

# Green Foundation Ireland



## Educational Module for Transition Year Students

### Soils and Soil Stewardship

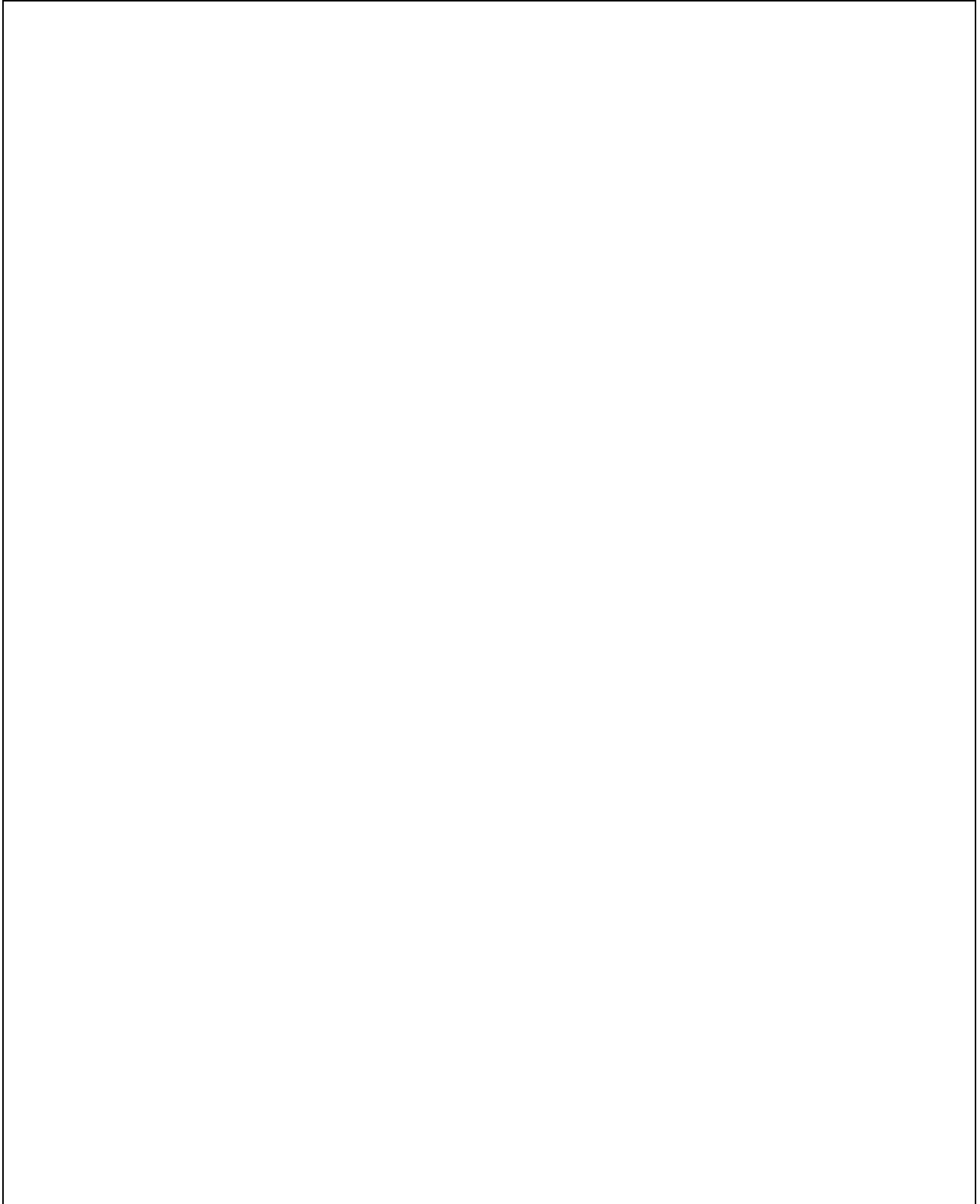
### **Work Sheets (*English only*)**

*March 2022*

## Session 1: Work Sheet

In the space provided, draw a diagram with stages demonstrating how soils form, showing the stages:

- Weathering of bedrock.
- Infiltration of microorganisms.
- Generation of humus.

