small movements
- Strong wind: Large, controlled movements
- Storm: Wild swaying, some trees or branches may even “snap” and sit down

Suggestion: Let the children choose their own type of tree or assign one to each person.

Game
You choose a wind strength and possibly a tree type (e.g. “Storm in a birch forest!” - all birch trees sway wildly).
Children improvise their movements.

Tip!
Add little challenges such as: “Lightning strikes - freeze in a dramatic pose!”
Grounding Exercise: A Journey Through the Forest Year-Round (approx. 5-7 minutes).

Instruction
Ask children to find a spot where they can sit or stand comfortably without touching others.
Speak with a calm, gentle voice.
Allow time between each image so they can follow along in their imagination.

Guided Text

“Close your eyes if you’d like... or look quietly at the ground in front of you.
Breathe in slowly and calmly... then exhale again.
Imagine that you’re standing in a forest.
It’s spring. The air is fresh, and you can hear the birds singing.
Small, light-green leaves are emerging on the trees.
You feel the soft earth beneath your feet, and maybe you can smell the damp forest floor.
Now it becomes summer.
The sun warms your skin, and the forest is dense and deep green.
Maybe you hear a bee buzzing...
You find a spot in the shade under a large tree and feel how the tree protects you from the heat of the sun.

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Soon it becomes autumn.
The air grows cooler.
Leaves in red, yellow, and orange float down around you.
You may pick up a beautiful leaf and feel how dry and crisp it is in your hands.
And now... it's winter.
The forest is silent.
Maybe there is snow on the branches, and as you breathe in, you feel the cold in your nose.
The forest is asleep. Everything is calm and peaceful.
Stand here for a moment and feel that, just like the forest, you too can find calm - deep inside yourself.
(Pause about 10 seconds)
When you're ready, take a deep breath... move your hands and feet a little... and gently open your eyes."

Tip!
Consider playing gentle nature music in the background (e.g. wind, birdsong, babbling brook)
Suggestion: Afterwards, ask if anyone would like to share which season they enjoyed being in the most

Summary
These icebreakers and the grounding exercise create movement, presence, and imagination in the classroom.
They are ideal for launching a nature-focused unit on forest and trees, as well as fostering a sense of community, of safety, and engagement among the students.
Time is of the essence: Therefore, you could choose to only offer one ice-breaker activity.

2. Song Activity (will be translated later)

3. What is a Forest? – A journey through science, sense and imagination

Visualization Exercise and Grounding
This exercise helps students connect with the knowledge and images they already have about forests and trees.
When carried out calmly and with full attention, it can help regulate students' energy and create focus for the lessons that follow.

Expected time: 5-15 minutes.

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How to Conduct the Exercise

Ask students to find a comfortable position they can hold for a few minutes. This could be:

- Lying on their back on mats on the floor or a grassy lawn
- Standing with feet slightly apart and posture tall but relaxed, arms hanging by the sides
- Sitting upright on a chair with feet slightly apart and hands resting on their thighs

Eyes should remain closed throughout the entire exercise to promote inner peace and focus.

Read the guided text aloud once everyone is settled and the room is quiet:

- Read slowly, clearly and with a deep, calm voice
- Keep your voice somewhat monotone, so the focus stays on the words, not the tone
- Pause briefly (one breath) between sentences, giving students time to visualize

Extend the exercise by post-reflections either by drawing or in complete silence (background noise optional)

Guided Visualization - Reading Script:

Now we're going on a walk through a forest using only our imagination.
Close your eyes and imagine that you are in a forest.
What is the air like?
Is it warm or cool?
Damp or dry?
Does it smell of something? Or is the forest air completely neutral?
What can you hear?
Is there silence?
The rustle of wind through the treetops?
Movements in the forest floor?
Birdsong or animal sounds?
People nearby?
Maybe you can hear your own breathing?
What do you feel here in the forest?
Are there sunbeams warming your skin, or are you standing in cool shade?
Is the ground hard like stone, or soft and springy beneath your feet?
Is the forest dense, so you have to push through it, or open with tall, slender trees?
Is it raining, or are you sheltered under a tree crown?
Does the forest floor prick your bare feet, or does it feel soft and loamy?
Now you choose a tree and walk up to it to place your hands on its trunk. Maybe you even have a name or message to the tree?

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Is the trunk thick or thin?
Can you reach all the way around it with your hands or arms?
Do you need more people to encircle it?
Notice the bark.
Is it rough or smooth?
Is it the same on the trunk and the branches?
What does the bark look like on the thin twigs?
What do the leaves feel like?
Lean your head back and look up into the tree.
Do you have to look far to see the top?
Can you see the sky? Or only leaves?
What can you see? (Still with eyes closed)
Can you see far into the forest between tall trunks, or only a short distance in thick vegetation?
Do you see many different kinds of trees, or just one type?
Is the ground bare, or covered with leaves, needles, or plants?
Do you see insects in the air or on the ground?
Are there insects on the tree trunks, twigs, or leaves?
Do you see birds or animals anywhere?
Has something changed in the forest?
Is your heart beating fast or slow?
Is your breathing quick or calm?
Do you feel connected to nature, or simply a visitor?
Does the forest make your thoughts calm, or speed them up?
Now you find a good place to sit.
You think of something that makes you happy.
You store that happiness in your heart and get ready to return to the real world.
When you're ready, start to wiggle your toes, move your feet a little, open your eyes, and gently return to the group.
Now that we've experienced the forest through our imagination, let's explore what a forest actually is and how it functions.

Summary
This visualization exercise supports deep focus, body awareness, and connection to nature. Students are given the chance to activate their senses and imagination, creating a strong and personal introduction to a forest-themed learning journey.

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What is a Forest?

Scientific Definition, Key Points and Brainstorm

Materials

- A background text for the teacher or organizer
- A PowerPoint presentation for students and volunteers
- A quiz sheet or “13-question challenge” for students

Purpose

To give students an understanding of what a forest is, both from a scientific and a functional perspective. At the same time, the format encourages reflection and dialogue through questions and interactive activities.

Questions for Discussion or Reflection

These questions can be discussed during the presentation or transformed into a quiz that students complete beforehand and check afterwards:

1. Can forests grow anywhere?
2. Can trees grow anywhere?
3. Where in the world are the largest forests found?
4. Where in the world are there no forests?
5. What is needed for a forest to grow?
6. How do forests develop naturally?
7. Is a group of trees always a forest, or does it take more?

- Are forests all the same or are they different?
- What types of forests exist around the world?
- Why are forests different in different places?
- Are there more or fewer forests in the world today than 50 years ago?
- What services do forests provide for free?
- What would happen if all forests disappeared?

13-Question Challenge - Example

This quiz could be used as a group quiz, competitive game, or discussion starter in pairs and can be structured with A, B, and C answer choices.

Example question: Can forests grow everywhere?

A. Yes, if we decide to plant them
B. (custom option)
C. No

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More questions from the list above can be added in the same format.

What Defines a Forest?
The key element of a forest is trees – lots of trees.
But a forest also includes multiple layers of life and a functioning environment where plants and animals can thrive.

