CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)
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Project Number
22503

Project Title
Non-Euclidean Geometry

Abstract

Objectives/Goals
My goal and objective was to understand non-euclidean geometry, understand when people use is and is it legitimate in our world and univers

Methods/Materials
My materials were: a ball, globe, marker, protractor, knowledge of Euclidean geometry.
My method was to study euclidean and non-euclidean geometries then to take the globe and with a marker draw a line around it.
Draw a dot somewhere else on the globe.. Draw a line going through the dot but not touching the line.
Drw another line going through the dot and still
not touching the origonal line.
Nextdraw ten triangles on a ball. Measure the angle of each triangle and add them up separately. Compare the answers of the triangles.

Results
The globe showed that the parallel postulate was not valid for a positively curved surface since two lines could go through the same dot and still not tough the other line.
Then witht he triagles every triangle came out to greater than 180 degrees.

Conclusions/Discussion
Non-Euclidean geometry must exist and be legitimate in our world because Euclidean geometry is not full proof. It only stands for strait flat plains and our world is not flat. It's full of curves.

Summary Statement
My project is studying how elliptical and hyperbolic geometry are useful in our world and universe.

Help Received
I used teachers books