Workshop 1: Food Hike

Ages 12-15

LEAF Theme(s)

BioBeo Theme(s)

Outdoor Learning

Food Loop

Teacher Instructions

The students identify edible plants, tubers, roots, herbs, and mushrooms during the hike.

Before they are allowed to harvest them, they learn about how to do this safely and sustainably without causing harm to the environment or themselves. Additionally, the students are motivated to apply this knowledge and use the food during the project week or on the market day.

Learning Objectives

- At the end of the workshop, student can identify key components and symbiotic relationships in a food forest.
- At the end of the workshop, student can understand sustainable agriculture, focusing on regenerative practices in food forests.
- At the end of the workshop, student can recognize the cultural importance of food forests in history, diverse crops, and their role in local food security.

Why are we doing this?

Everything we eat originates from nature; we sometimes forget this. Ask a student where vegetables come from, and they'll likely respond with "the supermarket". This is because students are accustomed to this environment. It is our responsibility to introduce them to the origins of our food. Where does our food come from, and how is it produced? In this workshop, we aim to help students answer these questions and gain a better understanding of the journey our food takes.

Location

In groups of up to 6 students, we will take a nature walk exploring the surroundings of the school, seeking areas with high plant diversity. We recommend visiting a park with abundant weeds or tall grass. If there's a nearby forest, it makes an excellent location. Plan the route in

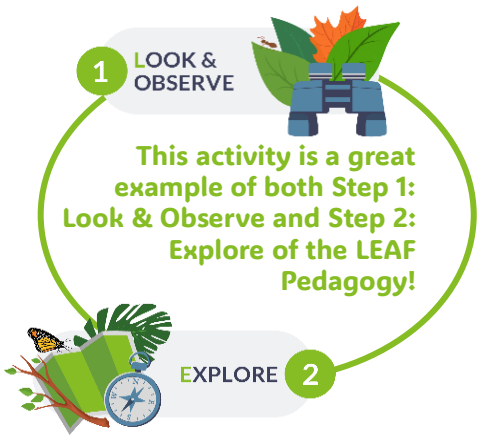
This lesson was developed by Rotterdam University of Applied Sciences for the BioBeo project and subsequently adapted for the Learning about Ecosystems and Forests (LEAF) programme.

advance, possibly walking it yourself, and take note of the plant varieties in the area. Pay particular attention to the following plants:

Nettle (Urtica dioica)		Nettle, a nutritious and versatile plant, can be used in various dishes. You can use this plant to make soup, tea, pesto, risotto and smoothies. Just be careful while picking nettles!
Dandelion (Taraxacum officinale)		Dandelions, often dismissed as weeds, can actually be surprisingly tasty additions to various dishes. You can use this plant to make salads, tea, jelly, wine and you can fry them.
Broadleaf Plantain (Plantago major)		Broad leaved plantain, a common weed, can surprisingly be quite versatile in the kitchen. You can use this plant to make smoothies, pesto, salads, soups and you can even fry them.
Ground Elder (Aegopodium podagraria)		Ground elder, also known as goutweed, is a common weed that surprisingly offers versatility in the kitchen. You can make pesto, soup, quiche, smoothies, and salads.

These plants are commonly found in almost every park in the Netherlands:

https://www.lovethegarden.com/be-nl/artikel/onkruid-om-op-te-eten



What are we going to do during the walk?

In groups of up to 6 students, we will take a stroll through a natural area, actively seeking out the following plants: nettle, dandelion, plantain, and ground elder. Together with the students, we will use various methods to identify the plants encountered along the way. Students can employ identification apps on their phones such as PlantNet, Seek, and GrowApp, where they take a photo of the plant, and the app assists in identification. Alternatively, they can use identification cards, answering questions about the plant's characteristics. (Determination cards are available at local visitor centres)

After identifying the plants, the next step is to determine whether they are edible or toxic. To activate prior knowledge, students can be asked these questions or prompted with the following:

Step 1	Have you heard of this plant before?

Step 2	Have you ever eaten this plant?
Step 3	Does the plant appear dangerous? Why?
Step 4	Does the plant resemble something you've eaten before?
Step 5	Before allowing students to harvest the plants, it is essential to check if the plant shows signs of animal damage, has an unusual color, bears animal droppings, and whether the soil in which the plant grows is contaminated.

How do we harvest these plants:

• **Nettle**	Cut the plant at the bottom with scissors. If done bare-handed, go in the direction of the hairs from the bottom up. Gloves can be used if necessary.
• **Dandelion** • **Plantain** • **Ground Elder**	Pick the green leaves of the plants, ensuring that you pick the entire leaf. The harvested plants will be collected in a basket. Later in the week, we will use these plants in the food-making workshop, where students will create soup, salad, smoothie, or pesto with them.

Supplies needed

- Basket
- Scissor
- Protective gloves
- Determination cards
- PlantNet
- Seek
- GrowApp
- Smartphone

Student Instructions

In this journey, we'll explore the wonders of a food forest, our exclusive destination. Our goal is to provide a fun learning experience about sustainable food systems and the fascinating intricacies of a food forest ecosystem. Get ready for hands-on activities and engaging discussions to discover the magic hidden within the heart of a food forest.

Learning objectives

- At the end of the workshop, students can identify key components and symbiotic relationships in a food forest.
- At the end of the workshop, students understand sustainable agriculture, focusing on regenerative practices in food forests.
- At the end of the workshop, students recognize the cultural importance of food forests in history, diverse crops, and their role in local food security.

What are we going to do?

In this workshop, we will search for food in nature. So, which plants can you eat, and which ones should you avoid? We will collect these plants and use them later this week to make our own food. We'll take a stroll through the woods, and the teacher will inform you about edible plants and their parts. Very important! Do not pull/eat plants from the ground during the walk without reason.

Download one of the following apps on your phone: PlantNet, Seek, and GrowApp. We will use these apps during the walk to identify the plants.

For Android

Seek	PlantNet	GrowApp

For iPhone

Seek	PlantNet	GrowApp

Why are we doing this?

Have you ever wondered where the chips and cookies you grab at the supermarket during your break come from? Because as you walk outside, you don't see trees with bags of chips and cookies hanging from them. So, where do they come from? Today, during this workshop, we are going to find out, and the central question is: Where does our food come from?

Supplies needed

- Basket
- Scissor
- Protective gloves
- Identifications cards
- PlantNet*
- Seek*
- GrowApp*
- Smartphone

* You only need to download one out of the three apps.