



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Sebastian D. Carrasco	Project Number J2206
Project Title A Sticky Issue: A Comparison between Different Rosins and Volume Produced	
Abstract Objectives/Goals Being a violin player, I was interested in finding if different violin rosins would actually help make a louder sound. Methods/Materials The materials used in this project were: my violin and bow, six different rosins, a decibel meter, a metronome/tuner, measuring tape, rubbing alcohol, cleaning materials, and masking tape. I found and taped off a section of my bow where I could produce the loudest continuous violin sound and used a metronome to make sure I was moving the bow at a consistent speed. I tested six different rosins on sample notes in three different ranges of the violin register (B flat on the G string, F# on the A string, and high F# on the E string) and measured the highest consistent reading a decibel meter would give. I also tested as a control, no rosin before each rosin test. Results I was surprised to find that the maximum volume each rosin could produce on the E string note varied from 90 decibels to 97 decibels, on the A string the levels varied from to 91 decibels to 94 decibels, but that all rosins produced a similar maximum volume to no rosin on the G string note. (90 decibels). The rosin that could produce the loudest sound on the E string was the fifth loudest on the A string. Conclusions/Discussion Different rosins seem to each have different effectiveness on different strings and frequencies. The G string, which is the lowest string on the violin did not respond very differently to different rosins. I would like to expand this study to include all four strings and also repeat the procedure using a cello.	
Summary Statement Testing different rosins to find which produces the loudest sound on the violin.	
Help Received My dad bought me a decibel meter. My mom helped clean my violin strings and bow between rosin tests and helped me stay the right distance from the decibel meter while I was playing.	