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HOME HERBAL PHARMACY PROGRAM

TEACHING FORM: CLASSROOM AND FIELD/OUTDOOR LESSONS**NUMBER OF LESSONS: 40**

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EDUCATIONAL GOALS:

- Train the participants to apply basic phytotherapy knowledge in everyday life
- Inform the participants on anatomy, systemisation, effect and use of regional medicinal plants
- Educate the participants about drying and storing herbs and the production of herbal remedies
- Encourage the participants to look after the environment, preserving natural plant habitats by acquiring knowledge related to proper ways to harvest and cultivate plants for personal needs
- Motivate the participants to transfer the acquired knowledge, to their local community

OUTCOMES:

Based on the knowledge acquired the participants will be able to recognize different plant species and their effective use for specific health goals. They will have the knowledge to identify and describe different parts of a plant and the function of different plant organs. They will be able to recognize different plant species in their natural habitat using specialised literature and mobile applications. The participants will learn how to harvest, dry and store plants and make herbal remedies. They will also be prepared for pruning, planting and plant propagation.

LITERATURE:

- Della, A., Paraskeva-Hadjichambi, D. & Hadjichambis, A.C. An ethnobotanical survey of wild edible plants of Paphos and Larnaca countryside of Cyprus. *J Ethnobiology Ethnomedicine* 2, 34 (2006). <https://doi.org/10.1186/1746-4269-2-34>
- Karousou, R., & Deirmentzoglou, S. (2011). The herbal market of Cyprus: Traditional links and cultural exchanges. *Journal of Ethnopharmacology*, 133(1), 191-203. <https://doi.org/10.1016/j.jep.2010.09.034>



- John Steel www.lakestelecom.net. (n.d.). Cyprus Wild Flowers Database. <https://cypruswildflowers.com/cgi-bin/site/main.pl?action=edible>
- Dokos, C. (2014). Ethnopharmacological survey of endemic medicinal plants in Paphos district of Cyprus. Auth. [https://www.academia.edu/710029/Ethnopharmacological Survey of Endemic Medicinal Plants in Paphos District of Cyprus](https://www.academia.edu/710029/Ethnopharmacological_Survey_of_Endemic_Medicinal_Plants_in_Paphos_District_of_Cyprus)
- Gokcebag, M. (2017). Home Garden Herbs and medicinal plants of Lefke, Cyprus. www.academia.edu. [https://www.academia.edu/109901134/Home Garden Herbs and Medicinal Plants of Lefke Cyprus?uc-sb-sw=11273091](https://www.academia.edu/109901134/Home_Garden_Herbs_and_Medicinal_Plants_of_Lefke_Cyprus?uc-sb-sw=11273091)
- Loucas Savvides. (2000). Edible Wild Plants of the Cyprus Flora.
- Zannettou, Kyriaki. (2014). The medicinal plants of Cyprus.

UNIT	ENCOUNTER NUMBER	LESSON NUMBER	TOPIC	ACTIVITIES	TECHING AIDS AND MATERIALS
1.SMALL PHYTHO THERAP Y GUIDE	1.	1.	1.Introduction	<u>Lead-in:</u> introduce yourself, present the program to the participants <u>Main part:</u> get to know the participants, find out about their motive to join the education, their expectations form the education, their experience working with plants and herbal products. <u>Conclusion:</u> introduce the next topic.	Computer, screen projector, specialised literature.
		2. 3.	2.Morphology and anatomy of plants	<u>Lead-in:</u> start with the question: are you familiar with the terms morphology and anatomy? Based on the answers and the discussion with the participants, define morphology and anatomy of plants. <u>Main part:</u> List the plant organs, divide by vegetative and generative plant parts, define the role of each plant organ. Describe the main morphological features of a leaf (simple and compound leaves, description based on the leaf blade, venation and blade edges). Describe the main morphological features of a root and a stem. Describe the flower structure and list the types of inflorescence. Describe fruit types.	Computer, screen projector, specialized literature, handouts