Is There a Precise Definition?
There is no single universal definition, but several factors are considered:

- Forests are typically areas larger than 0.5 hectares
- Small forests can be ecologically functional if they are sheltered
- In open landscapes, larger areas are often needed to create continuity
- In land registry terms, wooded areas down to 0.1 hectares may be registered as forest
- Linguistically, a "forest" is usually considered larger than a grove

FAO's International Forest Definition
According to the UN Food and Agriculture Organization (FAO), a forest is defined as:

- A minimum area of 0.5 hectares
- Trees capable of growing taller than 5 meters
- At least 10% canopy cover

This allows savannah landscapes with sparse trees to be classified as forests, such as those in Africa.

Source: Danish Nature Agency
https://naturstyrelsen.dk/om-naturstyrelsen/kontakt/faq/naturdefinitioner

Slideshow: What Is a Forest?

Instructions: Feel free to use printed cards or simply print the entire document and use it as your manuscript. We encourage you to not use screens for better interaction and connection with the children.

Slide 1: Title - What Is a Forest?
Image: A lush, green forest
Mini-text:
"Hi everyone! Today, we'll explore what a forest really is – through science, imagination, and what we can create ourselves. Before we start I would like to ask all of you what is the first word that comes to mind when I say the word "forest"?"

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Slide 2: The Forest as an Ecosystem
Image: A tree with roots, fungi, birds, a fox
Mini-text:
“A forest is a vast community. Plants, animals, fungi and tiny organisms all work together. Everything is connected.”
Class question:
“Can you name an animal or plant that lives in a forest and helps others?”

Slide 3: Forests in the Past and Cultural Landscapes
Image: Ancient forest and a mythical forest troll
Mini-text:
“Many forests were planted by humans. In the old days, people believed trolls and elves lived in the woods.”

Slide 4: Types of Forests
Image: Three images - dark forest, bright forest, rainforest
Mini-text:
“Forests can look very different. There are dark forests, bright forests, and tropical rainforests.”
Class question:
“Have any of you been in a forest that looked very different from these? What was it like?”

Slide 5: The Importance of Soil
Image: Wet area and dry, sandy area
Mini-text:
“The soil determines which trees can grow. Wet soil favors alder and ash. Dry soil favors pine and birch.”
Class question:
“What do you think the soil looks like under your favorite forest – wet and muddy, or dry and light?”

Slide 6: The Role of Weather
Image: Wind-shaped forest from the west coast and a beech forest from the east coast
Mini-text:
“Weather shapes the forest. Wind creates low, strong trees. Rain leads to dense, green forests.”
Class question:
“How do you think trees survive storms? What do they do?”

Slide 7: The Wild Forest
Image: Messy forest floor with fungi and dead branches
Mini-text:

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“A wild forest takes care of itself. It has old trees, fallen branches, and lots of small animals that help.”

Slide 8: Miyawaki Forests - Small Forests
Image: Before and after – bare soil becomes dense forest
Mini-text:
“Miyawaki forests are planted closely together and grow quickly. They become home to many animals and insects because they provide food, shelter, moist soil, and protection from rain and wind.”

Slide 9: Similarities and Differences
Image: Two columns: Wild forest and Miyawaki forest
Mini-text:
“A wild forest grows on its own. A Miyawaki forest is planted, but takes on a wild character over time.”
Class question:
“If you were to create your own little forest, which trees or plants would you choose?”

Slide 10: Ending - Adventure and Life
Image: Children playing in a forest
Mini-text:
“Forests are full of life and adventure. Who knows what you’ll discover the next time you go for a walk in the woods?”

Slide 11: Thank You for Today
Image: Children planting trees or a lush mini forest
Text:
“Forests are full of life, magic and possibilities. If you could plant your own little forest, what would you include in it?”
Mini-text:
“Thank you for listening and sharing your thoughts!”

Suggestion: This exercise works well with exercise 10. forest design and could be used as a follow-up activity.

Quiz: 13-Question Challenge – Test Your Knowledge About Trees

1. **What is a pioneer species?**

A: A plant that grows in the desert
B: A species that is the first to grow in a new area
C: A tree that never loses its leaves

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2. What does climax forest species mean?
A: Trees best adapted to the stable conditions of a mature forest
B: Trees that grow in the Arctic
C: Trees that change color with the seasons

3. What are canopy layers?
A: The different heights where tree crowns are found
B: The height of the forest floor
C: The name for the tallest trees

4. Why do trees thrive better together than alone?
A: Because they get lonely
B: They protect each other and improve growing conditions
C: They use less water

5. What is a shade-tolerant tree?
A: A tree that can grow in shade
B: A tree that grows in the sun
C: A tree with very dark bark

6. What is a light-demanding tree?
A: A tree that glows in the dark
B: A tree that needs lots of sunlight
C: A tree with light-colored bark

7. What does wind sensitivity mean in trees?
A: Trees that grow quickly in wind
B: Trees with delicate leaves
C: Trees that fall easily in strong wind

8. What is a drought-tolerant tree?
A: A tree that withers quickly
B: A tree that can survive with little water
C: A tree that only grows in winter

9. What is a water-tolerant tree?
A: A tree that can grow in very wet areas
B: A tree that needs daily watering

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C: A tree that cannot withstand rain

10. What does cold-resistant mean?
A: The tree freezes quickly
B: The tree can withstand frost and cold
C: The tree can tolerate fire

11. How do you determine if a tree is suited to a location?
A: By looking at soil, climate, and sunlight conditions
B: Ask the neighbor
C: Choose the tree you like best

12. How can you tell if a tree is native to the area?
A: Guessing
B: By looking at old photos, talking to people, and visiting museums
C: By reading fairytales

13. Which tree is an example of a climax forest species in Denmark?
A: Ash
B: Beech
C: Willow

Final thoughts: This quiz only serves as inspiration. Feel free to adjust and adapt to your setting and classroom. An alternative approach could be grouping the answers from the quiz into a classroom discussion first divided into teams and then later plenum.

4. Treasure Hunt (will be translated later)

5. Art with Leafs (will be translated later)

6. Leaf and tree Exploration – Identification Through Senses, Stories and Art

A flexible series of activities that combine forest knowledge, sensory play, and artistic expression

Introduction and Start

Materials

- Paper and pencils
- A short forest poem

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- Optional: forest sounds or nature music (e.g. from Spotify)

1. A Sensory Start - Draw a Leaf or Tree from Your Imagination
Students lie down or sit comfortably with closed eyes.
Read a meditative forest poem aloud and guide them in a visualization, where they imagine walking through a forest and seeing a tree and a leaf.

Forest Poem:
Select and indsert a short meditative forest poem suitable for the age group and culture:

After the visualization, students draw the leaf they saw in their imagination, preferably with eyes closed.
Conclude with a voluntary sharing round: “Would anyone like to share their experience? Was your tree real or imaginary? What inspired its shape or features?”

Facts and Understanding

2. Facts About Trees and Roots
Tell a local or cultural story related to trees if available. Include facts about tree structure with a focus on root systems.
Show pictures of tree roots and share the story of the “Tree of Life”.
Alternatively you can start the exercise by asking an open ended question in plenum: “what knowledge do you have about The Tree of Life?”

Tip:
In the digital resources you can find a printable sheet of a tree illustration. This can be printed on a hard board for reuse.

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Active Outdoor Learning

3. Tree Observation and Sensory Game

Go outside and explore the trees using the senses: see, touch and hug them.

Game: Find Your Tree

- Work in pairs
- One student closes their eyes and is led to a tree
- The "blind" student explores the tree by touch
- They are then led away and must find their tree again
- Switch roles
- Afterwards, students can talk about what they felt when exploring the tree without seeing

Creative Activities

4. Leaf Art - Express with Natural Materials

Materials:

- Leaves, paper or cardboard, glue, markers
- Digital tools: Google Lens, Picture This, iNaturalist, Seek

Students collect leaves and create small artworks using them.
The leaves are glued onto cardboard and become part of a larger drawing.

