



**CALIFORNIA STATE SCIENCE FAIR  
2003 PROJECT SUMMARY**

<b>Name(s)</b> <b>Jenny L. Cooper</b>	<b>Project Number</b> <b>J1803</b>
<b>Project Title</b> <b>Trusty Trusses</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The purpose of this project was to find out how strong a truss can be made. With trusses made stronger, buildings and bridges can be made to withstand more weight. This project focused on the shape of the interior supports. <b>Methods/Materials</b> In this experiment, balsa wood was used to form trusses made with different polygons as the interior supports. The ratio was found of the load supported to the weight of the truss. The load used was water so it was easy to measure in grams how much it was. <b>Results</b> Triangles were found to have the best ratio. As more sides were added to the polygon, the ratio became smaller and smaller. <b>Conclusions/Discussion</b> From this experiment, it can be concluded that triangles are stronger and sturdier than other polygons. Using triangles in structural designs will make a strong, efficient structure.	
<b>Summary Statement</b> This project was done to find out what type of polygon would be strongest as interior support in a truss.	
<b>Help Received</b> Mother helped gather materials and took pictures; Dad helped put together test stand;	