CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY

Name(s)

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Project Number

J0801

Project Title

Earthquakes: Are You Standing on Shaky Ground?

Abstract

Objectives/Goals

Our goal was to determine which foundation is the best to build structures on to secure safety and stability during an earthquake.

Methods/Materials

Our goal was to determine which foundation is the best to build structures on to secure safety and stability during an earthquake.

Results

As predicted in our hypothesis, rock proved to be the most desirable foundation if one did care for earthquake safety. Rock came out on top in four trials only beaten in one trial by clay. Clay came in second. We figure that these results were evident because of clay's packed texture and energy absorbing properties. Sand came in third. Though sand didn't move as much as soil, it did sink. This was due to sand being prone to liquefaction. Soil came in last. When we first tested soil's stability, we were shocked at the results. The entire model swayed back and forth, even falling over.

Conclusions/Discussion

We Figure that rock came out on top in most of the trials due to its hard structure, absorbent properties, and ability to resist liquefaction. We believe that this experiment will benefit the future in that this project is written by students making vitals parts of earthquake safety easier to understand for the youth which will be building our future. Because of recent findings such as this, we can prevent tragedies such as the earthquake in Haiti.

Summary Statement

Our experiment provides vital information to the survival of structures, especially in the event of an earthquake.

Help Received

Parent supervision while using power tools.