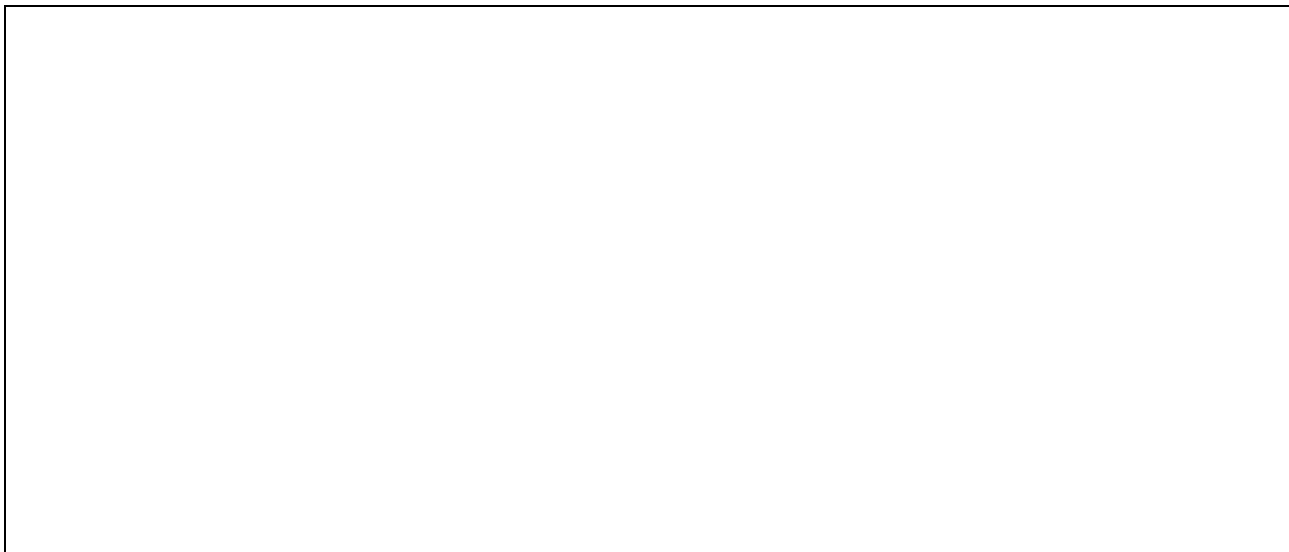
A large empty rectangular box with a thin black border, intended for the student to draw a diagram illustrating the stages of soil formation.

## Session 2: Work Sheet

In the space provided, list the four types of ecosystem services, and two examples of each performed by an organism of your choice.

## Session 3: Work Sheet


Write a brief description of bioturbation, and how it benefits soil health and biodiversity.



In the space provided, draw and label a diagram of the set-up of the Berlese trap used in the experiment of this class. In the diagram, make clear the function of the following components:

- Plastic bottles.
- Light microscope.
- Metallic mesh/wire gauze.
- Multiple lamps.