				Conclusion: systemize the information, clarify ambiguities and introduce the next topic.	
	2.	4. 5. 6.	3. Regional plant species: - Lemon balm (<i>Melissa officinalis</i> L.) - Nettle (<i>Urtica dioica</i> L.), - Sage (<i>Salvia officinalis</i> L.), - Wild Lavender (<i>Lavandula angustifolia</i> L.) - White mustard (<i>Sinapis alba</i> L.)	<u>Lead-in</u> : through a conversation with the participants list the plant species they can recognize in their surroundings (common names). <u>Main part</u> : appoint Latin and common names for plant species, describe each plant species (organography), describe the habitat and the chemical composition of the plant. Indicate the effects and use. List similar species. <u>Conclusion</u> : systemize the information.	Computer, screen projector, specialised literature, worksheet/handouts
	3.	7. 8. 9.	3. Regional plant species: - St. John's wort (<i>Hypericum perforatum</i> L.), - Rosemary (<i>Rosmarinus officinalis</i> L.), - Conehead thyme (<i>Thymus capitatus</i> L.) - Marjoram (<i>Origanum majorana</i> L.) - Bay tree (<i>Laurus nobilis</i> L.)	<u>Lead-in</u> : repeat the description and the effects of: St. John's wort, nettle, sage and dandelion <u>Main part</u> : appoint Latin and common names for plant species, describe each plant species (organography), and describe the habitat and the chemical composition of the plant. Indicate the effects and use. List similar species <u>Conclusion</u> : systemize the information. Introduce the next topic	. Computer, screen projector, specialised literature
	4.	10. 11.	4. Classification and identification of plant species	<u>Lead-in</u> : Using Nettle (<i>Urtica dioica</i> L., <i>Urticaceae</i>) and Dead-nettle (<i>Lamium spp.</i> L., <i>Lamiaceae</i>) as examples, emphasise the importance of the identification of the species, family and genus the plant is classified into. <u>Main part</u> : describe the taxonomy of plants on several examples. Mention Carl Linnéaus, the father of taxonomy. Using examples explain binary and ternary nomenclature. Explain the difference in effect and use of the plant that belongs to the same family but different types and subtypes, especially for plant species that, if misused, can have negative effects on the human body. <u>Conclusion</u> : worksheet that focuses on repetition	Computer, screen projector, specialised literature, worksheet/handouts
		12.	5. Preparation for outdoor/field lessons	<u>Lead-in</u> : discuss with the participants about their experience with plant harvesting <u>Main part</u> : list the tools, packaging and other equipment necessary/needed for harvesting and drying. Define	Computer, screen projector, specialised literature



2. IDENTIFYING, COLLECTING AND CULTIVATING SELF-GROWN PLANTS				<p>harvesting time based on the plant organ that will be used later on. Propose good practices of wild plant picking methods to conserve and protect plant habitats. List herb-drying methods. Recommend storage methods and appropriate containers for storing dry herbs</p> <p><u>Conclusion:</u> inform the participants about the outdoor class location, and suggest appropriate clothes and footwear for outdoor lessons.</p>	
	5.	13. 14. 15.	6. City park tour	<p><u>Introduction:</u> Meet the participants at the agreed location</p> <p><u>Main part:</u> identifying self-grown and cultivated plants during the city park tour using specialised literature to determine the type and the subtype of encountered plant species. Make the participants aware of the fact that medicinal herbs are all around us.</p> <p><u>Conclusion:</u> inform the participants about the outdoor location for the next encounter.</p>	specialised literature, mobile application
	6.	16. 17. 18.	7. Identifying and collecting medicinal plants	<p><u>Introduction:</u> meet the participants at the agreed location, hand out the tools and equipment needed for collecting medicinal herbs.</p> <p><u>Main part:</u> walk around the location, identify and collect properly the right amount of medicinal herbs that will be used later on. Prepare the plants for drying and making herbal remedies.</p> <p><u>Conclusion:</u> inform the participants about the outdoor location for the next encounter.</p>	specialised literature, mobile application, pruning shears, cloth/paper bag.
	7.	19. 20. 21.	8. Identifying, collecting and cultivating self-grown plants	<p><u>Introduction:</u> meet the participants at the agreed location, hand out the tools and equipment needed for collecting and cultivating medicinal plants.</p> <p><u>Main part:</u> walk around the location, identify, collect and prune properly plants that will later on be used. Prepare the plants for drying and planting.</p> <p><u>Conclusion:</u> collect impressions from the participants</p>	specialised literature, mobile application, pruning shears, cloth/paper bag.
	8.	22. 23.	9. Cultivating self-grown plants	<p><u>Introduction:</u> prepare all necessary tools and materials</p> <p><u>Main part:</u> explain the cultivation methods of self-grown plants: sowing or green cuttings. List the conditions</p>	Specialised literature, humus soil, pruning shears,



