



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Niko Lopez	Project Number J1813
Project Title Visible Sound: Does the Surface Material Affect the Visible Patterns Created by Sound Vibrations?	
Abstract Objectives/Goals The objective of this project was to understand if the surface material of an object affected its ability to transmit vibrations. Methods/Materials I used 12"x12" metal and acrylic plates that were connected to a rig that was firmly mounted to a table. I poured salt evenly across the surface of the metal plate. I then used a violin bow and ran the bow down the side of the plate as if I was playing an instrument. I then experimented by placing my fingers in different places and bowing in different places to get different images. I repeated the same experiment with the acrylic plate. Results The metal plate created many more clear images than the acrylic plate did. The acrylic plate images were very slurred and uneven. Conclusions/Discussion My conclusion was that the surface material of an object has an effect on the objects ability to transmit vibrations, as seen by the metal and acrylic plates.	
Summary Statement My project is about weather the surface material of an object effects it's ability to transmit vibrations.	
Help Received Mother took me to the hardware store to have them help make rig.	