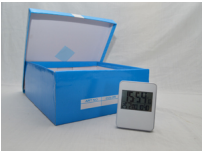




*Guide sound waves to your ear.*

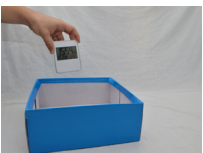
### **Material:**



- box
- sound source (alarm clock, mobile phone etc.)
- big piece of carton
- a friend to help you

### **Instruction:**

Place the sound source in the box at one side of a table



Switch on the sound source and stand at the other side of the table.



Ask your friend to place the paper right over the sound source and arrange it like a mirror or reflector to lead the sound to you. Does the sound become louder?



### Explanation:

The sound waves in the box are isolated by the walls of the box. There is not direct way from the sound source to your ear. The sound waves are spreading and reflected by the room you are in and reach your ear after many reflections. By placing the paper of reflector directly over the sound source and reflecting the sound waves directly to you, the sound becomes louder, because it was only reflected ones.