









# CREATING THE NATURAL GARDEN AND LEARNING THROUGHT IT

Methodology for the training course "Garden Educator"

## "Natur im Garten"

SThe purpose of the initiative (which came from Lower Austria) is to foster the ecological design and care for gardens and green areas, as well as to create a colourful variety.

Wherever you see the label Natur im Garten, you will find a garden serving as a nature-oriented recreation area for humans as well as a habitat and home for many plant and animal species. Thanks to the careful handling of nature, the lively variety fostered in an environmentally friendly way can truly be felt. This is the place where marigold blossoms next to salad, where birds build their nests in whitethorn, where dragonflies hover above the water and lizards hide under the heap of stones. There is enough space for all of them, and the garden is filled with life and diversity.

Needless to say, a natural garden offers enough space to sit, to dream and relax, also allowing children to rollick about and play. Vegetable gardens, fruit trees and berry shrubs delight the palate with the season's fresh and healthy fruits and vegetables.

## What is the meaning of Natur im Garten?

Three main criteria provide the basis for the natural garden:

- Using no chemical synthetic pesticides
- Using no chemical synthetic fertilizers
- Using no peat

### Natural garden elements:

- Wild shrub hedge
- Flower meadow and meadow elements
- Allowing uncontrolled plant growth
- Wild corner
- Special locations (dry, wet)
- Deciduous trees
- Flowers and flowering shrubs
- Compost heap

## Management and utilitarian garden:

- Accommodation for beneficial organisms
- Rainwater utilization
- Environmentally friendly materials selected
- Mulching
- Vegetable beds and herbs
- Fruit garden and berry shrubs
- Mixed cultivation/crop rotation/green manure

#### More information about the initiative Natur im Garten:

www.naturimgarten.at (Austria website)

www.prirodnizahrada.eu (Czech website)

www.prirodnazahrada.eu (Slovak website)

\* When using the term "natural garden" in this handbook, we refer to the concept of Natur im Garten.



## TABLE OF CONTENTS

### Chapter 1: About the handbook

- 1.1 Introduction
- 1.2 How to work with this material
- 1.3 About the project
- 1.4 Project partners

## **Chapter 2: GAPY**

- 2.1 Characteristics of the garden educator
- 2.2 List of selected GAPY competences

## **Chapter 3: Course methodology**

- 3.1 Table summary of the GAPY course
- 3.2 Introduction to garden pedagogy
- 3.3 Elements of the natural garden and ecological maintenance
- 3.4 School garden tour
- 3.5 Plant nursing
- 3.6 Growing vegetables in school gardens
- 3.7 Soil and compost
- 3.8 Education in the na garden
- 3.9 Educational methods in the garden
- 3.10 The garden in school subjects
- 3.11 Beneficial insects
- 3.12 Garden treasure hunt
- 3.13 Finding support for implementing school natural gardens
- 3.14 Designing school gardens
- 3.15 Work and celebration in the garden
- 3.16 Final presentation and evaluation





## **CHAPTER 1: ABOUT THE HANDBOOK**

#### 1.1 INTRODUCTION

People have been connected to gardens since time immemorial. In every place in the world, gardens have been used as a source of livelihood, later also for enjoyment and relaxation, and they have enabled us to observe and understand changes in the nature as well as to find its beauty. Gardens have also been a source of knowledge during individual in-process learning or during teaching in a school garden. After all, it is the school garden that lots of us associate in our memories as a place of the first seed planted, hands made dirty with soil, or a common hiding place in the bush in the corner of the garden. Although the effort to maintain school gardens gradually declined over time, today we can delightfully watch school gardens thriving once again. The focus is not on growing vast amounts of vegetables, but on creating fond childhood memories filled with the taste of freshly picked vegetables, watching plants growing from seeds, or listening to the buzzing of busy bees pollinating our crops. Garden educators realize that a school garden is first and foremost an amazing space for learning. Right outside the classroom, pupils can not only spend their breaks in close touch with the nature, play, relax, or create with their afterschool club, but also attend many subjects. Last but not least, the school garden is a place where pupils can get to know themselves, their surroundings, and the community – and where they can take an active part in all gardening activities. Gardens are becoming important as towns' green oases and examples of adaptation measures in the era of climate change.

The handbook which you are holding in your hands is a result of a multiple-year work by a group of professional educators, enthusiasts, natural gardeners, and garden pedagogy practitioners. Its mission is to support garden pedagogy wherever possible and needed. In this handbook, you will learn more about how to design, use products, and effectively teach in a natural garden. The course pursues

Sel

a holistic profile of the garden educator, equips learners with the necessary knowledge and skills, and serves as a general introduction to the great potentials of learning in the garden.

The focus on natural gardens is an important element of the project. The organizations involved are convinced about the positive impact of the concept, which has appealed to many gardeners across Europe. Natural gardens are chemistry- and peat-free places that support local biodiversity and have a massive potential in the era of climate change.

This material is intended for all educators who are willing to spread the word about garden pedagogy as well as for educators who intend to teach in the garden and need support on where to start. This educational material can be used as a firm foundation for further education or taken just as an inspiration. The handbook is free and can be used by anyone with the willingness.

#### 1.2 HOW TO WORK WITH THIS MATERIAL

You are holding in your hands a handbook which can serve two functions. You can use it as a description of a course you can realize on your own or as an inspiration for creating your own natural garden.

If you wish to implement your own course for other educators or colleagues on the basis of the handbook, you can follow our set programme. The programme consists of three educational seminars divided into fifteen thematic modules. In addition to the course, there are three practical exercises designed to deepen the knowledge and skills gained during the course. Detailed description of the course is provided in the following part of the handbook. Before starting your course, we strongly recommend studying the handbook in detail as well as going through the suggested literature. Make yourself familiar with the concept of natural gardens and the educational field. Of course, you can use the course handbook just for inspiration, changing the course or adding other activities to it.

If you decide to use the handbook as a guideline for starting your own natural garden, whether in the community or in the educational context, we recommend utilizing the list of sources that can widen the range of activities offered.

#### 1.3 ABOUT THE PROJECT

The main goal of the international project Creating Nature Garden and Learning through It implemented between September 2019 and August 2022 is to increase the potential of garden education and also promote garden education and exchange of expertise across borders. This goal was realized by means of cooperation between three organizations based in Czech Republic (SEVER), Slovakia (CEA), and Austria (Natur im Garten), respectively, each with long experience in environmental education and/or natural garden design. The project responds to the current situation in the project partners' countries, where gardens are very often owned by institutions such as schools, kindergartens, museums or leisure centres.

The project seeks to enhance the profile of garden educators across countries and contribute to further recognition of expertise in this field, as part of a long-term struggle for official recognition similar to other areas of Nature Pedagogy. We do so by creating a special advanced training course to educate future garden educators and distributing it freely in several languages. This course combines hands-on knowledge of natural garden design and maintenance as well as practical educational methods for learning outdoors.

The Creating Nature Garden and Learning through It project was implemented with support from the European Commission under the ERASMUS+ programme.

#### 1.4 PROJECT PARTNERS

#### CENTER OF ECOLOGICAL EDUCATION SEVER

SEVER has been active in the field of environmental education since 1994 and its main activities comprise one-day and multi-day environmental educational programmes for primary and secondary school students. SEVER also offers participation in long-term educational projects, consultations, seminars, and conferences for educators and students. For the general public, SEVER organizes educational, public education, and cultural events. We also focus on the topics of sustainable tourism, place-based learning, climate, and garden education. From 2016 we have a certificated natural garden as a part of our centre which is open to

the public and frequently hosts public education and cultural events. Among other things, we organize educational programmes for children and seminars to support educators who want to implement a natural garden and use it in education. SEVER also coordinates several projects on using and designing natural gardens in schools with active involvement of students.

