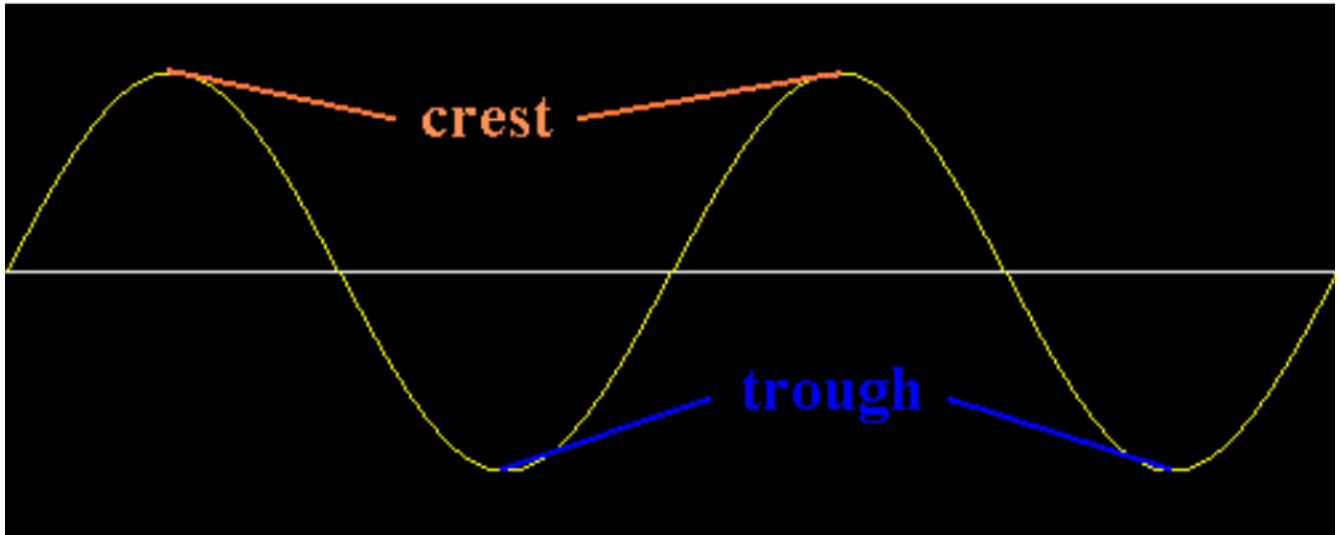


Sound: Parts of a Wave & Diegetic / Non-Diegetic Sound

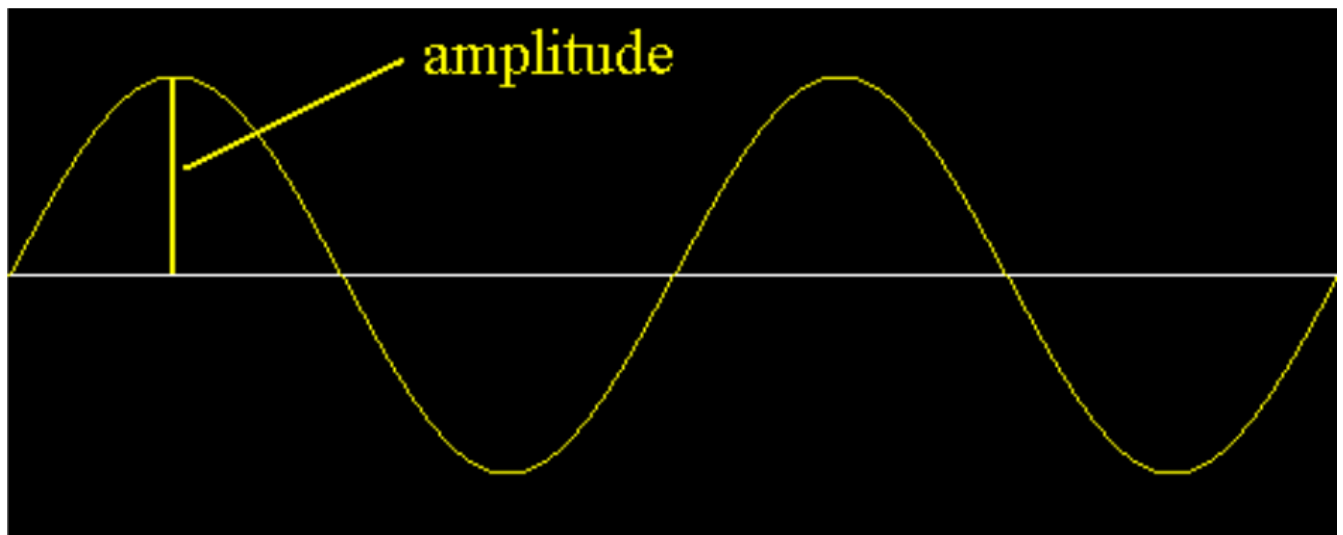
Crest and Trough

The section of the wave that rises above the undisturbed position is called the crest. That section which lies below the undisturbed position is called the trough. These sections are labeled in the following diagram:



