

Sound is all about vibrations:

In science, sound is a mechanical wave created by vibrations. When an object vibrates (like striking a drum or plucking a string), it causes the surrounding molecules (air, water, or solids) to rapidly move back and forth. These oscillations travel outward as sound waves until they reach our ears and are processed as sound.

Sound is a type of energy made by vibrations. When an object vibrates, it causes movement in surrounding air molecules. These molecules bump into the molecules close to them, causing them to vibrate as well. This results in a wave of vibrations travelling through the air to the eardrum, which in turn also vibrates. What the sound wave will sound like when it reaches the ear depends on a number of things such as the medium it travels through and the strength of the initial vibration.

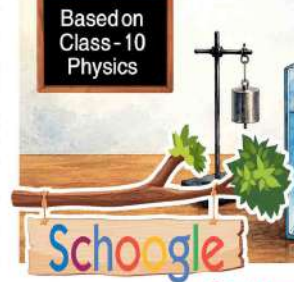
Sound waves travel through three frequency spectrums:

Audible sound: Frequencies humans can hear (typically 20 Hz to 20,000 Hz).

Infrasound: Sounds too low for human ears to detect (below 20 Hz).

Ultrasound: Sounds too high for human ears to detect (above 20,000 Hz).

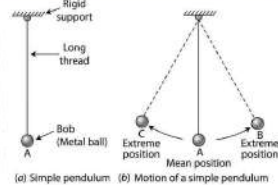
Based on Class - 10 Physics



Simple pendulum experiment

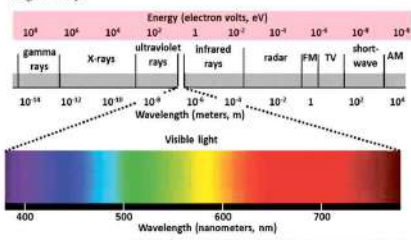
A simple pendulum experiment for Class 10 students involves investigating the relationship between the length of a pendulum and its time period. The experiment typically uses a bob (a small, heavy mass) suspended by a string from a fixed point. By varying the length of the string and measuring the time it takes for a certain number of oscillations, students can observe how length affects the time period and understand the concept of simple harmonic motion.

Forced vibrations occur when an external periodic force causes an object to vibrate at a frequency dictated by that external force, rather than its own natural frequency.



The Electromagnetic Spectrum

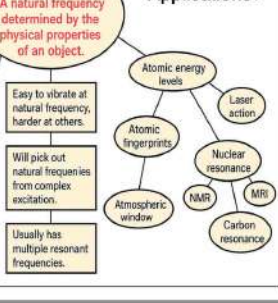
The electromagnetic (EM) spectrum is a range of all types of EM radiation. Radiation is energy that travels and spreads out as it goes - the visible light that comes from a lamp in your house and the radio waves that come from a radio station are two types of electromagnetic radiation. The other types of EM radiation that make up the electromagnetic spectrum are microwaves, infrared light, ultra violet light, X-rays and gamma rays.



RESONANCE:

Resonance is a phenomenon where a system oscillates with maximum amplitude when driven by an external force at its natural frequency. Essentially, it's when an object is forced to vibrate at its preferred frequency, causing it to vibrate with a much larger amplitude than it would at other frequencies.

Applications:



NATURAL FREQUENCY

Nearly all objects, when hit, struck, plucked, or somehow disturbed, will vibrate. When these objects vibrate, they tend to vibrate at a particular frequency or set of frequencies. This is known as the natural frequency of the object. For example, if you 'ping' a glass with your finger, the glass will produce a sound at a pitch that is its natural frequency.

Let's Build Vocabulary

The word RECONCILE / verb

- to restore friendly relations after disagreement or conflict.
- to make two ideas, situations or beliefs compatible or consistent.

Sentence using the Word

- The brothers finally decided to reconcile after years of misunderstanding.
- Scientists try to reconcile theory with observation.

Etymology Corner

From Latin reconciliare = "to bring together again", from re- (again) + conciliare (to unite or bring together).

Word Family

reconciliation (n), reconcilable (adj), reconciled (adj/v)

Synonyms & Antonyms

Synonyms: reunite, resolve, harmonise, settle, make peace

Antonyms: divide, alienate, separate, conflict

Meaning in Malayalam

ഒത്തുതീർപ്പാക്കുക, പുനഃസംയുക്തമാക്കുക, തമ്മിൽത്തീർപ്പാക്കുക, തമ്മിൽത്തീർപ്പാക്കുക.

Real-World Usage

Community leaders worked to reconcile conflicting groups through dialogue - The Hindu

Fun Facts

Reconcile comes from a word meaning "to bring together again" - perfect for rebuilding relationships!

The word QUIPSTEV / noun

- a person who frequently makes clever or witty remarks.
- someone known for humorous comments or quick jokes.

Sentence using the Word

- The classroom quipster always kept everyone laughing.
- As a talented quipster, he could lighten even serious discussions with humour.

Etymology Corner

From quip meaning "a witty or clever remark", combined with the suffix -ster, indicating a person associated with something.

Word Family

quip (n/v), quippy (adj)

Synonyms & Antonyms

Synonyms: wit, humorist, joker, wisecracker

Antonyms: dull person, serious speaker, bore

Meaning in Malayalam

തമാശക്കാരൻ, നാടാട കഥാകാരൻ, തമാശക്കാരനായ വ്യക്തി.

Fun Facts

A quipster can turn an ordinary conversation into a memorable one with a single witty line!

Real-World Usage

The television host became popular as a quick-witted quipster during live debates - The Indian Express

Fun Facts

quipster can turn an ordinary conversation into a memorable one with a single witty line!

Real-World Usage

The television host became popular as a quick-witted quipster during live debates - The Indian Express

Fun Facts

quipster can turn an ordinary conversation into a memorable one with a single witty line!

Advertisement for Federal Bank, including details about its services, branches, and contact information.

CERTIFICATE LOST

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.

NOTICE

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.

NOTICE

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.

NOTICE

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.

NOTICE

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.

NOTICE

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.

BEFORE THE HON'BLE SUB COURT AT KOCCHI

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.

BEFORE THE HON'BLE SUB COURT AT KOCCHI

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.

BEFORE THE HON'BLE SUB COURT AT KOCCHI

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.

BEFORE THE HON'BLE SUB COURT AT KOCCHI

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.

BEFORE THE HON'BLE SUB COURT AT KOCCHI

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.

BEFORE THE HON'BLE SUB COURT AT KOCCHI

Notice regarding a lost certificate for L.Aby Joseph, Thottiparambil Kuruth Building, MM Road, First Floor, Pachalam, Kochi, Kerala - 682 012.