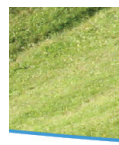




Education and Culture DG

Lifelong Learning Programme



REPUBLIC OF SLOVENIA



MINISTRY OF EDUCATION AND SPORT



CMEPIUS
Centre of the Republic
of Slovenia for Mobility
and European
Educational and
Training Programmes

GOOD PRACTICE

“NATURE’S CLASSROOM” Innovative learning environments

Prof. Ddr. Ana Vovk Korže

Portorož, 28. 10. 2010



ERM
PROGRAMSKI CENTER ZA INOVACIJSKE
PEDAGOGSKO-PEDAGOGSKO-METODIČNE
UNIVERZITETNI MARIBOR

NAME: ERM CENTER
Koroška cesta 180
2000 Maribor
Slovenia

TEL/FAX: 00368 (0)2 22 93 808 ali 724
FAX: 00368 (0)51 522 796

WWW: <http://erm.uni-mb.si>



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DRAVINJA VALLY – NATURAL CLASSROOM



Development Nature Centre

Razvojni Center Narave

Vizija

Občani občine
Poljčane živimo v
sožitju z naravo s
pomočjo ERM in
razvijamo inovativne
razvojne dejavnosti za
kvalitetno življenje





ECOREMEDIATION APPROACH

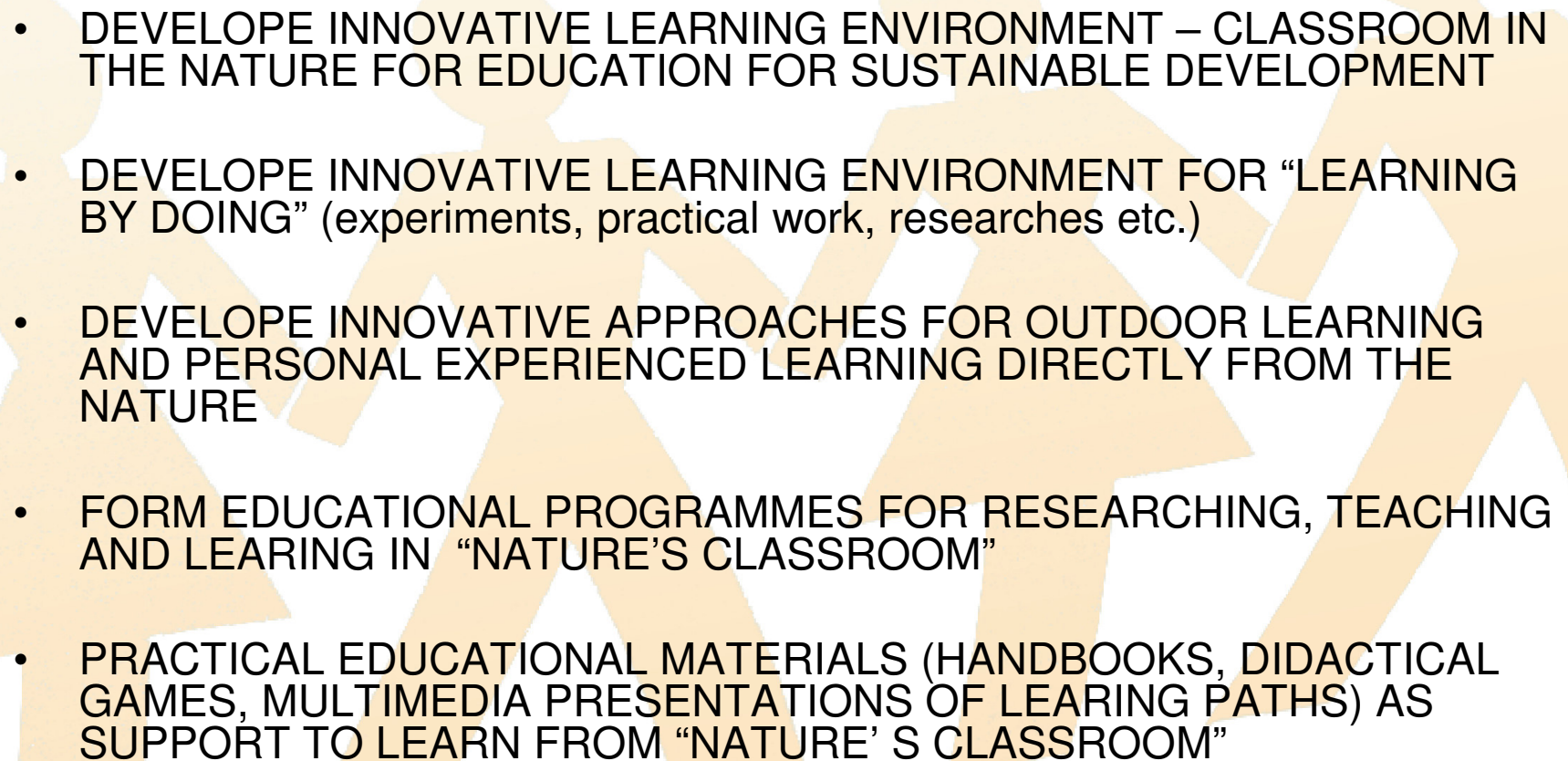


SYSTEM OF NATURE:

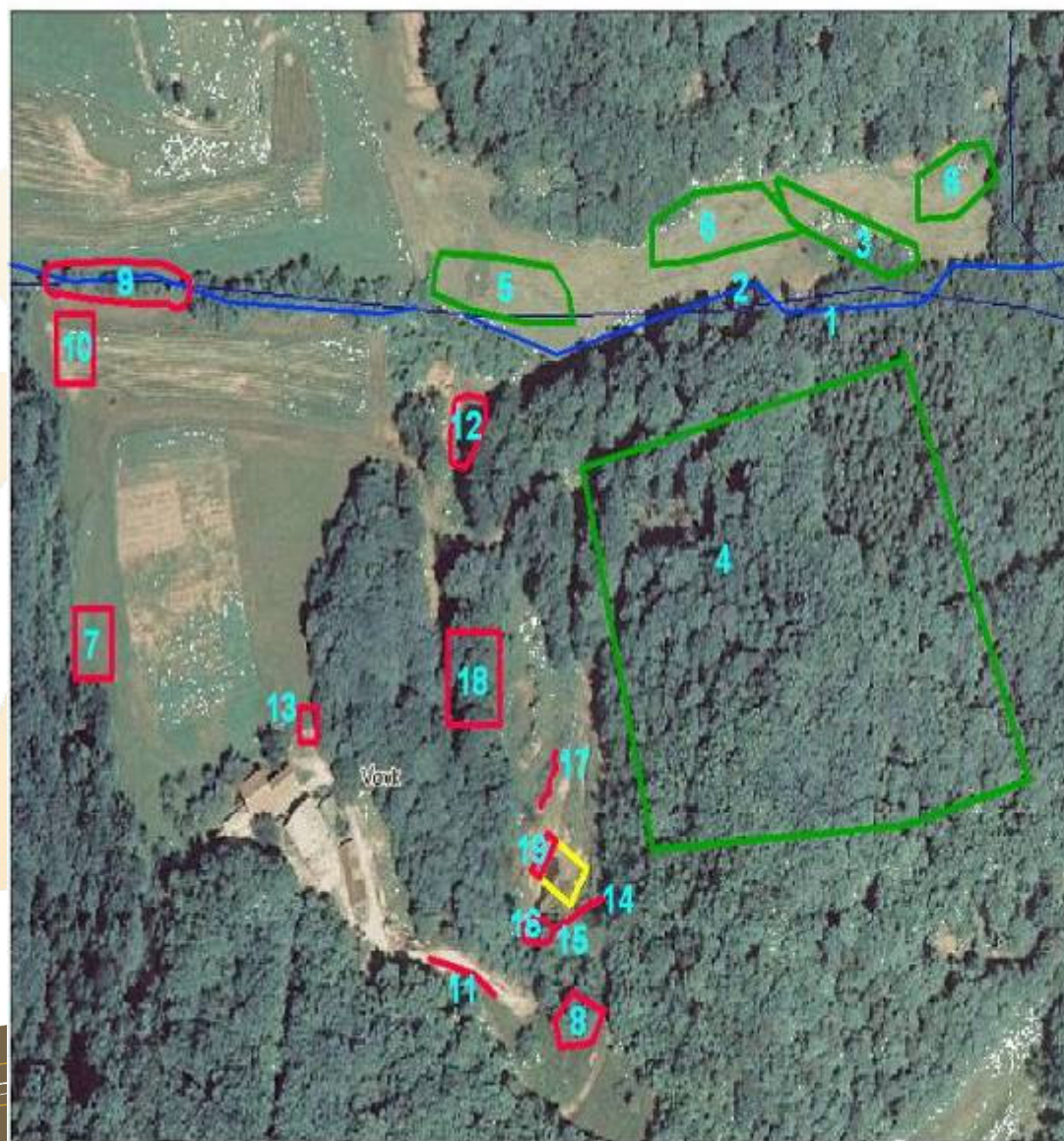
**WE ARE THE PART
OF THE NATURE**



PURPOSE OF THE PROJECT “NATURE’S CLASSROOM”

- 
- DEVELOPE INNOVATIVE LEARNING ENVIRONMENT – CLASSROOM IN THE NATURE FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT
 - DEVELOPE INNOVATIVE LEARNING ENVIRONMENT FOR “LEARNING BY DOING” (experiments, practical work, researches etc.)
 - DEVELOPE INNOVATIVE APPROACHES FOR OUTDOOR LEARNING AND PERSONAL EXPERIENCED LEARNING DIRECTLY FROM THE NATURE
 - FORM EDUCATIONAL PROGRAMMES FOR RESEARCHING, TEACHING AND LEARNING IN “NATURE’S CLASSROOM”
 - PRACTICAL EDUCATIONAL MATERIALS (HANDBOOKS, DIDACTICAL GAMES, MULTIMEDIA PRESENTATIONS OF LEARNING PATHS) AS SUPPORT TO LEARN FROM “NATURE’S CLASSROOM”

