

		
	<p style="text-align: center;">CHANGING FOR CLIMATE CHANGES</p>	

Experiment 2: The greenhouse effect.

1. INTRODUCTION

In recent years, more and more CO₂ has been emitted (industry, heating, transport, ...). Those emissions have consequences on the climate.

2. ORIENTATION

How does carbon dioxide affect the earth's temperature?

3. PREPARATION

3.1. Materials:

- 2 glass containers with lids
- 2 thermometers (accuracy 0.1 °C)
- 1 lamp with incandescent bulb (more than 100 W)
- Bicarbonate
- Water
- vinegar

3.2. Method:

- place a thermometer next to each glass.
- put water in the first and bicarbonate and vinegar in the second and place them under a bowl.
- The second atmosphere must be enclosed as quickly as possible in order to contain the CO₂ produced by the reaction.
- Then place the lamp, i.e. our Sun, over the two bowls in order to heat them up.
- After a few minutes, read the value indicated by the thermometers and find a reason for what happened.

4. RESULTS

Observations:

Two systems are created for comparison: one that reproduces the current condition of the atmosphere, consisting of 'normal' air, and one that hypothesises the state of the future atmosphere with increased levels of CO₂. How does the temperature change in each of them?

The temperature in the system with more CO₂ has risen

More than in the system without CO₂.

5. REFLECTION

Can you make the connection between this experiment and the effect of greenhouse gases on the atmosphere?

6. e-book

Take several pictures during the experiment. You can also film it.

Greenhouse gases further enhance the effect of global warming.