



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Alexa Britton; Miranda Hauke	Project Number J0304
Project Title Which Bridge?	
<div><div>Objectives/Goals Compare 3 bridge designs with regards to their ability to hold a fixed amount of weight. The 3 bridge designs were Arch, Cable-stay, and Beam. We also considered the amount of time and resources it took to make each bridge.</div><div>Methods/Materials Balsa, Pine and Bass wood Scale I-bolts String Bottles of water</div><div>Results The arch design had the least sag with a fixed weight. Cable-stay was second while the Beam designed sagged the most. The Beam was easiest to build with the least resources with Arch being second and Cable-stay being third.</div><div>Conclusions/Discussion Bridges using the arch design are the strongest but moderately difficult to build. We think the arch bridge is strongest because it is supported at 4 different points.</div></div>	
Summary Statement The varying strength of bridges based on their design	
Help Received Parents helped refine idea. Teacher helped with board appearance	