



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2018 PROJECT SUMMARY**

Name(s) Sanjna Mizar	Project Number 38049
Project Title Keep the Noise Down	
Abstract Objectives/Goals The objective of this study was to test which common insulating material would absorb sound the most effectively. Methods/Materials R13 fiberglass insulation, 15" hardboard box, corrugated foam, ceiling tiles, acoustic meter, alarm. This project measured the amount of decibels of sound emitted from the hardboard box using different insulators. Results The amount of decibels emitted from the insulated box was compared to when the box was not insulated. The findings showed that R13 fiberglass most effectively insulated the box. Ceiling tiles insulated it the second most effectively, followed by corrugated foam. Conclusions/Discussion R13 fiberglass absorbed sound the most effectively because it was the thickest material. This is the reason why it is commonly used as a source of soundproofing for buildings.	
Summary Statement As I conducted this project, I found that the thickness of materials contributes greatly to its ability to absorb sound.	
Help Received I received assistance in creating the hardboard box but conducted the research and experiment independently.	