



GREEN CITIZENSHIP IN/FOR EUROPE Learning and Teaching Package 6

UNIT 3: PLACES OF LEARNING & RESOURCES (POLAR) FOR SUSTAINABILITY EDUCATION

RACHEL BOWDEN - ZLSB TU DRESDEN UNIVERSITY OF TECHNOLOGY KATRIN GÜNTHER - ZLSB TU DRESDEN UNIVERSITY OF TECHNOLOGY









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Overview

The Learning and Teaching Package 6 **Green Citizenship in/for Europe** links learning to the development of healthy responsible communities in and beyond the classroom, and therefore invites to consider the Whole School Approach (further WSA) to engage with sustainability. What it implies is that Green Citizenship education should include partners going beyond educators and extending to headteachers, senior management teams, governors, anyone who has a key role in contributing to the common core of civic education, and of course students as partners in the creation and development of green citizenship education. Therefore, the LTP materials would be relevant for educators, teachers, senior management teams, but also contain materials for students as key partners in the process. The participants will multiply the experience and knowledge not only theoretically but also practically through concrete project activities or interventions. In the area of emotions, participants become sensitive to the principles of sustainable development, they identify with them. In the area of action, the participants reflect on the active approach to the implementation of sustainable development both in school life and outside school life in the sense of green citizenship.

The unit 'Places Of Learning And Resources' (POLAR) for sustainability' engages participants with the pedagogical possibilities of POLAR, outside of schools, for sustainability education. The unit is aimed at secondary level teachers and student teachers from across subjects, and works particularly well in interdisciplinary groups. The unit begins with an exploration and/or recap of sustainability education, as the basis for participants identifying connections between their instructional subjects and sustainability education. Next, participants explore a POLAR, and take from this inspiration to develop their own pre, while and post POLAR activities. After this, participants identify a POLAR of choice develop activities and guide peers. Finally, participants share learning from the unit as the basis for their future use of POLAR for sustainability education.

This unit is of particular importance as it sensitises educators to the potential of POLAR for sustainability education, whilst also providing a pedagogical framework for the development of activities. POLAR are often of particular relevance to sustainability education as they are local places, from which local-global connections, challenges and opportunities can be explored. They lend themselves particularly well to interdisciplinary work, which is in turn central to sustainability education. POLAR promote self-directed learning, and holistic learning experiences which engage learners' hearts, hands and minds. Using POLAR teachers can step away from their role as input-givers, and instead prepare, accompany and support their students' own learning journeys.

Pedagogical Approach

The pedagogy of POLAR is rooted in experiential interdisciplinary collaborative inquiry-driven approaches. These methods emphasize hands-on experiences, real-world problem-solving, and learning in diverse environments beyond the traditional classroom, which enhances students' understanding of sustainability in a more meaningful and immersive way.

Green Citizenship in/for Europe: Background information

Taking steps to engage students in change, to empower students and develop their competences by providing an opportunity to engage in real life decision-making processes is important to nurture responsible green citizens.

Piloting of the materials within TAP-TS

The materials of Unit 3 were presented during Active Learning Event in Dresden in Spring 2024 and Autumn School 2024 in Pirna as one hour and a half workshops for practicing teachers, student teachers and teacher educators.





