

NBS EduWORLD - Project Education Learning Unit Template

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Learning Unit (LU) Planning Template - High Level Overview

Topic	ning Unit (LU)	Ť			Collective workshop		
NBS Context (e.g. urban rural, coastal)	NBS keywords complete checklist at the end of the document	Other Keywords (topics other than NBS) add in Other below	Linked or complementary concepts to NBS (to assist curriculum integration)	Prior learner knowledge of NBS (high, moderate, low/none)	Prior instructor knowledge/ skills/ competences of NBS or equivalent	Key EU NBS resources used (for instructor preparation) include link	Type of LU - lecture, workshop, field trip/site visit, case study
any	see list at the end of the document	see list at the end of the document	/	none	none	https://op.europa.eu/ en/publication-detail//publication/d7d496b 5-ad4e-11eb-9767- 01aa75ed71a1 https://connectingnat ure.eu/sites/default/files/downloads/connecting-nature-reflexive monitoring- guidebook.pdf	
Target academic subject / discipline / professional area or group Local	-	Min/ Max # of learners (if applicable)	Sector (e,g, professional, higher education, community)	Prerequisites required of learners if applicable (education)	EQF (European Qualifications Framework) level (or Irish NFQ) indicative only	Time for LU (aim is 50 minutes per learning unit 50 min	Course delivery forma (e.g. in- person, hybrid online) In-person / O
governments, municipality					Not sure/not applicable		site

LU Summary		
(2-3		
sentences)	This LU provides learners with key elements to understand the importance of the monitoring process before/during/after an NBS implementate	tion. It provides
Learning		
Outcome 1	Understand the importance of monitoring	
Learning		
Outcome 2	Learn about effective steps to monitor an NbS	
Learning	Learn about the benefits of citizen science in NbS monitoring	
Outcome 3		
Learning	Learn how to define a protocol for monitoring that suits your local situation	
Outcome 4		

LU designer resources for writing learning outcomes (click Learning Outcomes - Using Taxonomies tab or pyramid here)

Activities and Elements of Learning

Aim that each learning unit include at least 4 activities for an interactive learning experience

							Offline
							resources
Time (duration	Aims - linked		Learning	Teacher action/			and
of activity,	to NBS	Link to	Activity	activity	Confirmation of learner's		materials
typically	concepts or	Learning	[PPT Slide # -	(Learner	learning (assessment of	Link to online NBS	(e.g. post-
50mins)	topics)	Outcome	if applicable]	action/activity)	learning)	resources	its,)

50 min	Participants	Through the	Slides 1-12 are	Present the	The workshop activity could also	https://op.europa.eu/	post-its, white
	work	15 min of	dedicated to the	contextual	be done in a written way, asking	en/publication-detail/-	boards, paper,
	collaboratively	presentation,	presentation of	information and	every participant to hand it over	/publication/d7d496b	pens,
	and in a holistic	participants	contextual	answer potential	to the teacher at the end of the	5-ad4e-11eb-9767-	creativity!
	way. They first	will	information.	questions.	35 minutes dedicated to the	01aa75ed71a1	
	go through 15	understand	Slides 13-18 are	Guide, moderate	activity.	https://connectingnat	
	min of	the	focusing on the	and keep time		ure.eu/sites/default/fi	
	contextual	importance of		during the		les/downloads/conne	
	information,	monitoring and	activity.	discussions of		cting-nature-reflexive	
	before jumping	the diverse co-		the workshop		monitoring-	
	•	benefits		activity.		guidebook.pdf_	
	exercise. In this						
	activity, they go						
	through 3 steps						
	and their	monitoring					
		process.					
	questions in	Eventually,					
	order to	they also					
	develop their	reflect and					
	own citizen	learn about					
	science	the major					
	monitoring	steps to build					
	protocol.	a protocol for					
		monitoring.					

NBS- Application of Curriculum, Trends and Skills

Curriculu	m
integratio	n (how
it may co	
to curricu	ılum)

	Project-based				
	learning: e.g.,				
	students work				
	in groups on a				
	research			Student-	
	project on		Problem-based	centred	
	greenhouses	Peer	Learning: e.g.,	learning: the	
	and the	learning: e.g.,	students are	learning	
Teaching &	greenhouse	students work	introduced to a	scenarios are not	
<u>Learning</u>	effect,	in groups,	problem and	based on	
<u>Trends</u>	alternatives to	evaluate the	challenged to	classical	
<u>employed</u>	waste	work of their	find a solution	instruction by the	
	management or	peers, or	together based	teacher, but they	
Highlight all	investigate what	develop	on the	are expected to	
that apply	are the views of	assessment	information	actively engage	
		questions to	provided to	students in the	
(Source)	climate change.	assess peers.	them.	lessons.	
	Creativity: e.g.,			Critical	
	students think			thinking: e.g.,	
	of various	Information/		students learn	
	solutions for	Media		that a debate on	
	promoting a	literacy:		deforestation or	
21st Century	better lifestyle	students	Collaboration:	climate change	
Skills	in their	explore	e.g., students	does not consist	
	communities or	examples of	work in groups	of two opposing	
Highlight all	encourage	NBS, research	0 0	camps only but	
that apply	greener	similar	task division to	involves many	Communication: e.g., students
	solutions to	solutions in	produce		present their work to the whole
(2)	their schools'	other	outputs.	different	class and learn to put forth strong
(Source)*	issues.	communities.		perspectives.	arguments based on facts.