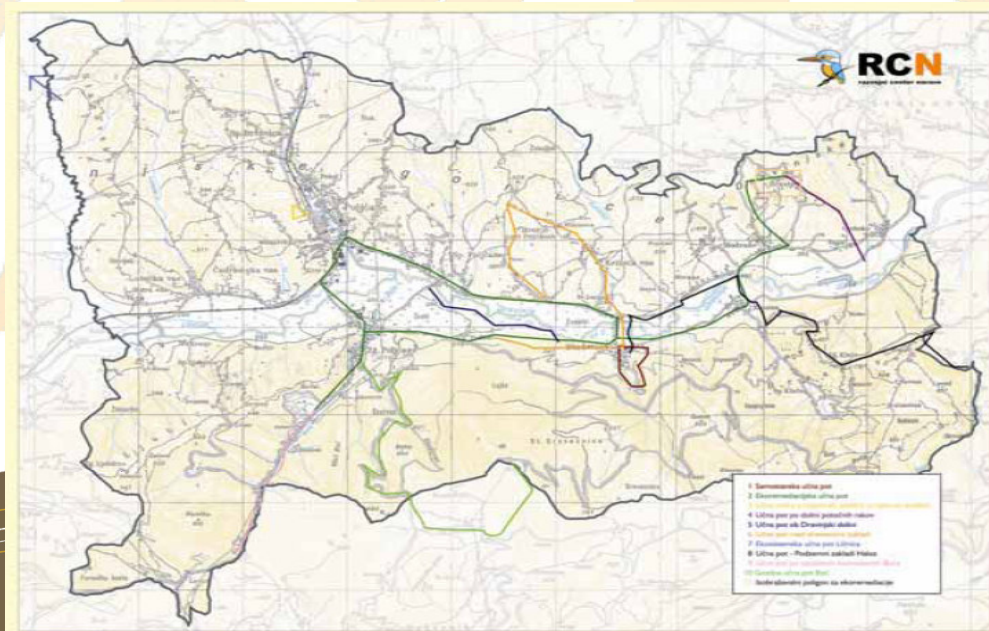
EDUCATION POLYGON



- 1-struga potoka
- 2-obrežje potoka
- 3-naravne mejice
- 4-gozd
- 5-močvirni travnik
- 6-suhi travnik
- 7-RČN za gospodinjске
odpadne vode
- 8-RČN za kondicioniranje pitne
vode
- 9-vegetacijski pas
- 10-fitoremediacija
- 11-protierozijski ERM sistemi
- 12-ribnik
- 13-kompostiranje
- 14-kanalizirana struga potoka
- 15-revitalizirana struga
potoka
- 16-mlaka
- 17-blažilna cona
- 18-RČN za učni center
- 19-model

RESULTS OF THE PROJECT “NATURE’S CLASSROOM”

- established **10 thematic learning paths** in the field of environment and nature science in Municipality Poljčane,
- established innovative **educational ecoremediation (ERM) polygon** for researching and learning about environment issues and processes unwinding in the nature