5. Draw the Tree's Roots - Collective Artwork

Materials:

- Large sheets of paper, thick markers, tape
- A small tree, branch, or leaf

Mount the paper on a wall or the floor.
Attach the tree or leaf at the top.
Students work in groups to draw roots and soil layers, worms, fungi, and other underground life.

Suggestion: Each group could name their root system and write a short description or story of what "lives" inside. That could build narrative thinking and ownership.
Exhibit the artwork and let students present their drawing.

6. Leaf Fun - Creative Deep Dive

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Materials:

- Leaves, paper, green pencils, markers, cardboard, glue or tape
- Digital tools: Google Lens, Picture This, iNaturalist, Seek

Overview:
Collect different leaves from nature. Look for variations in shape, size, and color.
Bring the leaves back to the classroom.

Task a:
Place the leaves on paper and trace their outlines using pencil or marker.

Task b:
Cut a leaf in half, tape or glue it to the paper, and draw the missing half.
Color with pencils.

Discussion prompts:

- Shape: Is the leaf round, pointed, toothed?
- Size: Which leaf is the largest? The smallest?
- Texture: Is the leaf smooth, bumpy, or hairy?
- Color: Which shades of green (or other colors) can you find?
- Name: Can we remember which tree the leaf is from?

7. Leaf Printing - Make Nature Art
Materials:

- Leaves, paper, brush or sponge, water-based paint or crayons

Method 1: Paint

- Choose leaves with visible veins and patterns
- Place the leaf underside up (the textured side)
- Use a brush or sponge to apply a thin layer of paint
- Press the painted side onto paper
- Lay a clean sheet on top and press gently
- Remove both papers and observe the print
- Try different leaves and colors to make your own leaf art

Method 2: Crayon Rubbing

- Place the leaf under a sheet of paper
- Color over the paper so the leaf's structure appears

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- Use different leaves and colors to create your own unique print

Reflection:

- Which leaf made the clearest print?
- What patterns do you see?
- What tree did the leaf come from?
- Remember to sign your artwork

8. Draw Shadows from Leaves and Plants

Materials:

- Paper, markers or crayons, sunlight or lamp

Instructions:

- Use sunlight or a lamp to cast a shadow
- Draw the shadow outline on the paper
- Add colors and life to expand the drawing

Discussion prompts:

- What textures do you see on the plant?
- Should it be colored?
- Who lives on or from the plant?
- Encourage free interpretation: it doesn't have to look like the plant - it could become a house, creature, or abstract image

In sunlight:

- Go outside and find a plant. Place the paper so the shadow is visible and trace it.

Indoors:

- Bring a plant inside and use a strong light source to cast a shadow. Place the paper and draw the outline.

Finish the artwork.

Should the drawings be taken home or displayed in class or at school?

9. Cyanotype - The Forest's Blue Print

Materials:

- Prepared watercolor paper with cyanotype solution (kept in a dark box, applied in advance by an adult)
- Frame to hold natural materials in place

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- Sunlight or strong lamp
- Leaves, water

Instructions:

- Work in a dark room
- Arrange nature materials in the frame
- Place the paper treated side down
- Secure the frame
- Expose to sunlight or lamp light for about 15 minutes
- Rinse in cold water until the print turns deep blue
- Dry and display

Ask students if anyone would like to present their print.
Should the prints go home or be displayed in class or at school? This will be for the class to decide.

Summary

This workshop guides students through a sensory, creative and investigative journey into the forest world using their senses, hands, and imagination.
With facts, games and art, students develop a stronger connection to nature and increase their knowledge of leaves and trees making it ideal for biodiversity learning.
The exercises can be adapted to the season, different subjects, age and location, and fit well into a course about tiny forests and biodiversity.

7. Tree Species Theory - manuscript

What do we know about trees?

Slide 1: Introduction (approx. 1 minute)

> *"Today we will learn about a few different tree species and their roles in the forest ecosystem. By learning about tree species, we can design forests that are not only beautiful but resilient and beneficial for people, animals, and the planet. We use the Miyawaki method as a background - that is, planting many native species closely together to promote biodiversity, based on the site's historical and cultural nature."*

Slide 2: The Roles of Trees in the Ecosystem (approx. 1 minute)

> *"Trees benefit the ecosystem in many ways: they provide food and habitats, bind carbon, improve soil, and protect against erosion. Here we see, for example, oak, beech, Norway spruce, and rowan - each has its particular function. Each species contributes something unique - just like different students in a class."*

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Slide 3: Underground Networks (approx. 1 minute)

"Trees communicate through mycelium - a fungal network underground called the 'Wood Wide Web'. Almost like each tree can communicate through underground smartphones made up of thin electrical roots. They can share water, nutrients, and warnings about diseases, which allows trees in a forest to thrive better together than as individual trees."

Slide 4: Pioneer Species and Climax Forest Species (approx. 1.5 minutes)

"When establishing a forest, we work with two main types:
Pioneer species such as birch and rowan, which grow quickly and create shade.
Climax forest species such as beech, which grow slowly and thrive in the shade.
Pioneer species pave the way for the slowly growing climax forest species. A way to describe the difference between the to could be that pioneer trees are like the first builders on a new plot - fast, strong, and opening space for others. Climax trees are like the long-term residents who settle in once the neighborhood is ready."

Slide 5: Selecting Species - Important Factors (approx. 1.5 minutes)

"When selecting species, we look at canopy layers: tall, medium, and low trees and shrubs. It is important to plant 'friends', that is, species that support each other, because the forest becomes more robust and less vulnerable. Some tree species grow better near certain others - we call them 'companion species' or 'tree friends'"

Slide 6: Trees' Special Adaptations (approx. 1.5 minutes)

"Different trees do better under different conditions:
Some tolerate strong winds, others do not.
Light trees like oak and birch love sun, while shade trees like beech thrive in shade.
Oak tolerates drought well, while alder loves wetlands.
Rowan and beech are well-suited to cold climates."

Slide 7: How to Assess Whether a Tree is Suitable (approx. 2 minutes)

"We study the site like detectives - looking at light, wind, rain, and soil before choosing the trees:
How much rainfall occurs annually?
How many hours of sunlight?
What is the wind direction and strength?
What is the soil pH and moisture?
Is the terrain flat or hilly?

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How does sun and shade hit the forest floor?
All of this affects the choice of tree species."

Slide 8: Which Trees Are Naturally Native? (approx. 2 minutes)

"To find the original tree species, we can:
Explore old thickets and forests
Look at old photos and paintings
Ask older people which trees they remember
Visit museums and archives that show historic landscapes"

Alternative activity:
Let students bring photos from their home area or ask grandparents about trees from their childhood.

Slide 9: Summary (approx. 1 minute)

"When planting forests, it is important to choose many native species, plant them closely together, and consider their interaction above and below ground. In this way, we create resilient, diverse forests that support biodiversity and can thrive in a changing climate. What kind of forest would you like to help grow?"

Summary Sheet - Key Content

Introduction

- The Miyawaki method promotes biodiversity and is rooted in local culture.

