CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)
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Project Number
J0622

Project Title
What's Hot? What's Not?

Abstract

Objectives/Goals
My project was to find out if temperature is affected by solar radiation. I predicted that on days with less solar radiation, the outdoor temperature would be cooler than on days with more solar radiation. Because solar radiation is the energy radiated in the form of waves or particles from the sun, it would make sense that the more radiation, the higher the temperature.

Methods/Materials
I collected three months worth of data from our school#s weather station. The data included solar radiation and temperature measurements from the same year (2001) and season (autumn). At first, I only collected data from one time every day, but then I realized that I needed complete daily data to get solid results. I printed out 13 strip charts from the weather station illustrating the correlation between solar radiation and temperature.

Results
After analyzing all of my data, I found that the overall pattern between temperature and solar radiation supported my hypothesis. When there were higher temperatures and less solar radiation, I found that it was due to the precipitation of a storm. There were only a few times when the solar radiation was noticeably higher than the temperatures.

Conclusions/Discussion
If I were to continue this project, I would make it into a yearly project involving all four seasons. I could then see if there was a correlation between seasonal temperatures and radiation measurements. My results supported my hypothesis, proving that temperature is affected by solar radiation.

Summary Statement
I collected weather data and analyzed it to see if temperature was affected by solar radiation.

Help Received
My science teacher, Diana Skiles, showed me how to get the data from the weather station. She also helped me print out the strip charts for use on my backboard.