

Biodegradation experiment

Experiment made by 3F of Ic Terraba, middle school Parini-Merello, Genoa, Italy within the e-Twinning project:

I'm in LOVE with the GREEN EARTH





Project AIM

We wanted to see the **BIODEGRADATION** of different materials made by bacteria, fungi, protozoa present in soil

To reach such goal we set up four different conditions:

- 1) soil with organic material
- 2) soil with paper of wood
- 3) soil with biodegradable plastics (PINK pot, the most interesting)
- 4) soil with NOT biodegradable plastics



Project SET UP

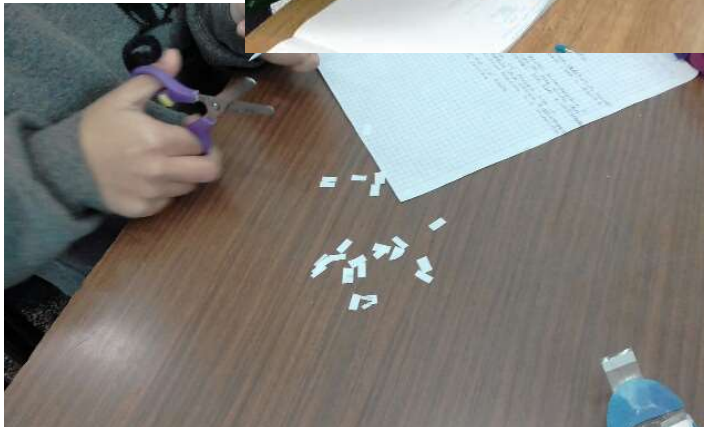
1) soil with organic material





Project SET UP

1) soil with different kind of paper





Project SET UP

1) soil with BIOdegradable plastics





Project SET UP

1) soil with NOT biodegradable plastics





Moreover...

We wanted to recreate an ecosystem similar to the natural one, not only with micro-degraders, but also with animals and plants. We noticed that a few little insects, like mosquitoes, were already present in the soil, and so we had only to add the PLANTS





Finally...

We mixed very well the different components in the soil and after putting plants we added water





WHAT HAPPENED ?

After a few weeks all the organic material was completely degraded

After a few months all the paper was completely degraded

After one year both the biodegradable plastic and the not biodegradable one still remained in the soil !!!



WHAT DO WE DO NEXT?

Since the goal of the experiment was to verify if the biodegradable plastic was really biodegraded we decided to continue the experiment for another year....

We will let you know at the end of our e-Twinning project how it goes.

Let's hope it will be completely degraded... otherwise... poor green Earth !