

# CALIFORNIA STATE SCIENCE FAIR 2003 PROJECT SUMMARY

Name(s)

**Project Number** 

**J0218** 

**Project Title** 

**House Saver** 

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### **Abstract**

# **Objectives/Goals**

The objective of my project is to provide a protective shield, which will quickly cloak a house, when it is threatened by a wildfire.

### Methods/Materials

I made an inflatable wall out of fire-resistant Kevlar cloth, which was put in the form of a folded hose, around a wooden model house. The outer sides of the wall had a reflective aluminium facing. I inflated the hose, using fire fighting foam, to create a rising curtain. When it was high enough, the top was closed to form a tent over the house. An unprotected model house sat beside the shielded house, and both were set aflame, in a simulated wildfire.

#### **Results**

The unprotected house burned completely, while the house protected by the "House Saver" was undamaged.

## **Conclusions/Discussion**

The "House Saver" could be deployed in approximately a half hour. It can readily surround any size house. The foam raises the wall and helps to keep the house cool. An air conditioning unit could be utilized to reduce the temperature inside the house. Cleanup is done by sucking the foam out of the wall, which would keep costs and environmental impact to a minimum.

## **Summary Statement**

My invention would save a house in a wildfire, by providing a protective shield.

# **Help Received**

My dad supervised model building and fire setting.