

## I. A. THE LEITMOTIV

**Scientists, teachers, students: all working together for new scientific knowledge**

## I. B. SCIENTIFIC BACKGROUND

How is the atmospheric CO<sub>2</sub> concentration distributed in the territory?  
 How different land uses influence on the CO<sub>2</sub> concentration distribution?  
 How many ppmv above the background level is the CO<sub>2</sub> concentration measured in our city?  
 Is the CO<sub>2</sub> concentration disturbed by local breezes (sea/land breezes, katabatic winds...)?

## I. C. HOW TO MEASURE ATMOSPHERIC CO<sub>2</sub> MIXING RATIOS



### Instruments

Vaisala Carbocap  
 Portable meteorological station  
 Portable anemometer  
 GPS and topographic map

### Variables

[CO<sub>2</sub>]  
 HR(%), T(°C)  
 wind speed (m/s) and direction (degrees)  
 atmospheric pressure (hPa)  
 latitude, longitude, altitude

**Worksheet**

### Settlement of measurement sites

Requisite: open and ventilated sites

All measured parameters and a description of sites are written down in the worksheet

## II. PARTICIPATING SCHOOLS

**Escola Sant Gervasi**  
**IES Gorgs**  
**IES Martí Pol**  
**Escola Proa**  
**IES Verdaguier**  
**Centre Escolar Empordà**  
**IES Manuel de Blancafort**  
**Secció de Ciències Naturals del Museu de Mataró**

## III. SCHEDULE OF ACTIVITIES FOR 2008-09

- Sep-Oct '08:** Teachers and scientists meet to define the path and the measurement sites
- Oct'08 – Jan'09:** Scientists visit school: scientific talk + atmospheric CO<sub>2</sub> workshop
- Jan '09 - ...:** Students, with teachers and scientists, take CO<sub>2</sub> measurements in the defined path
- Mar – Apr '09:** Scientists visit schools to interpret data and discuss results together with students and teachers
- May'09:** Students prepare their own presentations (posters, ppt, ...)
- Jun '09:** Final meeting: students from different schools communicate their own results