18 Sounds

EQUIPMENT

- Loudspeaker with cone visible.
- Loudspeaker to pass round.
- Aluminium foil ball.
- Signal generator and amplifier
- Picoscope/oscilloscope
- dB meter
- Slinky spring
- Plastic cups with hole in base.
- String + match sticks
- Cloths for screechers
- Scissors for cutting string.

RISKS

Cuts from scissors
Loud noises from screechers.

SESSION

1). Students put their hands on their throat and make a noise.
What do they feel?
2). Signal generator to loudspeaker - look at cone.
Small ball of aluminium foil on loudspeaker cone.
3). Explain frequency - units
Hearing range.
4). Microphone to oscilloscope. Picoscope.
Look at speech, whistle.
With signal generator and loudspeaker.
5). Loudness of sound - dB meter
Students make as little noise as possible and maximum noise.
6). How does sound travel?
Slinky spring.
7). Students make string telephone - plastic cups and 2m of string - match sticks?
8). Student cut string in telephone and make screechers to take home.

NAME: .....

18 Sounds

What is a loudspeaker?

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What is 'frequency'?

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What are the units of frequency?

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What is the frequency range of our ears?

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What is a microphone?

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What is an oscilloscope?

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Draw a diagram to show what 'sound' look like on an oscilloscope?

What are the units of loudness for sound?

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How does sound travel?

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