#### **CENTER FOR ENVIRONMENTAL ACTIVITIES - CEA**

The Center for Environmental Activities (CEA) is a civic association active in environmental education since 1994. It is known primarily for its international programs Green School (which it coordinated in Slovak schools in 2004 - 2009) and Young Reporters for the Environment (YRE - www.mladireporteri. sk). Since 2014, he has been developing a project of natural gardens in Slovakia (in cooperation with Natur im Garten) to spread awareness about gardening without the use of artificial fertilizers, pesticides and peat. CEA also operates the biospotrebitel.sk portal to support organic farming and a sustainable lifestyle. In his home town of Trenčín, he is dedicated to environmental education and public activation in the framework of cycle festivals, organic fairs and community projects for nature protection and environmental improvement.

#### **NATUR IM GARTEN**

In 1999, the "Nature in the Garden" movement was launched with the basic idea of "gardening with nature" and the following core criteria were established to promote diversity in the garden: gardening without artificial fertilizers, pesticides, and peat. Since then, Natur im Garten in the province of Lower Austria has successfully grown into an indispensable platform for near-natural and ecological gardening both by private individuals and in public green areas. The focus here is on the ecological design and maintenance of gardens and green spaces, garden education, and adult education in the form of seminars, webinars and workshops. After 23 years now, the Natur im Garten movement exists in all Austrian provinces, parts of Germany, the Czech Republic, Slovakia, Switzerland, Liechtenstein and South Tyrol (Italy).





## Chapter 2: GAPY

#### 2.1 CHARACTERISTICS OF THE GARDEN EDUCATOR

Whilst creating these materials, we wondered about the kind of characteristics an educator should be equipped with when teaching outdoors. This is how we created GAPY – the GArden PedagogY educator and a symbolic character which impersonates useful features to a person seeking to teach outdoors. Such a person does not necessarily need to master plant protection, Latin names, or vegetable cultivars, as one might assume at first sight. They are a personality who inherently understands the importance of outdoor learning, connects multipliers, and tirelessly communicates the benefits of school gardens.

Based on our many years of experience in the field of garden education and natural gardening, we have drawn up a list of competencies, including knowledge, skills, and attitudes, that we consider vital to realizing garden pedagogy. You will learn about these skill sets throughout this course, hopefully adapt some of them, and find out in which areas to proceed with advanced training.

## 2.2. LIST OF SELECTED GAPY COMPETENCES

ORIENTATION IN THE FIELD OF GARDENING, ESPECIALLY NATURAL GARDENING

#### Knowledge

The garden educator:

- has basic knowledge of garden design and maintenance and knows about life within the garden,
- knows how to promote soil health and compost properly,
- has basic knowledge of the most important vegetables, herbs, and fruits for the school garden and how to cultivate them,
- knows the importance of different animal and plant species in a garden and understands relations between and processes within them,
- understands the importance of biodiversity and is able to explain it; knows how to attract more species to the garden in order to raise its biodiversity,
- knows how the garden can help/contribute to nature and climate protection,
- knows the meaning of the natural garden concept,
- knows the three basic principles of natural gardening and is able to explain them in context,
- knows the typical elements of a natural garden, and understands their roles and significance.

#### **Skills**

The garden educator:

- has basic gardening skills (sowing, planting, work with soil, composting, mulching, green manure, and preventive plant protection), and
- is able to identify the most important animals and plants, especially beneficial species, to protect and promote them, and to support local biodiversity by creating a favourable environment for the occurrence of beneficial animal and plant species.

#### **Attitudes**

The garden educator:

- is interested in nature and gardening,
- prefers natural gardening based on environmental protection principles,
- is enthusiastic about natural gardening and spreads the word about natural gardens on every occasion,
- respects all the processes and relations within the natural garden, and
- perceives the natural garden as a place of nature conservation and climate protection.

ORIENTATION IN GARDEN PEDAGOGY AS A PEDAGOGICAL-METHODOLOGICAL FIELD

#### Knowledge

The garden educator:

- knows how to use the garden to exemplify general environmental education for protecting nature, the environment and climate,
- knows where to find information and inspiration and methodological support in the field of natural gardening,
- knows the benefits of learning in the garden, can explain them, and understands the importance of outdoor activity for child development,
- knows suitable methods, forms, and tools to raise awareness of natural gardening, and is able to formulate and work with adequate educational goals in topics related to natural gardening.

#### Skills

The garden educator:

- manages to involve children or the public in natural garden design and maintenance processes and is also able to advocate the benefits of such involvement,
- is able to create an attractive educational lesson which has all the required parameters and leads to meeting the educational goals,

- is creative in developing activities using vegetables, fruits, and other natural materials from the garden
- is able to motivate others to pursue gardening in a natural way and a sustainable lifestyle,
- has basic skills in finding and applying resources and support for the development of a natural garden (material, personal, financial...).

#### **Attitudes**

The garden educator:

- has a positive attitude towards being and teaching outdoors, is comfortable being outdoors, and is ready to deal with challenges (like bad weather or insects),
- wants to set a good example for sustainable lifestyles, and
- takes an interest in passing on knowledge and skills about natural gardening and is willing to pass those on to others.





## CHAPTER 3: COURSE METHODOLOGY

## 3.1 TABLE SUMMARY OF THE GAPY COURSE

	MODULE NAME	ACTIVITY	DURATION
3.2	Introduction to garden pedagogy	Introduction to the course (60 min)	195 min
	garden pedagogy	Find something natural (45 min)	
		GAPY the garden educator (90 min)	
3.3	Elements of natural garden and ecological maintenance	Presentation: Elements of the natural garden (60 min)	105 min
		Presentation: Ecological maintenance (45 min)	
3.4	School garden tour	School garden goals (60 min)	60 min
3.5	Plant nursing	Presentation: Plant nursing (40 min)	90 min
		Sowing seed (10 min)	
		Paper pots (10 min)	
		Pricking out young plants (10 min)	
		Germination experiments (20 min)	
3.6	Growing vegetables in school gardens	Presentation: Growing vegetables in the school garden (60 min)	165 min
		Gardening in the vegetable patch (60 min)	
		Vegetable patch strategies and design (45 min)	
3.7	Soil and compost	Presentation: Soil and compost (30 min)	75 min
		Experiment: Soil functioning as buffer or filter (20 min)	
		Experiment: Examining composting animals (25 min)	

	MODULE NAME	ACTIVITY	DURATION
3.8	Education in the	Let pictures speak (90 min)	180 min
	natural garden	Education in the natural garden (90 min)	
3.9	Educational	Different methods and principles (10 min)	120 min
	methods in the garden	Classifying the teaching methods (10 min)	
		Comprehensive methodological principles (15 min)	
		Practical demonstration of education methods (80 min)	
3.10	The garden in	The garden in school subjects (120 min)	180 min
	school subjects	Creating your own lesson (60 min)	
3.11	Beneficial insects	Beneficial insects (45 min)	225 min
		Building insect hotels (60 min)	
		Finding insects (120 min)	
3.12	Garden treasure	Outdoor treasure hunt (25 min)	45 min
	hunt	Planning a tailor-made garden treasure hunt (20 min)	
3.13	Finding support	School garden role play (90 min)	180 min
	for implementing school natural gardens	Finding resources for small garden projects (90 min)	
3.14	Designing school gardens	Involving children in garden design and planting (75 min)	195 min
		How to plan school garden – practical example (120 min)	
3.15	Work and celebration in the	Garden maintenance and work with natural materials (90 min)	180 min
	garden	Planning a garden event (90 min)	

