

**Tool 5.1**

Regenerating soils

CLARITY Competence Area:

Taking collective action for climate resilience, ecosystem regeneration, and societal transformation

GreenComp Competence Area:

Acting for sustainability

Why use this tool?

Healthy ecosystems require healthy soils. The latter contribute to sequestering carbon, and absorbing water which limits risks of flooding and helps refill aquifers. Soil biodiversity also helps sustain the biodiversity of the ecosystems at large, and makes food more nutrient-rich which is essential to human physical and mental health. Besides, connecting with soil through activities like gardening, walking barefoot on natural ground, or simply touching soil can offer a range of positive effects on both physical and mental health. Regenerating the soil is essential to achieve long-term climate resilience.

Activity 5.1.2

Creating and maintaining a permaculture garden

Overview

A class or a group of learners comes together to create a permaculture garden on the school premises/campus or in the locality, so that learners can learn about the benefits of regenerating soils for the health and wellbeing of all beings in the ecosystems.

Permaculture can be understood as the growth of agricultural ecosystems in a self-sufficient and sustainable way. This form of agriculture draws inspiration from nature to develop synergetic farming systems based on crop diversity, resilience, natural productivity, and sustainability. Since the early 1980s, the concept of permaculture has extended to a systemic approach that goes beyond the agricultural domain. Synonymous with permanent culture, permaculture is a global ethic method for designing integrated systems based on earth care, people care and fair share.

Curriculum linkage

Natural Science (Biology)

Competences built

Collaboration, care, interconnectedness, nature connectedness and humility.

BASIC INFO



Age range:

7+

Duration:

Several months

Group size:

Flexible. Classroom or school-wide participation

Level of difficulty:

Advanced

Materials/space required:

Gardening material including soil, tools and seeds

Location:

Outdoors on the school premises, or on other public or private land (if previously agreed upon with the municipality or the owner).

Engagement of external stakeholders:

A permaculture expert is required to support the process. The municipality or the owner of some land may also need to be involved.



Prep Work

- Get authorizations to use a piece of land and to bring learners on it.
- Identify and engage a permaculture expert either on a pro-bono basis or through dedicated budgets.
- Buy required gardening materials.

Competences/activities to practice first by the teacher

Some basic knowledge of gardening will be an asset for the educator.

Steps in the activity

1. Creating the permaculture garden
2. Maintaining the garden – ensuring learners contribute to maintaining the permaculture garden

Step 1: Creating the garden

1. Engage the permaculture expert including to help with identifying the piece of land that may be the most appropriate for the project, and select gardening material for the learners.
2. Follow the instructions of the permaculture expert to create the permaculture garden. The latter cannot be improvised.
3. Allow some time in the classroom for the permaculture expert to introduce permaculture principles, and explain the benefits of the project.
4. Alternatively, or in addition, use the creation of the permaculture garden to introduce some elements of biology related to soil health, the process of soil restoration/ regeneration, and its connection to addressing climate change.
5. Optional: encourage learners to create their own permaculture garden, on the basis of what they learn in school, in parallel to the activity undertaken in school or university. Their own permaculture garden can be on a balcony, within a small garden or in public spaces when allowed.
6. Optional: Encourage learners to exchange stories as well as seeds and foods from their gardens.



Step 2: Maintaining the garden

1. Assign roles to different learners to ensure that the permaculture garden is well taken care of, according to a calendar and list of activities agreed upon with the permaculture expert.
2. Plan for regular visits of the permaculture expert so as to answer questions and ensure that the garden is being maintained as it should.



Dos and don'ts

Do:

Plan well ahead in order to be able to prepare the soil before sowing seeds at the end of the winter or in the spring.

Don't

Don't engage in a very ambitious project from the start as it may discourage learners.

Adaptations:

- In case no permaculture expert can be mobilized in the community, you can also start with a regular organic garden with the support of some parents, other local community members or a local association. Tending to any garden can provide benefits in terms of emotional, mental and physical health, as well as in terms of collaboration, community-building and experiences of interconnectedness
- This activity can help learners take care of their climate emotions and traumas in a way that complements the tools and activities under competence area 1. This activity can also provide inspiration, skills and methods to support the implementation of tools and activities listed under 5.2. "Taking local action for climate-resilience", particularly 5.2.3. "Supporting local climate resilience action".
- We invite you to adapt this activity to the specific needs of your learners, including by taking into account their neurodiversity. When adapting tools and activities for neurodivergent learners, please note it is not about treating others how *you* want to be treated, but how *they* want to be treated. Ask, listen, and stay open to different ways of learning and engaging.



References

This activity was designed by One Resilient Earth.

- <https://worldpermacultureassociation.com/>
- Brain, R., Adams, J., & Lynch, J. (2017). *Mitigating Projected Impacts of Climate Change and Building Resiliency through Permaculture: a Community 'Bee Inspired Gardens' Movement in the Desert Southwest, USA*. WIT Transactions on Ecology and the Environment. <https://doi.org/10.2495/sc170441>
- Gamble, M. (n.d.). *12 tips for a Thriving Edible Garden*. <https://permacultureeducationinstitute.ac-page.com/morag-12-tips>
- Podcasts from the Permaculture Education institute: <https://ourpermaculturelife.com/category/podcast/>



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