UNIT Overview

Main Topic	Target Group	Duration	Knowledge Area/ Subjects in School	Activities	Possible assessment
Introduce the	teachers, student	About 660	Across the	Start-up	My POLAR
POLAR	teachers	min. with	curriculum	Activity 1. What is	-
approach for	CCGCTCTC	project work		Green Citizenship	
		-		Education	
sustainability		Projects can		Development	
education		be different in		Activity 2. POLAR	
		duration		Exploration	
				Activity 3. POLAR	
				Visit	
				Consolidation	
				Activity 4. POLAR	
				Preparation	
				Follow-Up	
				Activity 5. My	
				POLAR	
				Activity 6. Reflect	
				on the application	
				of POLAR	
				approach.	
	Having worked through		·		
	1: Participants underst	•	•	Education from dif	ferent sides:
Intended	values, skills, attitudes,		•		
Learning	2: Participants acquire knowledge about an approach to teach sustainability - POLAR			OLAR	
Outcomes	3: Participants recogniz	· · · · · · · · · · · · · · · · · · ·	of implementing PC	DLAR	
	4: Participants plan the		_		
Dutan	5: Participants reflect o	on the experience	S		
Prior	optional/ideal:	h: :+/ TD 1	\	hin in /for France /	TD C Umit 1)
Competencies Required	Education for Sustainal	irts, markers) and Green Citizens	snip in/ior Europe (i	LIP 6 Unit 1)
materials	Photocomplete	•			
illaterials		CompFramework	(ndf)		
Cooperation/	- Green	compiramework	(par)		
Networking	Local commun	ity; local museum	s; local farms; local	theatre etc.	
	Embodying sustainabili	tv values			
	1 1 Valuing	•	dentify and explain how values va	ry among people and over time, v	while critically
		valuating how they align with			•
Addressing	1.2 Supporting fairness	o support equity and justice fo	or current and future generations	and learn from previous generati	ons for sustainability.
GreenComp	A II 3 Promoting natitie 1		re part of nature; and to respect t generate healthy and resilient eco		cies and of nature
Greencomp	Embracing complexity i		generate healthy and resilient eee	systems.	
	X 1/ 1 SVSTEINS THINKING T	o approach a sustainability pro lements interact within and bo	oblem from all sides; to consider t etween systems.	ime, space and context in order t	o understand how
	X 2.2 Critical thinking s	o assess information and argu ocial and cultural backgrounds	ments*, identify assumptions, cha s influence thinking and conclusion	ns.	
	2.3 Problem framing g		ial challenges as a sustainability p identify suitable approaches to a g problems.		





^{>} Er	Envisioning sustainable futures			
	3.1 Futures literacy	To envision alternative sustainable futures by imagining and developing alternative scenarios and identifying the steneeded to achieve a preferred sustainable future		
	3.2 Adaptability	To manage transitions and challenges in complex sustainability situations and make decisions related to the future in the face of uncertainty, ambiguity and risk.		
Χ	3.3 Exploratory thinking	To adopt a relational way of thinking by exploring and linking different disciplines, using creativity and experimentat with novel ideas or methods.		
Ac	Acting for sustainability			
	4.1 Political agency	To navigate the political system, identify political responsibility and accountability for unsustainable behaviour, and demand effective policies for sustainability.		
	4.2 Collective action	To act for change in collaboration with others.		
	4.3 Individual initiative	To identify own potential for sustainability and to actively contribute to improving prospects for the community and planet.		





	UNIT DESCRIPTION			
Start-Up		Estimated Duration		
_	is to identify key aspects of education for green (environmental) citizenship: goals, thods for learning, teaching and assessment, content	90 min		
Activity 1: What is	Preparation for Activities: you might want to study the booklet for teachers with theory and			
Green Citizenship	practical ideas for implementation of Education for Environmental Citizenship (see Handouts for			
Education?	Unit 1 or 3); you will also need the Greencomp Framework			
The aim is to introduce the				
key elements of education	Description			
for green citizenship and to				
discuss this in relation to	Prepare five large pieces of flipchart paper as mind maps, by writing one of the following terms in			
GreenComp framework,	the centre of the page:			
and curriculum.	Green Citizenship education (GCE) knowledge / content			
	GCE values and attitudesGCE Behaviour			
GreenComp reference:	 GCE Behaviour GCE competences 			
ALL	 GCE methods for learning, teaching and assessment 			
	1. Discuss ideas/ make notes/ reflect: Divide the class into five groups of equal size. Allocate each			
	group one of the mind maps. Their task is to discuss ideas and make a note of them on the paper.			
	They have 10 minutes to do so. After this, rotate the groups so that they have 10 minutes to read			
	and further comment on each paper. The task is to add new ideas, and/or add question marks if ideas already on the poster are unclear. Finally, when the original group is back at their poster,			





they should review the ideas and prepare to present them to the plenary.

- 2. GreenComp Framework: explore the GreenComp Framework (see Handouts for Unit 3); and discuss which competences would be relevant to develop within GCE. Discuss which methods for teaching and learning would be appropriate.
- 3. You can give the materials from the Booklet on Education for Environmental Citizenship for reading.
- 4. Connection to Curriculum: Give 15 minutes to review the mind maps and identify connections of GCE to (student) teachers' instructional subjects. Ask them to make notes in a way which makes sense to them.
- 5. **Presentation:** give 10 minutes to prepare a short pitch to explain why their subject is uniquely suited to sustainability education. For the presentations, (student) teachers work in groups of between 4 and 6 people (different subjects if possible) and listen to each other's presentations. At the end you may ask them to choose the most convincing pitch, who can pitch to the whole class.
- 6. Finally, ask learners to return to their small groups and identify area of cross-over and difference between their subjects in relation to sustainability education. These can be briefly shared in the plenary.

