



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Charlotte N. Thompson	Project Number J0323
Project Title Collapsed	
Abstract Objectives/Goals My objectives for this experiment was to find out if I change the design of a bridge into a plank, suspension, or truss bridge will it affect how much mass the bridge can hold. Methods/Materials The 12 bridges that I made were made of balsa wood stuck together with hot glue. After I finished the bridges I got two chairs and put the bridge ends on the two chairs leaving an unsupported space. Next I tied a rope in the middle of the bridge and on the other end I tied a bucket. Then I got a few gallons of water and some weights. Then I poured the water in slowly until it broke. Then I weighed the bucket with the water in it and did the same thing this every time. Results After the experiment my prediction was right! I predicted that the truss bridge would hold the most weight the most it held was 118 pounds! Conclusions/Discussion While I was doing the experiment I learn a lot about the different bridge types and real bridges that have collapsed in the past. I have also learned that even if a bridge is much more expensive than othersd we should use the best one so people can be safe from the danger of bridge failure.	
Summary Statement does changing the design of a bridge effect how much mass it can hold?	
Help Received Father helped with heavy weights.	