



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Luisa A. Ramirez	Project Number J1927
Project Title Fire Retardant	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective was to learn if Flamex PF Fire Retardant really did delay the burning of cotton, polyester, cardboard, paper, and cork, and on which material would it work better on. My hypothesis was that I think that Flamex PF Fire Retardant will work on each material but the time it takes to retard the fire will vary. I think that the flame retardant will work better on cork because cork is said to be fire retardant.</p> <p>Methods/Materials The materials I used were the Flamex PF Fire Retardant, cotton, polyester, cardboard, paper, and cork. I also used a gas lighter to burn the materials and a timer to record the time it took the materials to burn. First I placed a pair of cotton material on the grill. Next I sprayed an even amount of fire retardant on one of them. Then I lit up the two of the materials. I recorded the time it took the material without fire retardant to burn and the material with fire retardant to delay fire. I repeated these steps replacing the cotton materials with polyester, paper, cardboard, and cork.</p> <p>Results Each of the materials without fire retardant burned completely, each at its own pace. Cork took the longest to burn and polyester took the shortest amount of time to burn. But the materials with fire retardant did not even ignite. Polyester did light up and burned completely in only 12 seconds. Even though polyester did burn with the fire retardant, it took longer for it to burn than without the fire retardant.</p> <p>Conclusions/Discussion The evidence did not support my prediction because the fire retardant did work one each of the materials except for polyester. I could not really say that the time it took for the materials to retard fire varied because all of the materials never lit up except for polyester.</p>	
Summary Statement I bought a fire retardant spray from the internet and tested it on cotton, polyester, cardboard, paper, and cork, and found out it prevented the materials from igniting except from polyester.	
Help Received Father helped me burn the materials.	