Roles of Trees

- Provide food, shelter, carbon storage, and soil improvement
- Examples: oak, beech, Norway spruce, rowan

Underground Network

- Mycelium assists with nutrients and communication
- Trees thrive in communities

Pioneer vs. Climax Forest

- Pioneer: fast-growing, light-demanding (birch, rowan)
- Climax: shade-tolerant (beech)

Species Selection Factors

- Canopy layers (tall, medium, low)
- Companion planting creates resilient forests

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Tree Adaptation

- Wind, light/shade, drought/water, cold
- Examples: oak (drought-tolerant), alder (water-loving), beech (shade-tolerant), rowan (cold-tolerant)

Suitability - Site Conditions

- Rainfall, sunlight, wind
- Soil type, terrain, compass directions

Native Species

- Old forests, photos, people, museums

Summary

- Many species, dense planting
- Focus on interaction above and below ground

Image Suggestions for Tree Species Theory Slides

Slide 1: Tree Species Theory (Introduction)

📸 An image of a diverse, wild forest (varied tree species, dense planting).
Search for: “diverse native forest”

Slide 2: The Role of Trees in the Ecosystem

📸 Illustration featuring forest animals: birds, insects, fungi, squirrels, etc.
Search for: “forest ecosystem animals and plants diagram”

Slide 3: Underground Network

📸 Image of fungal roots/mycelium beneath the soil.
Search for: “tree roots mycorrhizal network”

Slide 4: Pioneer Species vs. Climax Forest Species

📸 Two images side by side:

- An open clearing with young birch trees (pioneer species)
- A dense, darker beech forest (climax species)
  Search for: “young birch forest” and “dense beech forest”

Slide 5: Selecting Species

📸 A diagram or drawing showing forest layers: tall, medium, and low trees.

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Search for: “forest layers diagram”

Slide 6: Special Tree Adaptations

📸 Four small images (one for each adaptation):

- Strong wind (bent tree)
- Forest in bright sunlight
- Dry, cracked soil
- Snow-covered forest

  Search for: “wind blown tree”, “sunny forest”, “dry cracked soil”, “winter forest”

Slide 7: How to Assess Suitability

📸 A map showing climate or soil conditions (e.g., rainfall, sunlight, soil types).
Search for: “soil map”, “climate factors forest growth”

Slide 8: Native Species

📸 A vintage black-and-white photo of a Danish landscape/forest.
Search for: “historical Danish forest photograph”

Slide 9: Summary

📸 A lush Miyawaki forest (very dense and varied planting).
Search for: “miyawaki forest example”

Tip for Finding Free Images:

- Unsplash.com (free images without copyright)
- Pixabay.com (free, easy search for nature photos)
- Pexels.com (great for searches like “forest biodiversity”)

8. Trees’ National Origin and Historic Use

Purpose

The purpose is to teach students about native trees and their cultural and historical significance, thereby giving them a stronger relationship with and better knowledge of native trees.

Considerations

Consider only talking about a fewer number of trees from each culture or only go with one culture. This will be up to the teacher to decide.

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Danish Trees and Their Stories

Introduction

Today we are going on a journey through the forests and landscapes of Denmark - but not in the usual way. We will meet some very special trees. Even though trees stand still, their use and the stories about them do not. Many trees have stories attached to them and have been used by humans for thousands of years. Some have even been heroes in myths and legends.

I will tell you about 10 different trees that have had great importance for Denmark - in nature, in old crafts, and in people's imagination. By the end, you might know which tree could be your own "life tree"!

10 Different Danish Trees

1. Oak - Denmark's Strongest and Oldest Giant

The oak is a very special tree in Denmark. It can become incredibly old - over 1000 years!
The wood of the oak is very hard and heavy. The Vikings used oak to build their ships because it could withstand both storms and blows.
The oak also has great symbolic meaning: it stands for strength, endurance, and royalty. On old Danish coins, oak leaves are sometimes used as decoration.

Fun fact: The oak's seed is called an acorn, and they are important food parcels for squirrels and deer in the forest! And did you know that the gall wasp creates galls on oak leaves? When it lays eggs on a leaf, it injects a fluid that causes the leaf to form a gall. Cut one open and see the larva.

Proverbs:
"You shouldn't saw off the branch you're sitting on." (Figuratively used - often referring to an oak branch.)
"Strong as an oak." (Still used about people with strength and endurance.)

2. Ash - The Tree from the World of Myths

The ash has a special place in old Norse mythology. According to the Vikings, the entire world grew around the great tree Yggdrasil - which many believe was an ash. It was the center of the world, where both humans and gods had their place.
In reality, the ash tree is also impressive. It grows tall and straight and can reach over 30 meters in height! The tree is strong, yet a bit flexible - almost like a bow. That's why people have used ash wood for bows, tool handles, brooms, and carts.
Ash trees have small, dark buds in winter that look like they've been burned - like ash. This makes them easy to recognize.

Proverb:

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“Ash before oak, we get rain; oak before ash, we get wind.” (An old weather saying people used to believe - based on which tree leafed out first.)

3. Beech - The Forest’s Green Carpet

“Beech mirrors its top in the blue wave” - this is the opening line of one of Denmark’s national songs. The beech is one of the most Danish things you can find!

When the beech sprouts in spring, it signals for many that summer is on the way. The beech’s light green leaves form a beautiful green canopy in the forests, and when they fall in autumn, they cover the forest floor in a thick, soft layer.

Beech wood is used today for furniture, floors, and tools because the wood is hard but can be sanded smooth and nice.

Fun fact: “Bøg” (beech) actually means “book” - because in the old days people wrote on thin plates of beech wood!

Taste the beech: You can eat the light green beech leaves in the spring - and the small beechnuts in the autumn.

Proverbs:

“To go into the beech forest.” (Used to mean dying - a poetic way to describe the end of life.)

“There is a high ceiling in a beech forest.” (Beech trees grow tall and open - often used as a metaphor for freedom and peace.)

4. Linden - The Town’s Old Meeting Point

In medieval Denmark, there was almost always a linden tree in the center of the town square. The linden tree had large, soft leaves and created shade where people could gather. It was under the linden tree that court trials, town meetings, and markets were held.

The wood of the linden is light and very soft. Therefore, it was perfect for woodcarvers, who made beautiful carvings for churches, altarpieces, and saint figures. Many old Danish altar pictures are actually carved from linden wood.

Fun fact:

The linden’s flowers smell sweet and attract lots of bees, as the flowers are full of nectar and pollen. The bees suck up the nectar and transform it into honey in their bellies. They store the honey in their hives - as food for winter. You can recognize the linden by its heart-shaped leaves and remember it because bees LOVE linden.

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In the past, people gathered the flowers and used them for tea. It was also believed that the linden could protect against lightning, so it was often planted close to churches and farms. Did you know you can make bast and rope from the linden's inner bark?

Proverbs:
"Under the linden, the people speak." (Refers to the linden often standing in the town square as a gathering point.)
"Soft as linden in the wind." (An expression for being gentle and compliant.)

