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NARODNO UČILIŠTE
USTANOVA ZA OBRAZOVANJE I KULTURU U RIJECI

HOME HERBAL PHARMACY PROGRAM

NARODNO UČILIŠTE
USTANOVA ZA OBRAZOVANJE I KULTURU U RIJECI

LJUDSKA UNIVERZA ORMOŽ

e-ducation in progress

Hyla studio naturalistico

DORA EDUCATIONAL INSTITUTE

TEACHING FORM: CLASSROOM AND FIELD/OUTDOOR LESSONS

NUMBER OF LESSONS: 40

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 acquiering knowledge related to proper ways to harvest and cultivate plants for personal needs
- Motivate the participants to transfer the acquired knowledge through, to their local community

OUTCOMES:

Based on the knowlwdge 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 identfy 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:

- Nikolić T. (2020a): Flora Croatica – vaskularna flora Republike Hrvatske, Volumen 1. Uvodni dijelovi, sinopsis porodica, opće kazalo, literatura i dr. Alfa d. d., Zagreb.
- Nikolić T. (2020b): Flora Croatica – vaskularna flora Republike Hrvatske, Volumen 2. Ključevi za determinaciju s pratećim podatcima: Equisetidae, Lycopodiidae, Ophyoglossidae, Polypodidae, Cycadidae, Ginkgooidae, Gnetidae, Pinidae, Magnoliidae – porodice A – FAB. Alfa d. d., Zagreb.
- Nikolić T. (2020c): Flora Croatica – vaskularna flora Republike Hrvatske, Volumen 3. Ključevi za determinaciju s pratećim podatcima: Magnoliidae – porodice FAG-ZYG. Alfa d. d., Zagreb
- Lesinger I. (2012): Kućna biljna ljekarna 1-4 A-Ž, komplet. Adamić d.d., Rijeka

- Sanja Kovačić, Toni Nikolić, Mirko Ruščić, Milenko Milović, Vanja Stamenković, Darko Mihelj, Nenad Jasprica, Sandro Bogdanović, Jasenka Topić (2008): Flora jadranske obale i otoka - 250 najčešćih vrsta. Školska knjiga, Zagreb.
- Ljubica Bernardica Kovač (2022): Biljne terapije i recepti - Ljekovito bilje - dar iz Božje ruke. Verbum, Zagreb.
- Richard Willfort (2002): Ljekovito bilje i njegova upotreba. Erudit, Zgreb.

UNIT	ENCOUNTER NUMBER	LESSON NUMBER	TOPIC	ACTIVITIES	TECHING AIDS AND MATERIALS
1.SMALL PHYTHOTHERAPY GUIDE	1.	1.	1. Introduction	Lead-in: introduce yourself, present the program to the participants Main part: 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. Conclusion: introduce the next topic.	Computer, screen projector, specialised literature.
		2. 3.	2. Morphology and anatomy of plants	Lead-in: 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. Main part: 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. Conclusion: systemize the information, clarify ambiguities and introduce the next topic.	Computer, screen projector, specialised literature, handouts

	2.	4. 5. 6.	3. Regional plant species: -St. John's worth (Hypericum perforatum L.), -Nettle (Urtica dioica L.), -Sage (Salvia officinalis L.), -Dandelion (Taraxacum officinale F. H. Wigg), -Narrow leaf plantain (*Plantago lanceolata L.)*	Lead- in: through a conversation with the participants list the plant species they can recognize in their surrounding (common names). Main part: 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. Conclusion: systemize the information.	Computer, screen projector, specialised literature, worksheet/handouts
	3.	7. 8. 9.	3. Regional plant species: -Curry plant *(Helichrysum italicum (Roth) G. Don fil.),* -Rosemary (*Rosmarinus officinalis L.),* -Common Thyme *(Thymus vulgaris L.)* -Yarrow *(Achillea millefolium L),* - Black Elder *(Sambucus nigra L.)*	Lead-in: repeat the description and the effects of: St. John's worth, nettle, sage and dandelion Main part: 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 Conclusion: systemize the information. Introduce the next topic	. Computer, screen projector, specialised literature
2. IDENTIFYING, COLLECTING AND CULTIVATING SELF-GROWN PLANTS	4.	10. 11.	4. Classification and identification of plant species	Lead-in: Using Nettle *(Urtica dioica L., Urticaceae*) and Dead-nettle *(Lamium spp. L., Lamiaceae)* as examples, emphasise the importance of the identification of the species, family and genus the plant is calsssified into. Main part: 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 an use of the plant that belongs to the same family but different type and subtype, especially for plant species that, if misused, can have negative effects on human body. Conclusion: worksheet that focuses on repetition	Computer, screen projector, specialised literature, worksheet/handouts
		12.	5.Preparation for outdoor/field lessons	Lead-in: discuss with the participants about their experience with plant harvesting Main part: list the tools, packaging and other equipment necessary/needed for harvesting and drying. Define harvesting time based on the plant organ that will be used later on. Propose good practices of wild plant	Computer, screen projector, specialised literature