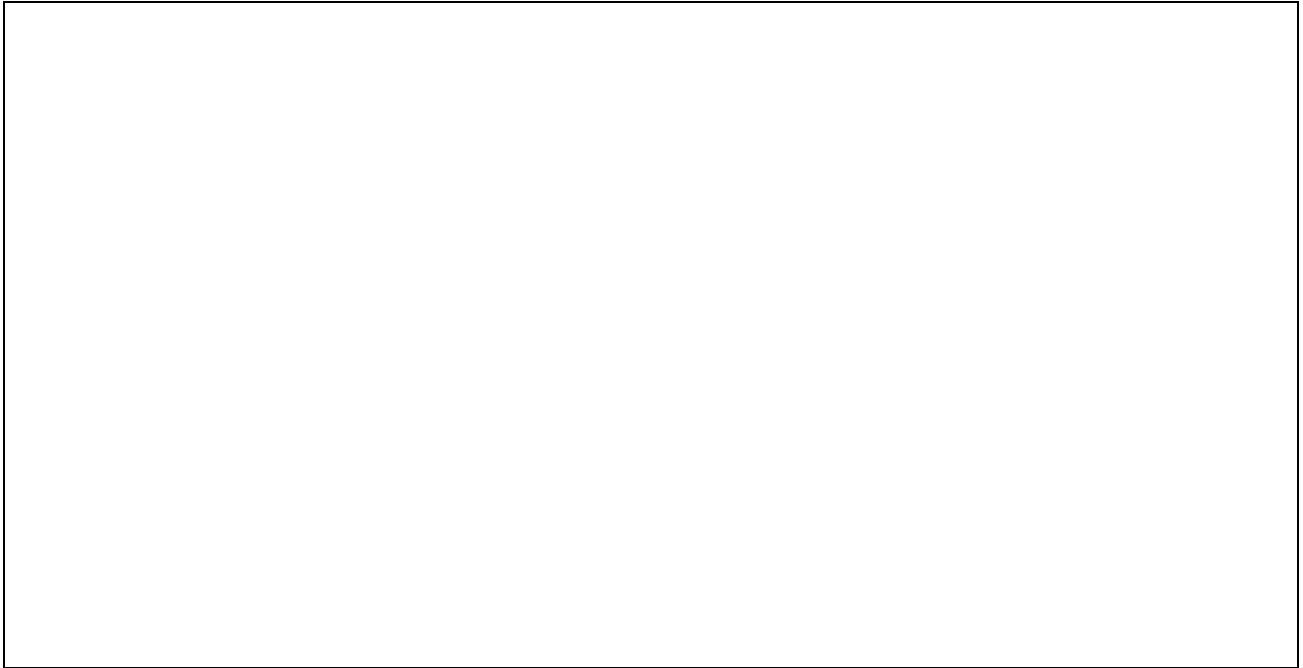
**PLEASE ENSURE THAT ALL CREATURES IN THIS EXPERIMENT ARE GENTLY RETURNED OUTDOORS TO THE SOIL FROM WHICH THEY WERE TAKEN**



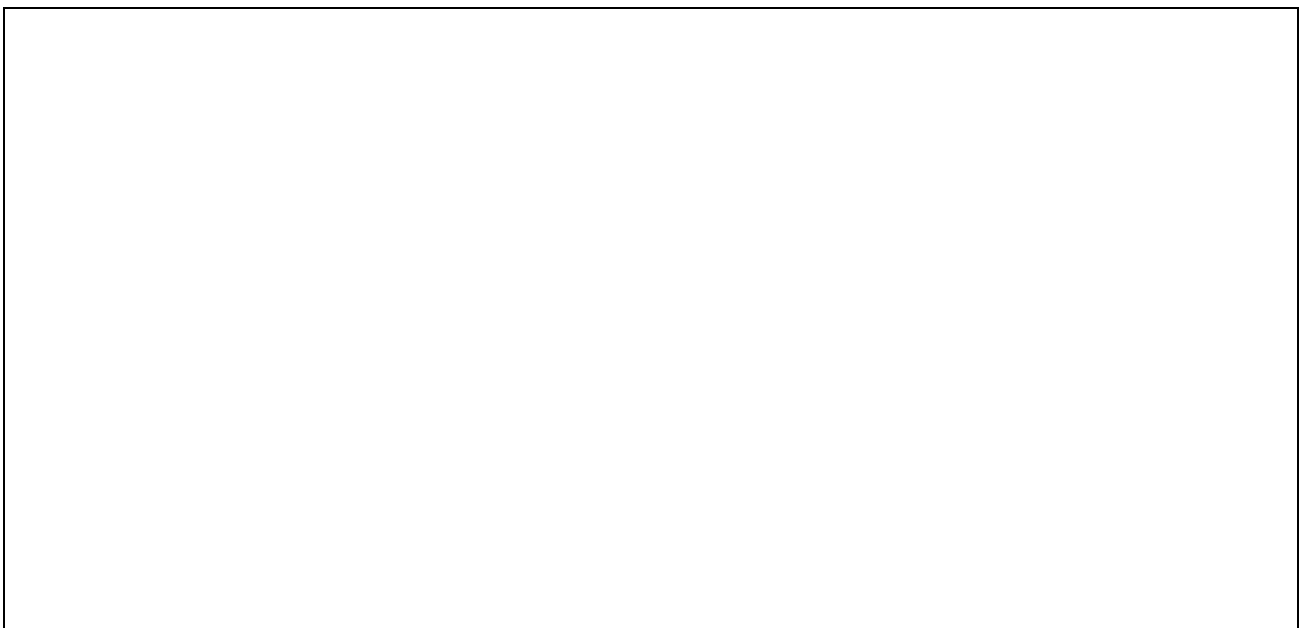
## Session 4: Work Sheet

In the space provided, draw and label a diagram with stages demonstrating how one of the following processes can lead to soil erosion:

- Tilling of soil.
- Deforestation.
- Overgrazing.
- Removal of topsoil for construction.