EDUCATIONAL ECOREMEDIATION (ERM) POLYGON:

- 5 HA AREA WITH NATURE ECOREMEDIATION: ECOSYSTEM SERVICES FROM MEADOWS, FIELDS, FOREST, WATER
- ECOREMEDIATION SYSTEM AS TECHNICAL INNOVATION:
- 19 LEARNING POINTS – LEARN ABOUT NATURAL ECOSYSTEMS, ECOREMEDIATION MESUARES (constructed wetlands, buffer zones, vegetation zones, fitoremediation etc.)
- LEARNING BY DOING (experiments, practical work, fieldwork etc.)

“WHAT CAN WE LEARN FROM THE NATURE ?



EDUCATIONAL ECOREMEDIATION (ERM) POLYGON

EDUCATIONAL CENTER



PRESENTATION
OF RIVER
ECOLOGICAL
RESTORATION



PONDS AS
EDUCATIONAL
OBJECT



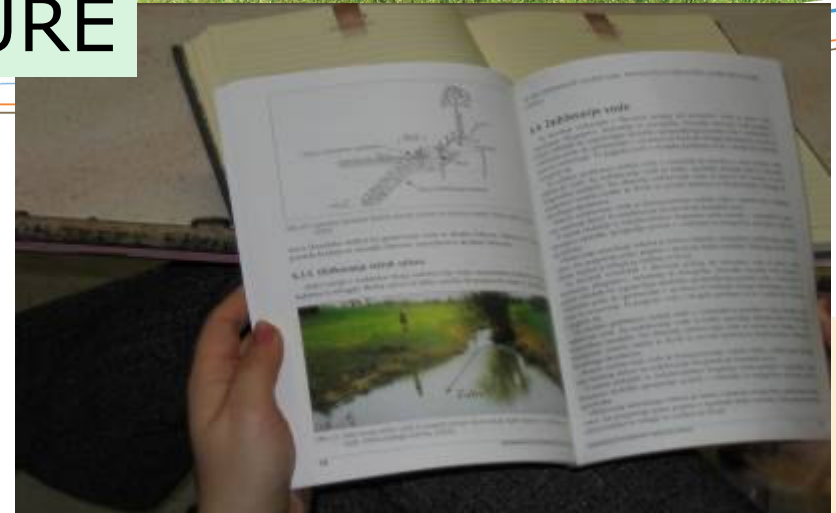
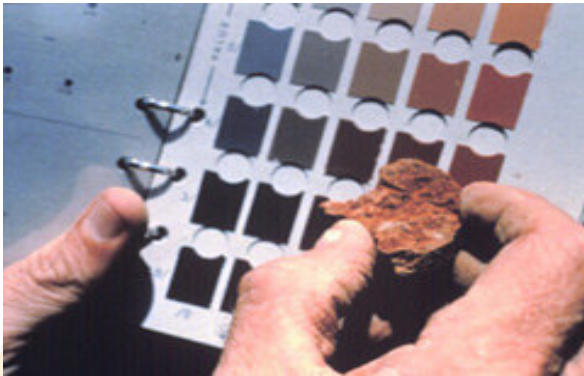
BUFFER
ZONES