	MODULE NAME	ACTIVITY	DURATION
3.16	Final presentation and evaluation	Final homework presentations (90 min)  Evaluating the course – Three ripe apples (60 min)  Final tea party – Tasting and reflecting on	180 min
		the course (30 min)	

## **Notes:**

Tools and materials
 Duration
 Preparation
 Description, procedure
 Background, pages for teachers





#### 3.2 INTRODUCTION TO GARDEN PEDAGOGY

#### **Activities included:**

Introduction to the course

Find something natural

GAPY the garden educator

## Learning goals:

- Deepen one's knowledge about the importance of outdoor activity
- Be able to explain why it is important to go outside with children
- Learn methods for getting to know one another
- Think about the attributes of the garden educator

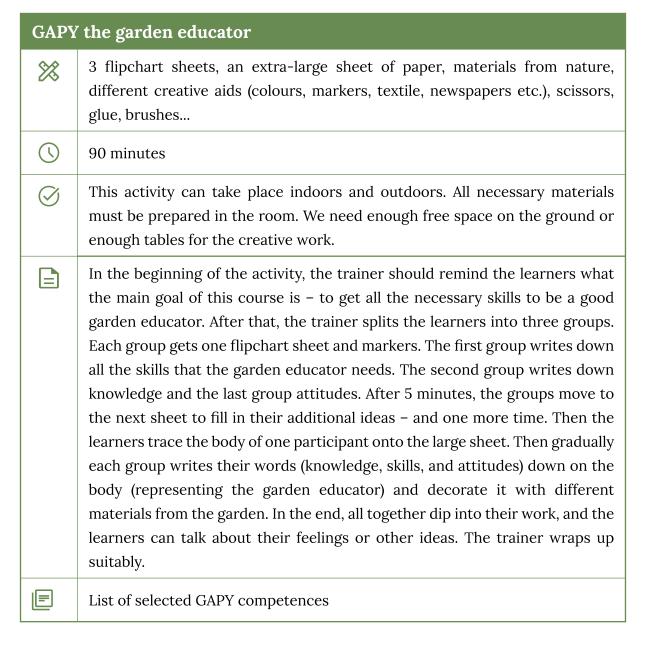
## **Summary:**

The introductory module of the training course is not only about bringing learners together and familiarizing them with the importance of outdoor activity. All activities aim to help them realize the many benefits which being outside brings to not only children but also adults. This module shows several relaxing activities which make it possible to look at a garden in a different way than usually. Last but not least, the module shows us that not only knowledge and skills but also attitudes are a significant part of garden pedagogy and that it is very important to work with them.

Intro	duction to the course
<b>%</b>	Ball, flipchart paper and markers
U	60 minutes
$\otimes$	This activity is for the outdoors and indoors. Enough space is needed for the learners to line up in a circle.
	The first activity of the whole course includes a few small tasks to help learners get to know one another and start thinking about the garden as an important place for education. The first task helps us <b>get to know one another</b> by means of ranking. Learners line up in the room, sorted by various specifications such as distance from home, work experience, age. Then we perform the task <b>ball toss</b> by tossing a ball back and forth while names are said aloud. The trainer continues with the task who has ever by asking various questions such as: <b>Who has ever</b> made a compost heap, planted a tree, grown tomatoes themselves All learners swap places to identify who can answer yes to the question. These three tasks take approximately 25 minutes. The following task, <b>introductory meditation</b> , helps learners to realize how important it is to be outside during childhood. Learners silently reflect on the following question: "Where did I like to play as a child, what is my fondest memory of a play situation in childhood?". After 2–3 minutes of thinking, a show of hands is asked for each of the following questions: Who played this game outside? Who got dirty? Whose game was risky? Who had a supervisor present? This is to illustrate how important free outdoor play is for children's development. The last task is also about the importance of outdoor activity. The learners are divided into three groups. They are given the assignment of discussing the kind of effect being outside has on the child's development. The first group discusses physical development, the second group discusses emotional development, and the third group discusses social development. The groups write down their results. The groups then present their results and discuss with other learners. These two tasks take 35 minutes.
₽	Publication: Dítě venku v přírodě: ohrožený druh? (Daniš, 2016)

Find	Find something natural		
*	Questions sheet, pens, clipboards		
()	45 minutes		

$\otimes$	-
	The aim of this relaxation activity is for learners to get a chance to stretch and get know each other. They should go for a short stroll in the garden or to a green open space and find something that somehow reminds them of themselves – by its shape, surface, colour, relation to other people or the community. The idea is to look at nature differently and to relax. When learners return, they very briefly report on what they found and discovered about the natural world or about themselves.
	Find Something Natural – learner's sheet Find Something Natural – trainer's sheet





# 3.3 ELEMENTS OF THE NATURAL GARDEN AND ECOLOGICAL MAINTENANCE

#### **Activities included:**

Presentation: Elements of the natural garden

Presentation: Ecological maintenance

School garden goals

## Learning goals:

- Get to know different natural garden elements and their ecological benefits
- Reflect on the significance of natural garden elements to one's own pedagogical work
- Learn about preventive measures in biological plant protection
- Interpret the plant protection pyramid
- Learn about common pests in home gardens
- Learn about biological control measures
- Be able to make leaven and eat

## **Summary:**

This module focuses on teaching horticultural basics, designing school gardens with natural garden elements, and adapting the school garden to climate change. Above all, emphasis is placed on understanding the ecological connections of nature and the garden and on the promotion of individual animal/insect groups. In the next step, ecological garden maintenance is looked at in more detail and, likewise, the importance of the garden as an ecological niche is brought to the fore.

Elem	ents of the natural garden
*	Presentation, video projector
()	60 min
$\otimes$	This is an indoor activity. The trainer needs a presentation and a white wall.
	The most important natural garden elements for a school garden are presented with regard to their ecological significance and usefulness for lesson planning. Natural garden elements include wild shrub hedges, flowering meadows, flowers and flowering perennials, wild corners, wild growth, dead wood and rock piles, special habitats (for example, water or natural stone walls), and deciduous trees. Also addressed is climate change and how the natural garden can adapt to such change or help mitigate heat. Furthermore, climate-adapted plants are discussed.
	Presentation: Elements of the natural garden
	Presentation: Climate-friendly garden
	List of inspiring books, brochures, and websites

Ecolo	Ecological maintenance		
*	Presentation, video projector		
(J)	45 min		
$\otimes$	This is an indoor activity. The trainer needs a presentation and a white wall. The trainer introduces the horticultural basics of ecological maintenance and plant protection.		
	First, learners discover ecological relationships between pests and beneficial insects. Then they look at the most common and important plant diseases and pests that occur in school gardens while discussing possible measures against them. Recipes for homemade eat, leaven, and teas to strengthen plants are then presented, and the learners are shown how to make them.		
=	Presentation: Ecological maintenance		
	List of inspiring books, brochures, and websites		



## 3.4 SCHOOL GARDEN TOUR

## Learning goals:

- Learn about and understand elements of educational work in the garden
- Understand the size, function, and use of educational elements in the school garden
- Gain personal experience with educational elements in a school garden

## **Summary:**

A model school garden is visited and garden educational elements are examined in detail, such as raised beds, seating area, simple gravel beds, vegetable beds, a relaxing hammock landscape, and numerous other elements.

