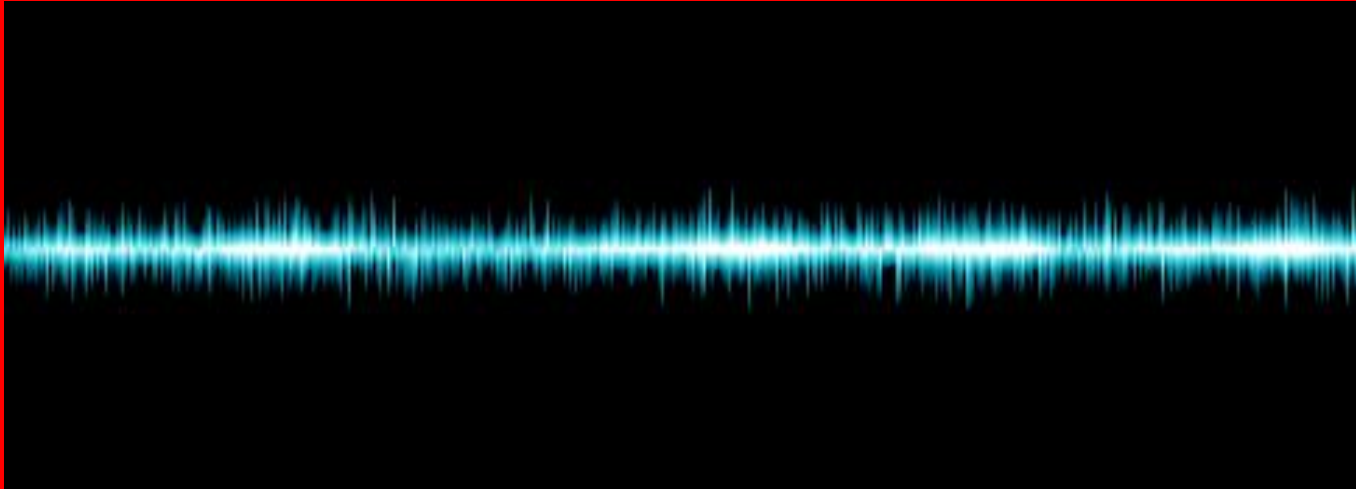


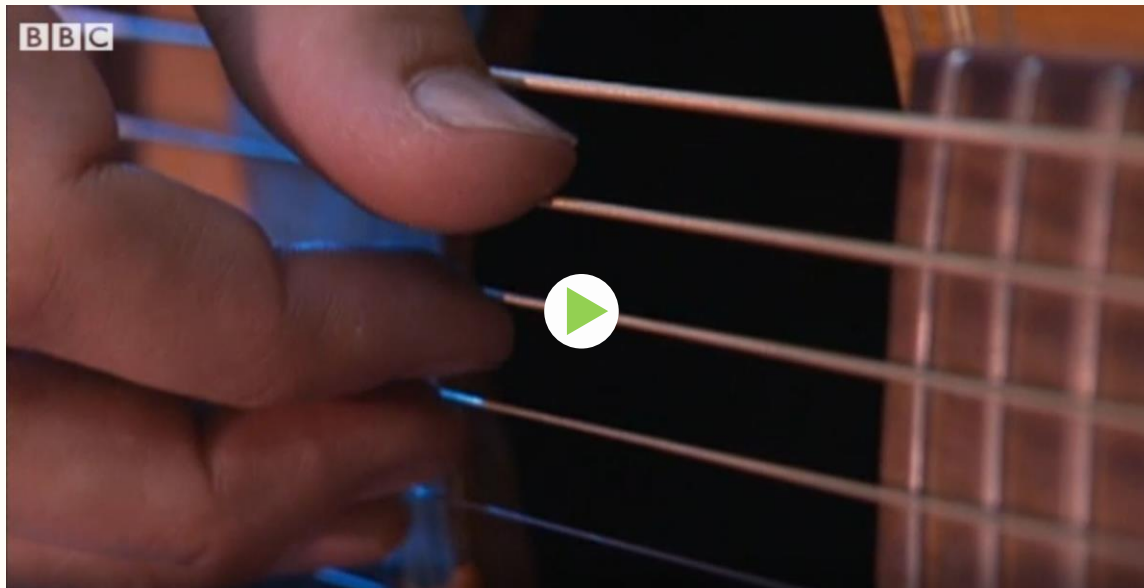
# LC: Can I describe and explain sound sources?



# What is Sound?



Watch this clip to see to see how the different families of musical instrument create different sounds.



Click on this image to play the video in a new window.

# What is Sound?



Did you come up with some words to explain how the musical instruments make sounds?

Look at the words below. Did you choose any of these words?

Vibrate

Vibration

Twang

Blow

Bang

Scrape

Shake

Pluck

# Vibrations



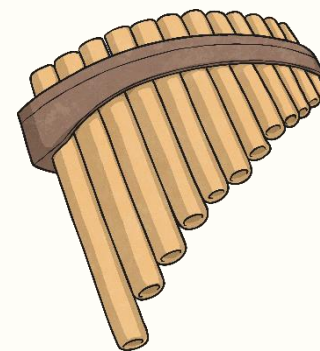
All the instruments are played in different ways, but they all have something in common. They all create sounds by vibrating.

The strings of the guitar and the gopichand vibrate when they are plucked.

The pan pipes and horn are filled with air, which vibrates when they are blown.

The balafon and the bongos make sounds when they are hit or banged, causing the blocks or the skin to vibrate.

But what is a vibration?



# Vibrations



We can see and feel vibrations whenever sounds are made.

Gently place your hand on your throat.

Say 'Ah!'

Can you feel the vibrations from your vocal cords?

Ahh

# Vibrations



Place a few grains of rice on a drum skin and gently bang the drum.

What do you observe?

The grains of rice bounce on the drum skin when it is hit.



This is because the drum skin vibrates, and the vibrations pass to the grains of rice, which also vibrate.

# Vibrations



Gently hit a tuning fork and listen to the sound it makes. Lower the tuning fork into a bowl of water.

What do you observe?

You can see the ripples in the water when you place the tuning fork into it.



The tuning fork vibrates when it is hit, making the sound. These vibrations travel through the water, making the ripples as the water vibrates.



# School or Home Sound Survey

Around school there are lots of different sounds. Some places will be noisy, whereas some places will be quiet. The loudness of the different places will even change throughout the day!

You are going to carry out a sound survey of your school to find which places are noisy and which are quiet at different times of day. You may decide to rate each place out of 5, with 5 being very noisy and 0 being totally silent.

You may choose to use a data logger, which will record the loudness of each place for you to compare.