



Life Terra



NBS
EduWORLD

Green and blue projects: leading the way for environmental sustainability in STEM education in Europe



Agueda Gras-Velazquez,
Head of the Science Education Department
European Schoolnet



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Green and blue projects *are* leading the way for environmental sustainability in/*and* STEM education in Europe



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What?
Why?



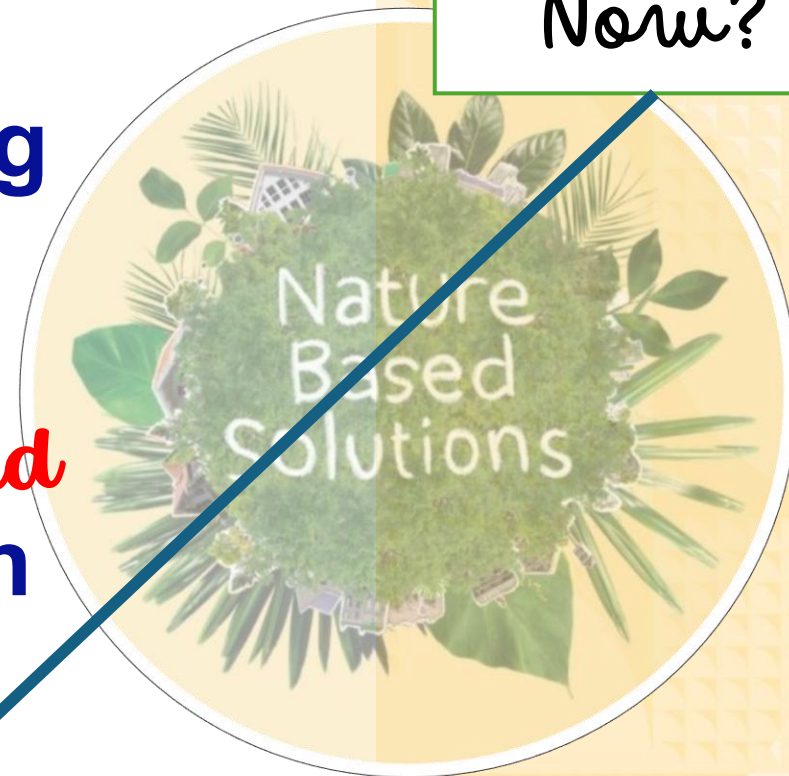
Life Terra



NBS
EduWORLD

How?
Now?

**Green and blue
projects *are* leading
the way for
environmental
sustainability in/*and*
STEM education in
Europe**



Next?
Future?



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What?
Why?

Science > STEM > STEAM > STE(A)M >

Contextualization of education



Image by [Marco Wolff](#) from [Pixabay](#)



Image by [Bruno](#) from [Pixabay](#)

What makes Green and Blue Education?



- **Competences** to help students and teachers understand, care, and act for the Planet
- Taking teaching and learning **outside the classroom** to embrace surroundings and nature
- **Contextualisation of STEM education** in society, connection with global environmental challenges
- **Nurture the students**, citizens of today and tomorrow

Green and Blue Education: Competences

- Learning for sustainability
- Knowledge, skills and attitudes
- Empathy, responsibility, and care for our planet



Access GreenComp in
your language!



How?
Now?

Blue Education: Topics

- **Ocean literacy for all**, with accessible resources to foster understanding
- Restore, protect and maintain ocean biodiversity
- **Importance of the ocean in our daily lives**, (climate, food resources, overall human well-being)





New technologies help bring new and immersive learning experiences to overcome geographical barriers

Environmental literacy accessible to all.

[European Atlas of the Seas](#)



TECHNOLOGY & OCEAN LITERACY

BlueLightS



ProBleu



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The BlueLightS Framework

The main objective of the BlueLightS framework is to demonstrate the added value of blue education and the conditions required for strengthening it within a wide range of different European educational contexts. For example, strengthening blue education can involve increasing the visibility of water literacy in national curriculums, but also mainstreaming water literacy in textbooks or teacher trainings.



<https://blue-lights.eu/>

Fund your projects

Kick-start your blue projects by applying for funding.