Schoo	School garden goals		
<b>%</b>	Flipchart, pencils and pens		
()	60 min		
$\otimes$	This is an outdoor activity.		
	Together with the learners, a model school garden is visited in which a variety of garden-pedagogical elements can be found. On the example of this school garden, educational elements are examined closely, and it is explained how these can be included in one's lessons and garden pedagogical work.		
	List of inspiring books, brochures, and websites		



#### 3.5 PLANT NURSING

#### **Activities included:**

Presentation: Plant nursing Pricking out young plants
Sowing seed Germination experiments

Paper pots

## Learning goals:

Learn about the advantages of plant nursing

- Be able to explain the advantages of organic growing pots and peat-free growing soil
- Bring germination into the classroom
- Practice sowing vegetable seeds, learn about measures for the nearnatural maintenance of vegetable beds (especially weed and pest control)
- · Learn about the reuse of materials in plant nursing
- Learn about windowsill cultivation
- Select suitable species for windowsill cultivation
- Practice pricking out young plants
- Conduct germination experiments

## **Summary:**

In the first step, the topic of plant nursing is theoretically explained by means of a presentation, and the most important steps are listed. This presentation provides the basis for the practical exercises that follow. Plant nursing has many positive properties. On the one hand, the activity creates awareness of the fact that different plants have different needs during germination. The plants can be observed very well during germination and later growth. Responsibility has to be taken so that the plants also thrive, and fine motor skills are trained when pricking out. Nursing is the beginning of the cultivation of plants from the seed to harvest.

Plant	nursing
<b>%</b>	Presentation and documents for the trainer (with information about plant nursing)
()	40 min
$\otimes$	This is an indoor activity. The teacher needs a presentation and a white wall. Print the trainer's document. The room must be arranged for everybody to see the presentation.
	During the presentation, the trainer outlines the advantages of plant nursing. The advantages of organic growing pots and peat-free growing soil are explained. Germination is integrated in the classroom and different lessons. Participants learn about the reuse of materials in plant nursing and about windowsill cultivation. Suitable species are selected for growing on the windowsill. Learners make choices about variety, sowing dates, sowing depth, germination brightness and germination temperature.
	Plant nursing presentation
	List of inspiring books, brochures, and websites

Sowii	Sowing seed		
*	Various seeds of vegetable and lettuce plants, soil, shovels, yoghurt cups and other reused containers, toilet paper, flour, toothpicks		
U	10 min		
$\otimes$	The lesson can be taught outdoors or indoors; it is important for all groups to have space for their work.		
	Different seeds require different nursing methods. Small seeds of lettuce, for example, are sown in seed trays for later separation and pricking out. Larger seeds such as pumpkin are sown individually in yogurt pots and do not have to be pricked out. A seed tape for radishes to simplify direct sowing in the vegetable patch is made using toilet paper and flour paste.		

Paper pots		
*	Newspaper paper strips (about 10 cm), press for newspaper pots, adhesive tape	

()	10 min
$\otimes$	The lesson can be taught outdoors or indoors; it is important for all groups to have space for their work.
	Paper pots for growing vegetables are made. Newspaper is rolled up using the press and pressed into a pot. If necessary, the pot can also be glued and labelled with adhesive tape.

Pricking out young plants	
<b>%</b>	Young lettuce plants in a seed tray, small clay pots or reused containers, soil, pricking sticks, watering can
()	10 min
$\otimes$	The lesson can be taught outdoors or indoors; it is important for all groups to have space for their work.
	Young lettuce plants with two to four leaflets that have been grown in a seed tray are carefully pecked into a clay pot with soil.
	Worksheet
	List of inspiring books, brochures, and websites

Germination experiments	
<b>%</b>	Young edible sprouts, sprouting jar, beans, clay jar, plaster of Paris, plastic cups, cress, cotton wool, salt, vinegar
()	20 min
$\otimes$	The lesson can be taught outdoors or indoors; it is important for all groups to have space for their work.
	Methods of observing and documenting germination are presented. For this purpose, sprouts are viewed and tasted in a sprouting glasses. A photographic diary of the germination of beans is created, and the demolition of plaster by germinating beans is presented. In addition, simple experiments are used to demonstrate what cress needs to germinate and grow and what inhibits its germination.
	Worksheet List of inspiring books, brochures, and websites



#### 3.6 GROWING VEGETABLES IN SCHOOL GARDENS

#### **Activities included:**

Presentation: Growing vegetables in the school garden

Gardening in the vegetable patch

vegetable patch strategies and design

## Learning goals:

- Acquire knowledge of common crop rotation principles (strong medium weak eaters)
- Be able to explain the advantages of mixed culture and crop rotation
- Consider crop rotation and mixed crops when designing a vegetable patch
- Be able to grow and care for selected vegetables independently
- Learn about suitable types of vegetables for the school garden and be able to select them according to location
- Learn about vegetable care strategies for the summer months
- Discuss possibilities of the class vegetable patch

### **Summary:**

In the module on planting a vegetable patch, learners should understand how vegetable patches are designed and maintained throughout the season and which vegetable species are specifically suited for the class. During the course, learners should work in small groups to plant beds and discuss together how to work with students in the field and integrate the vegetable patch in the classroom.

Grow	Growing vegetables in the school garden	
<b>%</b>	Presentation and documents for the trainer (with information about growing vegetables)	
()	60 min	
$\otimes$	This is an indoor activity. The teacher needs a presentation and a white wall.  Print a document for the trainer.	
	The right plant, soil preparation, and maintenance of a vegetable patch are crucial for success. It is also important to observe mixed culture and crop rotation to be able to harvest healthy vegetables. We especially recommend vegetables and salads that can be grown in the spring, harvested before the holidays, and processed into a healthy snack. Suitable types of vegetables for the school garden that can be harvested before and after the summer break are presented. Strategies for maintenance during the summer months are discussed. The most common kitchen herbs for school gardens and lessons are covered in the presentation. We show how a vegetable patch for the school garden is designed step by step.	
	Presentation: Growing vegetables	
	List of inspiring books, brochures, and websites	

Gard	Gardening in the vegetable patch	
*	School garden or show garden with a vegetable patch, 8 different types of vegetables to taste (e.g. beetroot, potato, zucchini, cucumber, onion, fennel, celery, celeriac), 4 additional types of vegetables to taste (e.g. kohlrabi, onion, celery, cucumber)	
()	45 min	
$\otimes$	This is an outdoor activity. Suitable weatherproof clothing is required.	
	A nearby school garden (or show garden) with a suitable vegetable patch is toured and the patch is discussed in practice. Here, depending on the season, the plants in the vegetable patch are checked for pests, and the duration of cultivation and combination with flowering plants are discussed. Mulch materials should also be presented here.	

To address the variety of vegetables in terms of taste and shape, small games and a tasting of various vegetable plants should also be arranged on the tour.
List of inspiring books, brochures, and websites

Vegetable patch strategies and design	
<b>%</b>	Brochures and books about vegetables and vegetable gardening, paper, coloured pencils
()	60 min
$\otimes$	The lesson can be taught outdoors or indoors; it is important for all groups to have space for their work.
	Group work to design a vegetable patch is organized as follows:  (1) Make a list of vegetables of your choice suitable for one school garden (at least 6, max. 10).  (2) Design a vegetable patch with the plants selected (the vegetable patch with an area of 2 × 3 m) following the principle of mixed culture and also pay attention to the pre- and post-crop period (sketch representation).
	(3) How would you look after the designed vegetable patch as part of your class or the afterschool care? (Soil preparation, sowing/nursing, mulching, irrigation, fertilizing, harvesting, crop protection, etc.)
	Worksheet
	List of inspiring books, brochures, and websites



#### 3.7 SOIL AND COMPOST

#### **Activities included:**

Presentation: Soil and compost

Experiment: Soil functioning as buffer or filter

Experiment: Examining composting animals

### Learning goals:

- Acquire knowledge of common crop rotation principles (strong medium weak eaters)
- Acquire basic knowledge of soil protection/soil revitalization/soil regeneration
- Learn about important soil organisms and their role in soil health
- Deepen knowledge of mulching and green manures
- Learn the advantages of using peat-free soils
- Learn about fertilizers/soil conditioners for healthy/natural gardening
- Be able to explain composting and compost use
- Learn methods of integrating soil and compost in lessons

## **Summary:**

The module explains the importance and ecological function of soil and the fact that life on Earth is not possible without fertile soil. It also explains where the dangers for our soils lie and how we can protect the soil. The topics of mulching, peat-free gardening, and the associated soil protection are also covered. Extensive attention is paid to starting compost heaps and with the life they contain. Various experiments are conducted to round off the module.