				picking methods in order to conserve and protect plant habitats. List herb-drying methods. Recommend storage methods and appropriate containers for storing dry herbs Conclusion: inform the participants about the outdoor class location, suggest appropriate clothes and footwear for outdoor lessons.	
	5.	13. 14. 15.	6. City park tour	Introduction: meet the participants at the agreed location Main part: 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. Conclusion: inform the participants about the outdoor location for the next encounter.	specialised literature, mobile application
	6.	16. 17. 18.	7. Identifying and collecting medicinal plants	Introduction: meet the participants at the agreed location, hand out the tools and equipment needed for collecting medicinal herbs. Main part: 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. Conclusion: inform the participants about the outdoor location for the next encounter.	specialised literature, mobile application, pruning shears, cloth/paper bag.
	7.	19. 20. 21.	8. Identifying, collecting and cultivating self-grown plants	Introduction:. meet the participants at the agreed location, hand out the tools and equipment needed for collecting and cultivating medicinal plants. Main part: walk around the location, identify, collect and prune properly plants that will later on be used. Prepare the plants for drying and planting. Conclusion: collect impressions from the participants	specialised literature, mobile application, pruning shears, cloth/paper bag.
PHARMACY HERBAL REMEDIE	8.	22. 23.	9. Cultivating self-grown plants	Introduction: prepare all necessary tools and materials Main part: explain the cultivation methods of self-grown plants: sowing or green cuttings. List the conditions necessary for the germination and growth. After the	Specialised literature, humus soil, pruning shears, planting pot.

				demonstration every participants plants green cuttings in appropriate planting pots and sows the seeds. Conclusion: cleaning and tidying up work surfaces, tolls and accessories	
		24. 25.	10. Making tinctures	Introduction: start the conversation with the question: have you ever used a tincture ? Main part: 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. Conclusion: 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	Introduction: list the syrup types we use. When do we usually take syrups? Main part: 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: Syrups simplex, Plantain and Common Thyme cough syrup , Common Thyme and Mullein flower cough syrup. Conclusion: 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	Introduction: through a conversation find out if the participants are familiar with different types of water infusions (infusions and decoctions)? Give examples. Main part: combine, in different ratios, herbal medicines such as Plantain leaf, Dandelion leaf, green Yarrow, green Thyme and Elder flower to make tea mixtures for: cough, cold, digestion. The educator demonstrates the	Laboratory glassware and equipment, storage packaging for the medicinal form (paper bag), a lable

				preparation and the participants, in pairs, prepare tea mixtures according to the regulation. Conclusion: 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	Introduction: define the term oil macerate, describe the preparation procedure, explain the term Non-polar solvent, suggest vegetable oils and fat used for making oil macerates. Main part: demonstrate the preparation of an oil macerat and an ointment. The participants, in pairs, according to the regulation, prepare: St. John's worth oil macerate – for wounds and hemorrhoids, Curry plant oil macerat – for hematoma and skin care. Demonstrate the preparation of an ointment. The participants, in pairs, according to the regulations, prepare Curry plant ointment and St. John's ointment used for the conditions mentioned above. Conclusion: 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 lable

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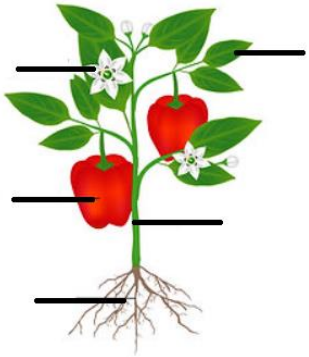
TOPIC: *Morphology and anatomy of plants*
ACTIVITY: *Revision*
FIRST NAME AND LAST NAME:
DATE:

Observe the photo and name the organas, answer the questions below:



a) List the vegetative organs?

_____

b) What is the role of vegetative organs? What is the role of generative organs?

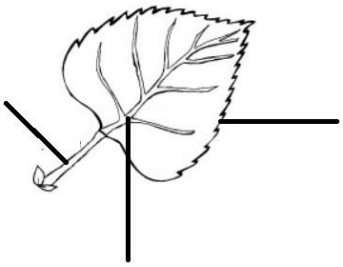
_____

_____

c) What is the role of a flower?

_____

Name the parts of the leaf indicated in the drawing:



Describe the leaf according to the leaf blade, venation and blade edges.

Inflorescence is:

a) A cluster of flowers
b) Male part of the flower
c) Evergreen's flower shape
d) Female part of the flover

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TOPIC: *Local plant species*
ACTIVITY: *Revision*
FIRST NAME AND LAST NAME:
DATE:

St. John's worth *(Hypericumperforatum L.),*

1. St. Johns worth belongs to the family _____. Latin name for St. John's worth is _____.
2. Describe morphological features od St.John's worth.
   _____
   _____
   _____
3. How does St. John's worth reproduce?
   _____
   _____
4. Healing properties of St. John's worth.
   _____
   _____
   _____
   _____
5. List the medicinal forms of St. John's worth.
   _____
   _____
   _____
   _____
   _____
6. List the active substances in St. John's worth flower .
   _____
   _____
   _____
7. List common names for St. John's worth.
   _____
   _____
8. When should St. John's worth flowers be picked and why?
   _____
   _____
   _____
9. How do we store St. John's worth macerate?
   _____
   _____
   _____

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TOPIC: *Tea mixtures*
ACTIVITY: *Preparing a tea mixture*
FIRST NAME AND LAST NAME:
DATE:

SPECIES DIAPHORETICAE

Cold tea

PREPARATION:

Chamomillaeflos	*20g*
Sambuciflos	*40g*
Tiliaeflos	*40g*

Weigh the herbal drugs according to their seize, mix well in a mortar using a laboratory card sheet or a spoon.