Highlight that, as sustainability is such as vast and complex topic, no single subject alone can cover everything. At the same time, different subjects bring distinct perspectives, knowledge and skills to the task. Interdisciplinary education is of particular importance for sustainability education and GCE.



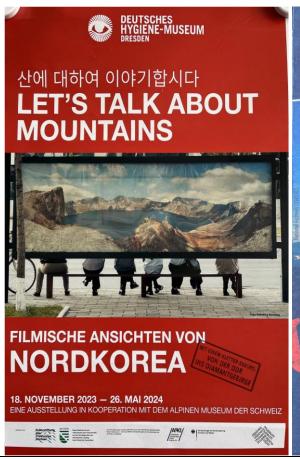


Development		Estimated Duration
The aim of these activities is to consider a wider range of places for sustainability education and GCE beyond the school		
Activity 2: POLAR Exploration This activity aims to introduce the concept of Places of Learning and Resources (POLAR), and discuss it in relation to curriculum GreenComp reference: 1.1 Valuing sustainability; 3.3 Exploratory thinking;	Preparation for Activities: working in groups of 4-6 people; you would need flipchart paper and a tap Description Explore LTP 6 Unit 3 Handout POLAR to find out more about the methodology. 1. Brainstorming POLAR: divide participants into groups of between 4 and 6 people. Each group should have a blank piece of flipchart paper taped to the wall in front of them, and a marker pen. Explain that the task is to think of as many different POLAR as possible. To do this, they each take it in turns to write one idea on the paper, then move to the back of the line. Set a time limit of 10 minutes for this. After the 10 minutes is finished, ask each group to read one idea at a time until all the different ideas have been named. 2. Categorizing: Ask the group if they can think of categories for the ideas, for example: museums, school groundings (school museum/history/traditions, theatre etc.), hiking tour, farm, transport, shops, markets, industry, agriculture and so on. 3. Discussion: Next, arrange participants in groups of 3-4 people. Give them 30 minutes to discuss the following questions and prepare to present their thoughts on the final two questions to the	50 min
	group: O Which places have you visited as a school student or as a teacher with your students?	





- o Choose one: what was particularly memorable (good or bad) about this experience?
- What makes POLAR particularly good for sustainability education & GCE?
- What guiding principles can we have as educators for using POLAR?
- 4. Explore some examples of POLAR activities (*see Handout for Unit 3*): Let's talk about Mountains and Overkill at Military History Museum Dresden (please note, the exhibitions were temporal).









	5. Come back to Step 3, and reflect again on the value of POLAR methodology.	
Activity 3. POLAR visit This activity aims to identify pedagogical opportunities related to	Preparation for Activities: Arrange a visit to a local POLAR, which you consider provides opportunities for sustainability education. Make sure you check that it is possible to visit on the day you prefer, and see if there are any discounts or special guides or resources for educators.	90 min
their subject and sustainability education at a POLAR	On the day, brief the group before they explore the place. Their task is to identify possible activities that their learners could do before, while and after visiting this place to make the connection between	
GreenComp reference: 1.2 Valuing sustainability; 3.3 Exploratory thinking;	subject teaching and sustainability. 1. Set a time for everyone to explore. Give participants the choice of whether to explore alone or with others.	
	 You may ask them to take photos on their smartphones to recall particular parts, and/or make notes of their ideas. After one hour is finished bring participants together to stand and/or sit in a circle. Move around the circle, and give everyone and opportunity to share an activity idea. Explain that their follow-on 	
	task will be to write up a plan for a pre, while and post activity so they should listen to each other for ideas.	





