

### GLOBE SEEDS & SOIL WE EXPLORE Challenge

Xrobb I-Għagin Synchronous Sessions and more.

Years 2 to 6

## Aims

The project aims at experiencing the **life cycle of a plant** and appreciating the **functions of soil** in supporting that same seedling and life in the **Earth system**.

It shall induce **critical thinking** through hands-on investigations that link to ESD themes. These include **soil erosion, climate change, the urban heat island effect (UHIE)** and more.

It seeks to inspire participants in taking **actions** to curb down these effects. These actions will be placed within the international context through the **Sustainable Development Goals (SDGs)**.

It also aims at presenting protocols from the international science and education GLOBE Program to engage participants in **citizen science**.

## Activities

Participants can opt for **all or a choice** of the following **four** activities as explained below:

1. A launching **webinar** on **December 3, 2021** for ALL teachers and students interested in activities 2 and/or 3 below. This is being held on the occasion of **World Soil Day** this year happening on a Sunday (December, 5).
2. **GLOBE Grow & Measure A Tree**: a **live online session** on indigenous trees, their seeds, plant life cycle and benefit of trees, and includes seed sowing during the session. **Book your slot by email**.

**Students are to have their used yoghurt or other container pierced at the bottom.** Seeds (and compost if needed) will be delivered to the schools beforehand. The online sessions will also link to ESD themes particularly those mentioned in the aims above.

It is recommended to follow the seedlings after sprouting by measuring them throughout the year. This can optionally be developed into a **STEAM activity** as will be explained during the launching webinar.

Carrying out a **Tree Height Measurement** of a tree within or outside the school premises using the GLOBE Observer App as will be explained in the webinar is also encouraged and hence become a citizen science contributing data to scientists, other schools and individuals interested in related projects.



3. **GLOBE Soil Explorers: an investigation on soil moisture** to be carried out by the class teacher at any time during the year.



The GLOBE protocol on how to do this will be explained during the launching webinar. This can also be optionally developed into a STEAM activity.

This is a class-based investigation(s) of soil samples to stimulate inquiry about **soil and its functions**. Especially, participants of the live online seed sowing sessions are encouraged to do this complimentary investigation to get to know the **soil that supports the growth of the same seeds**.

Participating groups are encouraged to come up with their research questions which can lead to exploration of ESD themes such as the **water cycle, annual precipitation** and **climate change** amongst others.

4. A **closing webinar** late in May whereby participants are invited to present their experience and/or showcase their work if they wish to. The exact date will be communicated to participants in due time.

### *The launching webinar December 3, 2021*

All participants of any of the two main educational activities (2 & 3 above) are to attend the informative **opening webinar** on December 3, 2021. This launches the GLOBE SEEDS & SOIL WE EXPLORE Challenge and includes:

- a **briefing** about the project by the coordinator *Ms Esther Sammut Carbone*,
- an informative session about the **soil** of the Maltese Islands, by *Ms Annalise Falzon* on behalf of Friends Of the Earth (FoE) Malta,
- the **GLOBE Program**, the GLOBE Observer **App** and the GLOBE **protocols** related to the mentioned measurements and investigations, by *Ms Ramona Mercieca*, GLOBE Malta Deputy Coordinator
- A discussion on the possibilities of developing the initiatives into a STEAM challenge.

The exact programme will be sent to participants in due time.