Name _____

Silencing the Symphony: How Soundproofing Works

Short Answer Key

1. Sound absorption materials work by trapping sound waves in their porous structure, preventing them from bouncing back and reducing echo and noise in a room.
2. Mass and density are significant in blocking sound transmission because denser and heavier materials prevent sound waves from easily passing through, resulting in reduced sound transmission.
3. Decoupling is essential in soundproofing when you want to separate two surfaces to prevent the transmission of vibrations. An example is using resilient channels between the ceiling and the floor above to isolate sound.
4. Sealing gaps and cracks is important in soundproofing because even small openings can allow sound to sneak in or out, disrupting the soundproofing efforts.
5. A common type of noise barrier is a soundproof curtain. It functions by absorbing and reflecting sound waves, preventing them from traveling through the curtain.