Consolidation		Estimated Duration
Based on the previous a	ctivities, the consolidation phase invites to plan and act a POLAR experience.	40 min
Activity 4. POLAR Preparation The activity promotes a deeper understanding of what it means develop POLAR experiences for GCE GreenComp reference 1.3 Valuing sustainability; 3.3 Exploratory thinking;	Note: Begin this session by emphasising the importance of well thought through and prepared visits. You can explore the examples provided in the Handout for Unit 3 again. Description 1. Introduce the framework of pre, while and post POLAR activities: PRE warming up, preparing, cognitively activating WHILE meaningful tasks on/about/with the exhibits in the exhibition that could not be solved or fulfilled at school POST reflecting on the experience; envisioning a more sustainable future based on the experiences 2. Provide time for participants to write up their activity ideas either alone, with teachers of the same subject, or with teachers of different subjects (in this case they should prepare interdisciplinary activities). 3. Participants develop a draft, which they present to peers for feedback before developing	
	further. 4. If possible, participants should present their concepts to each other for further feedback, for example through poster presentations, micro-teaching or short presentations.	





The activity aims to engage critically with local learning environments; reflect which experiences connect to GreenComp competences development, and which could connect to which knowledge areas and disciplines. Description The planning: In groups of 4-6 people, participants identify a POLAR, and objectives based on the chosen curriculum are and GreenComp competences they want to develop. They develop a POLAR plan with pre/while/post activities. GreenComp reference ALL Type of seminar or training you are leading, decide if participants will work alone, with teachers of the same subject, or with teachers of different subjects (in this case they should prepare interdisciplinary activities). Their task is to identify a POLAR, to plan pre, while and post activities, and guide a group. Description 1. Planning: In groups of 4-6 people, participants identify a POLAR, and objectives based on the chosen curriculum are and GreenComp competences they want to develop. They develop a POLAR plan with pre/while/post activities. 2. Guiding: Match up the groups in your class into pairs. Each group will take it in turns guiding the other group as learners through their activities and the POLAR, and as learners experiencing the activities of the other group. 3. Feedback: Ensure that after each round there is opportunity for feedback. Emphasise that this should be respectful and constructive.	Follow-Up		Estimated Duration
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learning. 5. Reflection: reflect together how the experiences contribute to the development of knowledge,	POLAR The activity aims to engage critically with local learning environments; reflect which experiences connect to GreenComp competences development, and which could connect to which knowledge areas and disciplines. GreenComp reference	type of seminar or training you are leading, decide if participants will work alone, with teachers of the same subject, or with teachers of different subjects (in this case they should prepare interdisciplinary activities). Their task is to identify a POLAR, to plan pre, while and post activities, and guide a group. Description 1. Planning: In groups of 4-6 people, participants identify a POLAR, and objectives based on the chosen curriculum are and GreenComp competences they want to develop. They develop a POLAR plan with pre/while/post activities. 2. Guiding: Match up the groups in your class into pairs. Each group will take it in turns guiding the other group as learners through their activities and the POLAR, and as learners experiencing the activities of the other group. 3. Feedback: Ensure that after each round there is opportunity for feedback. Emphasise that this should be respectful and constructive. 4. General Discussion: Finally, bring the whole class back together to share experiences and learning.	A project work Apx. 360 min



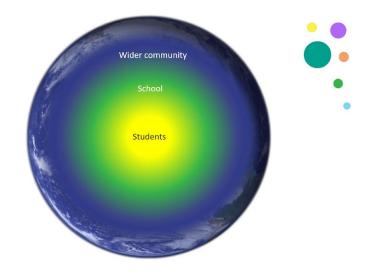


Activity 6: Reflect on the application of POLAR approach (in relation to the development of GreenComp competences).

This is an activity aimed at helping reflection (individually and/or with colleagues) on how the previous activities contribute to developing sustainability competences and acting in a more sustainable way as green citizens.

Description

Please reflect on the applicability of the whole school approach and the activities of Unit 1 that invite for action at three levels of engagement (students - teacher; school; and wider community and beyond):



Dimension 1. Learning objectives:

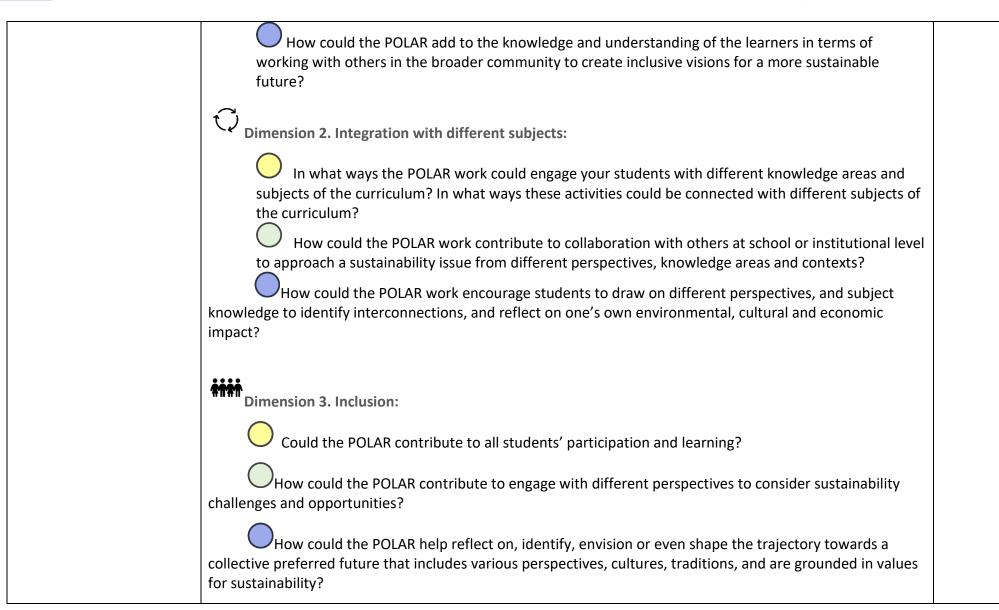
In what ways could the POLAR contribute to the global educational goals for your students?

How could POLAR help the learners in terms of embodying sustainability values, acting for a sustainable future and/or envisioning a more sustainable future?