How it works : Containing flavone glycosides (Elder, Chamomile, Linden) this tea mixture has a diaphoretic effect , it causes sweating. As the sweat evaporates the body looses temperature which leads to lowering our body temperature. This tea mixture also has a slight spasmolytic, diuretic and anti-inflammatory effect..

When to use: in different febrile states (cold, flu).

How to use: 1 tea spoon cover with 2 dcl of hot water, leave for half an hour in a covered bowl, stir occasionally, strain and sweeten if necessary. Drink a few times a day.

NOTES:

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DORA EDUCATIONAL INSTITUTE

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

UNIT	ENCOUNTER NUMBER	LESSON NUMBER	TOPIC	ACTIVITIES	TECHING AIDS AND MATERIALS
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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TEACHING FORM: CLASSROOM AND FIELD/OUTDOOR LESSONS

NUMBER OF LESSONS: 40

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 acquiering knowledge related to proper ways to harvest and cultivate plants for personal needs
- Motivate the participants to transfer the acquired knowledge through, to their local community

OUTCOMES:

Based on the knowlwdge 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 identfy 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:

- Martinčič, A. et al: Mala flora Slovenije: ključ za določanje praprotnic in semenk. Ljubljana, 1986, Tehniška založba Slovenije.
- Toplak Galle, K.: Zdravilne rastline na Slovenskem. Ljubljana, 2000, Mladinska knjiga, 2000, Tehniška založba Slovenije.
- Krajča. J., L. Šomšak: Rastlinski svet Evrope. Ljubljana, 1998, Mladinska knjiga.
- Seliškar, A., Wraber, T.: Travniške rastline na Slovenskem. 1986, Prešernova družba.
- Kromar, J., P. Rožnik: Zdravilne rastline, 1000 izbranih receptov. Murska Sobota, 1975, Pomurska založba.
- Kromar, J.: Strupene rastline. Ljubljana, 1979, Založba Borec.
- Greiner, K., A. Weber: Zelišča od A do Ž. Kranj, 2007, Narava d.o.o.
- Kreft Samo, Kočevar Glavač Nina, Sodobna fitoterapija, Slovensko farmacevtsko društvo, 2013
- Wilfort Richard, Zdravilne rastline in njih uporaba, Obzorja 1971

UNIT	ENCOUNTER NUMBER	LESSON NUMBER	TOPIC	ACTIVITIES	TECHING AIDS AND MATERIALS
1.SMALL PHYTHOTHERAPY GUIDE	1.	1.	1. Introduction	Lead-in: introduce yourself, present the program to the participants Main part: 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. Conclusion: introduce the next topic.	Computer, screen projector, specialised literature.
		2. 3.	2. Morphology and anatomy of plants	Lead-in: 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. Main part: 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. Conclusion: systemize the information, clarify ambiguities and introduce the next topic.	Computer, screen projector, specialised literature, handouts
	2.	4. 5. 6.	3. Regional plant species: -St. John's worth (*Hypericum perforatum L.*), -Nettle (*Urtica dioica L.*), -Chamomile (*Matricaria recutita*), -Dandelion (*Taraxacum officinale F. H. Wigg*), -Narrow leaf plantain (*Plantago lanceolata L.)*	Lead- in: through a conversation with the participants list the plant species they can recognize in their surrounding (common names). Main part: 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. Conclusion: systemize the information.	Computer, screen projector, specialised literature, worksheet/handouts

	3.	7. 8. 9.	3. Regional plant species: -Valerian (*Valeriana officinale*), - Common comfrey (Symphytum officinale), -Common Thyme *(Thymus vulgaris L.)* -Yarrow *(Achillea millefolium L),* - Black Elder *(Sambucus nigra L.)*	Lead-in: repeat the description and the effects of: St. John's worth, nettle, sage and dandelion Main part: 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 Conclusion: systemize the information. Introduce the next topic	. Computer, screen projector, specialised literature
2. IDENTIFYING, COLLECTING AND CULTIVATING SELF-GROWN PLANTS	4.	10. 11.	4. Classification and identification of plant species	Lead-in: Using Nettle *(Urtica dioica L., Urticaceae*) and Dead-nettle *(Lamium spp. L., Lamiaceae)* as examples, emphasise the importance of the identification of the species, family and genus the plant is calsssified into. Main part: 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 an use of the plant that belongs to the same family but different type and subtype, especially for plant species that, if misused, can have negative effects on human body. Conclusion: worksheet that focuses on repetition	Computer, screen projector, specialised literature, worksheet/handouts
		12.	5.Preparation for outdoor/field lessons	Lead-in: discuss with the participants about their experience with plant harvesting Main part: list the tools, packaging and other equipment necessary/needed for harvesting and drying. Define harvesting time based on the plant organ that will be used later on. Propose good practices of wild plant picking methods in order to conserve and protect plant habitats. List herb-drying methods. Recommend storage methods and appropriate containers for storing dry herbs Conclusion: inform the participants about the outdoor class location, suggest appropriate clothes and footwear for outdoor lessons.	Computer, screen projector, specialised literature

