

An activity by the SMILe Comenius project

The schools of the SMILe (Science and Mathematics Interactive Learning, a lifelong journey) are:

Scuola Media L. Coletti, Treviso, Italy
Scuola Media L. Stefanini, Treviso, Italy
Szkoła Podstawowa nr 1, Walcz, Poland
1st Gymnasium, Trikala, Greece
Tyri Gymnasium, Tyri, Estonia

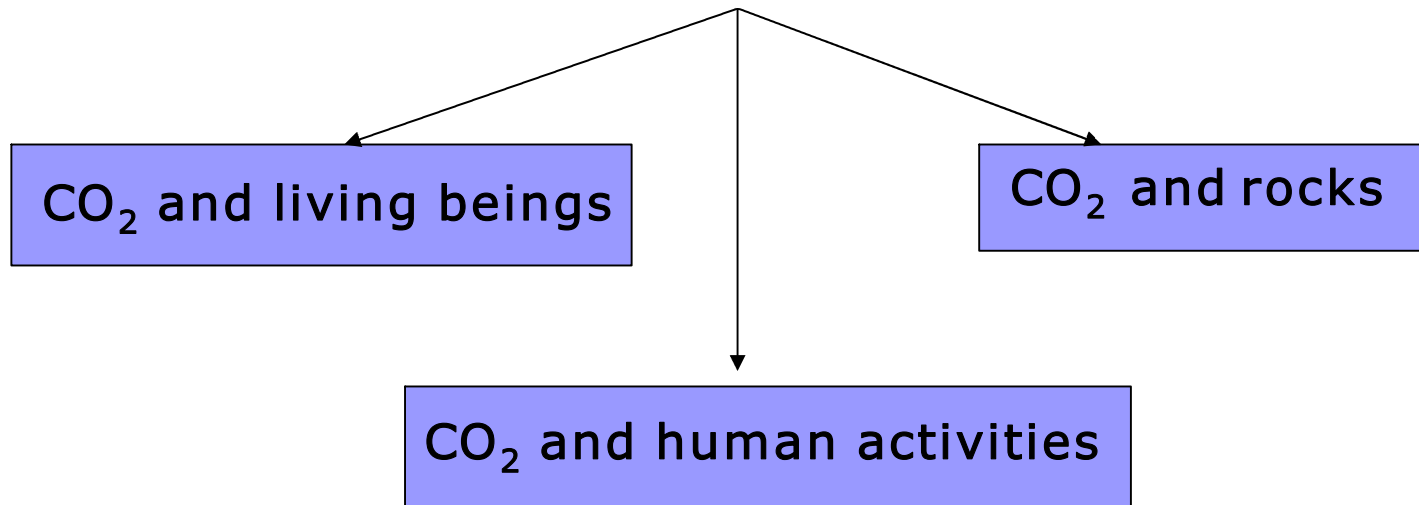
One of the goal of our project is to promote a debate about relevant contemporaneous scientific-technological issues, locally and internationally.

The theme we are now working on is :

CARBON DIOXIDE, AN ENVIRONMENTAL ISSUE

CO₂ – an environmental issue

What can we study
about CO₂ in a
school lab, and how?



CO₂ and living beings

Experiences on:

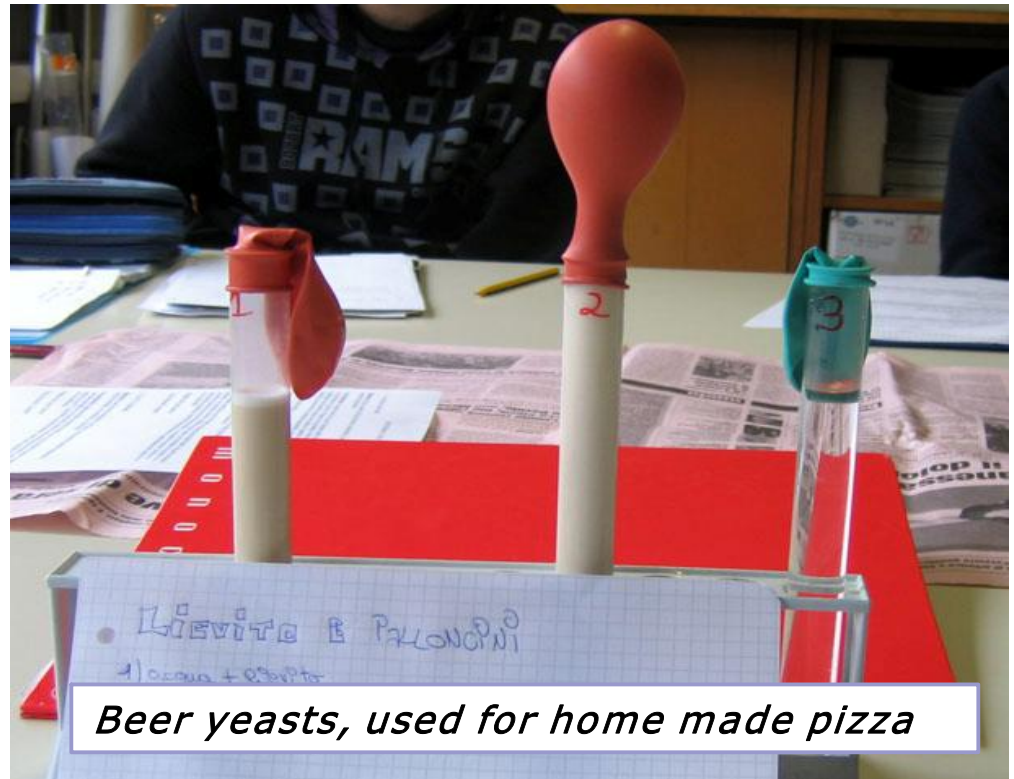
respiration

fermentation

photosynthesis

Testing the production or the consumption of CO₂ in:

- Human beings
- Yeasts
- Green plants



CO₂ and rocks

Experiences on the natural deposits of CO₂:

From the gas to the rock



From the rock to the gas



CO₂ and human activities

Acid rains

Climate change

Lab activities: recognizing acids, neutralization of an acid, what causes acid rain?, why is acid rain harmful?

greenhouse effect



Climate change

SURVEY: Perception compared with historical data

Students will:

- think about the weather in their town over the last year: how is it changing?
- compare their predictions to the temperature measurements in the year
- interview elders about their perception of climate changes and compare the answers to historical temperature measurements
- collect old photos to testify how the environment around them is changed
- discuss the results of the survey with their European classmates

What the scientists think about the climate change?



THE GREENHOUSE EFFECT



Lab experiences on absorption and reflection of light

CO₂ calculator

On Internet there are 'CO₂ calculators' that estimate the amount of CO₂ produced by household activities (transportation, natural gas, coal ...power consumption).

We are using that provided at

www.safeclimate.net/calculator/index.php

We will compare the results both inside the school and with the other European schools and reflect on them

What can we do in order to reduce the CO₂ emissions?

What should the governments do?