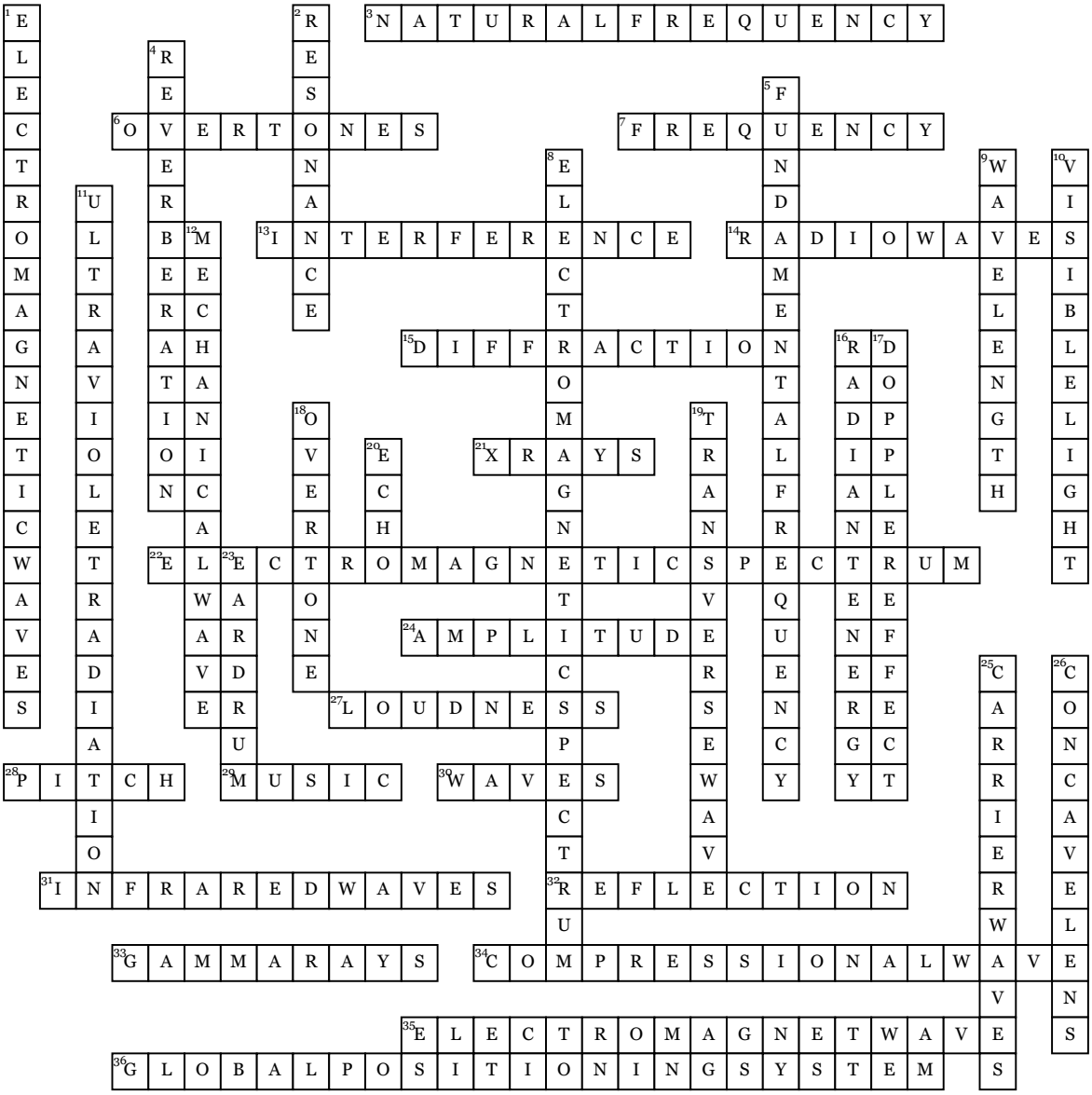
Name: _____ Date: _____ Period: _____

Waves,sound,and light



Across

3. which a system oscillates when not subjected to a continuous or repeated external force.

6. series above a fundamental note and may be heard with it.

7. common unit of frequency is the hertz (Hz), corresponding to one crest per second.

13. he process in which two or more light, sound, or electromagnetic waves of the same frequency combine to reinforce or cancel each other

14. an electromagnetic wave of a frequency between about 104 and 1011 or 1012 Hz, as used for long-distance communication

15. typically accompanied by interference between the wave forms produced.

21. stream of such photons used for their penetrating power in radiography, radiology, radiotherapy, and scientific research.

22. he range of wavelengths or frequencies over which electromagnetic radiation extends.

24. the maximum extent of a vibration or oscillation, measured from the position of equilibrium.

27. is the characteristic of a sound that is primarily a psycho-physiological correlate of physical strength (amplitude).

28. a sound is determined by the rate of vibration, or frequency, of the sound wave.

29. a typical example: "the science or art of ordering tones or sounds in succession, in combination, and in temporal relationships

30. involve the transport of energy without the transport of matte

31. light rays which are longer than light but shorter than radio waves. Electromagnetic radiation with a wavelength between

32. The change in direction of a wave, such as a light or sound wave, away from a boundary the wave encounters.

33. penetrating electromagnetic radiation of a kind arising from the radioactive decay of atomic nuclei.

34. is a region in a longitudinal wave where the particles are closest together.

35. one of the waves that are propagated by simultaneous periodic variations of electric and magnetic field intensity

36. system of satellites, computers, and receivers that is able to determine the latitude and longitude of a receiver on Earth by calculating the time difference for signals from different satellites to reach the receiver.

Down

1. hat are propagated by simultaneous periodic variations of electric and magnetic field intensity

2. ncrease in amplitude of oscillation of an electric

4. prolongaprolongation of a sound; resonance.

5. ncrease in amplitude of oscillation of an electric

8. the range of wavelengths

9. distance between one peak or crest of a wave and the next peak or crest.

10. a form of electromagnetic (EM) radiation, as are radio waves, infrared radiation, ultraviolet radiation, X-rays and microwaves.

11. in the part of the electromagnetic spectrum where wavelengths are just shorter than those of ordinary, visible violet light but longer than those of x-rays.

12. s a wave that is an oscillation of matter, and therefore transfers energy through a medium.

16. energy that travels by waves or particles, particularly electromagnetic radiation such as heat or x-rays.

17. an increase (or decrease) in the frequency of sound, light, or other waves as the source and observer move toward (or away from) each other

18. that is a part of the harmonic series above a fundamental note and may be heard with it.

19. oscillates perpendicular to the axis along which the wave travels

20. a sound or series of sounds caused by the reflection of sound waves from a surface back to the listener.

23. vibrates in response to sound waves; the tympanic membrane.

25. a high-frequency electromagnetic wave modulated in amplitude or frequency to convey a signal.

26. is a lens that possesses at least one surface that curves inwards