



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Cheyenne Waldman	Project Number 22905
Project Title Comparing the Strength Characteristics of Two Styles of the Warren Truss Bridge	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My project's objective is to determine the percent of additional strength of the modified Warren Truss when verticals are inserted. My original hypothesis was that the modified Warren Truss would be 50% stronger than the standard modified Warren Truss.</p> <p>Methods/Materials In my project I used balsa wood to create the six bridges for testing, three of each style. I glued, pinned, and bound the joints to make them strong, to ensure that the tests were valid.</p> <p>Results My results surprised me, the verticals only made the bridge 28.5% stronger, only a little over half of my hypothesis. They mostly added stiffness.</p> <p>Conclusions/Discussion I feel that my project is pertinent to modern day life because trusses are used in many structural applications, and the correct truss design is critical to each unique situation.</p>	
Summary Statement Testing the additional strength of verticals in the Warren Truss.	
Help Received Father helped me pin and bind the joints of the bridges.	