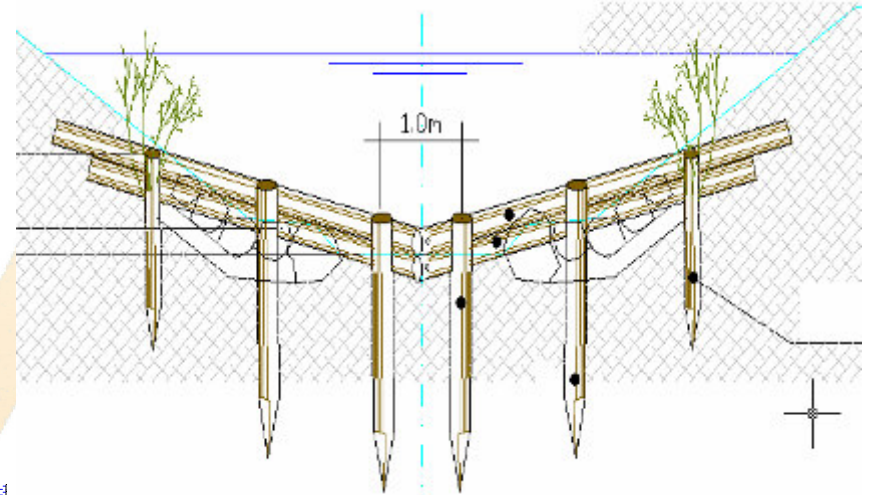
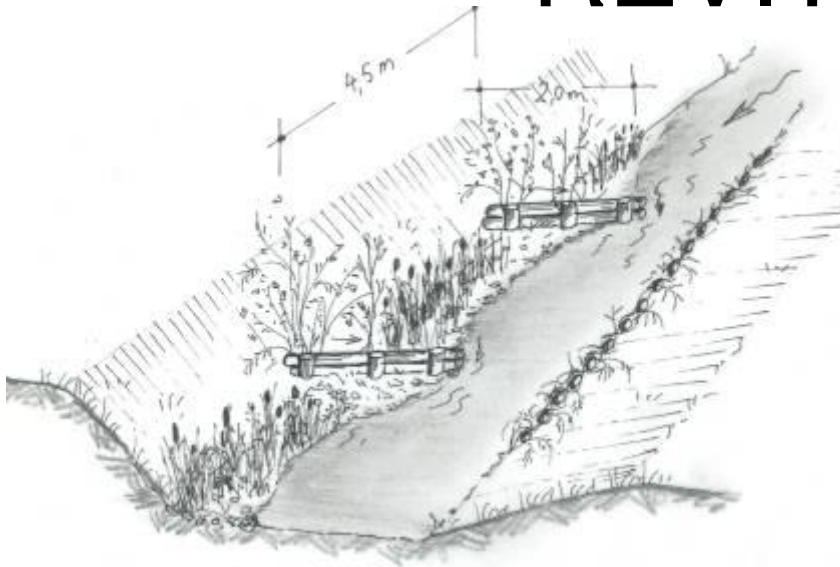
DEMONSTRATION MODEL
OF CONSTRUCTED WETLAND