^{*}Gras-Velázquez, À., Mulvik, I. B., Campodonio, A., Nada, C. & Pocze, B. (2020) Nature-Based Solutions in education - Validation report, European Commission, August 2020 [accessed on 25/03/2024 https://files.eun.org/NBS/NBS-pilot-validation-report-final.pdf] p.8.

Embracing Complexity in Sustainability (see pp.13-14) values generations for sustainability (see pp.13-14) values generations influence thinking and conclusions. 3.2 Adaptability: To manage transitions and challenges in complex sustainability situations and envision and daughter for sustainability (see pp.13-14) values generations for sustainability (see pp.13-14) personance for sustainability (see pp.13-14) personan							
GreenComp- European Sustainability Competency Framework Highlight all that apply (Source) 1- Embodying Sustainability Values and 2 - Embracing Complexity in Sustainability							2.3 Problem
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Framework Highlight all that apply (Source) 3- futures by imagining and developing alternative scenarios and the face of uncertainty, ambiguity and linking different relational way of thinking by exploring and linking identify political responsibility and r	•			_	4.4 Delitical		
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sustainable steps needed to and learn from using creativity unsustainable steps needed to and learn from using creativity unsustainable steps needed to an and learn from using creativity unsustainable steps needed to an and learn from using creativity unsustainable		, ,	0				
							actively contribute to
Acting for preferred generations experimentation demand effective 4.2 Collective Action: To act for improving prospects			•			4.2 Collective Action: To act for	
Sustainabilty sustainable for with novel ideas policies for change in collaboration with for the community		•	_				
(see pp.13-14) future. sustainability or methods. sustainability. others. and the planet	•				·	•	

	Simon Racé, ICLEI Europe
Author and	
organisation to	
credit when	
using the LU	

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NBS Keywords Checklist (tick

here below)	
	Forest Preservation
	Forest Restoration
	Forest enhanced management for woodfuel harvest
	Forest Production
	Grassland Preservation
	Grassland Restoration
	Grassland grazing management
	Coastal Preservation
	Coastal Restoration
	Coastal maintenance of slope vegetation
	Maintenance of coastal, floodplain and riverine vegetation
	Agroforestry
	Reduce tillage and carbon restoration practices
	Agricultural intensificiation
	Urban forests and green spaces
	Urban green roofs
x	Climate-change adaptation and mitigation
x	Sustainable cities/ sustainable communities
х	Re-naturing cities/ re-naturing communities
	Urban regeneration
	Coastal resilience
	Multi-functional watershed management
	Enhancing the insurance value of ecosystems
	Sustainability of the use of matter and energy
x	Sustainable development
	Innovating with nature
Х	Biodiversity
	Nature-based enterprises

References for learners (can be used for syllabus or further reading post-LU

<u>reauring po</u>	<u> 51-LU</u>	_
Resource Citation	Link	
impact of Nature-	https://op.europ	a.eu/en/publica
Kato Allaert &	https://connecti	ngnature.eu/site
Vigie Nature	https://www.vig	ienature.fr/fr/pre
Deguines, N., Princé,	https://hal.scier	nce/hal-0255314

	Nature-based enterpreneurship						
	NBS and new business and investment models						
х	Citizen participation, stakeholder/community consultation						
	Disaster risk reduction						
	Risk management and resilience						
	NBS policy development and implementation	NBS policy development and implementation					
х	NBS research	NBS research					
х	Green infrastructure						
	Green finance / sustainable finance						
	Ecosystem services and ecosystem-based approaches						
	Rural municipal/local authority/government planning						
	Coastal municipal/local authority/government planning						
	Urban municipal/local authority/government planning						
х	Improving well-being and quality of life						
	NBS and new business and investment models						
	NBS and CCAM (Connected, Cooperative and Automate	d Mobility)					
х	Other 1: (Please specify) NBS monitorin	g					
	Other 2: (Please specify)						
	Other 3: (Please specify)						

Keywords Source 1: United Nations Environment Programme (2020). The Economics of Nature-based Solutions: Current Status and Future Priorities. United Nations Environment Programme Nairobi., p.5. (keywords above in italics)

Keywords Source 2: Faivre N, Fritz M, Freitas T, de Boissezon B, Vandewoestijne S. (2017)'Nature-Based Solutions in the EU: Innovating with nature to address social, economic and environmental challenges.' Environ Res. 2017 Nov;159:509-518. doi: 10.1016/j.envres.2017.08.032. Epub 2017 Sep 8. PMID: 28886502.

Keywords Source 3: European Commission (2015). Towards an EU Research and Innovation policy agenda for Nature-Based Solutions & Re-Naturing Cities: Final Report of the Horizon 2020 Expert Group on 'Nature-Based Solutions and Re-Naturing Cities' Full Version. Luxembourg: Publications Office.

some case studies from the MNHN in France about citizen science, to understand how citizen science can support NbS mainstreaming. Eventually, the last 35 minutes are decompositions of the control of th	

edicated to a collective workshop activity, ga	athering different departments from a mu	unicipality in order to develop their own	citizen science monitoring protocol.	