

NEST+m AUDITORIUM ACOUSTICS ANALYSIS & TREATMENT



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New Explorations into Science, Technology + Math (NEST+m) is a K-12 public school located in the Lower East Side. The NEST+m auditorium has poor acoustics due to its high reverberation time; its echoic nature posts difficulty for the audience to hear speech clearly. This project seeks a low-cost solution for reducing the reverberation time. The reverberation time for different frequencies were measured using the interrupted method: the auditorium was first excited with pink noise that contains sound energy of all frequencies using an omnidirectional speaker, then a sound level meter was used to measure the decay after the sound source is shut off. The highest reverberation time is 2.6 seconds at 500 Hz while the recommended value is 1.4 seconds. Sabine's formula was used to determine the absorption coefficient and number of panels necessary for the desired reduction.

WORK SPACE **SHOWCASE**

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