

CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s) Kuylea A. Jensen Project Number

Project Title

Barometric Pressure Inside and Outside: Is There a Difference?

Objectives/Goals

Abstract

I wanted to know if barometric pressure would register the same inside and outside. I also tested the reliability of a homemade barometer against the weather channel data taken in pressure in inches.

Methods/Materials

My homemade barometer was made with a balloon, a straw, and a 12 oz. glass jar. My data was read and recorded every day from mid-October through late January. Data recorded from the homemade barometer was compared with the data recorded on the weather channel.

Results

My data shows that the outside barometer was much more reliable than the inside barometer. The outside homemade barometer was only .35 inches on average different from the actual weather channel data. The inside homemade barometer was actually far more unreliable with an average difference of 7.29 inches.

Conclusions/Discussion

Humidity changes could have made the homemade barometer more unreliable inside because the air gets trapped easier and gets heavier faster. Also, the dryness of the winter heater blowing through the classroom could have affected its reliability. Maybe the balloon texture was drying out and the balloon wasn't holding air well.

For future projects, I would use a different material such as a heavy latex or silicone.

Summary Statement

Barometric pressure can differ from inside to outside.

Help Received

Teacher as facilitator