

# CAN YOU HEAR ME NOW? (2 Hours)

*In this activity students will experiment with how far sound travels naturally, as compared to how far it travels with satellite amplification.*

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## Topic: Amplification of sound

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### Real World Science Topics:

- An exploration of sound amplification
  - An exploration of how satellites are used to amplify or concentrate signals
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### Objective

Students will gain an understanding of the way sound waves are amplified when they are concentrated in a particular direction or area of space.

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### Materials Needed for Student Activity:

quiet noise-making device (watch alarm, quiet kitchen timer, quiet digital alarm, small bell, metronome, etc.)  
umbrella  
tape measures  
masking tape (a few rolls)  
markers  
15'-square paper or cardstock  
calculator (optional)

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### Teacher Preparation

Arrange for access to a long hallway, gymnasium, cafeteria, or other wide-open space for the activity period. Be sure that the sound device you choose emits quiet beeps. Most hallways and gymnasiums naturally have good acoustics, so if beeps are too loud to begin with, students will not be able to walk far enough to be out of range of the sound.





