5. Rowan - The Tree Against Trolls and Witches
Once upon a time, a blackbird sat in the crown of a rowan tree eating red rowan berries. A fox stopped at the foot of the tree. "You, blackbird. Won't you come down with some berries?" "No," said the blackbird. "You can come up and get them." The fox couldn't, so it said: "Those berries are sour anyway." That's where the human version of the story ends, but that's a bad ending. In truth, the story continues: "You only say that the berries are sour because you're sour you can't reach them," said the blackbird. The fox said: "Wanna bet?" The blackbird said yes and flew down with a bunch of berries so the fox could taste them. First, the fox ate the blackbird. Then it ate the berries. We foxes don't think rowan berries are sour. No, it's the people who are sour. That's why they add lots of sugar to their rowanberry jelly - to sweeten it.
The rowan tree may look small and delicate, but it had a big role in people's imagination. Rowan was planted near homes and stables to protect against evil forces - trolls, witches, and all sorts of dangers!
The tree has beautiful, light green leaves and bears red rowan berries in autumn. Birds love the berries, making the rowan important for birdlife.
The tree was also used practically: its strong but relatively light wood was used to make smaller tools like handles and rods.

Fun fact: Even though rowan berries are sour for people, they are superfood for birds in the winter!
You can make your own rowanberry bracelets by threading berries onto a string to make necklaces and bracelets. You can dry a rowanberry chain and use it as bird food during winter.

Proverb:
"The rowan berries are sour, said the fox." (A classic Danish proverb about jealousy - when you can't get something, you pretend you didn't want it anyway.)

6. Elm - The Tree That Almost Disappeared
Elm was once a very common tree in Denmark. It grew along roads, in parks, and as shady avenues. The elm tree can become large and beautiful, with a broad crown and rough leaves with serrated edges.
The elm's wood is hard and durable, and it was used to make wheel hubs for carts, furniture wood, and tools. In old times, elm was important on farms.

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But in the 20th century came Dutch elm disease - a deadly fungal disease spread by a small beetle. The disease has nearly wiped out the large old elms in Denmark.
Today, new disease-resistant elms are being planted, but it is rare to see a giant elm today.

Fun fact: In the old days, people said that elm trees could predict the weather - if the leaves rustled early in the summer, rain was coming!

Eat manna: You can eat the elm's fruits - called manna. That the elm has been loved is evident in old songs and in street names - for example, "Elmegade", which dates back to when elms were common.

7. Field Maple - The Forest's Little Tough Tree

The field maple may not be as well-known as the beech and oak, but it has been important. It is a small, tough tree with distinctive leaves that look almost curly.
Field maple often grows as part of hedgerows and thickets and was used for living fences around fields. When planted, it could form natural hedges that kept both animals and people out.
The wood is very hard and dense. Therefore, it was used to make small items like buttons, handles, and turned bowls.

Fun fact: Field maple can tolerate heavy pruning - in fact, it can "shape itself" according to human wishes. This made it perfect as a fence tree on old farms.

Proverb:
There are no well-known proverbs with field maple, but it was mentioned in old field and fence rules. This shows how important it was to farmers.

8. Hornbeam - Iron-Hard Forest Friend

Hornbeam is related to the beech, but it is even harder! The tree looks a bit more "tough" with its dense leaves and grayish bark.
Hornbeam wood is so dense and heavy that it almost cannot float in water. That's why it was called "Denmark's hardest wood" in the old days.
It was used for watermill wheels, wagon axles, and tools where the wood had to withstand heavy wear. In parks, hornbeam is also used for hedges and green corridors because it can be pruned very tightly.

Fun fact: Hornbeam leaves stay on the tree all winter as dry, brown leaves, which makes the tree easy to recognize during the winter months.

Proverb:

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No known proverbs - but often mentioned in connection with “iron-hard wood” and “the hardest wood to work with.” Today used in figurative speech:
“Hard as hornbeam.”

9. Scots Pine - The Heathlands Turned Green Again

Scots pine is one of Denmark’s few natural coniferous trees. It has long, soft needles and reddish-brown bark that peels off in flakes.
In the 1800s, many Danish landscapes had become sandy heaths because the soil was depleted. Scots pine was planted to stop sand drift and make the land green again.
Pine wood is quite soft and was used for construction, telephone poles, and timber. You can still find large Scots pines in old plantations and heath areas.

Fun fact: Scots pine smells wonderfully of resin, especially in summer - if you rub a bit of bark, you can smell it!

Proverb:
“He stands like a pine in the storm.” (Often used about a strong and proud person - the pine tree stands firm and does not bend.)

10. Hazel - The Forest’s Weaving Expert

Hazel is a bush or a small tree with round, soft leaves. In autumn, it produces delicious hazelnuts that squirrels and mice love to gather for winter food.
Hazel has very flexible branches and was therefore used for weaving fences, baskets, palings, and even old fishing traps. In olden days, people also made walking sticks from hazel because the branches were strong and light.
Hazel was also surrounded by mystery - people said a hazel stick could find hidden treasures or water sources.

Fun fact: Hazel flowers are among the very first to bloom in spring - often already in February!

Proverbs:
“He has a hazel stick to find gold.” (From old beliefs that hazel could be used to find hidden things - like dowsing rods.)
“To walk with a hazel stick.” (Means to be on a journey, typically as a traveler or wanderer.)

Conclusion

So - that was our journey through Denmark’s trees!

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We met royal oaks, mythical ash trees, the soft beech forests, old linden squares, and small rowan trees that protected homes from trolls and witches.
We also heard about trees that almost disappeared, like the elm, and trees that helped Denmark become green again, like the Scots pine.
Trees are not just something standing out there - they are part of Denmark's history and our shared lives.
Next time you walk in the forest, try looking up at the tree crowns and think about all the stories they hold.

Greek Trees and Their Stories

Introduction

Today, we're going on a journey through Greece's forests and landscapes - but not in the usual way. We're going to meet some very special trees.
Trees don't just stand still - their uses and stories do not. Many trees come with tales, and humans have used them for thousands of years. Some have even been heroes in myths and legends.
I'm going to tell you about different trees that have played an important role in Greece - in nature, ancient crafts, and the human imagination.
By the end, you might know which tree could be your own "tree of life"!

10 different Greek trees

1. Olive Tree - The Tree That Created a City

The olive tree is almost like a national tree of Greece. It grows everywhere - on hillsides, in gardens, and in large groves. It's not very tall, but it can live a very long time - some olive trees in Greece are over 2000 years old!
In the ancient myth about the city of Athens, the goddess Athena competed with the sea god Poseidon over who would become the city's protector. Poseidon struck the ground with his trident and created a spring - but it was saltwater. Athena caused an olive tree to grow, which could provide both food and oil. The people chose her - and that's how Athens got its name!
The olive's fruit is pressed into oil and used in almost all Greek food. The wood is also strong and beautiful and is used for small bowls, spoons, and figurines.

Proverb:
"Βγάλε το λάδι μου" - "You took all my oil."
(It means: You exhausted me - like an olive pressed completely dry.)

Fun fact:
Olive tree flowers attract bees in the spring, and the small, bitter fruits are eaten by birds like starlings and blackbirds, who spread the seeds across the landscape.

2. Fig - A Gift from the Gods

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The fig tree is another important tree in Greece. It's not very big, but it bears large, juicy fruits. Greeks have eaten figs for thousands of years - both fresh and dried. They were so important, people said they were gifts from the gods.
According to myth, the goddess Demeter gave the fig to humans. She was the goddess of grain, fertility, and plants, so the fig tree was sacred to her.
Figs weren't just used in food - they were also part of offerings and religious rituals. Many villages had an old fig tree in the square where people gathered.

Fun fact:
A fig's fruit is actually its flower, turned inside out. And it's pollinated by tiny fig wasps that live inside the fruit. No other pollinators can reach it. It's an amazing example of collaboration in nature between native trees and insects. Birds and bats love the ripe fruits.

