



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Alexander A. Cohen	Project Number J0906
--------------------------------------	---------------------------------------

Project Title
Global Warming in a Jar

Abstract

Objectives/Goals
The purpose of my project or my objective is to show which gases out of my six gases absorb the most amount of energy and to show if global warming is possible

Methods/Materials

Materials

- 6 jars
- Dry Ice, (CO₂)
- Nitrogen gas
- Oxygen gas
- Methane gas
- Steam (Water Vapor)
- Air
- 6 thermometers
- Glue
- Screwdriver

Procedure

1. Poke a hole in the jar cap with screwdriver; pour glue in hole and place thermometer in hole.
2. Fill containers with proper gases and put the lid back on the jars quickly.
3. Place jars under direct sunlight.
4. Record every hour on the hour until one hour after the sunsets

Results
On this project I noticed that the Carbon dioxide and the water vapor were the most efficient energy absorbers while the other gases did not absorb energy as efficiently. On all three experiments I observed the same thing that water vapor and the carbon dioxide had the highest overall temperature and absorbed the most amount of heat.

Conclusions/Discussion
I observed that carbon dioxide and water vapor were the most efficient absorbers. My Hypothesis was correct. Most of this information was from the third experiment. The rest of the gases absorbed heat but then lost it quicker while water vapor and carbon dioxide kept its heat.

There were certain things that should have been done. I should have had bigger bottles so I could get

Summary Statement
My project is about Green house gases and global warming and which gas absorbs the most energy.

Help Received
not that much help