30 min

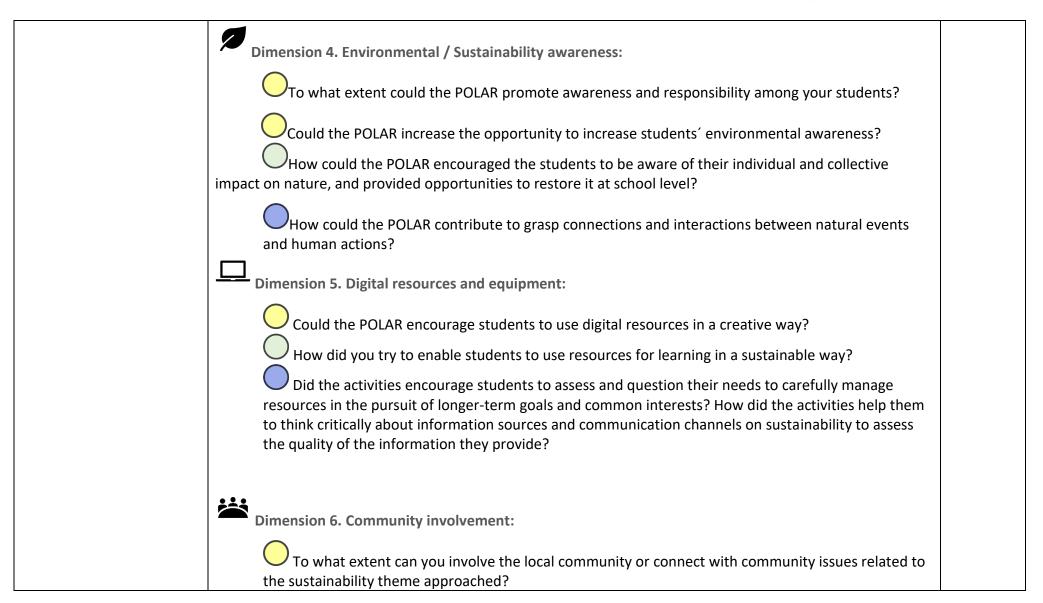






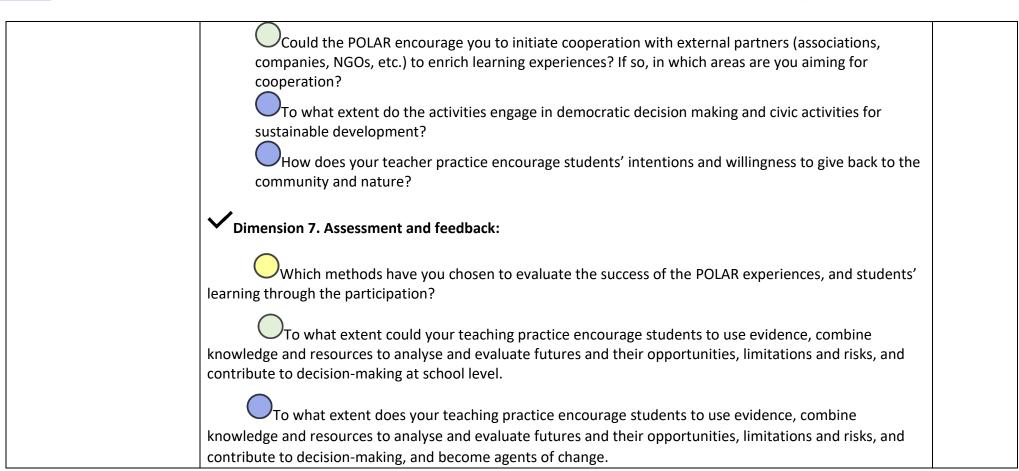
















Glossary of Icons







- Worksheets



- Editable Worksheets; task to make notes



- Various Media, e.g. Learning Apps



- Text to Read, or present and actively listen to others



- A question to Respond or a Question for Reflection



- A Discussion



- A task for an inquiry or search



of - Focusing Activity



- A Reflection Activity



- An Activity for Action



- Suggested answers



 $\stackrel{\longrightarrow}{}$ - a short note for a teacher



- a group exchange





Glossary of Notions

Green Citizenship is defined as the responsible pro-environmental behaviour of citizens who act and participate in society as agents of change.

Green Citizen is the citizen who has a coherent and adequate body of knowledge as well as the necessary skills, values, attitudes and competences in order to be able to act and participate in society as an agent of change on a local, national and global scale, through individual and collective actions, in the direction of solving contemporary environmental problems, preventing the creation of new environmental problems, in achieving sustainability as well as developing a healthy relationship with nature (based on European Network for Environmental Citizenship – ENEC (2018)).

Participants are the pre- and in-service teachers, teacher educators who are readers of the current documents.

Sustainability is understood in the context of GreenComp as prioritizing the needs of all life form and of the planet by ensuring that human activity does not exceed planetary boundaries.

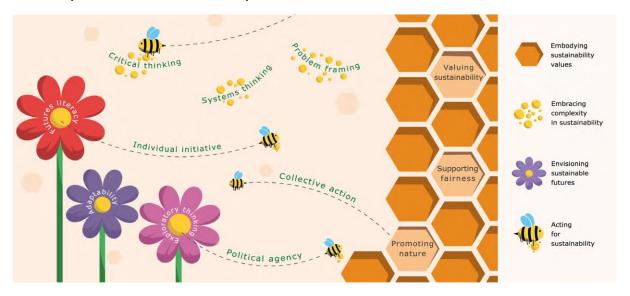




GreenComp Framework: the European Sustainability Competence Framework

Within the TAP-TS Project, *GreenComp* (*Bianchi et al., 2022*) serves the following purposes: design of learning and teaching packages; development of TAP-TS professional development activities, (self)-reflection, and evaluation. The aim of GreenComp is to foster a sustainability mindset by helping teachers and students develop the knowledge, skills and attitudes to think, plan and act with empathy, responsibility, and care for our planet.

Visual representation of GreenComp:



GreenComp consists of 12 competences (in bold) organised into the four areas (in italics) below:

- Embodying sustainability values, including the competences
- valuing sustainability
- supporting fairness
- promoting nature
- Embracing complexity in sustainability, including the competences
- systems thinking
- critical thinking
- problem framing
- Envisioning sustainable futures, including the competences
- futures literacy
- adaptability
- exploratory thinking
- Acting for sustainability, including the competences
- political agency
- collective action
- individual initiative

Reference: Bianchi, G., Pisiotis, U., Cabrera Giraldez, M. GreenComp — The European sustainability competence framework. Bacigalupo, M., Punie, Y. (editors), EUR 30955 EN, Publications Office of the European Union, Luxembourg, 2022; ISBN 978-92-76-46485-3, doi:10.2760/13286, JRC128040.





TAP-TS Roadmap

TAP-TS Roadmap has three main goals: (1) for the TAP-TS partners as a roadmap to design LTPs; (2) for teachers and student teachers to design materials for teaching sustainability; (3) evaluation of LTPs. Explore the visualisation on the next page.

