

Pepper on the Dance Floor

You may be familiar with the sound heard from a passing car whose stereo has the bass set so high and the volume so loud that the neighborhood windows shake. A similar transfer of energy is easy to see with a small boom box and some pepper sprinkled on paper.

Procedure

1. Blow up a balloon and hold it up in front of a speaker between your two hands. Play some music and turn the volume knob.
2. Tilt the speaker so that it is pointing up. Lay the paper plate over the speaker, and sprinkle a few dashes of pepper onto the plate. Play some music and turn the volume knob.



Turn and Talk

Think about it. How does this station work? Discuss these questions with a partner.

What happened to the balloon as you adjusted the volume?

What happened to the pepper specks as you adjusted the volume?

Did the frequency of the vibrations change as the music changed? In what way?