



EQ066B

### Function

undulatory. Main characteristics of waves in a spring. The longitudinal pulse and the transverse pulse. Characteristics of a wave. The transport of energy in a mechanical wave. The speed of propagation of a pulse on a spring. Mechanical waves. Remembering what a wave pulse is. The phenomenon of reflection and interference in a transverse wave in a spring and the standing wave. The phenomenon of reflection in a longitudinal pulse. The reflection and interference of incident and reflected transverse waves. The antinodes and nodes of the standing wave. The vibratory speed and the speed of propagation. Formation and propagation of two-dimensional waves on a liquid surface. Determination of the propagation speed of two-dimensional waves on a liquid surface. The reflection of a two-dimensional wave from a liquid surface. The refraction of two-dimensional waves on a liquid surface. The diffraction of two-dimensional waves on a liquid surface. The interference of two-dimensional waves on a liquid surface. Sound. Sound, a longitudinal mechanical wave. Sound wave. The propagation of sound through air (gaseous medium). Speed of sound in different media. The propagation of sound through a metal rod (solid medium). The propagation of sound through water (liquid medium). The physiological qualities of sound. The sound, Doppler effect. What is the Doppler effect, etc.

### Knowledge areas

Physics

### Key Experiments

Pulse, frequency and wavelength of a spring  
Producing and identifying the waves on a long spring  
The standing wave in a long spring  
Sound, a longitudinal mechanical wave  
The Doppler effect, with tuning fork

**[cidepedigital.com.br](http://cidepedigital.com.br) ✉ [cidepe@cidepe.com.br](mailto:cidepe@cidepe.com.br)**

---

Av. Victor Barreto, 592 - CEP 92010-000 - Canoas - RS - Brasil