	5.	13. 14. 15.	6. City park tour	Introduction: meet the participants at the agreed location Main part: 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. Conclusion: inform the participants about the outdoor location for the next encounter.	specialised literature, mobile application
	6.	16. 17. 18.	7. Identifying and collecting medicinal plants	Introduction: meet the participants at the agreed location, hand out the tools and equipment needed for collecting medicinal herbs. Main part: 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. Conclusion: inform the participants about the outdoor location for the next encounter.	specialised literature, mobile application, pruning shears, cloth/paper bag.
	7.	19. 20. 21.	8. Identifying, collecting and cultivating self-grown plants	Introduction:. meet the participants at the agreed location, hand out the tools and equipment needed for collecting and cultivating medicinal plants. Main part: walk around the location, identify, collect and prune properly plants that will later on be used. Prepare the plants for drying and planting. Conclusion: collect impressions from the participants	specialised literature, mobile application, pruning shears, cloth/paper bag.
3. HOME PHARMACY HERBAL REMEDIES	8.	22. 23.	9. Cultivating self-grown plants	Introduction: prepare all necessary tools and materials Main part: explain the cultivation methods of self-grown plants: sowing or green cuttings. List the conditions necessary for the germination and growth. After the demonstration every participants plants green cuttings in appropriate planting pots and sows the seeds. Conclusion: cleaning and tidying up work surfaces, tolls and accessories	Specialised literature, humus soil, pruning shears, planting pot.
		24. 25.	10. Making tinctures	Introduction: start the conversation with the question: have you ever used a tincture ?	Laboratory glassware and

				Main part: 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, Common Thyme leaf tincture – for sore throat and Valerian tincture for stress relief, relaxation and better sleep. Conclusion: choosing the right packaging, cleaning and tidying up work surfaces and laboratory equipment	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	Introduction: list the syrup types we use. When do we usually take syrups? Main part: 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: Syrups simplex, Plantain and Common Thyme cough syrup , Common Thyme and Elder flower cough syrup. Conclusion: 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	Introduction: through a conversation find out if the participants are familiar with different types of water infusions (infusions and decoctions)? Give examples. Main part: combine, in different ratios, herbal medicines such as Plantain leaf, Dandelion leaf, green Yarrow, green Thyme and Elder flower to make tea mixtures for: cough, cold, digestion. The educator demonstrates the preparation and the participants, in pairs, prepare tea mixtures according to the regulation. Conclusion: choosing the right packaging, cleaning and tidying up work surfaces and laboratory equipment	Laboratory glassware and equipment, storage packaging for the medicinal form (paper bag), a lable
	11.	36. 37. 38.	13. Making oil macerate and ointment	Introduction: define the term oil macerate, describe the preparation procedure, explain the term Non-polar solvent, suggest vegetable oils and fat used for making	Laboratory glassware and equipment, storage

		39. 40.		oil macerates. Main part: demonstrate the preparation of an oil macerat and an ointment. The participants, in pairs, according to the regulation, prepare: St. John's worth oil macerate – for wounds and hemorrhoids, Comfrey root oil macerat – for healing sprains and bruises. Demonstrate the preparation of an ointment. The participants, in pairs, according to the regulations, prepare Comfrey root ointment and St. John's ointment used for the conditions mentioned above. Conclusion: 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.	packaging for the medicinal form (30 ml glass bottle with a tap , 50 g. cosmetic pot), a lable

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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

UNIT	ENCOUNTER NUMBER	LESSON NUMBER	TOPIC	ACTIVITIES	TECHING AIDS AND MATERIALS
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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HOME HERBAL PHARMACY PROGRAM

NARODNO UČILIŠTE USTANOVA ZA OBRAZOVANJE I KULTURU U RIJECI

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TEACHING FORM: CLASSROOM AND FIELD/OUTDOOR LESSONS

NUMBER OF LESSONS: 40

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 partecipants to look after the environment,preserving natural plant habitats by acquiering knowledge related to proper ways to harvest and cultivate plants for personal needs
- Motivate the participants to transfer the acquired knowledge through , to their local community

OUTCOMES:

Based on the knowlwdge 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:

- Pignatti S. (2017): Flora d'Italia – Volumi 1.-4 - Edagricole.
- Nimis P.L., Conti F., Bartolucci F. Tinti D., Ranalli N., Manzi A., 2018 – Guida ad alberi, arbusti e liane del Parco Nazionale del Gran Sasso e Monti della Laga. Dryades project. Università degli Studi di Trieste, Parco Nazionale del Gran Sasso e Monti della Laga, Università di Camerino, 162 pp. Litografia Brandolini, Sambuceto (Chieti).
- Conti F., Bartolucci F. Tinti D., Manzi A., 2019 – Guida fotografica alle piante del Parco Nazionale del Gran Sasso e Monti della Laga – Compendio della Flora Vascolare. Parco Nazionale del Gran Sasso e Monti della Laga, Università di Camerino, 935 pp. Fastedit, Acquaviva Picena (AP).
- Baldoni. A, 2020 - Erbe, Arbusti e Alberi nella Tradizione delle Marche - Tecnoprint Monsano (AN)
- Lieutaghi P., 1979 - Il libro delle erbe - Rizzoli (Mi)