3. Cypress - The Tall, Silent Tree
The cypress tree looks different from most trees. It grows narrow and tall - like a green column reaching toward the sky. That makes it easy to recognize, and many people find it very elegant.
Cypresses also carry a more solemn meaning. In Greece, they were often planted near cemeteries or places where someone had died. That's because they were associated with eternity - they don't wither easily and can live for centuries.
Even in ancient times, the wood was used to make coffins and temples. Some old texts say that souls could "travel to the heavens through the cypresses".

Fun fact:
Birds like sparrows and turtle doves build nests in the dense branches of cypresses, and these tall trees provide shelter from the wind in dry areas.

4. Laurel - The Victor's Crown
Have you heard the expression "resting on your laurels"? It comes from Greece, where the laurel tree originates. The laurel has dark, glossy leaves, and in ancient times, they were woven into victory wreaths. If you won something - like a race at the Olympic Games or a battle in war - you might get a laurel crown on your head.
The laurel was sacred to Apollo, the god of the sun and arts. At his temple in Delphi, priestesses used laurel leaves in rituals. People believed the laurel could bring truth and inspiration.
Today, laurel leaves are still used in cooking - especially in stews and soups.

Fun fact:
Laurel bushes attract butterflies like the brimstone and small bees - especially when they bloom in early spring.

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5. Plane Tree - The Tree of Shade

The plane tree is enormous and has wide branches that stretch out and offer shade. In many Greek villages, there's a plane tree in the central square - and that's where people meet to talk, drink coffee, and play cards.

In ancient times, the plane tree was seen as the tree of wisdom. Many philosophers, like Socrates and Plato, are said to have taught under plane trees because it was shady and peaceful. The tree is therefore associated with learning and conversation.

It's also very resilient and can grow very old. It can withstand both hot summers and cold winters and is a vital part of both city and natural life in Greece.

Fun fact:

The plane tree attracts insects like cicadas, and birds like sparrows, tits, and wrens use it as a hiding place in urban areas.

6. Pomegranate - A Symbol of New Life

The pomegranate tree may not look impressive, but it bears a fruit that has been significant in Greek culture for over 2000 years. The fruit is round and red, and when you open it, it's full of hundreds of small red seeds. It symbolizes life, fertility, and good fortune.

In the myth of Persephone, who was taken to the underworld by Hades, the pomegranate plays a key role. Hades gave her some seeds, and because she ate them, she had to return to the underworld every year - and this is how the Greeks explained the seasons.

Pomegranates are still used in religious and cultural traditions - for example, one is smashed on the doorstep at New Year's as a symbol of luck and prosperity.

Fun fact:

Pomegranate flowers attract bees and butterflies. Birds love the sweet seeds and help spread the seeds - so one tree can become many!

7. Pine - With Needles and Seeds

The pine tree is a tall conifer with a broad crown and large cones. In Greece, it is called "the tree that gives pine nuts"! The small seeds inside the cones taste nutty and are used in cooking - for example, in dishes with rice or vegetables.

The pine can grow in hot and dry areas, which makes it perfect for coastal regions in southern Greece. The tree also protects against erosion and holds the soil in place when it's windy.

Pine trees are often used as a symbol of resilience and survival.

Fun fact:

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Pine cones are a buffet for squirrels and birds like jays and crows. As they pick out the seeds, they help spread the tree's seeds too!

8. Mulberry - The Tree with Silk Leaves and Sweet Berries

The mulberry tree has large, soft leaves and small black or white fruits that look like little blackberries. The fruits are sweet and juicy - but be careful, they stain everything purple! You can't buy mulberries in shops because they get squished and are hard to transport. That's why you have to find your own mulberry tree if you want to taste the delicious fruit.

Leaves from the white mulberry tree were used for feeding silkworms for many years, and in some regions of Greece, people made silk thread and fabric. This made the tree very valuable.

The mulberry tree also appears in an old love myth - the story of Pyramus and Thisbe, which is very similar to Romeo and Juliet. Their blood turned the white mulberries red, according to the legend.

Fun fact:

Mulberries attract both butterflies, bees, and many birds. Silkworms love the leaves - without mulberry, there is no silk!

9. Oak - The Tree Where Gods Whispered

The oak tree was not just a tree in ancient Greece - it was sacred to Zeus, the mightiest of the gods. In Dodona, one of the oldest oracles in Greece, people believed that Zeus spoke through the rustling of the oak's leaves.

When priests and priestesses listened to the sound of the tree, they could "hear" answers from the gods. That's why the oak was seen as a tree of wisdom and truth.

The wood of the oak is heavy and strong and was used to build temples, doors, and wagons. And just like in Denmark, it is a symbol of strength.

Fun fact:

Acorns from the oak are food for wild boars, deer, and birds like crows. The tree is like a supermarket for animals in the forest - offering both shelter and food!

10. Tamarisk - The Hardy Friend of the Coast

Tamarisk is perhaps the least known tree - but it is a true survivor. It grows close to the sea, where the soil is salty and the wind is strong. Tamarisk thrives where many other trees give up.

Its thin branches and small, feather-like leaves provide shade and shelter. In many coastal towns in Greece, tamarisk is the tree you find on the beach - where people place their towels in the shade.

In ancient Greek epics, tamarisk is mentioned as the tree that stood near heroes and temples. It was seen as a sign of peace, strength, and calm.

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In Homer's writings, tamarisk is described as "the tree that bends but never breaks" - a symbol of humility and endurance.

Fun fact:
Tamarisk provides cover for birds like larks and small owls. And because it tolerates salt, it helps protect coastlines from sand drift and storm damage.

Conclusion

Now we've learned about ten of the most important trees in Greece: the olive tree, fig, cypress, laurel, plane tree, pomegranate, pine, mulberry, oak, and tamarisk. We've heard their stories and discovered how people and animals use them.
These trees have been part of Greece's landscape for thousands of years, and they are still important today. The next time you see an olive tree or a cypress, maybe you'll remember how Athena created the olive tree, or how the cypresses stand like green columns reaching to the sky.
Thank you for listening - I hope you're now curious to learn even more about the world of trees!

Italian Trees and Their Stories

Introduction

Today we're going on an exciting journey through the trees of Italy. You may have walked past them many times without knowing their names or importance. But in fact, the trees around us have been part of Italy's history for thousands of years. They've provided food, shade, building materials, and have appeared in ancient myths and stories.
We'll learn about ten different trees that have each held special meaning in Italy. Some were used by the Romans, others symbolize strength or fertility, and some have inspired sayings and traditions that are still used today.
Along the way, you'll hear fun facts about the animals that live in and around the trees. You'll discover that trees can be both useful and magical at the same time.
Are you ready to meet the trees of Italy?

10 different Italian trees

1. Olive Tree (Olea europaea) - The Tree of Life in Italy

The olive tree is one of the most important trees in Italy. You can find it all over the country, especially in Tuscany, Umbria, Apulia, and Sicily. Olive trees can become very old - some are more than 1000 years old and still bear fruit!
In Italy, olive oil is part of almost every meal. From pasta and pizza to salads and bread - without olive oil, Italian food would be very different. In the past, people called the olive tree "the tree of life," because it provided food, light (oil for lamps), and medicine.

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Proverb:
“Buono come il pane e l’olio” - “Good like bread and oil.”
(Used to describe something simple and truly good.)

