

Speed of Sound–Teacher’s Guide

This experiment was sent to us by Sam Barnum of West Point Grey Academy, Vancouver, Canada. This experiment is written using the internal microphone of the LabQuest.

Note Sam suggests using claves for making the sound. Claves are musical instruments made of wood. If you do not have claves, you can use other large pieces of wood that you can hold in your hands and hit together to make a loud sound.

Note that the second part of the lab is written using a different building or at least two different walls. Sam suggests that you be mindful in choosing both the known and unknown distances to ensure the echo makes it back before time expires. Setting a distance of 50 m from the wall produces data that falls nicely within the collection range.

Here is a sample graph:

