



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

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Project Title Fire Resistant Flora: Fact or Fiction?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals California is in the midst of a drought. My project's objective was to determine natural fire-resistance of locally available plants.</p> <p>Methods/Materials Propane torch and burn pans were used to burn 6 species of plants: 24 samples each of both dried and fresh plants. Each specimen was burned until self-extinguished. Plant masses were obtained pre and post burn. Fire resistance was determined by percentage of mass lost and burn time.</p> <p>Results Overall, the Cryptomeria was found to have the highest degree of fire-resistance. The Leylandii Cypress had the lowest degree of fire-resistance. Both findings, along with all other samples tested, supported the hypothesis that highly fire-resistive plants had greater flexibility and moisture content, while less fire-resistive plants tended to be more dry and brittle.</p> <p>Conclusions/Discussion Based on experimental results, one can conclude that there are naturally fire-resistive plants. A homeowner's knowledge of this could potentially protect property from the effects of vegetation fires. Current drought conditions in our region make this study worthy of attention.</p>	
Summary Statement This project explored the fire-resistance level of a variety of plants.	
Help Received Neighbor provided plant samples; Mother helped with backboard; local fire department assisted with safety of experiment.	