TAP-TS Roadmap: the Ste	ps / stages in the TAP-TS LTPs Design Journey
1: Clarify the Goal	Our overarching goal is to enable learners and teachers to think and act sustainably. To actively participate in the discourse on sustainability, the topics must also be addressed - sustainably - in schools and universities. The goal of TAP-TS is to create learning and teaching packages for this purpose in the following areas: 2.1 A Sustainable Europe. 2.2 Sustainability and Digitality. 2.3. Sustainability and Environmental Education. 2.4 Climate Crisis Resilience. 2.5 Dealing with Climate Disinformation. 2.6 Green Citizenship in/for Europe. 2.7 Sustainable Entrepreneurship Education.
2: Competency Areas	The LTPS should be aligned with the interconnected four competences defined in the Green Comp Framework: • Embodying sustainability values • Embracing complexity in sustainability • Envisioning sustainable futures • Acting for sustainability
3: Networking & Bundle Expertise	There are many exciting topics. 1. Find a focus: what driving question is at the centre of your LTP. 2. See what resources are available (competencies, teaching-learning materials, etc.). 3. Network with colleagues and partner institutions regionally and nationally.
4: Working through the design process	Teaching Sustainability should be: action-oriented learning; hands-on; focussing on real life challenges; stimulate creative collaboration between teachers and learners; visions-oriented; participatory and action oriented. Approaches to teaching sustainability may be inquiry-based learning; explorative learning; networked learning; participation learning aimed at problem framing. Teaching Sustainability may incorporate the following activities: collaborative projects, future framing workshops, research and analysis, discussion.
5: ASSESSMENT DESIGN	In Education for Sustainability assessment can be multifaceted and primarily encourage reflection and be evidence based. There is not always ONE right answer. The goal should be to RAISE QUESTIONS. TS is not about teaching the "right" behaviour, but about practising a critical perspective. Give TS an important place in curricula and implement credits, badges, or awards for it.
6: PUBLISH TO TAP-TS PLATFORM	Can you and where can you publish your materials under a Creative Commons license as free as possible. Because that is sustainable!







CLARIFY THE GOAL

A goal of TAP-TS is to create learning and teaching packages that would enable teachers and learners think and act sustainably. Find a focus based on SDGs, GreenComp Framework or a sustainability problem; and define learning objectives within the seven TAP-TS themes

- A Sustainable Europe
- 2. Sustainability and Digitality
- Sustainability and Environmental Education
 - 4. Climate Crisis Resilience, 5. Dealing
 - with Climate Disinformation. 6. Green
 - Citizenship in/for Europe. 7. Sustainable Entrepreneurship
 - Education.

PLAN

Consult the TAP-TS LTPs Architecture.
The LTPs Units should address the interconnected competences as defined e.g. in the Green Comp

- Embodying sustainability value
- 1.1 Valuing sustainability | 1.2 Supporting fairness
 - 2. Embracing complexity in sustainability
- 2.1 Systems thinking | 2.2 Critical thinking | 2.3 Problem framing
 - 3. Envisioning sustainable future:
- 3.1 Futures literacy | 3.2 Adaptability | 3.3 Exploratory thinking
 - 4. Acting for sustainability
 - 4.1 Political agency | 4.2 Collective action

See GreenComp for details

BUILD NETWORK AND GROW EXPERTISE

See what resources are available and could support your LTP

(teaching-learning materials, etc.). etwork with colleagues and partner

institutions regionally and nationally.

Describe possible collaborations with

ROADMAP
Developing
TAP-TS Materials

REFLECTION FOR ACTION

LEARNER CENTERED & INCLUSIVE

TRANSFORMATIVE

SHARE

Publish and share your materials under a Creative Commons license as open access. Because that is sustainable!

6 REFLECT

In Education for sustainability assessment is multifaceted, and primarily encourages reflection ifor action and future- oriented aimed to raise questions and practise a critica perspective.

There is no ONE right answer! Give TS an important place in curricula and implement credits badges or awards for it. DO IT! HAVE FUN! DISCUSS! BE CREATIVE! **TEACHING SUSTAINABILITY**

ACTION-ORIENTED

ENTREPRENEURI

HANDS-ON

REINFORCING COLLABORATION

INTERDISCIPLINARY

EXPLORATIVE LE

VISIONS-ORIENTATED

PARTICIPATIVE





Project partners





















