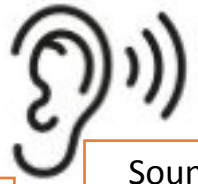
Chacewater School – KNOWLEDGE ORGANISER – Spring 2 Bur Oaks
Science: Sound

What I might already know: Humans and animals have senses, humans can hear using our ears, a sound can be loud or quiet - this is called volume.

How are sounds made?

Sound is a type of **energy** created by vibrations. When an object **vibrates**, The vibrations make the air around the object vibrate.



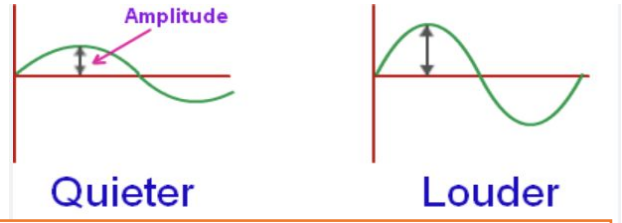
How do we hear sounds?

Sound travels as a **sound wave**. We hear a sound when waves of energy (vibrations) travel to the ear.

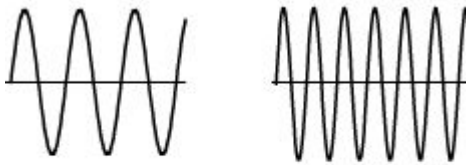
Key Scientific Vocabulary:

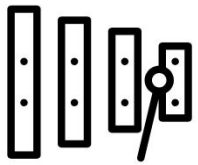
- **Volume, speaker, sound, travel, loud, quiet, high, low, silence, hearing, ears,**
- **Vibration, vibrate, sound wave, pitch, energy, sound source, echo, tune, insulator, conductor, decibels, soundproofing,**
- **Strength of vibration, reflection of sound, amplitude,**

How can we change a sound's volume?



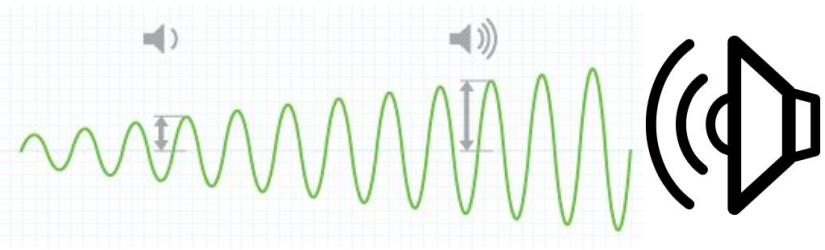
The bigger/stronger the vibrations, the louder the sound.
The smaller/softer the vibrations, the quieter the sound.
The size of the vibration is called the **amplitude**.





How do we change a sound's pitch?

The **pitch** of a sound is how high or low it is.
Changes in pitch creates a **tune**.
The shorter the object the higher the pitch.
The longer the object the lower the pitch.
With stringed instruments, the tighter or thinner the string the higher the pitch of the sound.



The closer you are to the **sound source**, the louder the sound will be.
The further away you are, the quieter the sound will be.

What happens to the volume of a sound as we get further away from the source?