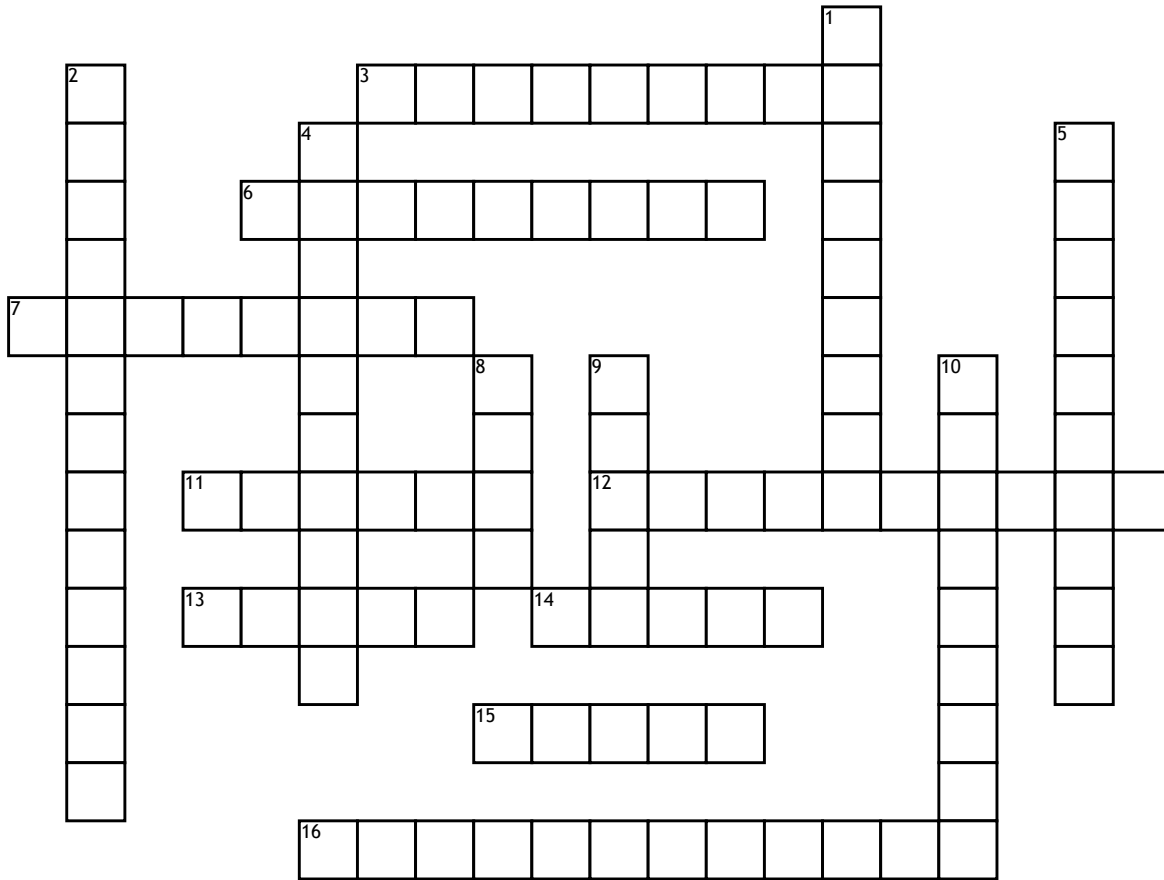


Name: _____

Date: _____

Chapter 16 Vocab



Across

3. a longitudinal wave that is caused by vibrations and that travels through a material medium

6. in physical science, the rate at which energy flows through a given area of space

7. a line in space that matches the direction of the flow of radiant energy

11. a unit or quantum of light; a particle of electromagnetic radiation that has zero rest mass and carries a quantum of energy

12. in optics, the process of separating a wave of different frequencies into its individual component waves

13. sound navigation and ranging, a system that uses acoustic signals and returned echoes to determine the location of objects or to communicate

14. in optics, a system that consists of two or more plane surfaces of a transparent solid at an angle with each other

15. a measure of how high or low a sound is perceived to be, depending on the frequency of the sound wave

16. an image from which light rays appear to diverge, even though they are not actually focused there; a virtual image cannot be projected on a screen

Down

1. an image that is formed by the intersection of light rays; a real image can be projected on a screen

2. the increase of an object's apparent size by using lenses or mirrors

4. slow vibrations of frequencies lower than 20 Hz

5. any sound wave with frequencies higher than 20,000 Hz

8. a transparent object that refracts light waves such that they converge or diverge to create an image

9. radio detection and ranging, a system that uses reflected radio waves to determine the velocity and location of objects

10. a phenomenon that occurs when two objects naturally vibrate at the same frequency; the sound produced by one object causes the other object to vibrate