Prese	Presentation: Soil and compost	
<b>%</b>	Presentation and documents for the trainer (with information about soil and compost)	
()	30 min	
$\otimes$	This is an indoor activity. The teacher needs a presentation and a white wall. Print the document for the trainer. The room must be arranged for everybody to see the presentation.	
	The teacher introduces the horticultural basics of soil protection, revitalization, and regeneration. The main soil organisms and their importance for soil health are then discussed. The benefits of mulching and green manuring, as well as plants suitable for this purpose, are discussed. The importance of using peat-free soils and organic fertilizers/soil conditioners for healthy/natural gardening is discussed. Proper composting and general composting techniques are taught and discussed.	
	Presentation: Soil and compost	
	List of inspiring books, brochures, and websites	

Soil f	Soil functioning as buffer or filter		
*	2 plastic bottles, tea filter, various substrates, pH test strips, vinegar, measuring cup, water, petri dish, wooden frame to fix the bottles		
U	20 min		
$\otimes$	This is an outdoor and indoor activity. Place the materials for hands-on activity on a sufficiently large table.		
	Place substrate in a plastic bottle filled with soil		
	<ul> <li>When opening the bottle, place a large pebble in front of it, possibly a tea filter or something similar to prevent soil from washing out.</li> </ul>		
	Place the bottle in the wooden rack		
	Add acid to water (it should taste really sour)		
	Measure pH value using test strip		

• Now slowly put the acidic water into the plastic bottle filled with soil using a funnel, not all at once. The water should not run down the sides between the soil and the plastic. This would tamper with the filtering effect.
Put a petri dish or some other bowl underneath the bottle.
Use the pH strip one more time to test the water exiting the bottle and compare the results to the first measurement.
Worksheet

Examining composting animals	
*	Compost, magnifying glasses, microscope, cup magnifiers, petri dishes, plastic bowls, spoon, hand shovel
U	25 min
$\otimes$	This activity takes place near from compost.
	Put the compost in a container and look for larger soil organisms (woodlice, stonecrops, mites, springtails, larvae,)
	Carefully place the soil creatures in a petri dish using a spoon and employ a magnifying glass or a microscope to observe and identify them using the worksheets and leaflets.
	Worksheets and leaflets
ت	List of inspiring books, brochures, and websites



#### 3.8 EDUCATION IN THE NATURAL GARDEN

#### **Activities included:**

Let pictures speak

Education in the natural garden

## Learning goals:

- Inspire other learners and show understanding of the principles of natural gardening
- Realize the different meanings and benefits of garden education and how to start educating in the natural garden

## **Summary:**

The first part of this module seeks to inspire learners using pictures of school and community gardens. The second part focuses on education in the natural garden – what it is, how important it is, and how to begin, including some concrete tips.

Let p	Let pictures speak	
*	Video projector	
()	90 min	
$\otimes$	Pictures/ppts should be provided in advance, at least 3 days before the course starts. The lesson takes place indoors.	
	Learners take turns presenting ten pictures of natural gardening tips (natural gardening with youngsters, teenagers, the public, good practices from school or community gardens). Speakers should be warned that the total time they have got for sharing their photos is 200 seconds (about 3.5 min), 20 seconds per slide.	

It is extremely important that learners do not exceed the given time. The total time needed at such pace (for a group of 20 learners) is almost 70 minutes. The remaining time should be used for reflection.
Note: The activity is inspired by the Pecha Kucha format (20 slides, 20 seconds to present each) <a href="https://en.wikipedia.org/wiki/PechaKucha">https://en.wikipedia.org/wiki/PechaKucha</a>

Education in the natural garden	
*	Equipment for sensitivity activities, flipchart, colour papers, pencils, video projector
()	90 min
$\otimes$	The first part of the lesson takes place outdoors the second part indoors.
	This activity is made of five parts. In the first part, learners are split into small groups to perform an assignment (each group different) with a focus on sensitivity in the garden. Then they present their work to others, possibly adding some of their own activities, and the trainer talks about the importance of sensitivity activities in the context of outdoor education.
	During the second part, learners with the trainer brainstorm on the topic "Education in the natural garden – what is it? The third part focuses on the benefits of learning in the natural garden. Each learner writes (max. 3) the most important benefits of learning in the natural garden – on one colour paper from children's perspective and on another colour paper from the educator's perspective. Then each learner presents this, and the trainer can add some other ideas or show some research on the topic.
	In the fourth part, the trainer presents some recommendations to learners (teachers' tips from Bedrník magazine), how to start outdoor education, and how to teach safely. Each learner picks one tip that appeals to them the most, learners discuss those.
	The last part focuses on special equipment, which is very useful for education in the natural garden. The trainer gives a PowerPoint presentation with examples of good practice.
₽	List of tips (Bedrník Vol. 17, Issue 1, pp. 5–7)
	Presentation: Examples of good practice







#### 3.9 EDUCATIONAL METHODS IN THE GARDEN

#### **Activities included:**

Different methods and principles

Classifying the teaching methods

Comprehensive methodological principles

Practical demonstration of education methods

# Learning goals:

- Gain orientation in education methods
- Become acquainted with methodological principles
- Try new practical methods for different target groups

# **Summary:**

This module focuses on providing basic orientation in educational methods and principles. First, learners think about the various educational methods they typically use that are especially suited for garden education. In the next step, learners get acquainted with a professional classification of these methods. They are informed about the most interesting principles which can be applied in creating a comprehensive programme. The biggest part of the module consists of practical demonstration of methods and principles in a concrete garden where the activity takes place. Learners are also acquainted with and inspired by numerous examples of good practices.

Diffe	Different methods and principles	
<b>%</b>	Flipchart	
()	10 min	
$\otimes$	Indoor activity, can be realized outdoor in nice weather.	
	The following three questions are brainstormed with learners:	
	1. How do you imagine a school lesson?	
	2. Which methods do you know?	
	3. Which methods do you prefer for garden education?	
	Discussion with learners is conducted to cover the first question. Answers to	
	the second are written down on the flipchart together, and preferred garden	
	education methods are circled by learners.	

