The Science of Souna


SOUND

Souna

Energy

ibration

Sound is a form of energy. **Energy** is the ability to cause a change in matter.

Sound is produced and transmitted by vibrating matter. Sounds are **vibrations** you can hear.

SOUND

Souna

Energy

Vibration

Put your index and middle fing

Put your index and middle finger on your neck. Say the word "Aah" as loud as you can. You not only hear a sound, but you can FEEL a movement inside your throat.

When you say "Aah", your vocal cords **vibrate**. That means they move quickly back and forth. As your vocal cords vibrate, they produce sound.

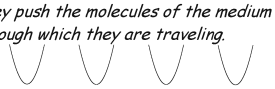
SOUND WAVE

COMPRESSION WAVE

SOUND

Sound travels in waves. Each vibration produces a sound wave, a surge of energy that travels through matter. Each wave is a disturbance moving through a medium (solid, liquid, gas).

Sound waves are longitudinal waves. They push the molecules of the medium through which they are traveling.

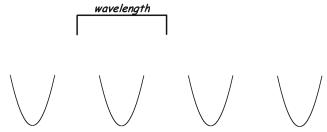


SOUND WAVE

WAVELENGTH FREQUENCY

SOUND

Sound waves can be described by their wavelength and frequency. Wavelength is the distance between a point on one wave to the same point on the next wave. Frequency is the number of times the sound source vibrates in one second.



SOUND

Use the pencil tool to fill in the blank. Then, use the eraser tool to see if you are correct. If you were right, click on the ear.

1. Sound is a form of _____.
2. Sounds are _____ you can hear.
3. Sound travels in _____.
4. _____ is the distance between a point on one wave to the same point on the next wave.
5. _____ is the number of times the souna source vibrates in one second.
6. Sound waves are _____ waves.