



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Anna E. Spangrud	Project Number 34149
Project Title A Comparative Analysis of Different Bridge Spans	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The goal of my project was to find out what types of bridges can hold the most weight, and which are best for different distances.</p> <p>Methods/Materials Popsicle sticks, glue, wire, and string were used to build a truss, cantilever, and suspension bridge. Each of the nine bridges were placed across two tables, and below them I suspended a bucket, to which I added weight until the bridge broke. I then weighed the bucket to see how much weight each bridge had held. I repeated this process three times for each bridge.</p> <p>Results My results show that the Suspension Bridge held, on average 14.6 pounds, the truss 11.3 pounds, and the cantilever 8 pounds.</p> <p>Conclusions/Discussion My experiments proved my hypothesis right, I thought that the suspension bridge would hold the most weight, the cantilever the least, and the truss somewhere in the middle. I think that the Suspension bridge could be used for carrying heavy loads a far distance, whereas the truss or cantilever would be better to be used for shorter distances or lighter loads.</p>	
Summary Statement For my project, I tested which type of bridge could hold the most weight.	
Help Received My father let me use his apartment to do my tests in and helped take pictures while I was testing.	