Name(s)	**Project Number**
Rebecca G. Maglieiri	**J1117**

Project Title

Investigating the Amount of Concrete in Cities Affecting Global Warming

Abstract

Objectives/Goals
The purpose of my science investigation is to determine if the use of concrete in cities is contributing to global warming. The reason that I am doing this experiment is to find out if the concrete that is used in city streets, buildings, bridges, airports, and tunnels has an effect on the increase in temperature on earth.

Methods/Materials
I plan on testing five different environments, each with varying amounts of concrete. The environments will be in 5 20 gallon terrariums. The first terrarium will have no concrete, the second one will have 25% concrete, the third one will have 50% concrete, the fourth one will have 75% concrete, and the fifth one will have 100% concrete. I will use a heat lamp set on the terrarium and heat the terrarium to 110 degrees Fahrenheit. I will use a thermometer and record the drop in temperature in each terrarium over a 10 hour period of time. I plan on repeating the procedures ten times per terrarium and taking an average of the times and drops in temperature. I will figure out which concrete environment retains the most heat for the longest period of time.

Results
The average temperature increased in 7.3 minutes in the container with 100% concrete. The average temperature decrease was in 304.1 minutes.
Discussion: The concrete retained the temperature for the longest time. The container was completely covered in concrete therefore concrete retains more heat.

Conclusions/Discussion
After completing my investigation on the amount of concrete in cities and the effect of global warming, I found that my hypothesis was correct. My hypothesis stated that the container with one hundred percent concrete would heat up the fastest and return to the original temperature in the slowest amount of time. It took an average of 7.3 minutes for the container to heat up to 110 degrees, and the temperature returned to the starting temperature in an average of 304.1 minutes. In the control container the temperature increased to 110 degrees in an average of 11.8 minutes and returned to the starting temperature in an average of 10.5 minutes.

Summary Statement

My project will determine if a concrete environment retains the most heat for the longest period of time therefore linking global warming with the amount of concrete in cities.

Help Received