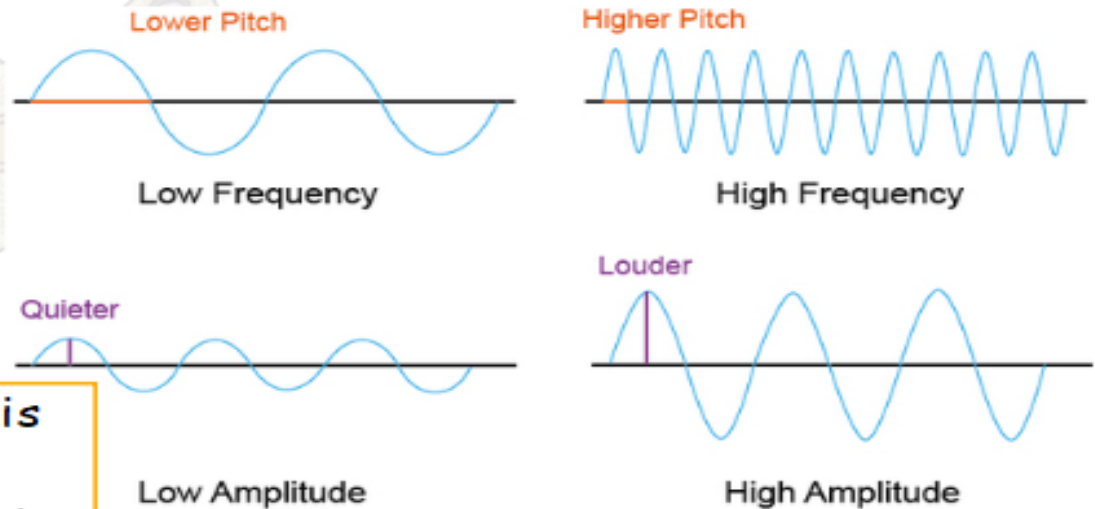
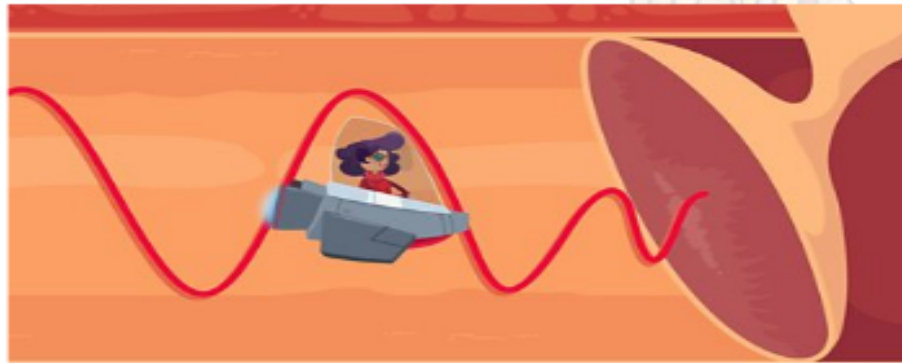


# Knowledge Organiser: Sound



Sound is energy that is made by vibrations. Sounds are made when objects vibrate. The vibrations enter your ear and you hear them as sound.

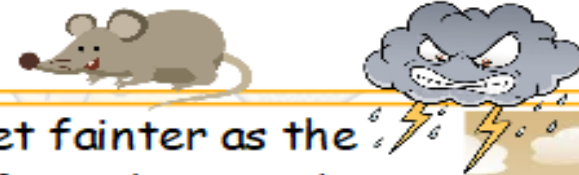
Sound can travel through solids, liquids and gases. Sound travels as a wave, vibrating the particles in the medium it is travelling in. Sound cannot travel through a vacuum.



The strength of a vibration (sound wave) is measured in amplitude.

**Amplitude** is the size of the vibration, and this determines how loud the sound is.

Pitch is a measure of how high (e.g. a squeak) or low (e.g. a rumble of thunder) a sound is.



When you hit a drum harder, the vibration is stronger and the sound is louder - larger vibrations give louder sounds.

Decibels are the measure of the loudness of a noise.



Sounds get fainter as the distance from the sound source increases.

Sound can also be muffled by different insulating materials.



# Knowledge Organiser: Sound



## Vocabulary

*amplitude: the size of a vibration. A larger amplitude = a larger sound.*

*audible range: the range at which we can hear sound.*

*decibels: noise loudness is measured in decibels.*

*ear: an organ used for hearing*

*eardrum: a part of the ear which is stretched out like a drum skin. Sound waves make the eardrum vibrate.*

*echo: when sound is reflected by an object.*

*frequency: the number of sound waves per second.*

*medium: the different materials that sound waves travel through.*

*particles: made of solids, liquids and gases. They are so small we are unable to see them.*

*pitch: how low or high a sound is.*

*soundproof: to prevent sound from passing.*

*vacuum: an empty space with no air or other gas - no sound can be heard in a vacuum.*

*vibration: the shaking of particles backwards and forwards.*

*volume: the loudness of a sound.*

*waves: transfer of energy from one place to another.*

*wave length: the distance between any point on a sound wave to the same point on the next wave.*