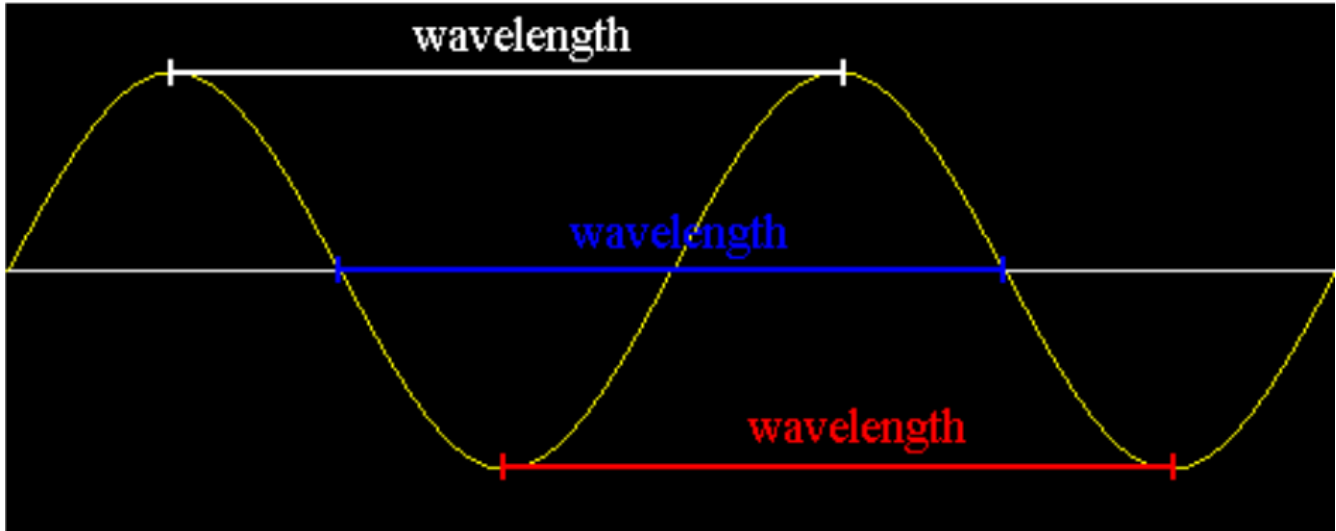
Amplitude

The term amplitude is the size of the vibration, and this determines how loud the sound is. The larger vibrations make a louder sound.



Wavelength

The wavelength of a wave is the distance between any two adjacent corresponding locations on the wave train. This distance is usually measured in one of three ways: crest to next crest, trough to next trough, or from the start of a wave cycle to the next starting point. This is shown in the following diagram:



Frequency

Frequency is measured as the number of wave cycles that occur in one second. The unit of frequency measurement is Hertz (Hz for short).

If ten waves are made per second, then the frequency is said to be ten cycles per second, written as 10 cps.

Usually, we use the unit Hertz to state frequency. A frequency of 10 cps is noted as a frequency of 10 Hertz. So, one cycle per second is one Hertz, as in:

1 cps = 1 Hertz

Diegetic

Sound is called **diegetic** when its source is visible or implied in the world of the film. Common diegetic sounds present in most films are:

- actors speaking to each other (dialogue)
- sounds originating from any object on the screen, like footsteps and police sirens
- music that comes from a sound system or orchestra

Diegetic is also known as actual or literal sound.

Diegetic sounds can further be categorized as source-connected or source-disconnected depending on whether the sound source is visible or implied on the screen. A visible source is shown on the screen, while an implied source is still part of the film world but not shown on the screen.

Non-Diegetic

Sound is said to be **nondiegetic** when its source is not present or implied in the narrative universe. Common instances are:

- music or score, used to augment emotions
- actor's commentary or narration
- any extra sound added for effect