RESEARCH WORK IN NATURE

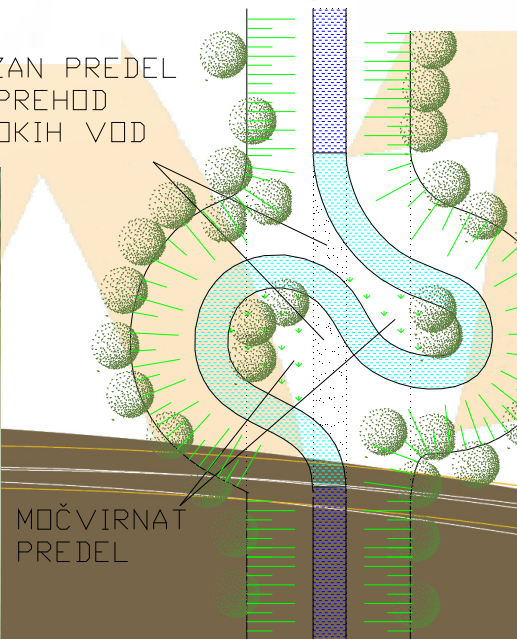


WATER RESOURCES REVITALISATION



ZNIŽAN PREDEL
ZA PREHOD
VISOKIH VOD

REGULIRANA
STRUGA



MOČVIRNAT
PREDEL





➤ **Constructed wetland**

Natural cleaning system



Constructed wetland in river bad





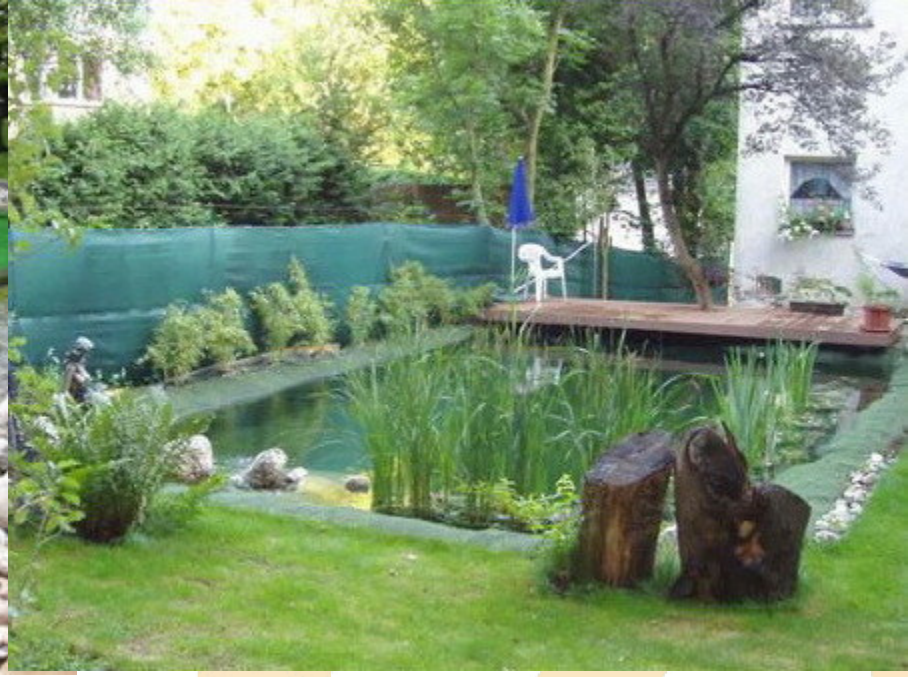
REKREATION IN NATURE



Hobbit house

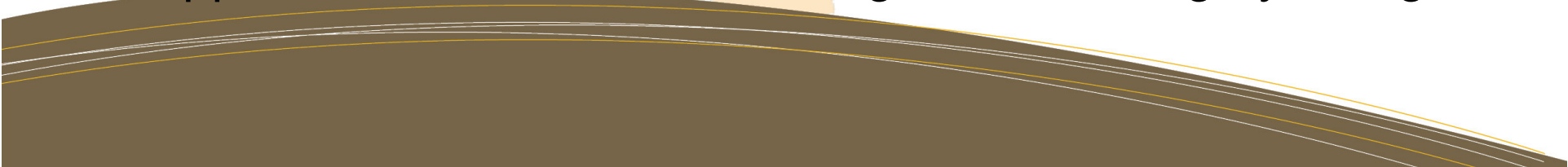


Natural pool





RESULTS – SUPPORT FOR TEACHING, RESEARCH AND LEARNING IN THE PROJECT “NATURE’S CLASSROOM”

- formed **educational programmes** at all levels as learning tools for teachers and pupils, students ...
 - formed **handbook for teachers** “Thematic learning paths true Dravinja valley.”
 - formed handbook for teachers “Educational ecoremediation (ERM) polygon in Modraže, Dravinja valley”
 - formed **educational material** for innovative outdoor learning in “Nature’s classroom” (for project days in school, practical work, researches, fieldwork etc)
 - formed **reference book of good practices** of innovative approaches for outdoor learning and “learning by doing”
- 



RCN
razvojni center narave

IZOBRAŽEVALNI POLIGON o ekoremediacijah v Modražah (Poljčane)

Delovno gradivo

Avtorji:

Prof. dr. Danijel Vrhovšek, Marjana Vrhovšek, Dr. Maja Zupančič Justin, Darja Istenič, Andrej Hercog, Urška Vidmar, Iztok Ameršek, Dr. Jasna Paradiž, Martin Vrhovšek, Alenka Sajovic.

