



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> <b>Danica A. Frye</b>	<b>Project Number</b> <b>S1005</b>
<b>Project Title</b> <b>Got Stamina?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The original question for this project was what would be the most effective form of extra exercise to build up stamina for competitive Irish dancing. I hypothesized that jump roping would be the most efficient type of exercise. <b>Methods/Materials</b> I chose twelve girls of the age 14 who were similar in body types and all Irish danced, to be part of my testing. I broke them off into four groups, three girls would jump rope, three would run, three would walk, and three would be the control group and would do no exercise. The girls exercised for four weeks, and they measured their heart rates each Sunday. Resting rates were measured when they first woke up, and working rates were measured after they did a minute and a half long dance that afternoon. Including a measurement before the exercise period began, there were 5 measurements of each type for each girl. <b>Results</b> After doing some basic calculations, results proved that jump roping was indeed the most effective form of exercise for building up stamina. Walking was second, and running was third. The control group's stamina did not improve at all. <b>Conclusions/Discussion</b> All three types of exercise did increase stamina for the girls tested. Running boosted stamina 28.3%, and walking improve stamina 28.6%. Jump roping was the most efficient, increasing stamina by 32.3%. The control group's stamina remained the same, further proving that jump roping is the most effective form of exercise to build up stamina.	
<b>Summary Statement</b> My project is about finding the form of exercise that most efficiently builds up stamina for competitive Irish dancing.	
<b>Help Received</b> My grandmother took me to Staples and drove me to my dance classes where I measured the girls' working heart rates; my dance teacher, Bella Yerina, helped me think of what types of exercise to use for the testing and allowed me to interrupt the flow or class to get the girls' heart rate measurements; the girls	