

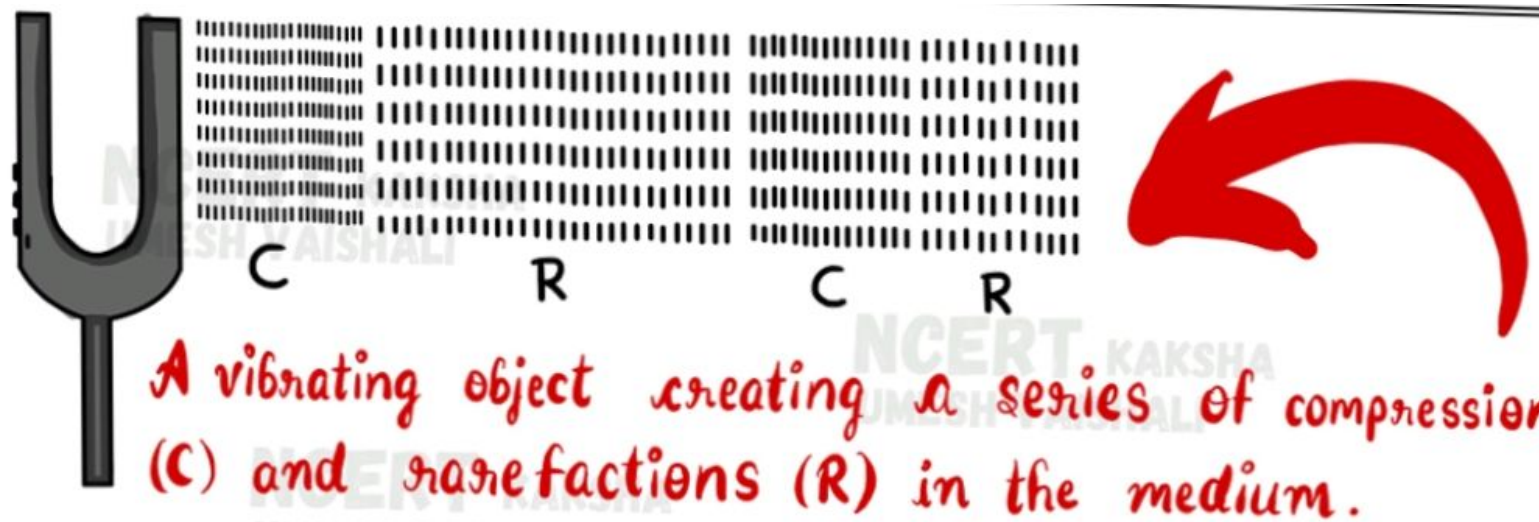
SOUND

➔ Introduction

- The sensation felt by our ears is called sound .
- Sound is a form of energy which makes us hear.
- Law of conservation of energy is also applicable to sound .
- Sound travels in form of wave .

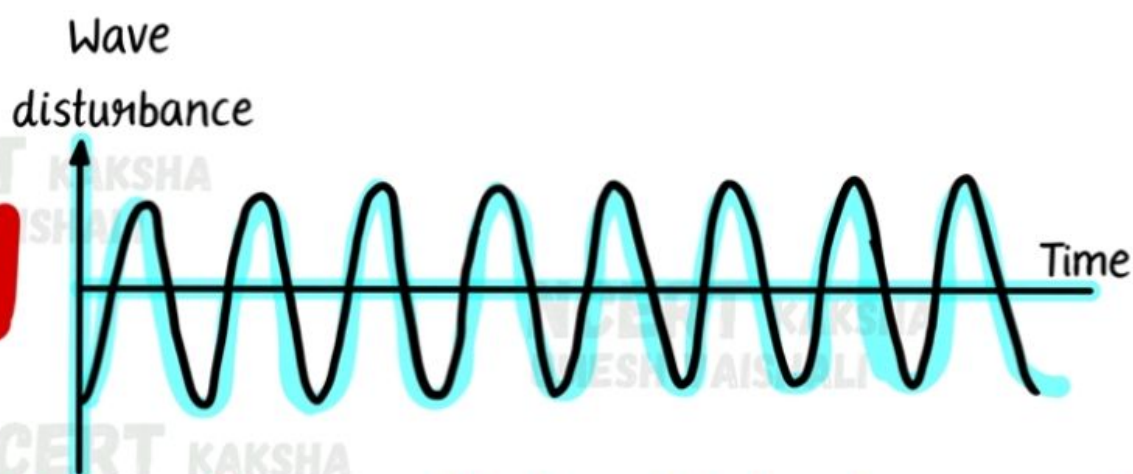
➔ Production of Sound

- Sound is produced when object vibrates or sound is produced by vibrating objects .
- The energy required to make an object vibrate and produce sound is provided by some outside source (like our hand, wind etc) .



→ When a body vibrates then it compresses the air surrounding it and form a area of high density called compression (C).

* Compression is the part of wave in which particles of the medium are closer to each other.



Wave Shape for a high pitched sound

- **Loudness** : The loudness depends on the amplitude of the sound wave .
- Loudness is the measure of the sound energy reaching the ear per sec .
- Greater the amplitude of sound wave , greater is the energy , louder the sound ; short is the amplitude , less is the energy , soft is the sound .
- Loudness is measured in decibel 'dB' .
- **Quality or Timbre** : The timbre of a sound depends on the shape of sound wave produced by it . It is the characteristic of musical sound .