

# Properties of Sound

LESSON 26



# LET'S TRY!

Listen to the song the teacher will play. Can you name some of the instruments played in the song?

Can you also play and perform the same song using makeshift instrument or your own body parts

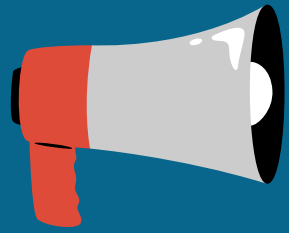


## Important Question?

What are the properties of sound and how does it affect the way we hear sound?



More and more young people are interested in playing musical instruments –be it string, percussion, wind, or brass. Some would use improvised musical instruments to produce music. Empty cans are used as drums, flattened bottle caps as tambourine, beans in plastic bottle as maracas, and so on. Sometimes, they would even used their body parts to produce sound.



Sound is produced due to vibrations. These vibrations produce sound waves which move through several mediums such as air and water before reaching our ears. Our ears vibrate in a very similar way to the original source of the vibration. This allows us to hear many different sounds.

Sound has many properties. These are pitch, quality, and loudness.



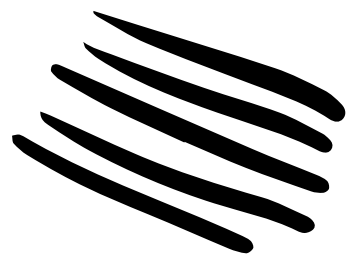
Sound waves as received by the  
human ear

## PITCH

Pitch refers to the highness and lowness of notes. When vibration are fast, high notes are heard. When vibration are slow , low notes are heard.

For string instruments, the length, thickness, and tension on the string have effects on the pitch of the sound produce higher while longer strings produce lower pitch. Thinner strings produce high pitch while thicker strings produce low pitch. Stretched or high-tension strings produce sounds with higher notes while loose or low-tension string produce lower notes.

# QUALITY



Quality refers to the shape of the sound waves an object produces. The smoother the shape of the waves, the better is the quality of the sound and the more pleasing it is to the ears. If the shape of the waves is ragged, the sound it produces is noise and unpleasant to the ears.

## Loudness

Loudness refers to the volume or sound pressure produced by the vibrations of an object. If the sound produces high pressure, then sound becomes louder. This pressure can sometimes be so high that the loud sound becomes irritating to the ears.



# Importance of Sound

There are many uses and application of the sound and here are some of them;

- It is the only form of communication among animals,. In human, we communicate through speech aside from other body language.
- Music involve sound. Sound is produced when we sing or play a musical instrument.
- We use sound as warning signal like ringing of school bell, sirens of an ambulance or firetruck, and blowing of horn of vehicles on the street.