Funding

Promoting the European Blue School Network

ProBleu is dedicated to encouraging more Blue Schools to join. Our primary objective is to develop and offer educational resources and tools around the knowledge of aquatic ecosystems, based on Open Schooling methodologies.

<https://probleu.school/>

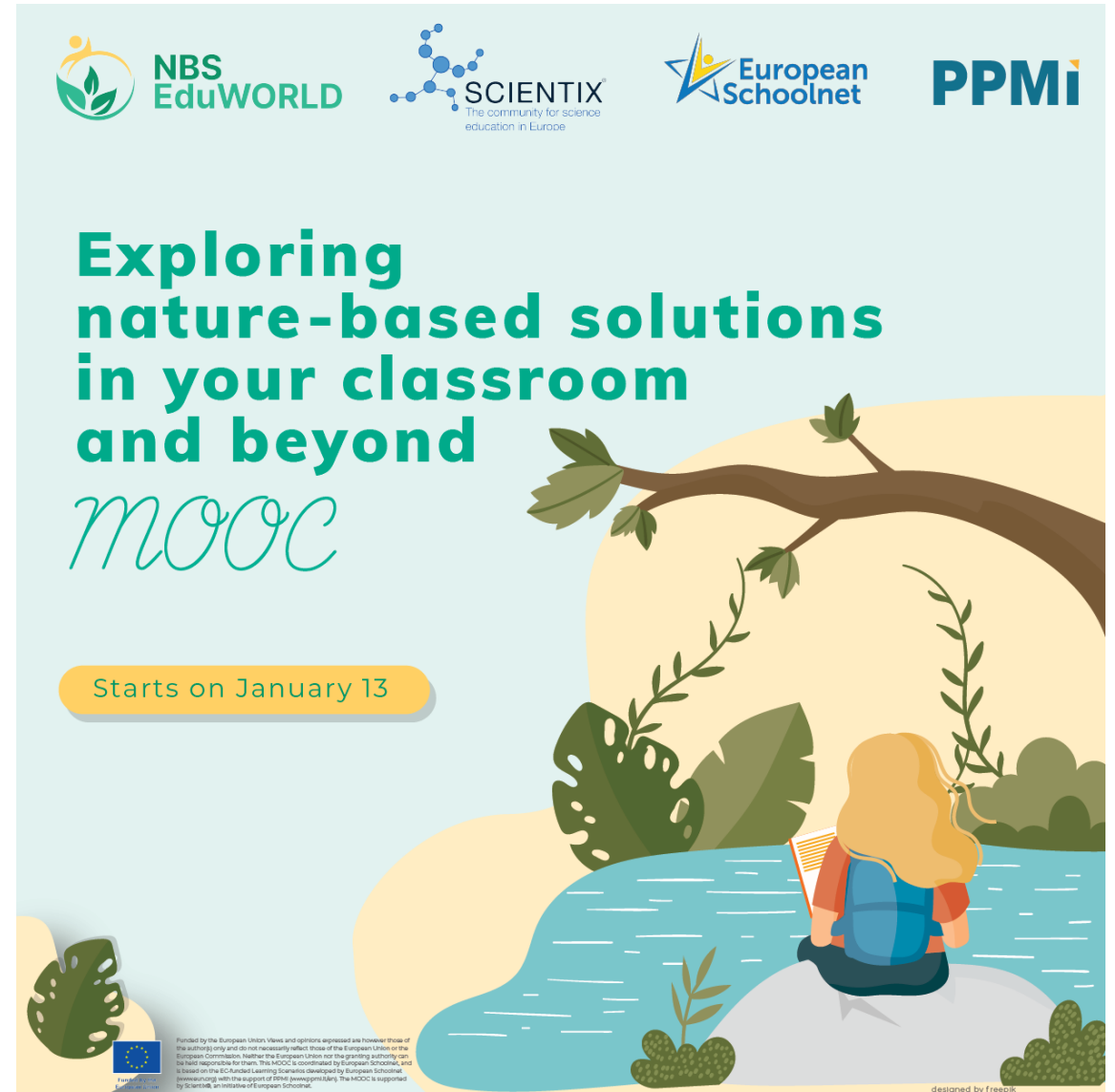
Green Education: Topics

- **Environment related** initiatives
- **Bioeconomy careers**
- **Nature-Based Solutions (NBS)**, such as greening of school(yards)
- **Outdoor learning** , experiential hands-on approach, whole-school approach



