CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY

Name(s)

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Project Number

34582

Project Title

Noah Good Wood?

Abstract

Objectives/Goals

The goal of my project was to find the best wood to use when building in a flood zone. My hypothesis was that the wood that absorbed the least amount of water would be the best to use.

Methods/Materials

I tested nine different types of wood that are commonly used as building materials. Prior to testing them, I weighed each sample. I set them in a pan of warm water dyed with food coloring and let them soak overnight. The next day I weighed them again, and calculated the difference in the weight and the percent of change. I also conducted a rate of absorption test to determine how fast the samples absorbed water in 2 minutes.

Results

Oak absorbed the least amount of water and had the lowest percent of change. Although Douglas fir did not absorb the most water, it had the highest percent of change. This led me to conclude that oak is the most practical for building in a flood zone and Douglas fir is the worst building material for construction.

Conclusions/Discussion

I found that Oak is one of the hardest woods used in the construction of buildings. It is very commonly used because of this property. I also found out that soft woods are not very strong and absorb water easily, making them poor building materials. My hypothesis was correct. The wood that absorbed the least amount of water would be the best for building in a flood zone.

Summary Statement

The focus of my project was to find what wood is the most resistant to continual exposure to water denoting natural disasters such as floods, hurricanes and major storms

Help Received

Dad taught me how to use a saw so I could cut the wood samples.

Preliminary