DEMONSTRATING SOUND TRANSMISSION

The amazing string radio

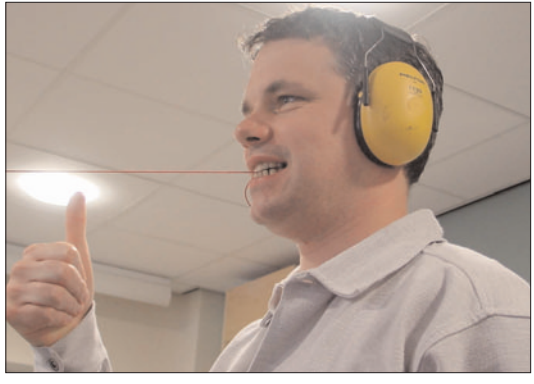
The string radio might usefully accompany a lesson on sound and string telephones and requires a transistor radio, string, glue and ear defenders.

Cut a piece of plastic from the outer casing of a transistor radio and glue a long piece of string to the loudspeaker cone. Ask a volunteer to make a knot in the end of the string and hold it between their teeth, with the string taut. Then ask the volunteer to don ear defenders so that they are unable to hear sound waves travelling through the air from the radio.

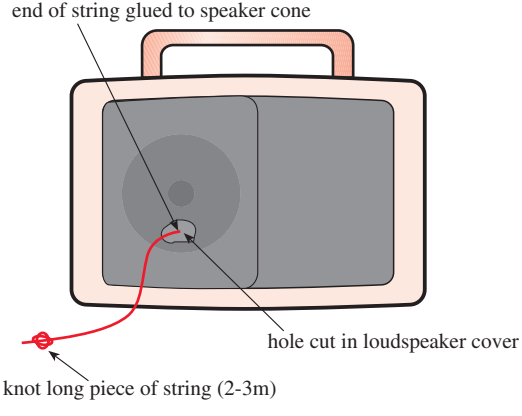
Amazingly they will be able to 'hear' the sound vibrations which pass along the string through teeth and bone to the ears. Rubbing the string between your fingers should also be 'heard' by the volunteer.

To maintain an acceptable level of hygiene, cut the knot off the string after each person has used the equipment.

This idea is described in *Vacuum Bazookas, Electric Rainbow Jelly, and 27 Other Saturday Science Projects* by Neil Downie (2001, Princeton University Press).



Chris Escreet trying out the string radio.



Bernard Taylor
St John's School & Community College, Marlborough, UK