UNIT	ENCOUNTER NUMBER	LESSON NO.	TOPIC	ACTIVITIES	TEACHING AIDS AND MATERIALS
1.SMALL PHYTHOTHERAPY GUIDE	1.	1.	1.Introduction	Lead-in: introduce yourself, present the program to the participants Main part: 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. Conclusion: introduce the next topic.	Computer, screen projector, specialised literature
		2. 3. 4. 5.	2.Morphology and anatomy of plants	Lead-in: 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. Main part: 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. Conclusion: systemize the information, clarify ambiguities and introduce the next topic.	Computer, screen projector, specialised literature, handouts

	2.	6. 7. 8.	3. Regional plant species: Hypericum perforatum *Plantago sp. pl.* *Helichrysum italicum* *Achillea millefolium* *Sambucus nigra* *Verbascum sp. pl.*	Lead- in: through a conversation with the participants list the plant species they can recognize in their surrounding (common names). Main part: appoint Latin and common names for plant species, describe each plant specie (organography), describe the habitat and the chemical composition of the plant. Indicate the effects and use. List similar species. Conclusion: systemize the information.	Computer, screen projector, specialised literature, worksheet/handouts
	3.	9. 10. 11.	3.Regional plant species: *Malva sylvestris* *Cota tinctoria* *Silybum marianum* *Taraxacum officinale* *Foeniculum vulgare* *Satureja montana* *Urtica spp* (Nettle)	Lead-in: summarize the species considered in the previous lesson Main part: 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 Conclusion: systemize the information. Introduce the next topic	. Computer, screen projector, specialised literature

2. IDENTIFYING, COLLECTING AND CULTIVATING SELF-GROWN PLANTS	4.	12. 13.	4. Classification and identification of plant species making personal Herbarium	Lead-in: Using Nettle *(Urtica dioica L., Urticaceae*) and Dead-nettle *(Lamium spp. L., Lamiaceae),* Elder (*Sambucus nigra*) and Dwarf elder (*S. ebulus*) as examples, emphasise the importance of the identification of the specie, family and genus the plant is classified into. Main part: 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 an use of the plant that belongs to the same family but different type and subtype, especially for plant species that, if misused, can have negative effects on human body. Conclusion: worksheet that focuses on repetition	Computer, screen projector, specialised literature, worksheet/handouts
		14.	5.Preparation for outdoor/field lessons	Lead-in: discuss with the participants about their experience with plant harvesting Main part: list the tools, packaging and other equipment necessary/needed for harvesting and drying. Define harvesting time based on the plant organ that will be used later on. Propose good practices of wild plant picking methods in order to conserve and protect plant habitats. List herb-drying methods. Recommend storage methods and appropriate containers for storing dry herbs Conclusion: inform the participants about the outdoor class location, suggest appropriate clothes and footwear for outdoor lessons.	Computer, screen projector, specialised literature

	5.	15. 16. 17.	6. Country side tour	Introduction: meet the participants at the agreed location Main part: 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, edible and for dying herbs, are all around us. Conclusion: inform the participants about the outdoor location for the next encounter.	specialised literature, mobile application
	6.	18. 19. 20. 21.	7. Identifying and collecting medicinal plants	Introduction: meet the participants at the agreed location, hand out the tools and equipment needed for collecting medicinal herbs. Main part: 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.. Conclusion: inform the participants about the outdoor location for the next encounter.	specialised literature, mobile application, pruning shears, cloth/paper bag.
	7.	22. 23. 24. 25.	8. Identifying, collecting and cultivating self-grown plants	Introduction:. meet the participants at the agreed location, hand out the tools and equipment needed for collecting and cultivating medicinal plants. Main part: walk around the location, identify, collect and prune properly plants that will later on be used. Prepare the plants for drying and planting. Conclusion: collect impressions from the participants	specialised literature, mobile application, pruning shears, cloth/paper bag.
3. HOME PHARMACY HERBAL	8.	26. 27.	9. Cultivating self-grown plants	Introduction: prepare all necessary tools and materials Main part: explain the cultivation methods of self-grown plants: sowing or green cuttings. List the conditions necessary for the germination and growth . After the demonstration every participants plants green cuttings	Specialised literature, humus soil, pruning shears, planting pot.

