



## Activity Guide

# Sound Localization

### Module

Hearing

### Materials required

- Blindfold or a piece of cloth

### Preparation instructions

You do not need to prepare any materials in advance for this activity.

### Activity instructions

1. Clear an area of the room by moving any chairs or desks out of the way.
2. Choose one volunteer and cover their eyes with a blindfold or piece of cloth. Have them sit in the centre of the cleared area and cover one ear with their hand.
3. Have other volunteers stand in different areas in the room and clap when you signal to them. Other than the claps, the room should be quiet!
4. Ask the seated volunteer to point in the direction they hear a clap.
5. Repeat with no ears covered.
6. Ask participants: When was the seated volunteer better at locating the sound? Why? Answer: They should be more accurate when they can use both ears.

### Reinforce these learnings

- Your ears collect sound waves and use vibrations to send signals to the temporal lobe in your brain.
- Your brain uses the volume and time it takes for sounds to reach each ear to determine sound locations.

### Reinforce these injury prevention messages

- Protect your hearing by protecting your brain! Wear your helmet, wear your seatbelt, follow safety rules, etc.
- It's also important to protect your ears. Here's how:
  - Avoid loud noises or use ear plugs. Loud noises can damage the hair cells in your inner ear.
  - Never stick objects in your ears. They can damage your eardrum and can cause hearing loss.