



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2018 PROJECT SUMMARY**

Name(s) Sophia G. Ruff	Project Number 38272
Project Title Which Bridge Can Hold More Weight?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My goal was to see which bridge design could hold more weight.</p> <p>Methods/Materials Cedar strips, wood glue, basic red wire. These items were used in the construction of both bridges.</p> <p>Results After I tested both bridges with weights, I concluded that my hypothesis was correct.</p> <p>Conclusions/Discussion The suspension bridge held more weight, suffering only a hair line crack at the main support. The arch bridge received major damage at less weight. I concluded that a suspension bridge would be a better design for safety.</p>	
Summary Statement I designed and built two bridges to be tested for maximum weight.	
Help Received I designed, built and tested my bridges with minimal help from my father.	