REMEDIES				in appropriate planting pots and sows the seeds. Conclusion: cleaning and tidying up work surfaces, tolls and accessories	
		28. 29. 30.	10. Making natural dyeing	Introduction: start the conversation with the question: Do you know how much the textile dye industry pollutes? Main part: describe the benefits, process and basic principles of the dye. We proceed with the use of Cota tinctoria flower heads and Rubia tinctoria roots to dye already mordant local wool skeins. Prepare the decoction (starting from the plant macerated the previous day), filter, proceed with the color bath. Lay the skeins out in the shade to dry. At the next meeting the participants will receive a small skein of dyed wool. Conclusion: put the samples of plants used in your personal herbarium, cleaning and tidying up work surfaces and laboratory equipment	Laboratory, already mordant wool, utensils for the dyeing process, dried madder roots, balance
	9.	31. 32.	11. Making a syrup	Introduction: list the syrup types we use. When do we usually take syrups? Main part: 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 Syrups with plants collected before. Conclusion: 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.	33. 34.	12. Making teas and tea mixtures	Introduction: through a conversation find out if the participants are familiar with different types of water infusions (infusions and decoctions)? Give examples.	Laboratory glassware and equipment, storage packaging for the medicinal

				Main part: combine, in different ratios, herbal medicines with plants collected before to make tea mixtures for: cough, cold, digestion etc... The educator demonstrates the preparation and the participants, in pairs, prepare tea mixtures according to the regulation. Demonstrate different drying methods, crafted with frames and making bunches of the harvested plants and using different types of hot and cold dryers. Conclusion: place the samples of plants used in the personal herbarium, choosing the right packaging, cleaning and tidying up work surfaces and laboratory equipment	form (paper bag), a lable
		35. 36. 37. 38.	13. Using edible wild plants	Introduction: through a conversation find out if the participants are familiar with different types of edilble wild plants. Give examples. Main part: talk about the local tradition on the use of wild herbs in human nutrition and for realizing simple health remedy. Talk about the advantages, in terms of health and prevention, of introducing wild herbs into our diet. Understand how to collect them, in which environments and at what times of the year. Create simple recipes, with the involvement of the participants, using the species collected previously. Conclusion: place the samples of plants used in the personal herbarium, convivial moment with tasting of prepared food.	Tools for the transformation of edibles in the kitchen, jars
	11.	39. 40.	14. Making oil macerate and ointment	Introduction: define the term oil macerate, describe the preparation procedure, explain the term Non-polar solvent, suggest vegetable oils and fat used for making oil macerates. Main part: demonstrate the preparation of an oil macerat and an ointment. The participants, in pairs, according to the regulation, prepare an oil macerat and	Laboratory glassware and equipment, storage packaging for the medicinal form (30 ml glass bottle with a tap , 50 g. cosmetic pot), a lable

				an ointment using plants collected previously, fresh or dried. Conclusion: place the samples of plants used in the personal herbarium, 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.	

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DORA EDUCATIONAL INSTITUTE

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

UNIT	ENCOUNTER NUMBER	LESSON NUMBER	TOPIC	ACTIVITIES	TECHING AIDS AND MATERIALS
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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TEACHING FORM: CLASSROOM AND FIELD/OUTDOOR LESSONS

NUMBER OF LESSONS: 40

▪

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

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- 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
- Loucas Savvides. (2000). Edible Wild Plants of the Cyprus Flora.
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UNIT	ENCOUNTER NUMBER	LESSON NUMBER	TOPIC	ACTIVITIES	TECHING AIDS AND MATERIALS
1.SMALL PHYTHO THERAP Y GUIDE	1.	1.	1.Introduction	Lead-in: introduce yourself, present the program to the participants Main part: 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. Conclusion: introduce the next topic.	Computer, screen projector, specialised literature.
		2. 3.	2.Morphology and anatomy of plants	Lead-in: 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. Main part: 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 (*Melissa officinalis L.*) -Nettle (Urtica dioica L.), -Sage (Salvia officinalis L.), - Wild Lavender (*Lavandula angustifolia L.*) - White mustard (*Sinapis alba L.*)	Lead- in: through a conversation with the participants list the plant species they can recognize in their surroundings (common names). Main part: 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. Conclusion: systemize the information.	Computer, screen projector, specialised literature, worksheet/handouts
	3.	7. 8. 9.	3.Regional plant species: - St. John's wort (*Hypericum perforatum L.*), -Rosemary (*Rosmarinus officinalis L.),* - Conehead thyme *(Thymus capitatus L.)* - *Marjoram (Origanum majorana L.)* - *Bay tree (Laurus nobilis L.)*	Lead-in: repeat the description and the effects of: St. John's worth, nettle, sage and dandelion Main part: 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 Conclusion: systemize the information. Introduce the next topic	. Computer, screen projector, specialised literature
2. IDENTIFYING, COLLECTING AND CULTIVATING SELF-GROWN PLANTS	4.	10. 11.	4. Classification and identification of plant species	Lead-in: Using Nettle *(Urtica dioica L., Urticaceae*) and Dead-nettle *(Lamium spp. L., Lamiaceae)* as examples, emphasise the importance of the identification of the species, family and genus the plant is classified into. Main part: 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. Conclusion: worksheet that focuses on repetition	Computer, screen projector, specialised literature, worksheet/handouts
		12.	5.Preparation for outdoor/field lessons	Lead-in: discuss with the participants about their experience with plant harvesting Main part: list the tools, packaging and other equipment necessary/needed for harvesting and drying. Define	Computer, screen projector, specialised literature

