

Think about what you have learned. Answer the questions below based on what you have just read.

1. Why can you hear someone who is in another room?

You can hear someone in another room because sound travels. Unlike light, sound can travel through the walls, so even without a door or window, the sound will travel through.

2. Why do we hear echoes?

Sound can be reflected. This means that sound bounces off of things. When it bounces off something it travels back towards the source of the sound. An echo is a reflected sound.

3. In a recording studio the walls are covered in bumpy foam. Why would they do this?

Sound can be absorbed. This means that sound will not bounce off of some things. Foam is a material that does not allow sound to bounce off of it. Also, the bumps cause the sound that is reflected to reflect sideways, back into the foam, where more of it will be absorbed.

4. Name multiple objects we have that allow us to increase the volume of a sound.

Ex. Microphone, speakers, megaphone, etc.

5. Explain why we can hear sounds better in air than we can underwater.

Sound is caused by vibrations. Air is a gas and water is a liquid. Gases are very thin in comparison to liquids, so when a sound travels through air it vibrates the air very easily without much distortion (changes). When a sound travels through a liquid it has to move through a thicker substance. This means that the sound has more difficulty causing the vibrations. So, although sound travels better in water, it is harder to hear properly.