Fun fact:
The olive tree is home to many small birds like finches and sparrows, which build nests in its branches. In spring, the tiny flowers attract bees that pollinate the trees.

2. Fig (Ficus carica) - The Sweet Tree
The fig tree is also very important in Italy. Many Italian gardens have a fig tree, and in summer, people pick the soft, sweet fruits straight from the tree. Dried figs are used especially around Christmas and holidays. In the Roman Empire, the fig tree was considered sacred. According to legend, a fig tree grew by the Tiber River where the twins Romulus and Remus - founders of Rome - were found and raised by a wolf.

Proverb:
“Non si possono avere fichi e uva nello stesso paniere” - “You can’t have both figs and grapes in the same basket.”
(Meaning: You can’t have everything at once.)

Fun fact:
Figs attract birds like starlings and thrushes, and bees help pollinate the tiny flowers inside the fruit.

3. Cypress (Cupressus sempervirens) - The Column of the Sky
Cypress trees are those tall, dark green trees often seen lining roads or near cemeteries in Italy. They stand like green columns pointing to the sky and symbolize eternity and respect for the dead.
In Tuscany, the long rows of cypress trees are a well-known part of the landscape. They were also planted to guide the way to large villas and monasteries.

Fun fact:
Cypresses provide shelter for owls and doves that build nests in the branches. The trees withstand both wind and drought - perfect for the hills of Tuscany.

4. Laurel (Laurus nobilis) - Victory and Honor
The laurel tree has shiny, dark leaves and a scent used in cooking. But laurel also has a special meaning in Italian culture. In ancient Rome, the laurel crown was given to victors and famous poets - a symbol of honor.
When students finish university in Italy today, they receive a laurel crown on their head as a sign that they have “conquered” their studies.

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Proverb:
“Adagiarsi sugli allori” - “To rest on one’s laurels.”
(Means: Being satisfied with past success without continuing to work.)

Fun fact:
Laurel bushes attract bees in spring, and the dense leaves offer shelter for small birds like robins and tits.

5. Plane Tree (Platanus orientalis) - The Friend of Shade
Plane trees often grow in Italian squares and along wide streets. Their large canopies and broad leaves provide excellent shade in the summer heat - perfect for markets and cafés.
In ancient times, philosophers and scholars often sat under plane trees to discuss life’s big questions. The plane tree became a symbol of wisdom and peace.

Fun fact:
The thick branches of the plane tree are home to insects like cicadas and beetles. Birds like jays and pigeons nest in the hollow parts of the tree.

6. Pomegranate (Punica granatum) - The Fruit of Fertility
The pomegranate has been grown in Italy since ancient times, especially in southern Italy and on Sicily. The tree is not very big, but it produces beautiful red flowers and round, red fruits filled with juicy seeds. In ancient times, the pomegranate symbolized fertility and new life.
In the Roman Empire, pomegranates were part of wedding rituals. The fruit promised many children and a fruitful marriage. Even today, pomegranates are used as a symbol of good luck and wealth.

Proverb:
“Che i tuoi giorni siano numerosi come i chicchi del melograno” - “May your days be as numerous as the seeds of a pomegranate.”

Fun fact:
Pomegranate flowers attract bees and butterflies. Birds like starlings and waxwings eat the ripe seeds and help spread them.

7. Pine (Pinus pinea) - The Roman Umbrella
The pine tree, known in Italy as “pino domestico,” is famous for its broad, umbrella-shaped crown. It grows all over central and southern Italy and is closely associated with the landscape around Rome. The pine cones contain pine nuts, which are used in Italian cooking - especially in pesto and desserts.

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The pine tree was planted along roads and in parks already in the Roman Empire. It was seen as a tree that provided shade, food, and could survive hot summers.

Fun fact:
Squirrels, jays, and other birds love to eat pine nuts. The branches of the pine tree also shelter owls, doves, and other birds nesting in the high canopy.

8. Mulberry (Morus nigra/alba) - The Tree of Silk Leaves
The mulberry tree was brought to Italy hundreds of years ago when people began producing silk. Silkworms only eat mulberry leaves, so the tree was planted in large numbers - especially in northern Italy. The mulberry tree also produces small, edible fruits that look like blackberries.
In the Middle Ages, Lombardy was famous for its mulberry trees and silk production. The mulberry tree became a sign of wealth and work.

Proverb:
“Il gelso non mente” - “The mulberry tree does not lie.”
(Means: Nature’s signs are reliable - the mulberry only buds when frost is truly gone.)

Fun fact:
Butterflies and bees are attracted to the mulberry tree’s flowers. Birds like starlings, thrushes, and blackbirds eat the sweet berries and help spread the seeds.

9. Oak (Quercus pubescens/ilex) - The Tree of Strength
Italy is home to several types of oak, including the downy oak and holm oak. Oaks have always symbolized strength, wisdom, and longevity. In ancient times, the oak tree was sacred to Jupiter, the Roman god of the sky and thunder.
In Ancient Rome, it was believed that those who wore a crown of oak leaves were protected by the gods. Oak wood was used to build houses, carts, and ships - and is still valued today for its strength.

Proverb:
“Forte come una quercia” - “Strong as an oak.”
(Used to describe someone physically or mentally strong.)

Fun fact:
Oak acorns are eaten by wild boars, deer, and crows. Oak trees are also home to many insects, including caterpillars and beetles that feed on the leaves.

10. Tamarisk (Tamarix spp.) - The Guardian of the Coast

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Tamarisk grows along Italy's coasts, especially in the south and on the islands. It tolerates salt, drought, and strong wind and is used to protect against sand drift and erosion. Tamarisk was already used by the Romans as fences and windbreaks.
The tree has fine, almost feather-like leaves and small flowers that cover the branches like a pink veil in spring. It's a tree that thrives where others cannot.

Fun fact:
Tamarisk provides shelter and nesting spots for small birds like larks and warblers. In summer, the tree is full of buzzing bees and butterflies seeking nectar in the flowers.

Conclusion

Now we've met ten of Italy's most important trees: the olive tree, fig, cypress, laurel, plane, pomegranate, pine, mulberry, oak, and tamarisk. We've heard how they appear in ancient myths, how they're used in food, construction, and traditions, and which animals live around them.
Perhaps you'll now see trees differently the next time you pass an olive grove, a pine on a hillside, or a plane tree on a piazza. These trees have been here long before us - and they will remain, as long as we care for them.

Student Engagement Additions

1. "Tree of Me" reflection activity: "If you were a tree, which one would you be and why?"
2. Mini-creative task: draw, write, or present a story about one tree from their own area.
3. Myth-making extension: "Write a new myth featuring one of the trees from your country."

9. Site Exploration (60 min)

Purpose
To investigate the conditions and soil composition of the planting site to ensure a strong foundation for Miyawaki forest planting.

Optional aspects to investigate about the site:

- Who owns the plot?
- How long are we allowed to use the plot?
- Are there cables, pipes, or anything else underground?
- What is the water supply like (natural/artificial)?
- Does the plot slope? If so, in which direction?
- How is the site oriented in relation to the cardinal directions? Use a compass (or phone compass app) to mark which direction the site faces (N, S, E, W).

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- Are there buildings, roads, or other infrastructure nearby?
- Is the area shaded?
- Does the site receive about 8 hours of sunlight per day?
- Is fencing needed to protect from animals or people?

