Science – Freaky Frequency

Key Vocabulary

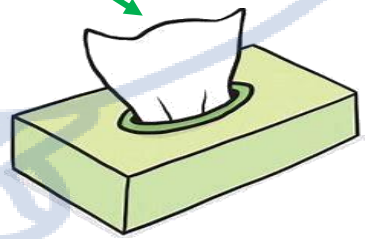
Sound Wave	The movement of air that transmits sound
Vibration	Means quickly moving back and forth (or up and down)
Source	The object that vibrates to create a sound, such as a ringing telephone, or a person's vocal chords
Volume	How loud a sound is
Decibel	The units used to measure the volume of a sound (written as dB for short)
Pitch	How high or low a sound is
Frequency	A measure of how fast the vibrations in a sound wave are – measuring how many times it vibrates per second
Amplitude	A measure of how strong the wave is, how much the object vibrates

Sound is created when something vibrates and sends waves of vibrating air particles to your ears.
Does sound only travel through air? Think of an example to explain how you know.

Make your own musical instrument

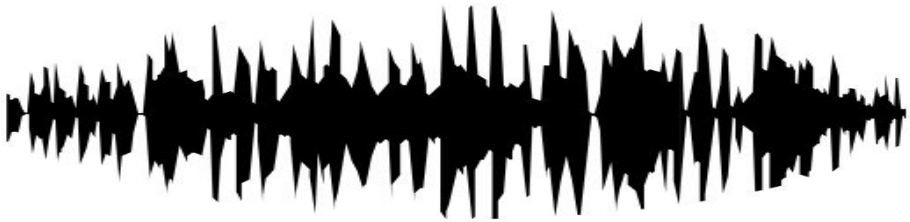
You can make your own simple musical instrument to experiment how to change pitch and volume.
You'll need an empty tissue box and some elastic bands of different shapes and sizes.
Wrap the bands around the box going over the opening. You can then pluck them like a guitar!
What do you notice about the different sized bands? Can you make louder and quieter sounds?

Empty tissue box



Elastic bands

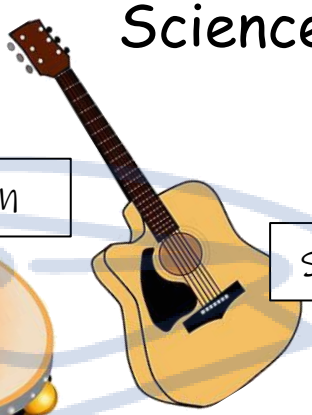
How fast the object vibrates affects the pitch of a sound: a fast vibration creates a high pitch and a slow vibration creates a low pitch.
Can you find out what else affects pitch?



Science – Freaky Frequency

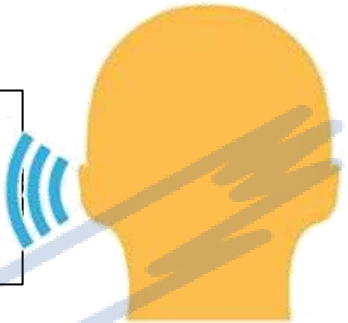
wind

percussion



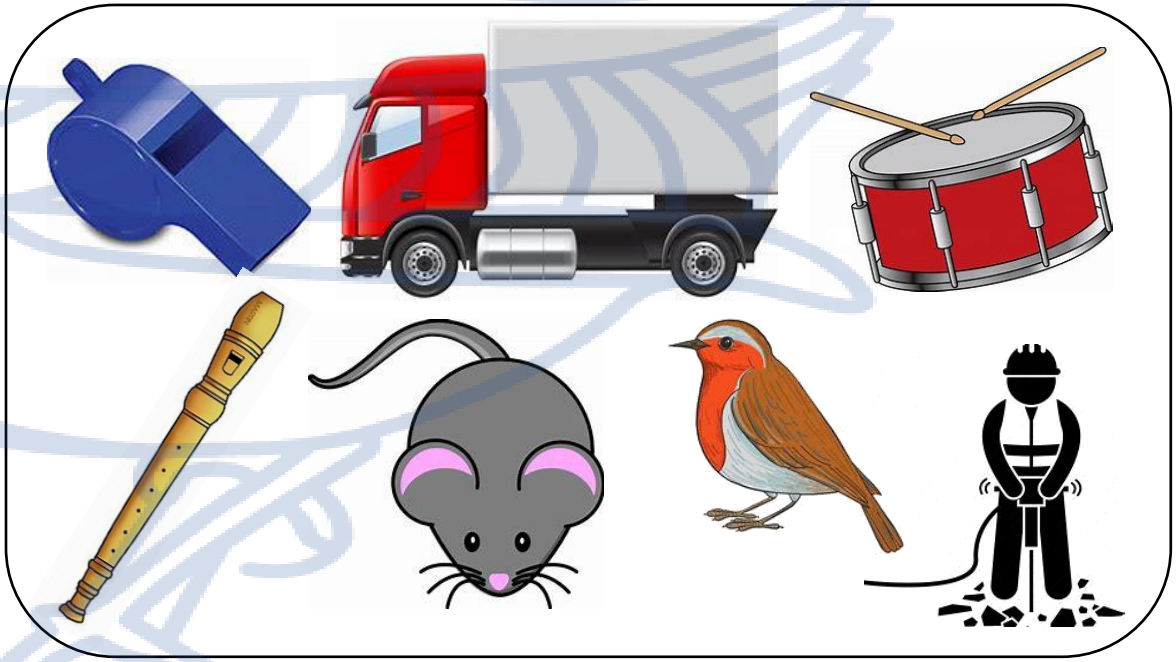
string

Can you sort these objects by whether they make a high or a low pitched sound?

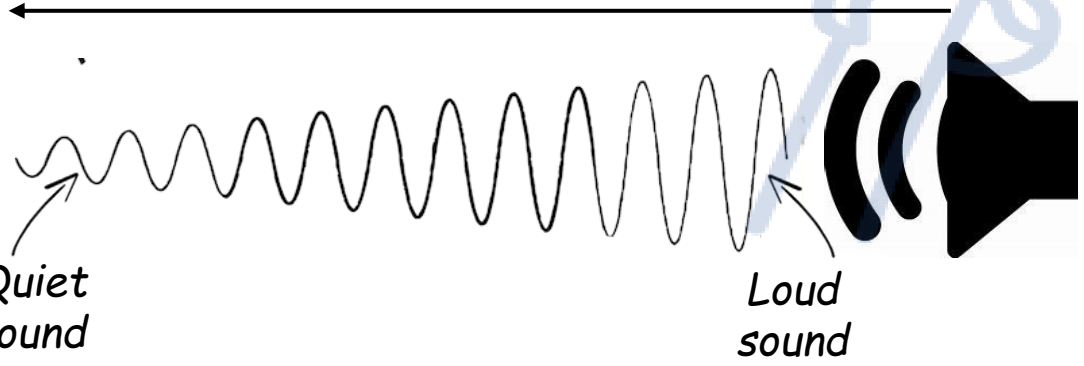


Musical instruments create sound by making the air vibrate. Some, called percussion instruments, need to be hit, others use strings to vibrate the air and some are blown into to create the sound.

How many other instruments can you name that fit into each category?



Distance from sound source



Quiet sound

Loud sound

The intensity (strength) of a sound wave decreases as you get further away from the source of the sound. This means that the sound gets quieter as you move further away from the source.

When have you noticed that a sound gets quieter as it moves further away?