



**CALIFORNIA STATE SCIENCE FAIR  
2017 PROJECT SUMMARY**

<b>Name(s)</b> <b>Julia Magnone</b>	<b>Project Number</b> <b>J0613</b>
<b>Project Title</b> <b>Which Homemade Fire Retardant Works Best on Cotton?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of this study is to determine which homemade fire retardant works the best on cotton. <b>Methods/Materials</b> 3 yards of cotton, Lighter, Safety glasses, gloves, spoons, metal pot, alum, Boric acid, Ammonium chloride, Ammonium phosphate, Sodium silicate, and a safe open area to burn. <b>Results</b> Several pieces of cotton were soaked in various homemade fire retardants and set out to dry. Each piece of cotton was burned and timed. 2 trials were repeated for each retardant. Some of the results were similar and some had large differences. <b>Conclusions/Discussion</b> Two trials with all of the cotton samples resulted in interesting results. Three out of the seven methods protected cotton. All of The other methods burned for more than 14 seconds.	
<b>Summary Statement</b> I tested homemade fire retardants, and did two trials, by treating cotton with the retardants, to find my results.	
<b>Help Received</b> I came up with the project idea on my own and my father assisted me with the toxic chemicals while I performed the tests on my own. I then had my science teacher review my results.	