SOUND

Young birds make shrill cries when they are hungry.

How are the sounds they make different from those made by adults birds?

Why do some bird calls sound louder than others?

Young birds make shrill cries when they are hungry.

How are the sounds they make different from those made by adults birds?

The sounds made by young birds are of a higher pitch than the sounds made by adult birds.

Why do some bird calls sound louder than others?

Some birds expel more air when they cry out. This exerts a greater force on their vocal chords to vibrate and causes their calls to sound louder than those of other birds.

➢PITCH

What is Pitch?

The pitch of a sound refers to the sharpness of a sound.

Have you noticed that the sound made when a crow shrieks in alarm is sharper than the sound made when a tiger roars The sound made when a dog yelps is also sharper and more piercing than the sound made when it barks.

Sounds which are sharp and piercing, like a crow´s shriek, are said to have a high pitch. High pitched sounds are produced when the object making the sound vibrates very fast.

Sounds which are not sharp, like a tiger´s roar or a dog´s bark, have a low pitch. Low-pitched sounds are produced when the object making the sound vibrates slowly.

- Changing the pitch of a sound.

  We can change the pitch of the sound made by an object. If we make the object vibrate slower, the pitch of the sound it makes will become lower. If we make the object vibrate faster, the pitch of the sound it makes will become higher.

There are different ways in which we can make objects vibrate faster or slower. Let us look at the example of a guitar, a string instrument.

Analyse: Why does an adult´s voice have a lower pitch than a child´s voice?

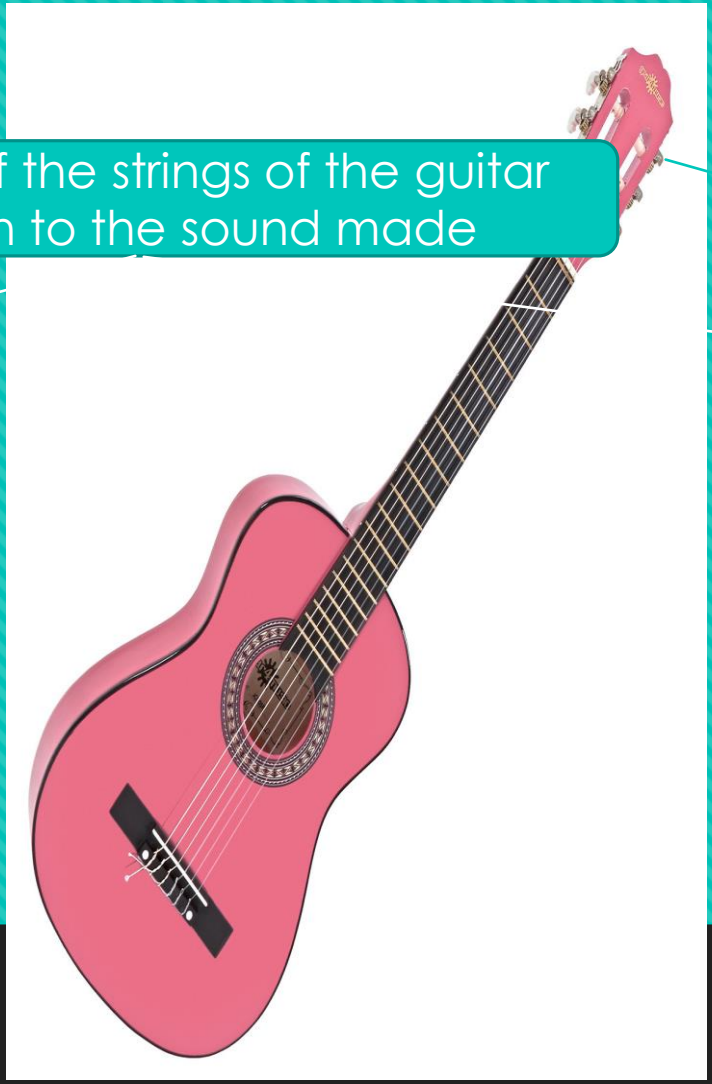
What happens to our vocal chords as we grow older?

Pluck one of the strings of the guitar and listen to the sound made

Increase the pitch

Increase the tightness of a string by adjusting a tuning peg. Pluck the string again.

The string now vibrates faster and makes a sound with a higher pitch..



Tuning pegs

Increase the pitch

Decrease the tightness of a string by adjusting a tuning peg. Pluck the string again.

The string now vibrates slower and makes a sound with a lower pitch.

A loud sounds has a high intensity. Loud drumming the sound of thunder and loud music from a speaker are examples of loud sounds.

A soft sound has a low intensity. The sound of a person whispering, the soft humming of machines and the soft chirping of a bird are examples of soft sounds.

- Changing the intensity of a sound We can change the intensity or loudness of a sound made by an object if we change the force of the action that makes the object vibrate.

Draw an example:

- **Loud sounds:**
  When we ear a loud song, we tend to cover our ears to block out the sound. This is our body´s natural response to protect our eyes.

  When we hear loud sounds, it damages our hearing and can even cause deafness or loss of hearing.