Classifying the teaching methods	
<b>%</b>	Presentation, video projector
()	15 min
$\otimes$	Indoor activity, it is necessary to prepare the room for projection.
	Follow-up activity to demonstrate a classification of the teaching methods brainstormed. There are two categories of methods at hand: methods centred on the didactic aspect (in terms of source and type of knowledge) and the psychological aspect (in terms of student activity and independence). Practical examples are presented to explain both categories to learners.
	Presentation: Classifying the teaching methods

Comp	Comprehensive methodological principles	
<b>%</b>	Presentation, video projector	
()	15 min	
$\otimes$	Indoor activity, it is necessary to prepare the room for projection.	
	Various principles are presented that can be applied under a comprehensive garden education methodology. Learners find out about the four most interesting principles, and the contents of each principle are shown in more detail.	
=	Presentation: Comprehensive methodological principles	

Pract	Practical demonstration of education methods	
<b>%</b>	Presentation, video projector, photos	
	Set of publications and aids for practical activities	
()	80 min	
$\otimes$	Outdoor activity, it is necessary to prepare the whole equipment for the activity.	
	This activity introduces learners to all the presented methods and principles in practice by showcasing a sample of good practices. Learners try these practices themselves by participating during their introduction. Learners become acquainted with concrete practices (programs, activities, events for the public, for families with children, for seniors, for school classes,) tailormade to each concrete garden, where the practices are presented.	
₽	List of inspiring books, brochures, and websites	



#### 3.10 THE GARDEN IN SCHOOL SUBJECTS

#### **Activities included:**

The garden in school subjects

Creating your own lesson

## Learning goals:

- Discover the possibilities of using the garden across the curriculum
- Learn about the advantages of interdisciplinary education in the garden
- Learn how to teach a successful lesson in the garden

# **Summary:**

In this module, learners try activities for a variety of school subjects that they can conduct in the garden. Examples of good practice are presented to familiarize learners with interdisciplinary education in the garden and its advantages. In the last part of this module, we focus on creating one's own lesson, and in particular on motivation, goals, and reflection; learners get assignments for the next lesson.

The g	The garden in school subjects	
*	Equipment for activities to individual subjects, presentation about interdisciplinary education	
	Books, brochures, and some worksheets from inspiring websites (for show)	
()	105 min	
$\otimes$	The first part of the lesson takes place indoors, the second part outdoors. It is necessary to prepare all of the equipment and assignments for individual subjects.	
	In the first part of the lesson, the trainer presents an existing school project (apple tree) as a good example of interdisciplinary education. This is followed by a discussion with learners.	
	In the second part of the lesson, learners perform small assignments for individual subjects. 10 groups (according the school subjects) are formed and each gets a different assignment and tools to perform it. Afterwards, learners talk about their assignments with others, introduce their subjects, and think about different educational activities for their subjects. The trainer concludes by presenting books, brochures, and websites with more inspiration for teaching individual school subjects outdoors.	
	Presentation: School project (apple tree)	
	List of educational activities for all subjects	
	List of inspiring books, brochures, and websites	

Creating your own lesson		
*	Presentation, blank programme tables (one per learner), partly completed programme tables (geography, history, science, and physics)	
()	75 min	
$\otimes$	The lesson can be taught outdoors or indoors; it is important for all groups to have space for their work.	
	Learners from the last activity split into 4 groups (according to subjects – geography, history, science, and physics). Their assignment is to think about motivation and reflection for this concrete programme and guess the goals of the programme. This they fill in the special table (the other part of the table is already completed). Then each group quickly presents its ideas to the others. The trainer summarizes the ideas and shows some other examples of motivation and reflection. In the end, the trainer explains to learners their assignment for the next lesson. Each gets an empty programme table to complete at home; learners can work alone or in groups. The programme should cover about 1–2 school periods and use any garden topics (include to concrete subjects in the garden). Depending on the number of presentations, the trainer determines the time allowed for each presentation (we recommend at least 5 minutes per group; if there are many individual presenters, the trainer can split them into two groups in which they present their assignments to one another). There can be a maximum of 2 presenters per group and they can use a video projector.	
	Programme table (blank)	
	Programme table (partly completed for 4 subjects)	
	Presentation: Motivation and reflection	



#### 3.11 BENEFICIAL INSECTS

#### **Activities included:**

Beneficial insects

Building insect hotels

Finding insects

# Learning goals:

- Realize the importance of insects in the garden and understand their benefits
- Try to build an insect hotel
- Become acquainted with practical examples of insect biomonitoring

# **Summary:**

This module is concerned with beneficial insects in the garden. The opening presentation introduces different kinds of insects and their functions and benefits. It helps learners to view insects as an important and desirable part of their garden. The activity of insect hotel building is one of many ways to make one's garden a suitable place for these animals. In the end of the module, learners apply the method of biomonitoring to observe some insects in the garden's different ecosystems.

Benef	Seneficial insects	
<b>%</b>	Presentation, video projector	
()	45 min	
$\otimes$	Indoor activity, it is necessary to prepare the room for projection.	
	The trainer gives a presentation about beneficial insects in the garden and animal-friendly design elements. The presentation includes practical advice on how to promote beneficial insects, control slugs, etc., as well as information about different kinds of insect hotels. After the presentation, the trainer gives learners space for questions and discussion.	
	Presentation: Beneficial insects in the garden	
	List of inspiring books, brochures, and websites	

Build	Building insect hotels	
*	Empty tins, reed, wire, garden shears, large table	
()	60 min	
$\otimes$	Activity suitable for indoor and outdoor.	
	First, the trainer reminds learners of the correct insect hotel constructions shown in the previous presentation. Then learners view various models of insect hotels in the garden and discuss their accuracy and construction quality as well as advantages and disadvantages. Finally, each person builds a small insect hotel out of an empty tin and reed.	
	List of inspiring books, brochures, and websites	
	Building manual	

Findi	Finding insects	
<b>%</b>	Aquatic nets, butterfly nets, magnifying glass, bowls, small shovels, insect key or insect atlas	
U	120 min	
$\otimes$	The activity takes place outdoors. Trainer has to prepare the whole biomonitoring equipment and prepare products of nature for the opening activity.	
	In the beginning, the trainer splits learners into three groups for small assignments (based on sensitivity): each learner gets a fabric bag with some product of nature. Learners touch it without seeing it and try to find peers with the same product of nature. But they cannot talk or look at the other person's fabric bag (only touching is allowed). When they think that they are in the right groups, they can check if everybody has the same thing in their bag. Each of these three groups gets different biomonitoring equipment. The groups show their equipment to one another and try to guess for which kind of biomonitoring their tools are (water, soil, and meadow). Then the trainer describes in detail and practically demonstrates how to use the equipment, how to manipulate small animals, and how to use the key for determining species. After about 40 minutes of observation, each group shows which insects they have found. In the end, the trainer summarizes the most important knowledge.	
	List of inspiring books, brochures, and websites  Insect key – meadow	
	Insect key – soil Insect key – water	



# 3.12 GARDEN TREASURE HUNT

#### **Activities included:**

Outdoor treasure hunt

Planning a tailor-made garden treasure hunt

## Learning goals:

- Learn about/review various elements of natural gardening, fauna, and flora
- Encourage staying outdoors in the garden or in a park in a fun way
- Gain skills in planning a treasure hunt or a quest (possibly using principles of place-based learning)

# **Summary:**

Learners try the quest in person and gain skills for creating a treasure hunt in their own school or community garden. Learners are be split into two groups. Group A receives a worksheet and joins the treasure hunt. Group B stays at a place where they cannot see Group A and works on developing a concept of a place-based garden treasure hunt. In the end, the two groups come together and discuss whether they can imagine creating a tailor-made quest in their school garden. They also share experience and riddles created by Group B.