“EXPLORING NATURE-BASED SOLUTIONS IN YOUR CLASSROOM AND BEYOND” MOOC

- Launched in January 2025; 5 weeks; open to anyone - available in the archive here:
<https://apps.europeanschoolnetacademy.eu/learning/course/course-v1:Scientix+NBS+2025/home>



**Are you an NBS expert
interested in developing
educational activities?**

Education Virtual flipping
book



**Are you interested in
adopting NBS
approaches and
behaviours through
higher education and
entrepreneurial level?**

Initial Report on NBS in
Higher Education



**Are you an educator with little
or average NBS knowledge,
looking to introduce NBS
across various types of
education?**

NBS Knowledge Stream
Guidelines

NBS Connections Stream
Guidelines

NBS learning activities for
ages 3 and above

NBS EduWORLD Learning
Scenarios

NBS School Expertise



**Are you an education and
NBS expert interested in
expanding and promoting
your practice?**

Scenarios of Plausible Futures
for NBS in Education

Schools as Innovation Hubs for
the Green Transition:
Transforming Schools into NBS
Living Labs

NBS EduWORLD booklet: The
School as NBS Living Lab



**Are you a policymaker
or working for a public
authority?**

State of the art report





Carbon Act Expert Interviews

DISCOVER HOW
EDUCATION
CAN SHAPE A
SUSTAINABLE
FUTURE!

Watch
now!



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Carbon Act Launches New Catalogue of Climate Change Learning Scenarios



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Terra Mission Educational Pack

- Designed for ages 8-10 and 11-14
- Translated in 7 languages
- It consist of:
 - An introduction and a closing lesson
 - 8 interconnected themes
 - Lessons for the interactive whiteboard
 - Teacher guides, worksheets, answer keys
- Easily adapted to different curriculums



27,000+
Teachers using
Terra Mission

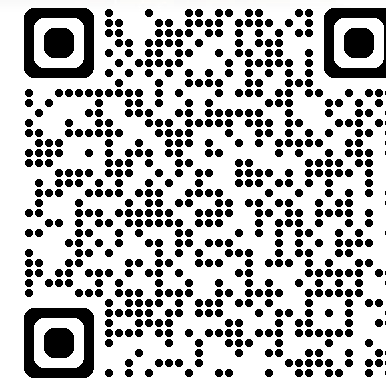


322,968
Students
participating



This educational package teaches children love for our planet. 🌍❤️

for our planet 🌍
teaches children love ❤️
This educational package

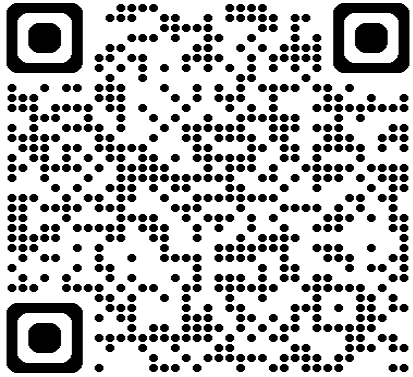


Next?
Future?

Life Terra Recommendations

National and Regional Level

School and Educators' Level



Guidance for Policy-Makers on Supporting Education for Sustainability

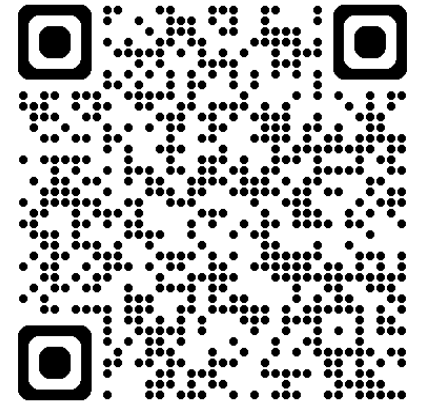
Build teacher skills in sustainability



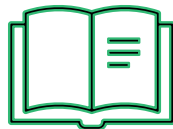
Incorporate outdoor learning into curricula



Enhance access to educational resources



Guiding Educators and School Leaders on Supporting the Integration of Sustainability Competences and the Implementation of Life Terra resources.



