



# 11.1 Changing sounds



- **Sound-** дуу
- **Vocal cords-** дууны хөвч
- **Vibrations** - чичирхийлэл, хэлбэлзэл
- **Loudness** – дууны хүч (чанга, сул)
- **Pitch** - дууны өнгө

# What causes sound?

**It's easy to make a sound. Hit a box with a stick. Blow into a tube. Pluck a rubber band.**

**We can make sounds with our vocal cords. Try placing your thumb and fingers gently on your throat while you are talking or singing. You should be able to feel vibrations.**



# What causes sound?

All sounds come from sources which vibrate (move back and forth). You may be able to see the vibrations of a guitar string. You can't see the air inside a saxophone vibrating.



# Loudness and pitch

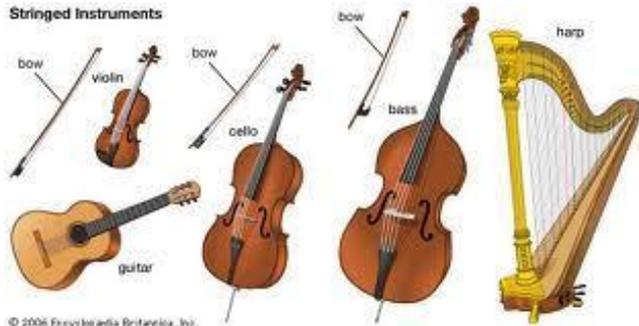


There are three types of musical instruments:

**Stringed instruments**  
(with string that vibrate)

**Wind instruments**  
(ones that you blow into)

**Percussion instruments**  
(that you strike)



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# Loudness and pitch



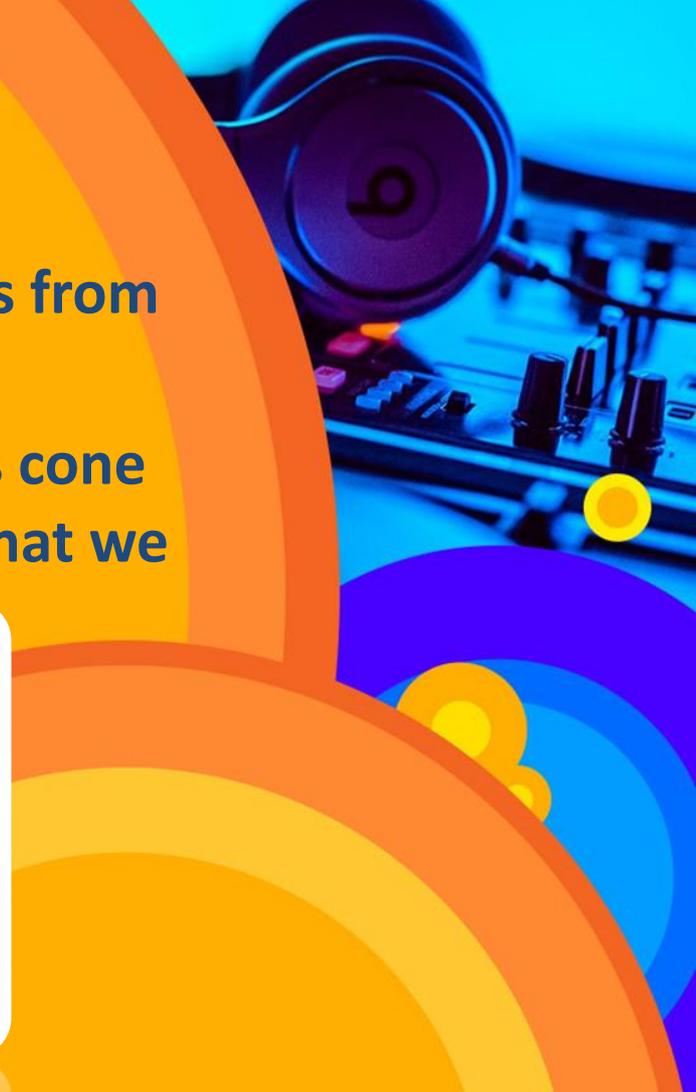
**Musicians learn to make different sounds with their instruments. There are two things they can change:**

- They can make the sound of their instrument louder or softer. They can control its **loudness**
- They can make the note higher or lower. They can change its **pitch**

# Loudspeakers

Loudspeakers are used to produce sounds from computers, radios and television sets.

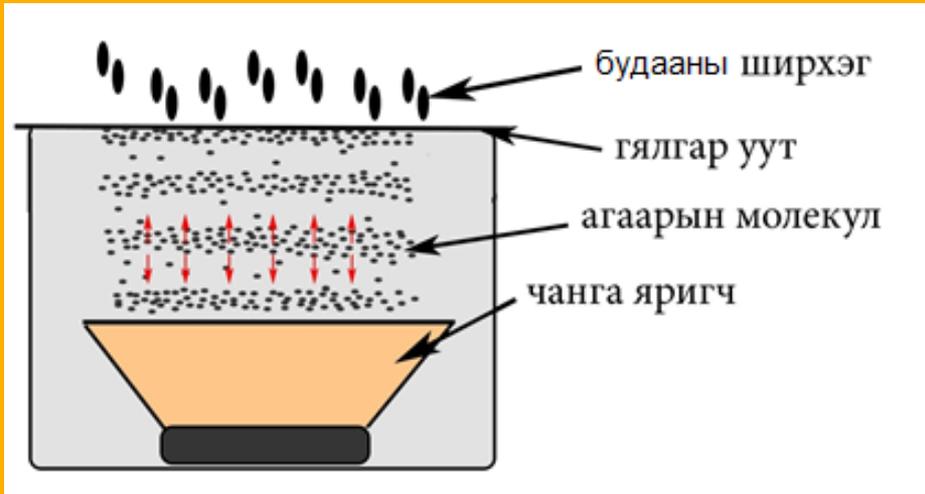
Inside a loudspeaker is a paper cone. This cone vibrates back and forth to make sounds that we hear.



# Loudspeakers

[http://youtube.com/watch?v=01QJXvH\\_iQY](http://youtube.com/watch?v=01QJXvH_iQY)

Савыг огт хөдөлгөөгүй байхад будааны жижиг хэсгүүд яагаад хөдөлж байгаа вэ?



# Summary



- Sounds are produced by vibrating objects
- Bigger vibrations give louder sounds
- Faster (more frequent) vibrations give sounds of higher pitch