



School Is Noisy

What comes to mind when you think of noise in your daily life? Voices on a school bus? A hallway crowded with students on the move? The school band's practice room? The volume on music players and phones? These noises definitely contribute to every day's noise pollution.

Builders often install acoustic insulation to reduce unwanted or excessive sound in public buildings, such as schools, restaurants, and event centers. Likewise, some people also install soundproofing products in their homes and apartments.

Engineers evaluate the effectiveness of soundproofing products and assign each product a Noise Reduction Coefficient (NRC) rating. A product with an NRC of 0 absorbs no sound, while a product with an NRC of 1 absorbs all sound.

Task

Work in small groups to investigate the costs of acoustic insulation.

- 1 Download a free noise app for your smart phone. Use the noise meter to measure and record the decibel levels of common daily activities in your classroom and school.
- 2 Calculate how many times greater the intensity of the sound with the highest decibel reading is than the sound with the lowest dB reading. Share your results with the class.
- 3 Investigate the acoustic insulation products available to consumers. Compare NRCs and prices. Then measure the dimensions of your classroom ceiling and determine the cost of replacing existing ceiling tiles with the best product currently available on the market.