Outde	Outdoor treasure hunt	
<b>%</b>	Treasure hunt worksheet, one pen or pencil per group	
	Treasure surprise box – optional	
	Compass – optional	
	App – optional	
()	15-20 min	

$\otimes$	Print the treasure hunt worksheet.
	Easy version: use a worksheet for any garden treasure hunt (available online).
	More difficult (and recommended) version: the worksheet is tailor-made for a specific garden, season, etc.
	Hide a treasure box in the garden.
	Learners receive the worksheet tailor-made for the garden. They move around the garden from one place to another.
	After completing the task at each site, they receive a clue (a letter/word for their crossword puzzle). If they manage to complete all the tasks correctly, they get the instructions to find their treasure.
	At the end, they discover the treasure (e.g. something healthy to eat, a little surprise, an invitation to a small garden party).
	Reflection: After finding their treasure, learners should evaluate the quest. Go through the correct answers and draw attention to various elements of natural gardening and their importance, as well as the specifics of the natural garden.
	Note: There are many ways to organize a garden quest, e.g. by creating a map of the garden with the route and individual sites where learners perform the tasks. Or the task can be developed along the nature trail, with stops at science panels in the garden, labels on the garden's trees and plants, etc.

Planning a tailor-made garden treasure hunt		
<b>%</b>	Pen/pencil and worksheet	
()	15-20 min	
$\otimes$	Print worksheet.	
	The group receives the worksheet. Learners follow the instructions to develop a concept of a tailor-made garden treasure hunt.	

inspiration for developing one's own treasure hunt)

Worksheet: A sample placed-based treasure hunt from the Surya Centre (as

Publication: Questing

Worksheet: Planning a tailor-made garden treasure hunt



# 3.13 FINDING SUPPORT FOR IMPLEMENTING SCHOOL NATURAL GARDENS

#### **Activities included:**

School garden role play

Finding resources for small garden projects

# Learning goals:

- Gain awareness of various stakeholders in school garden development
- Develop skills in presenting one's vision of a school natural garden
- Develop skills in writing projects and finding partners in the process of planting school natural gardens

# **Summary:**

A GAPY's initiative to turn a common school garden into an ecological one involves negotiation with school management and school owner. Learners gain experience finding resources and allies for their school garden.

School garden role play	
*	Role description cards
	Flipchart and markers
()	90 min
$\otimes$	Indoors or outdoors, sitting in a circle. Three main roles need to be explained to players in advance.
	1. Players sit in a circle. Headmaster opens the meeting and explains its purpose
	2. GAPY presents the school natural garden project
	3. Players take turns either joining GAPY or opposing the project

	4. Headmaster concludes the meeting
	5. Role play is followed by a discussion
	6. Recommendations for GAPY are summarized on how to proceed in order to obtain support for implementing a school natural garden
<b>=</b>	Description of the role play with explanation of individual roles, instructions for the activity
	School garden project (necessary for GAPY's presentation)

Finding resources for small garden projects	
<b>%</b>	Flipchart, markers
	Worksheets for learners (presentation slides with space for notes)
()	90 min
$\otimes$	Indoors or outdoors, sitting in a circle. Worksheets, flipchart, markers, video projector.
	1. Trainer presentation – how to write a project to obtain funding for the implementation of the school natural garden, and where to submit it (15 min)
	2. Group work
	(a) The trainer distributes worksheets (max 5 people in a group) with basic elements of a project. The assignment of each group is to develop a short project (e.g. raised vegetable bed, outdoor classroom, willow tunnel, rain garden) and to prepare a presentation; making one's presentation creative and attractive is recommended (25 min)
	(b) Learner presentation: individual groups present their small projects, see worksheet (30 min)
	(c) Discussion and conclusion: Which project was the most interesting? Why? What should be considered when presenting a project to a colleague or supervisor?
	(d) Conclusion: Money is important for implementing school natural gardens but sometimes it is more effective to obtain material resources, know-how and capacities within the community (parents, local government, local gardening companies etc.) (20 min)
=	Ppt: Financing of the school garden



#### 3.14 DESIGNING SCHOOL GARDENS

## **Activities included:**

Involving children in garden design and planting

How to plan school garden – practical example

# Learning goals:

- To understand the benefits that a planning natural garden brings to children
- To develop skills for designing school gardens step by step

# **Summary:**

In the first part of the module, learners are introduced to natural school gardens as an exciting place to learn and live (motivation). Once the learners understand the importance of school gardens, they gain experience designing their garden and learn how to involve children in the process.

How to plan school garden – practical example	
<b>%</b>	Flipchart, markers, pencils, 2 sets of GAPY cards, 2 envelopes, 2 coloured paper sheet sets, 2 scissors, 2 bottles of glue
()	120 min
$\otimes$	Activity is for indoor. Important is to make separate space for two groups and have big working place.
	Learners work in two groups. Their assignment is to consider various factors and gain a garden designer's experience designing an adventurous school garden.

Each group receives a large sheet of paper along with markers/pencils and selects one of the two envelopes with specific factors or conditions (e.g. soil quality, wind, sun, rain, climate, altitude...), what there is in the garden (concrete area, large lawn, fence made of yews, fruit trees, compost, a storage shed, one raised bed...), users (e.g. small kids, elementary school pupils, young people or adults with special needs or disabilities...) and broader environment (garden size, village or town, lowland or mountain environment, fenced or unfenced plot ...), and finally a challenge (and old tree in the middle, an old brick shed, a pile of branches, large weeds in a corner, a nasty neighbour, long-term draught...).

It is up to the trainer to adjust the choice of factors (conditions) depending on the specific group of learners. Alternatively, learners can randomly pick a certain number of factors.

The assignment of each group is to make a drawing of their garden corresponding to the conditions they received.

In the end both groups present to the others their plans and together with lector discuss about them.

Involving children in garden design and planting	
*	Projector and tool for activities
()	75 min
$\otimes$	Activity is at first inside and then outside.
	Learners work together in one group, brainstorming about all the benefits of involving children in school garden design. The trainer records the contributions on a flipchart.
	The trainer gives a ppt presentation with recommendations on how to involve children in garden design and planting.
	After it the participant can try some planning activities for children.
	Presentation: How to involve children to planning and building school garden



#### 3.15 WORK AND CELEBRATION IN THE GARDEN

#### **Activities included:**

Garden maintenance and work with natural materials

Planning a garden event

## Learning goals:

- Get practical skills for handcraft with nature materials form garden
- Gain skills for planning garden events
- Get a knowledge for planning maintenance of school garden during the year

# **Summary:**

Learners explore examples of plants suitable for school gardens. Based on a worksheet, they plan garden activities for a particular month. Garden calendars are handed out to learners as a tool to plan what to grow and how to work with natural materials from the garden. In the second activity, learners plan a garden event and make a poster. A space for exchanging experiences is an important part of this module.

Gard	Garden maintenance and work with natural materials	
**	Workshop: cones, curtain, calendula, sunflower oil, beeswax, glass containers for ointment and tincture, pictures of plants, GAPY's Calendar	
()	90 minutes	
$\otimes$	Print and cut out 4 pictures for warm-up.	
	Print 4 worksheets for work with GAPY's Calendar.	
	Print one copy of GAPY's Calendar for each learner.	
	Indoors or outdoors.	



#### (1) Warm-up - How to think and plan in the school garden? (10 min)

Learners split into 4 groups. Each group receives a picture of a school garden star (chive, calendula, sunflower, pumpkin).

The first assignment is to explain how each of these plants relates to a school garden. What is the key? Why have these four been chosen? (Seasons in the school garden, easy-to-grow plants, added value in attracting pollinators, beauty, use in the school kitchen, bird food...).

The second assignment is to plan the process throughout the school year for each of these plants, including ways to involve kids or adults.

After 5 minutes, each group presents their thoughts.

Summary and reflection.

## (2) Work with GAPY's Calendar (35 min)

Each group receives a blank calendar worksheet and completes it, with a focus on work with natural materials from the garden.