Existing plants:

- What plants are currently growing on the site?
- What do these plants indicate about soil quality? (e.g. many nettles = nitrogen-rich soil)

Soil Survey

- Dig a hole 1 meter deep.
- Lay out the soil in order as it is removed.
- Study the soil profile and make a drawing.
- Take a soil sample from the mineral soil (approx. 1 dl mixed from the whole profile except the root zone).
- Put the soil in a large glass jar, almost fill it with water, and shake it for approx 5 minutes (avoid including stones).
- Read the sediment layer thicknesses after 5 minutes, 20 minutes, and when the water is fully clear (this may take a few days if many fine particles are present).

Equipment List – Remember to bring:

- Shovel
- Large glass jars (jam jar size)
- 10-liter water buckets
- Hand trowels
- Plant ID books or plant identification apps

- Measuring tape/ruler, straight rulers
- Students should bring pens/pencils and a ruler
- Students should bring a smartphone (check for reception) to use an ID app

Student Worksheet:

Planting Site - Observation Sheet

Name: _____ Date: _____

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General Conditions

Question	Yes	No	Notes
Do we know who owns the plot?	☐	☐	
Are we allowed to use the plot for multiple years?	☐	☐	
Are there underground cables, pipes, etc.?	☐	☐	
Is there access to water?	☐	☐	
Does the site slope? (direction)	☐	☐	_____
How is the site oriented to the cardinal directions?			
Are there buildings, roads, etc. nearby?	☐	☐	
Is there shade on the site? (how much)	☐	☐	_____
Does the site receive approx. 8 hours of sun?	☐	☐	
Is fencing needed? (animals/people)	☐	☐	_____
Did anything surprise you about the plants or the soil?	☐	☐	_____

Plants at the Site

Write the names of the plants you find and consider if any aren't native:

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Draw 6 different plants in the boxes below:

Soil Profile

Draw the soil profile from the 1 meter deep hole:

Describe the layers:

Soil Sample Analysis

Measure and note the thickness of each soil layer:

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Time	Layer thickness (cm)	Description (e.g. sand, silt, clay)
After 5 minutes	_____	_____
After 20 minutes	_____	_____
When the water is clear	_____	_____

Final Soil Assessment
Write your conclusion about the soil type and, based on the soil, what kind of trees would grow well here?

Soil Texture Triangle
(Students use the triangle to assess soil type based on sand, silt, and clay content.)

10. Forest Design Activity – Create your own micro forest

Purpose
Students learn about forest structure and sustainable planting through creative design.

Duration
60 minutes

Materials

- String (for marking paths and zones)
- Masking tape
- Large sheets of paper or cardboard (for drawing layout)
- Cardboard figures of trees, animals, insects
- Sticks, stones, natural materials
- Markers, glue, scissors
- Optional: small figures to represent people/animals

Task 0: Explore and Learn

Introduction (10 minutes)

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The teacher briefly explains:

- What a tiny forest is (a dense, small forest that grows quickly)
- What the Miyawaki method is: dense planting, multiple layers (shrubs, small trees, tall trees), and high biodiversity
- Why tiny forests are good for nature and people (cleaner air, shelter for animals, peaceful areas for people)

Use a picture or sketch to explain the different layers in the forest:

- Ground layer (e.g. low-growing plants and flowers)
- Shrub layer (medium-height plants)
- Intermediate trees
- Tall trees / Canopy

Alternative:
Students could act out the layers (crouching for ground plants, standing for shrubs, reaching up for tall trees). It would help them internalize the forest structure kinesthetically

Task 1: How big is a tiny forest?

Before designing, students should get a sense of scale. A tiny forest is typically 100-400 m^2 - but how big is that?

Instructions:

- Measure 1 square meter (1 meter x 1 meter).
- Use chalk on tiles, sticks, twigs or tape to mark a square.
- Discuss how the Miyawaki method involves planting 3-4 trees per square meter. That's quite dense!
- Use a long string (or rope) to mark the entire area where the forest will be - for example 50-100 m^2.
- It can be a square, circle, oval - or a completely free and organic shape.
- Lay the string on the ground and step back - how does the shape look and what shape do you think would attract the most animals and insects?
- You can always adjust the shape by moving the string.
- Calculate the amount of plants for 10m2 and 100m2 to visualize the miyawaki method's density

No string? No problem!

- Stand in a circle and hold hands to mark the area.
- This way students can feel how big a tiny forest really is.

Tip: Once the area is marked, students can start to imagine what it might look like:

- Where will the paths go?

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- Where is there shade?
- Where will the animals live?

Task 2: Design your forest (40 minutes)

Step 1: Make a plan (10 minutes)

- Draw a map of your tiny forest on paper.
- Mark zones: paths, quiet zones, animal homes, maybe a “secret den”.
- Make sure to include various types of plants and trees - ideally in layered structure as in the Miyawaki method.

Step 2: Build the model (30 minutes)

- Use tape and string to mark paths and zones.
- Attach tree figures and natural materials to create depth and variety.
- Add small signs with names (e.g. “owl nest”, “blackberry thicket”, “sensory path”, “wildflowers”).

Task 3: Present your forest (10 minutes)

Each group shares their tiny forest:

- What layers did they include?
- Where can animals be found?
- Where is it nice to sit or play?
- What plants and trees did they choose - and why?

Each group asks the other groups to name one thing they liked or found inspiring. It helps build a sense of audience and community

Additional Ideas

- Create a sensory zone with leaves, twigs and scents
- Give your forest a name and make a sign
- Let students write a short story about a day in their tiny forest

Use scale math if incorporating this activity into a math lesson - with drawings showing square meters

11. Naming and Presenting Designs (will be translated later)

12. Writing a Letter to Our Future Forest

Task: Write or Draw a Letter to Your Forest

Duration: 30 minutes

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Alternative: Can be done on the planting day as part of the time capsule.

Purpose:
To give students the opportunity to reflect on their work and strengthen their personal connection to the forest and nature.
The letter will be saved and placed in a time capsule to be buried or stored near the forest. It will be opened 10 years later by a new class (grade 3 to 5), where former students may be invited back to the school.

Here's How to Do It:

Start with a conversation:

- What do you think the forest will look like in 5 years? In 10?
- What animals and plants live here?
- What do you hope the forest will mean to you - and to others?
- Why are trees important?
- What do you think your future self will remember about planting this forest?
- How did you feel when you planted your first tree?
- What did the forest smell or sound like today?
- What kind of forest guardian would you be?

Write your letter:
Begin with:

- "Dear Forest..." or
- "To you who read this in the future..."

Then write:

- About your experience designing and creating the forest.
- Your hopes and wishes for the forest.
- How you hope people will use and take care of the forest.
- Turn it all into a story if you feel like it

Example sentences students can use:

- "I hope you grow strong and protect many animals."
- "We planted you with love and hope."
- "May you become a place where people find peace and joy."

Decorate the Letter (Optional):

- Draw leaves, animals, roots, or your favorite tree.

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- Write your first name and age - but no last names.

Time Capsule Idea:

- Collect all letters in a tin, box, or jar.
- Wrap each letter in wax paper before sealing to avoid moisture damage.
- Seal it tightly so it can last 10 years, and write “Do not open until the year 20XX” on it.
- Bury the capsule near the newly planted forest.
- Open it 10 years later with a new grade 3-5 class, and invite former students back to school to open it together.

Extra Reflection Round (Optional):

End by letting some students read their letters aloud to each other.
This builds community and creates space for thoughtfulness.

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