				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 Conclusion: inform the participants about the outdoor class location, and suggest appropriate clothes and footwear for outdoor lessons.	
	5.	13. 14. 15.	6. City park tour	Introduction: Meet the participants at the agreed location Main part: 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. Conclusion: inform the participants about the outdoor location for the next encounter.	specialised literature, mobile application
	6.	16. 17. 18.	7. Identifying and collecting medicinal plants	Introduction: meet the participants at the agreed location, hand out the tools and equipment needed for collecting medicinal herbs. Main part: 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. Conclusion: inform the participants about the outdoor location for the next encounter.	specialised literature, mobile application, pruning shears, cloth/paper bag.
	7.	19. 20. 21.	8. Identifying, collecting and cultivating self-grown plants	Introduction:. meet the participants at the agreed location, hand out the tools and equipment needed for collecting and cultivating medicinal plants. Main part: walk around the location, identify, collect and prune properly plants that will later on be used. Prepare the plants for drying and planting. Conclusion: collect impressions from the participants	specialised literature, mobile application, pruning shears, cloth/paper bag.
3. HOME PHARMACY	8.	22. 23.	9. Cultivating self-grown plants	Introduction: prepare all necessary tools and materials Main part: explain the cultivation methods of self-grown plants: sowing or green cuttings. List the conditions	Specialised literature, humus soil, pruning shears,

HERBAL REMEDIES				necessary for the germination and growth . After the demonstration every participants plants green cuttings in appropriate planting pots and sows the seeds. Conclusion: cleaning and tidying up work surfaces, tolls and accessories	planting pot.
		24. 25.	10. Making tinctures	Introduction: start the conversation with the question: have you ever used a tincture? Main part: 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. Conclusion: 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	Introduction: list the syrup types we use. When do we usually take syrups? Main part: 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. Conclusion: 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	Introduction: through a conversation find out if the participants are familiar with different types of water infusions (infusions and decoctions)? Give examples. Main part: 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. Conclusion: 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	Introduction: 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. Main part: 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. Conclusion: 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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DOMA EDUCATIONAL INSTITUTE

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

UNIT	ENCOUNTER NUMBER	LESSON NUMBER	TOPIC	ACTIVITIES	TECHING AIDS AND MATERIALS
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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DOMA EDUCATIONAL INSTITUTE

TEACHING FORM: CLASSROOM AND FIELD/OUTDOOR LESSONS

NUMBER OF LESSONS: 40

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 through , 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 specialized 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:

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- Alzina J., Cresí S., Sureda J. (1982): Els Boscos de Les Illes Balears. La problematica dels incendis forestals. Caja de Baleares “Sa Nostra”, Palma de Mallorca

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- Scott Cunningham S. (2008): Enciclopedia de las hierbas mágicas - Arkano Books, Minnesota.

UNIT	ENCOUNTER NUMBER	LESSON NUMBER	TOPIC	ACTIVITIES	TECHING AIDS AND MATERIALS
1.SMALL PHYTHO THERAP Y GUIDE	1.	1.	1.Introduction	Lead-in: introduce yourself, present the program to the participants Main part: get to know the participants, find out about their motive to join the education, their expectations from the education, their experience working with plants and herbal products. Conclusion: introduce the next topic.	Computer, screen projector, specialized literature.
		2. 3.	2.Morphology and anatomy of plants	Lead-in: 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. Main part: 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. Conclusion: systemize the information, clarify ambiguities and introduce the next topic.	Computer, screen projector, specialized literature, handouts

	2.	4. 5. 6.	3. Regional plant species: ● Eucalyptus (Eucalyptus) ● Common Thyme (Thymus vulgaris L.) ● Scullcap (Scutellaria Balearica)	Lead- in: through a conversation with the participants list the plant species they can recognize in their surrounding (common names). Main part: appoint Latin and common names for plant species, describe each plant specie (organography), describe the habitat and the chemical composition of the plant. Indicate the effects and use. List similar species. Conclusion: systemize the information.	Computer, screen projector, specialised literature, worksheet/handouts
	3.	7. 8. 9.	3.Regional plant species: ● Verbena (Verbena officinalis L.) ● Espigol (Lavandula Angustifolia) ● Cinnamon (Cinnamomum verum) ● Marjoram (Origanum majorana) ● Rosemary (Rosmarinus officinalis L.) ● Sage (Salvia officinalis L.) ● Lemon (Citrus Limonum)	Lead-in: repeat the description and the effects of: Verbena, Espigol, Cinnamon, Marjoram, Rosemary, sage and Lemon. Main part: 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 Conclusion: systemize the information. Introduce the next topic	. Computer, screen projector, specialised literature

2. IDENTIFYING, COLLECTING AND CULTIVATING SELF-GROWN PLANTS	4.	10. 11.	4. Classification and identification of plant species	Lead-in: Using Verbena (Verbena officinalis L.) and Espigol (Lavandula Angustifolia) as examples, emphasize the importance of the identification of the species, family and genus the plant is classified into. Main part: describe the taxonomy of plants in 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 type and subtype, especially for plant species that, if misused, can have negative effects on the human body. Conclusion: worksheet that focuses on repetition	Computer, screen projector, specialized literature, worksheet/handouts
		12.	5.Preparation for outdoor/field lessons	Lead-in: discuss with the participants about their experience with plant harvesting Main part: list the tools, packaging and other equipment necessary/needed for harvesting and drying. Define harvesting time based on the plant organ that will be used later on. Propose good practices of wild plant picking methods in order to conserve and protect plant habitats. List herb-drying methods. Recommend storage methods and appropriate containers for storing dry herbs Conclusion: inform the participants about the outdoor class location, suggest appropriate clothes and footwear for outdoor lessons.	Computer, screen projector, specialised literature
	5.	13. 14. 15.	6. City park tour and or beach tour	Introduction: meet the participants at the agreed location Main part: identifying self grown and cultivated plants during the city park tour and/or beach 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. Conclusion: inform the participants about the outdoor location for the next encounter.	specialised literature, mobile application

