

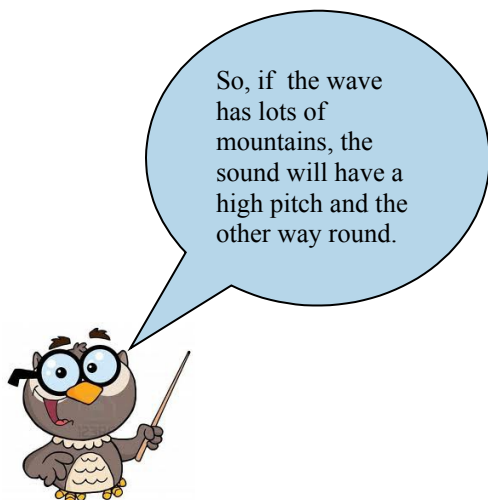
PITCH AND FREQUENCY

A sound wave is created by a vibrating object. The vibrating object is the source of the disturbance that moves through the medium and could be the vocal cords of a person, the string of a violin, the vibrating tines of a tuning fork, etc. Regardless of what vibrating object is creating the sound wave, the particles of the medium through which the sound moves is vibrating in a back and forth motion at a given frequency. The frequency of a wave refers to how often the particles of the medium vibrate when a wave passes through the medium.

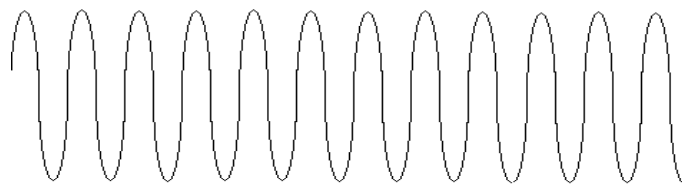
The **frequency** of a wave is measured as the number of complete back-and-forth vibrations of a particle of the medium per unit of time.

A commonly used unit for frequency is the Hertz (abbreviated Hz), where 1 Hertz = 1 vibration/second

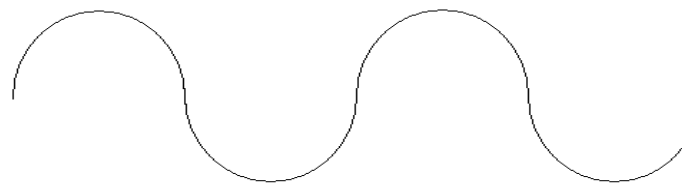
Frequency and pitch describe the same thing, but from different viewpoints. While frequency measures the cycle rate of the physical waveform, **pitch** is how high or low it sounds when you hear it. This is directly related to frequency: the higher the frequency of a waveform, the higher the pitch of the sound you hear.



So, if the wave has lots of mountains, the sound will have a high pitch and the other way round.



High frequency radio waves



Low frequency radio waves

1.- Make sentences with the following pairs of words:

Pitch and frequency.

Frequency and Hertz.

2.- Draw a wave with:

- A high amplitude and a low frequency.
- A low amplitude and a high frequency.
- A high amplitude and a high frequency.
- A low amplitude and a low frequency.