



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> Erin L. Newport	<b>Project Number</b> <b>J1917</b>
<b>Project Title</b> <b>How Strong Are Your Mussels?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective is to find out what type of shell can withstand the most pressure; the Green Shell Mussel, Common Black Mussel, Pitar Venus Clam, Turban Stenoggrus, or Green Top Trochus.</p> <p><b>Methods/Materials</b> 10 of each of the 5 types of shells were tested. First they were weighed and measured, then placed in a vice. A spring scale was attached to the the lever of the vice, and pulled on. The amount of pressure that was needed for the shell to crack was recorded.</p> <p><b>Results</b> The Green Top Trochus was able to withstand the most pressure, and was followed by the Turban Stenoggrus. The Common Black Mussel, Pitar Venus Clam, and Greenshell Mussel, all withstood a amount of pressure, which was only about one third of that of the Trochus.</p> <p><b>Conclusions/Discussion</b> I found that shape had more to do with shell strength, than length or mass, and that shells with some kind of internal structure are stronger. This is important, because shells have been evolving for millions of years, and their basic designs can be used to create things that we use in our everyday lives.</p>	
<b>Summary Statement</b> This project was about the effect of a shell's shape on its mass.	
<b>Help Received</b> Dad took me to get shells and helped me set up experiment; Neighbor loaned me book about shells and helped me come up with idea; My science teacher from last year also helped me come up with idea.	