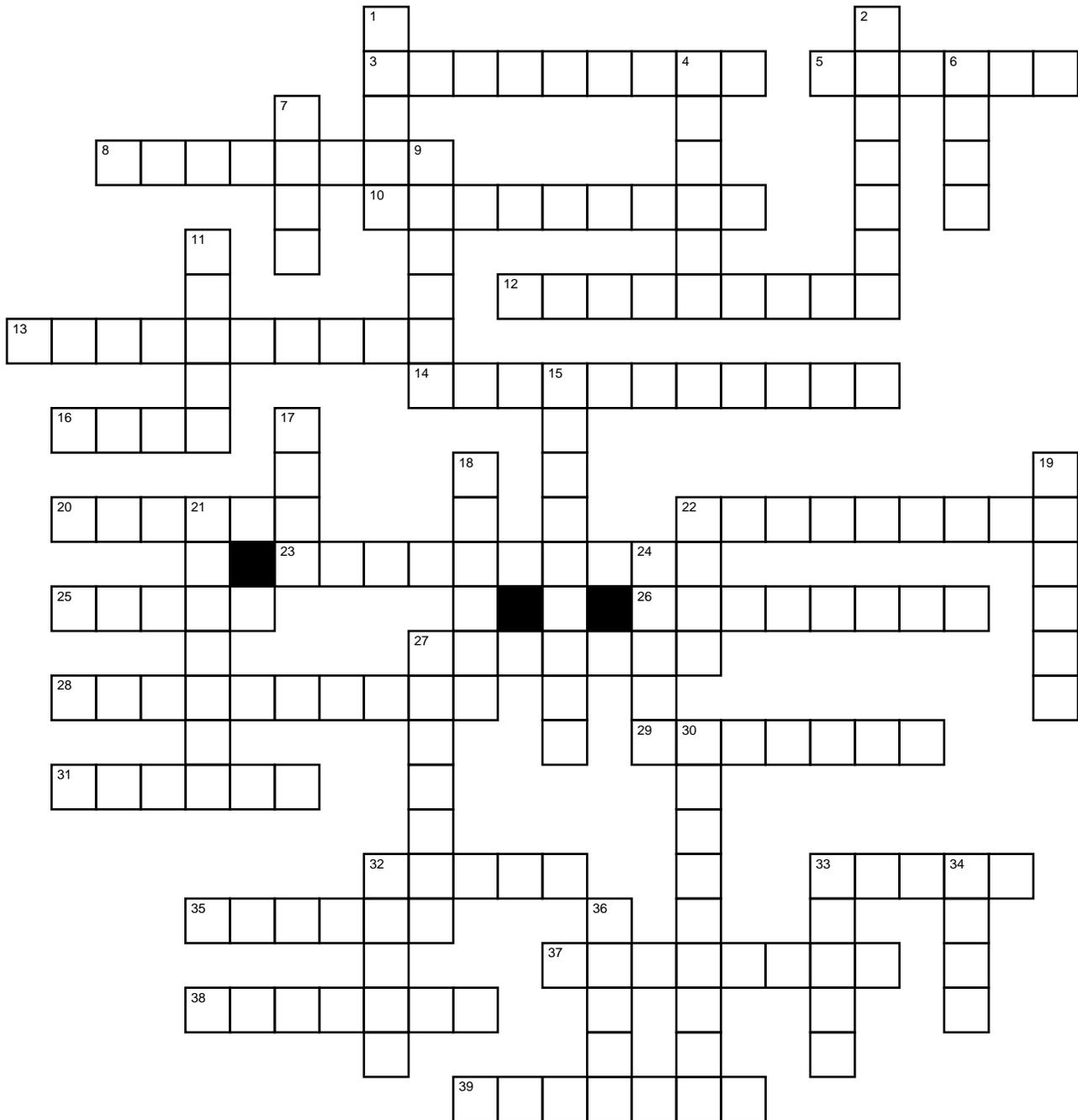


Chapter 24: Waves & Sound

Integrated Science: Physics & Engineering Design

Name _____ Per _____



Across

3. The science and technology of sound is called ____.
5. Low point of a wave
8. Reflection is the process of a wave bouncing off of ____.
10. Linear motion is motion that goes from one place to another without ____.
12. Frequency and period are ____ related.

Down

1. ____ waves are a form of harmonic motion.
2. A pendulum is a device that swings back and forth due to the force of ____.
4. Diffraction is the process of a wave bending around a ____ or passing through an opening.
6. A cycle is a ____ of repeating motion.
7. The oscillations of a longitudinal wave are in the ____ direction that the wave moves.
9. 1 Hertz is 1 cycle per ____.

Across

13. ___ is the process of diminishing the amplitude and energy of a wave as it passes through a material.
14. ___ interference happens when waves add up to make a smaller, or zero, amplitude.
16. Both frequency and period tell us the ___ information.
20. We use the Greek letter ___ for wavelength.
22. How often something repeats
23. The oscillations of a ___ wave are NOT in the direction that the wave moves.
25. A travelling oscillation of atoms or pressure.
26. A repetitive force.
27. Unit for measuring the strength or intensity of sound.
28. An ___ is a physical system that has repeating cycles.
29. The gradual loss of amplitude due to friction.
31. Constructive interference happens when waves add up to make a ___ amplitude.
32. Unit of frequency
33. High point of a wave.
35. A vibrating ___ string is an example of an oscillator.
37. Wavelength is the ___ from any point on a wave to the same point on the next cycle of the wave.
38. The frequency at which a system oscillates when disturbed.
39. The ___ provides us with our ability to interpret sound - to hear.

Down

11. Resonance is an exceptionally large amplitude the develops when a periodic ___ is applied at the natural frequency.
15. A wave is a ___ oscillation that has the properties of frequency, wavelength and amplitude.
17. The oscillation between two sounds that are close in frequency.
18. Supersonic describes speeds that are ___ than the speed of sound.
19. Harmonic motion is motion that repeats in ___.
21. Refraction is the process of a wave ___ as it crosses a boundary between two materials.
22. Sound can be something you hear, but you can also ___ it.
24. Wave ___ is the frequency times the wavelength.
27. The ___ Effect in an increase or decrease in frequency caused by the motion of hte source of an oscillation, such as sound.
30. The amount that a cycle moves from the equilibrium.
32. Listening to loud sounds for a long time can cause the ___ on the nerves in the cochlea to weaken or break off, causing permanent damage.
33. The period is the time it takes for one complete ___ to happen.
34. Resonance happens when a periodic force has the ___ frequency as the natural frequency.
36. The "highness" or "lowness" that you hear at difference frequencies of sound waves.