Risala: Barbara Frank



Poljčane, avgust 2009



Naložba v vašo prihodnost
OPERACIJSKI PROGRAM INICIJATIVA EVROPSKA UNIJA
Evropski sklad za regionalni razvoj



Univerza v Mariboru
Filozofska fakulteta



MINISTRSTVO ZA ŠOLSTVO IN ŠPORT

Republika Slovenija
Ministrstvo za šolstvo in šport
Ljubljana, 1000, Ljubljana
t: 01 4784 111, f: 01 4784 112

Razumeti naravo ...



RCN
razvojni center narave



NARAVA NAS UČI



Učni programi za raziskovanje, učenje in terensko delo na ekoremediacijskem učnem poligonu v Modražah

EDUCATIONAL VALUE OF THE NATURE'S CLASSROOM

**PERSONAL EXPERIENCED
LEARNING FROM THE NATURE**

**ACTIVE
LEARNING**

**LEARN FROM
PROBLEM SITUATIONS**

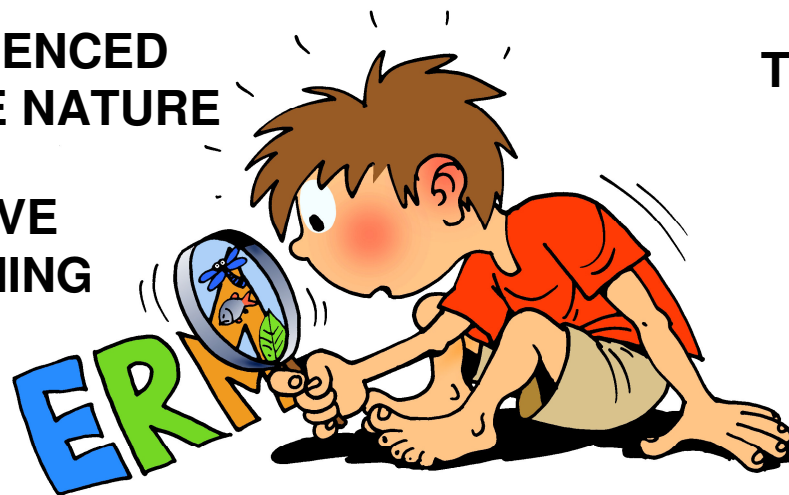
TO CONECT TEORY WITH PRACTIES

TO EXPERIENCE

TO UNDERSTAND

**TO FEEL THE
NATURE**

**TO LEARN HOW TO RESPECT
THE NATURE**



But we have only one!





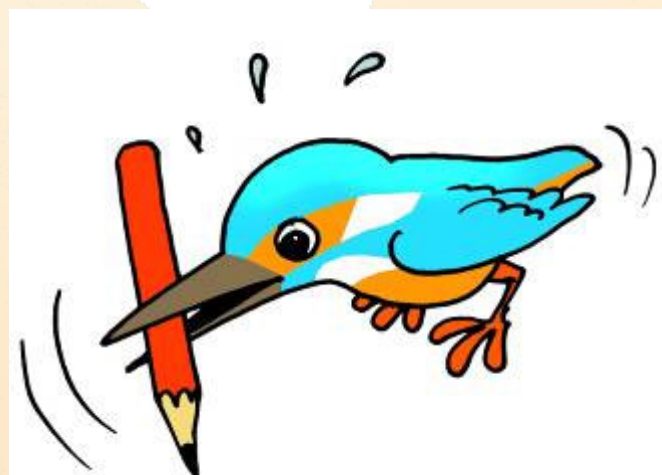
➤ Education for sustainable development



MINISTRY OF EDUCATION AND SPORT



Web page of the project:
www.ucilnicavnaravi.si



Thank you for your attention !