Name $\qquad$

## SCI180U13 Wave Energy

Complete the crossword puzzle.


LONGITUDINAL<br>TRANSVERSE<br>CREST<br>OSCILLATION<br>WAVE<br>TROUGH<br>FREQUENCY<br>SOUNDWAVES

## Across

1 a wave where matter vibrates at right angles to the direction in which the wave travels
3 Means lengthwise. A wave produced by back and forth motion.
4 movement of sound through the air or other materials in a wave form created by the vibration of some object and detected by causing a sensor to vibrate (2 words)
9 combinations of electricity and magnetism that can travel through space. (2 words)
13 The distance between one crest or peak of a sound wave and the next crest or peak.
14 The low point of a sound wave (the rarefractions), where the lowest air pressure occurs.
15 A decrease in the density of something.

## PERIOD <br> ELECTROMAGNETICWAVES LIGHTWAVES COMPRESSION <br> RAREFACTION <br> WAVELENGTH <br> RADIOWAVES <br> AMPLITUDE

16 Amplitude is the distance from the midpoint to the point of maximum displacement (crest or compression).

## Down

2 The longest wavelength, lowest frequency waves on the
electromagnetic
spectrum. (2 words)
5 The peak of a sound wave where the greatest air pressure occurs.
6 these waves have both electric and magnetic fields (2 words)
7 number of waves that pass a given
point in one
second; measured
in waves per
second, or hertz (Hz).
8 a traveling disturbance that moves energy from one location to another without transferring matter up and down, back and forth motion

11 The area where particles or air are pushed closer together as a result of being near something that is vibrating.
12 time for one wave to pass by

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