	6.	16. 17. 18.	7. Identifying and collecting medicinal plants	Introduction: meet the participants at the agreed location, hand out the tools and equipment needed for collecting medicinal herbs. Main part: 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.. Conclusion: inform the participants about the outdoor location for the next encounter.	specialised literature, mobile application, pruning shears, cloth/paper bag.
	7.	19. 20. 21.	8. Identifying, collecting and cultivating self-grown plants	Introduction:. meet the participants at the agreed location, hand out the tools and equipment needed for collecting and cultivating medicinal plants. Main part: walk around the location, identify, collect and prune properly plants that will later on be used. Prepare the plants for drying and planting. Conclusion: collect impressions from the participants	specialised literature, mobile application, pruning shears, cloth/paper bag.
3. HOME PHARMACY HERBAL REMEDIES	8.	22. 23.	9. Cultivating self-grown plants	Introduction: prepare all necessary tools and materials Main part: explain the cultivation methods of self-grown plants: sowing or green cuttings. List the conditions necessary for the germination and growth . After the demonstration every participants plants green cuttings in appropriate planting pots and sows the seeds. Conclusion: cleaning and tidying up work surfaces, tolls and accessories	Specialised literature, humus soil, pruning shears, planting pot.
		24. 25.	10. Making tinctures	Introduction: start the conversation with the question: have you ever used a tincture ? Main part: 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 two different tinctures:*Tincture nr. 1 against cold, cough, fever and bronchitis* using Common Thyme (Thymus vulgaris L.), Espigol (Lavandula Angustifolia); Cinnamon (Cinnamomum	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

				verum); Marjoram (Origanum majorana); Eucalyptus (Eucalyptus) / *Tincture nr.2 to improve blood circulation and against rheumatism and muscle fatigue* using Espígol (Lavandula Angustifolia); Rosemary (Rosmarinus officinalis L.); Sage (Salvia officinalis L.) Conclusion: choosing the right packaging, cleaning and tidying up work surfaces and laboratory equipment	
	9.	26. 27. 28. 29. 30.	11. Making a syrup	Introduction: list the syrup types we use. When do we usually take syrups? Main part: 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: *Syrup 1. against cough and bronchitis* using the Tincture nr.1 and *Syrup 2. against cough and bronchitis* using Hiedra (Hereda Hélix) Conclusion: 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	Introduction: through a conversation find out if the participants are familiar with different types of water infusions (infusions and decoctions)? Give examples. Main part: combine, in different ratios, herbal medicines such as *Infusion nr.1 to protect neurons, to relax and for a better sleep* using Scullcap (Scutellaria Balearica); Verbena (Verbena officinalis L.) and *Infusion nr.2 for energizing, for a better digestion, and to improve your wellbeing* using Nettle (Urtica dioica L.), Peppermint (Mentha piperita); Spearmint (Mentha Spicata); Nettle (Urtica dioica); Sage (Salvia officinalis L.). The educator demonstrates the preparation and the participants, in pairs, prepare tea mixtures according to the regulation. Conclusion: choosing the right packaging, cleaning and tidying up work surfaces and laboratory equipment	Laboratory glassware and equipment, storage packaging for the medicinal form (paper bag), a lable
	11.	36. 37. 38.	13. Making oil macerate and ointment	Introduction: define the term oil macerate, describe the preparation procedure, explain the term Non-polar solvent, suggest vegetable oils and fat used for making	Laboratory glassware and equipment, storage

		39. 40.		oil macerates. Main part: demonstrate the preparation of an oil macerat and an ointment. The participants, in pairs, according to the regulation, prepare: *Oil Macerate nr.2 against cold and cough, and helps to improve memory and energize the body and the mind* using Eucalyptus (Eucalyptus); Common Thyme (Thymus vulgaris L.); *Oil Macerate nr.1 against mosquitos and to cure insect stings* using Geranium (Geranium); Espigol (Lavandula Angustifolia); Lemon (Citrus Limonum); Common Thyme (Thymus vulgaris L.). Demonstrate the preparation of an ointment. The participants, according to the regulations, prepare ointments used for the conditions mentioned above. Conclusion: 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.	packaging for the medicinal form (30 ml glass bottle with a tap , 50 g. cosmetic pot), a lable

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MINI CURRICULUM ON SUSTAINABILITY AND ENVIRONMENTAL PROTECTION

NARODNO UČILIŠTE USTANOVA ZA OBRAZOVANJE I KULTURU U RIJECI

LJUDSKA UNIVERZA ORMOŽ

e-ducation in progress

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DORA EDUCATIONAL INSTITUTE

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

UNIT	ENCOUNTER NUMBER	LESSON NUMBER	TOPIC	ACTIVITIES	TECHING AIDS AND MATERIALS
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