3. HOME PHARMACY HERBAL REMEDIES				necessary for the germination and growth . After the demonstration every participants plants green cuttings in appropriate planting pots and sows the seeds. <u>Conclusion:</u> cleaning and tidying up work surfaces, tools and accessories	planting pot.
		24. 25.	10. Making tinctures	<u>Introduction:</u> start the conversation with the question: have you ever used a tincture? <u>Main part:</u> define the term tincture, clarify the volume fraction of alcohol and explain the difference between hydrophilic and i hydrophobic solvents. List the benefits and disadvantages of using herbal tinctures and possible contra-indications. The educator demonstrates the preparation of a tincture and the participants, in pairs, prepare three different tinctures: Nettle root tincture – for prostate adenoma, Sage leaf tincture – for sore throat and Rosemary leaf tincture for better digestion. <u>Conclusion:</u> choosing the right packaging, cleaning and tidying up work surfaces and laboratory equipment	Laboratory glassware and equipment, storage packaging for the medicinal form (30 ml glass bottle with a dropper , 30 ml glass bottle with a spray nozzle), a lable
	9.	26. 27. 28. 29. 30.	11. Making a syrup	<u>Introduction:</u> list the syrup types we use. When do we usually take syrups? <u>Main part:</u> define the term syrup, list different syrup preparation methods. The educator demonstrates the preparation of a syrup and the participants, in pairs, prepare, according to the regulation: Lemon Balm simple syrup, Levander simple syrup and Thyme cough syrup. <u>Conclusion:</u> choosing the right packaging, cleaning and tidying up work surfaces and laboratory equipment	Laboratory glassware and equipment, storage packaging for the medicinal form (125 ml glass bottle with a tap), a lable
	10.	31. 32. 33. 34. 35.	12. Making teas and tea mixtures	<u>Introduction:</u> through a conversation find out if the participants are familiar with different types of water infusions (infusions and decoctions)? Give examples. <u>Main part:</u> combine, in different ratios, herbal medicines such as Lemon Balm, Levander and Thyme to make tea mixtures for anxiety and stress, etc. or Sage, Nettle	Laboratory glassware and equipment, storage packaging for the medicinal form (paper bag), a lable



				and Lemon balm for antioxidant and anti-inflammatory benefits. The educator demonstrates the preparation and the participants, in pairs, prepare tea mixtures according to the regulation. <u>Conclusion:</u> choosing the right packaging, cleaning and tidying up work surfaces and laboratory equipment	
	11.	36. 37. 38. 39. 40.	13. Making oil macerate and ointment	<u>Introduction:</u> define the term oil macerate, describe the preparation procedure, explain the term Non-polar solvent, and suggest vegetable oils and fat used for making oil macerates. <u>Main part:</u> demonstrate the preparation of an oil macerate and an ointment. The participants, in pairs, according to the regulation, prepare: St. John's wort oil macerate – for wounds and haemorrhoids, and Levander macerate – for skin care. Demonstrate the preparation of an ointment. The participants, in pairs, according to the regulations, prepare Levander ointment and St. John's ointment used for the conditions mentioned above. <u>Conclusion:</u> choosing the right packaging, cleaning and tidying up work surfaces and laboratory equipment Discussion about the advantages and disadvantages of herbal remedies prepared during the course.	Laboratory glassware and equipment, storage packaging for the medicinal form (30 ml glass bottle with a tap , 50 g. cosmetic pot), a label

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MINI CURRICULUM ON SUSTAINABILITY AND ENVIRONMENTAL PROTECTION

TEACHING FORM: CLASSROOM**NUMBER OF LESSONS: 4****EDUCATIONAL GOALS:**

- to develop attitudes about the need to protect nature and preserve the quality of the environment and the need for personal involvement and personal contribution of each individual
- to understand and accept the need to preserve nature and the environment and list the possibilities of your personal contribution
- to get to know the meaning of technique and technology in the overall human life
- to develop awareness of individual responsibility for health
- to learn to participate actively in social issues and to express an opinion on social issues, to form as an active participant in public life

OUTCOMES:

Based on the knowledge about environmental sustainability and greater awareness in nature's respect and about public and individual health, the participants will be able to practice these principles in their family and community. The participants would follow simple daily rules and easy responsible attitudes learned, about how not to waste natural resources, how to preserve local environment (not to produce waste for example) or to be participant and active in their community to protect local biodiversity and to reduce its threats.

LITERATURE:

- Primavera silenziosa (Silent Spring), Rachel Carson - Feltrinelli Editore 2023
- Psicologia ambientale, sostenibilità e comportamenti ecologici, Bonnes, Carrus, Passafaro - Carocci 2006
- La nuova economia ambientale. Sostenibilità e giustizia, Laurent - UTET Università 2022
- Il pianeta di tutti, Vandana Shiva - Feltrinelli 2020
- Mangiare è un atto agricolo, Wendell Berry - Lindau 2024
- Possiamo salvare il mondo prima di cena, Jonathan Safran Foer - Guanda 2019

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1 - Little Ecological Guide: theory and practice	1	1, 2	Introduction the principles of environmental sustainability and nature protection	Through theoretical ideas, based on the specialized literature and on the 2030 European Agenda, get to know what sustainability in general may concern, and how to live in a sustainable way on our planet, respecting social, healthy and natural needs.	Specialised, literature, worksheets, videos, handouts
	2	3, 4	Social and Environmental Engagement	Teach the learners how to produce and reproduce respectful attitudes about nature, biodiversity conservation and environmental protection. Show to the participants a list of best practices (for example a list of ten simple rules) to follow and to realize in their daily life and to share with their family and community.	Specialised Literature, handouts

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