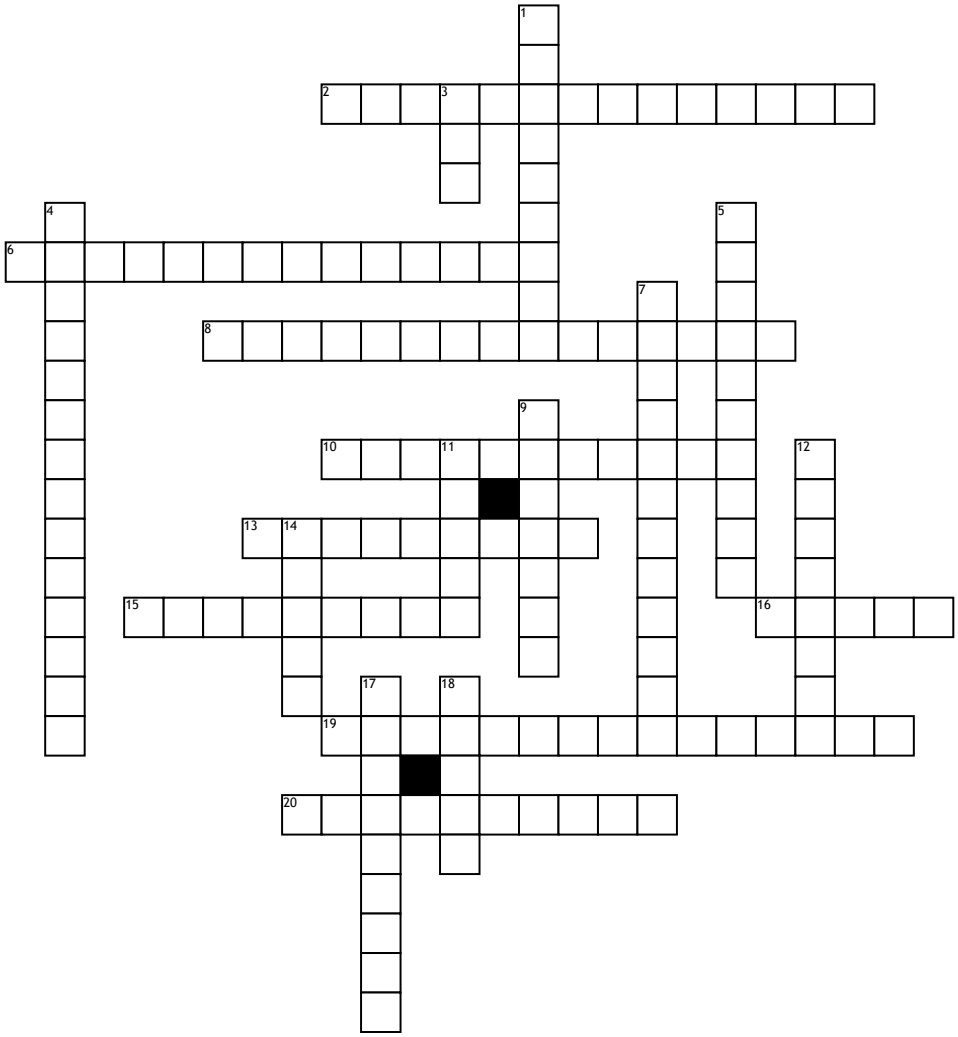
Name: _____ Date: _____

# Chapter 3 Sound Measurements



**Across**

**2.** determines the loudness level

**6.** rapid and random movement of air particles

**8.** Device designed for measurement of the intensity of sound waves in air

**10.** also known as condensation

**13.** a signal that fails to repeat itself at regular intervals (ex: noise)

**15.** Any whole-number multiple of the fundamental frequency of a complex wave

**16.** both auditory experience and disturbance of molecules within and through elastic mediums

**19.** Energy resulting from a fixed and relative position, as in a coiled spring.

**20.** the springiness of a medium where distance increases when the molecule distance decreases

**Down**

**1.** The natural rate of vibration of a mass

**3.** Unit of work

**4.** perpendicular to the direction of wave motion

**5.** he length of a wave is measured from any point on a sinusoid

**7.** dB level used in audiometers; referenced to audiometric zero

**9.** a measure of sound pressure and intensity of one sound against another expressed in sound pressure level

**11.** The unit of loudness leve

**12.** This is the reference used for most sound-level meters. devices designed to measure the sound-pressure levels in various acoustical environments.

**14.** The subjective impression of the highness or lowness of a sound; the psychological correlate of frequency.

**17.** The exponent that tells the power to which a number is raised; the number of times that a number (the base) is multiplied by itself.

**18.** Periodic variations of the amplitude of a tone when a second tone of a slightly different frequency is produced simultaneously

## Word Bank

| | | | | |
|---|---|---|---|---|
| Wavelength | Logarithm | Elasticity | Phons | Mircobar |
| Hearing Level | Compression | sound-level meter | Overtones | Pitch |
| Aperiodic | sound | Potential Energy | Beats | Resonance |
| intensity level | Decibel | Transverse wave | Brownian Motion | ERG |