Access the Full Report to Delve in the Research behind the Life Terra Recommendations for Education



Welcome to NBS Academy

A European Academy for integrating Nature-based
Solutions (NBS) in teacher education



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CONTEXTUALISING STEM: Environmental Sustainability





SCIENTIX[®]

The community for science
education in Europe



NBS EduWORLD Nature-based solutions Learning Activities for Ages 3 and Above. A Booklet for Non-Formal Educators

This set of Learning activities is designed to help educators, instructors and trainers in Youth Centers, Youth Camps, NBS and/or STEM Camps and other forms of non-formal instruction, bring the topic of nature-based solutions (NBS) to children and youth across Europe through structured and engaging approaches. The activities are divided into four indicative age groups (ages 3 to 16+) and are customized to various levels of knowledge about NBS, while also being linked to at least one of the GreenComp Sustainability Competence Areas and/or NBS societal challenge areas, and other applicable key skills and competences.

AGE	PROJECT	COPYRIGHT	DESCRIPTOR
3 - 19	NBS EduWORLD (Nature-Based Solutions Education Network)		environment

[Read more](#) →



Terra mission planting guide

Life Terra's Guide for School Plantings is a guide that includes all the steps teachers and educators need to follow to organise a tree planting activity to inspire their students to take climate action, with tips for pedagogical and reflection activities before, during and after the planting event.

AGE	PROJECT	COPYRIGHT	DESCRIPTOR
8 - 14	Life Terra		environment

[Read more](#) →



GENB TOOLKIT FOR TEACHERS - Elementary School

The GenB Toolkit is a rich collection of diverse resources, tools, and instructional materials designed to educate and raise awareness of the bioeconomy.

AGE	PROJECT	COPYRIGHT	DESCRIPTOR
9 - 13	Gen B (Informing and educating young people on more sustainable behaviours and choices to build a future Generation informed and interested in Bioeconomy)		biology, biotechnology, chemistry, earth sciences, ecology, environment

[Read more](#) →



The COOL SCHOOLS Guidelines for schools: how to turn your schoolyard into a nature-based climate shelter

These Guidelines help School leaders, teachers, and community members such as parents, understand the practical steps and considerations to plan and design the transformation of the schoolyard into a nature-based climate shelter. A nature-based Climate Shelter is a green space in the schoolyard, that can be opened to the community during extreme weather events such as heatwaves. Nature-based climate shelter offer a range of benefits for health, learning, social cohesion, and biodiversity. The advice provided is based on the experience of four case-study cities (Barcelona, Brussels, Paris, Rotterdam), where municipalities have undertaken the transformation of a large number of schoolyards as part of their climate resilience strategy.

AGE	PROJECT	COPYRIGHT	DESCRIPTOR
18 - 25+	COOL SCHOOLS: Realizing potentials of nature-based climate shelters in school environments for urban transformation		educational sciences, environment, equal opportunities, technology

[Read more](#) →



CATALOGUE OF INTEGRATED LEARNING SCENARIOS





















This catalogue provides an overview and links to various Learning Scenarios developed by Carbon Act, offering primary and secondary teachers valuable ideas and guidance for implementing climate change-related activities at both the classroom and school levels.

AGE	PROJECT	COPYRIGHT	DESCRIPTOR
7 - 19	Carbon Act		agriculture, applied sciences, biology, biotechnology, chemistry, earth sciences, ecology, environment

[Read more](#) →



Topic: **ENVIROMENTAL SUSTAINABILITY COLLECTION**

	Physics	Arts	Maths	Biology	Chemistry
Ages 3-5	Experiment 	Video 	Teacher Training 	Activity 	Learning Scenario 
Ages 6-11	Lesson Plan 	MOOC 	Learning Scenario 	Activity 	Game 
Ages 12-15	Game 	Activity 	Experiment 	Video 	Lesson Plan 
Ages 16+	Learning Scenario 	Activity 	Game 	Experiment 	Video 

<https://scientix.eu>

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