



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Tessa N. Lane	Project Number J1214
Project Title Dancers Under Pressure	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective was to determine if younger or older dancers put more pressure on their feet when they dance.</p> <p>Methods/Materials I obtained 30 informed consent forms for dancers of various ages at my dance school. The materials that I used to measure these participants were a tape measure to measure the dancers height, a bathroom scale to measure the dancers weight, corn starch and clay placed in trays for the dancers to step into. After measuring the participants height and weight, I asked them to step into the tray with the corn starch first and then into the tray with clay. The corn starch helped to prevent the clay from sticking to the dancers feet. I had the dancers stand in fifth position in both plie and releve and took pictures on both of these impressions. I then took these photos, uploaded them to a computer and used Photoshop to pixilate them and convert the pixilated area into cm². I entered that data into an Excel spreadsheet and used the data to find the pressure in kilopascals.</p> <p>Results My data showed no correlation between the age of the dancers and the pressure on their feet.</p> <p>Conclusions/Discussion My results did not support my hypothesis. I believe that this topic may support further testing though. While age, height, and weight did not appear to be correlated to the pressure on the participants feet, perhaps a larger study could be used to find some pattern. Dancers, as well as women in heels, put many pounds of pressure on their feet everyday and if a correlation could be found perhaps dance shoes and heels could be made to help alleviate some of this pressure.</p>	
Summary Statement My project is about how much pressure dancers might put on their feet.	
Help Received Mother helped purchase supplies, drove to and from dance class, assisted in gathering data. Father helped upload photos onto computer and into Photoshop , helped me find the needed formulas, and helped enter data into Excel.	