



Inclusive Environmental STEAM
Education with Online Labs

Implementation guidelines



This manual explains in simple steps what you need to know to implement the inSTEAM inclusive lessons in your classroom. The lessons are in the form of Inquiry Learning Spaces (ILSs) in the [Go-Lab Ecosystem](#).



Find the inSTEAM ILSs on the [Website](#) of the project. The ILSs are devoted to three overall topics: *Climate Change, Renewable Energy, and Water Management*. Read more about each ILS in the inSTEAM website and review them on the Go-Lab ecosystem.

Press the preview button to see the activities of an ILS.

Preview



Not familiar with the Go-Lab Ecosystem?

Watch a [Video](#) with the three main steps to begin with the Go-Lab ecosystem and be able to duplicate an ILS, and share it with your students.

1

REGISTRATION

<https://graasp.eu/>

2

DUPLICATE LESSON

<https://www.golabz.eu/>

3

SHARE WITH YOUR STUDENTS



Did you know that you could adapt an existing ILS according to your needs and the needs of your students?

Explore the [Support Page](#) of the Go-Lab Ecosystem to learn how you can use the authoring tool (Graasp) to modify an ILS. Begin with [How to start with Graasp](#).



Inclusive Environmental STEAM
Education with Online Labs

Some tips for the implementation!



Flipped classroom

Consider implementing some phases of the ILS in a flipped classroom setting. This approach lets students gain exposure to new material outside of class, e.g. via reading or watching videos and allows you to devote more time in class for the phases that may be more demanding.

Learn more about [Flipped Classroom...](#)



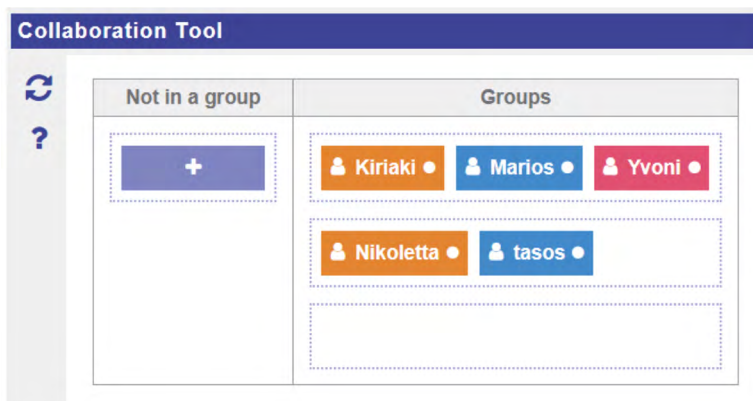
Alternative ways to implement some activities

Consider implementing some activities synchronously or asynchronously and accommodate different learning speeds. In addition, some tasks could be assigned as homework. On the other hand, when some activities involve many discussions then can be done in class using only one computer for presentation.



Group work - Collaboration tool

To facilitate group work, the Collaboration tool must be added in the ILS, in Graasp. The tool allows you to group students (see the image below) and the members of each group can work together to complete tasks on the apps that support collaboration. For example, they can formulate together their hypothesis.



Find more information about the [Collaboration Tool...](#)



Inclusive Environmental STEAM
Education with Online Labs



Make your activity inclusive

In order to make the inSTEAM ILSs inclusive, the principles of Universal Design for Learning (UDL) were applied. UDL offers flexibility in the ways students access material, engage with it, and present what they know. This approach helps to give all students an equal opportunity to succeed.

<https://insteam.deusto.es/intellectual-outputs/inclusive-lessons/>



Monitor student progress

You can add learning analytics (LA) apps in the Teacher Dashboard, to monitor students' learning progress. We highly recommend [Online Users Visualisation](#) and [Timeline](#). Moreover, there are LA apps for students and can be added to the Student Dashboard to allow students to monitor their progress. Check for example [Time Planner](#) and [Time Checker](#). Find more information about Learning Analytics, [here](#). Before adding an LA app, watch the [video](#), to learn how to enable learning analytics in your ILS.

Additional implementation guidelines can be also found in each ILS!



Co-funded by the
Erasmus+ Programme
of the European Union

Inclusive environmental STEAM education with Online Labs is co-funded by the Erasmus+ Programme of the European Union (Grant Agreement N. 2019-1-ES01-KA201-064261). The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.