After 10 minutes, group present their tips and inspire one another.

Each participant gets a copy of GAPY's Calendar as a tool for planning work in the school garden.

#### (3) Garden workshop - practical part (45 min)

There are two workplaces – one to create gifts from herbs and the other to make compost tea and a shelter for ladybugs from cones.

The groups work together, then swap places.



Pictures of 4 plants

Blank GAPY's Calendar worksheet

GAPY's Calendar

Planning a garden event	
<b>%</b>	Worksheet, coloured pencils and thick paper
()	90 minutes
$\otimes$	Print worksheet.
	Indoors or outdoors.
	(1) Learners work in four groups (60 min).
	They plan a garden event attended by the broader community. The worksheet helps them to think of all important aspects. Part of the assignment is to design a poster.
	Poster tips:
	Use large and bold font for the event title.
	Give the date, location, and time of your event.
	Include a simple call for action (Register, Share info, etc.)
	Describe your event or why people should attend.
	Make sure to add your contact information (logo, partners, etc.)
	(2) Group presentations.
	Each group presents its poster and explains the event. Learners can add ideas for events or how to organize or present them in the GAPY's Calendar.
	Worksheet: Planning a garden event
	GAPY's Calendar



#### 3.16 FINAL PRESENTATION AND EVALUATION

## **Activities included:**

Final homework presentations

Evaluating the course - Three ripe apples

Final tea party – Tasting and reflecting on the course

## Learning goals:

- Demonstrate understanding of the methodology of garden pedagogy
- Review the content of the training course
- Realize and name the benefits of the course

# **Summary:**

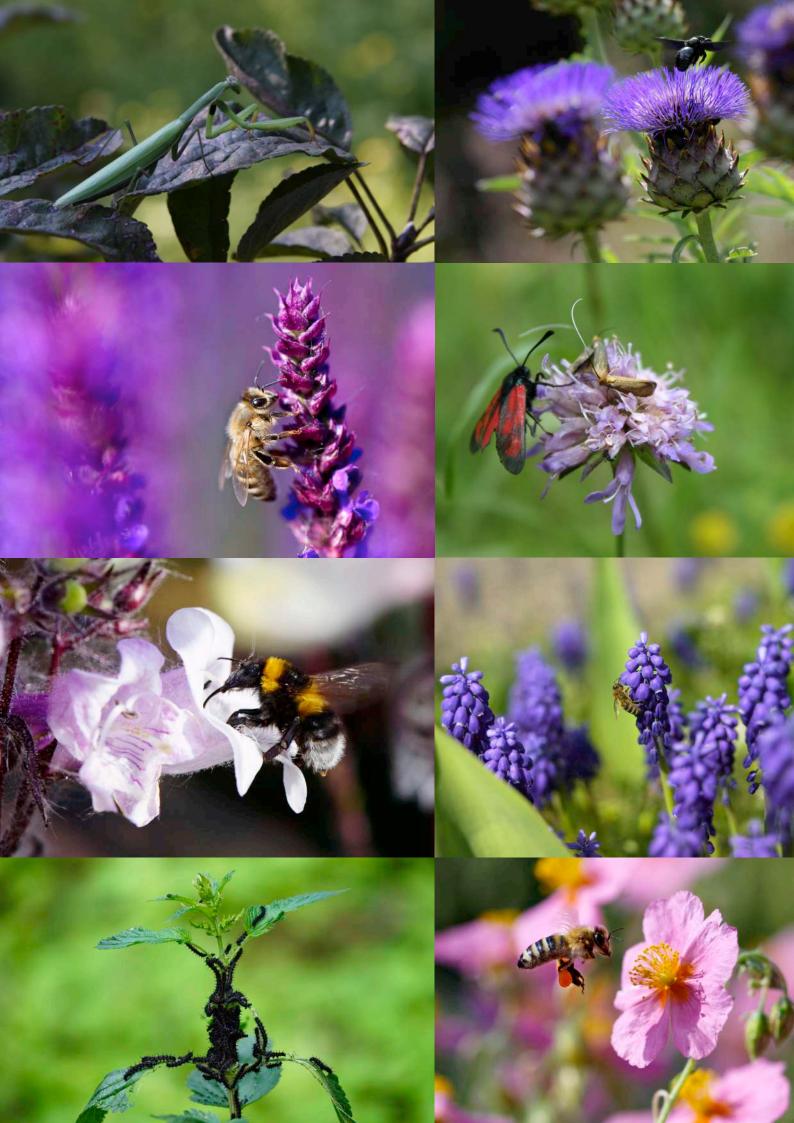
During the final module of the course, learners present their own lessons in garden pedagogy. In the second part, a tea party is held to evaluate the course (Three ripe apples).

Note: The trainer can decide to reschedule learners' final presentations.

Final homework presentations	
<b>%</b>	Video projector, learners' homework
(\)	90 minutes
Ø	All learners must finalize their homework before the presentation. Trainers have to stay in touch with learners during the second and third part of the course. It is recommended to set a submission deadline at least two days before the final part of course.
	At the beginning of this activity, the trainer reminds learners of the assignment.
	Learners start presenting their homework individually or in groups according to their target group or interest.
	Depending on the number of presentations, the trainer determines the time allowed for each presentation (at least 5 minutes per group). If there are many individual presenters, the trainer can split them into two groups in which they present their assignments to one another. There can be a maximum of 2 presenters per group and they can use a video projector.
	Note: Reserve enough time for methodology notes and questions after each presentation.
	After the presentation, the trainer joins learners to recap the basic points necessary for creating a good garden lesson.
	Homework assignment is part of Module 3.10, activity Creating your own lesson.
	Worksheet is attached.

Evaluating the course – Three ripe apples	
<b>%</b>	Flipchart, A4 sheets of thick white paper + pencils + brushes + watercolours or coloured paper, pens, scissors, pins, paper tape or Blu Tack
()	60 minutes
$\otimes$	No special settings.
	Each learner paints and colours three apples with leaves. On each apple leaf, learners put down what the found the most beneficial in each part of the course.
	Learners decorate the crown of an apple tree and share their experiences. When the activity is over, learners can keep their apples to remind them what they have learned.
	Worksheet: Evaluating the course – Three ripe apples

Final tea party – Tasting and reflecting on the course	
<b>%</b>	4 teapots, 4 kinds of herbs for tea, kettle to boil water, cups, answer sheet for each participant, walnuts shell with a thought
()	30 minutes
$\otimes$	Make tea.
	Learners gradually taste all the teas and try to guess the name of the herb or fruit.
	Learners reflect on the course and give thanks or credit.
	In the very last part of the course, each participant can pick a walnut shell filled with an original garden thought.
	Worksheet: Final tea party
	Worksheet: Walnut shell with a thought







The project has been funded by the Erasmus+ Programme of the European Union.

This handbook was created with the participation of the following dedicated, passionate individuals and dedicated partners:

# Středisko ekologické výchovy SEVER Horní Maršov, o.p.s.

Kateřina Čižmárová, Michaela Glovňová, Šárka Škodová

<a href="https://sever.ekologickavychova.cz/sever-the-rychory-centre-of-environmental-education-and-ethics/">https://sever.ekologickavychova.cz/sever-the-rychory-centre-of-environmental-education-and-ethics/</a>

#### Natur im Garten:

Susanne Kropf, Stefan Streicher, Martina Wappel <a href="https://www.naturimgarten.au">www.naturimgarten.au</a>

# Centrum environmentálnych aktivít

Klaudie Medalová, Richard Medal www.cea.sk

Photos in the handbook were made by members of the organizations involved.

July 2022

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.