



OTTER Labs: Educational Resources to Take Science Learning Outside the Classroom

The “OTTER Labs” consist in a pedagogical approach to develop student-centered, hands-on, and outside the classroom STEAM activities, aiming to promote sustainable development.

With a flexible approach and pedagogical underpinnings, the framework enables well-thought educational EOC activities adapted to different classes and curricula. It consists of five steps, each student-centered and encouraging peer collaboration:



Based on a socio-constructivist view on learning

The OTTER Lab’s approach is based on the socio-constructivist view on learning (Lonka 2018), and rests on the following principles:

1. Learning is perceived as an active, not passive, process through which knowledge is constructed by the learner.
2. Knowledge is mutually built and constructed in the social contexts of learning.
3. Prior knowledge, understanding and experiences are relevant to learning new things.
4. The teacher’s role is to support and nurture the learning process: teachers are facilitators who enable students’ development and learning. (Lonka 2018, 28.)



OTTER Lab key characteristics:

- An easy approach to start with for educators with no or little experience of EOC, while offering a structure for teachers already having experience.
- Does not include ready-made contents and methods on how to implement it: the teacher decides the contents and methods within the given approach.
- Connected to real-world sustainability issues and can be harnessed to create deeper connections with current the issues of today's world - in any subject.
- Adaptable to different countries and curricula.
- Encourages teacher collaboration in planning and implementing the EOC practices.
- Involves students in designing OTTER Lab activities.

*“The OTTER Labs aim to promote three key pillars; Sustainable Development, 21st Century Skills and Inclusion & Diversity. Our pilot teachers have championed the alignment of OTTER Lab learning objectives with their respective curricula across age groups and subjects to provide a holistic learning experience for their students. It was inspiring to see these teachers express their passion for creating engaging learning experiences for their students, planning for rich exposure to real life sustainable issues in their locality and **OUTSIDE** the classroom.” – Deirdre O’Neill, Pilot Coordinator in Ireland*

Three modules

The OTTER lab approach is freely [available on a Learning Platform as three modules](#), including the lab design, an introduction to the issue of sustainability, and the inclusion of sustainability in EOC activities. They are complemented with a selection of [good EOC practices](#) and a [map of places, sites and programmes for EOC practices in Europe](#).

More information at: <https://otter-project.eu/learning-platform>