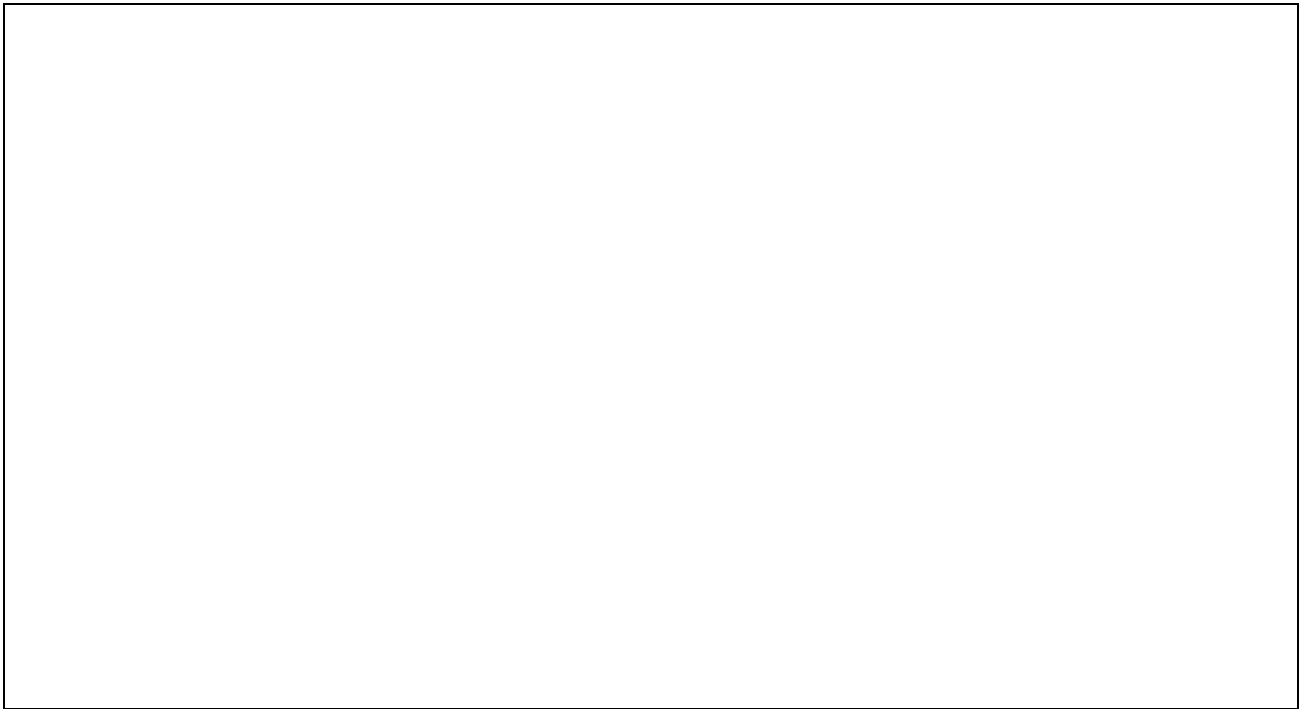
In the space provided, write a short description of what eutrophication is, and list the negative impacts that eutrophication can have on the environment.



## Session 5: Work Sheet

In the space provided, draw and label a cross-section showing the structure of one of the following:

- A Benjes hedge.
- A worm composter.
- Hügel beds.
- Another gardening project that encourages soil health not mentioned above.



In the space provided, draw a diagram with stages demonstrating the role of nitrogen-fixing plants such as legumes in fixing nitrogen in the soil.

