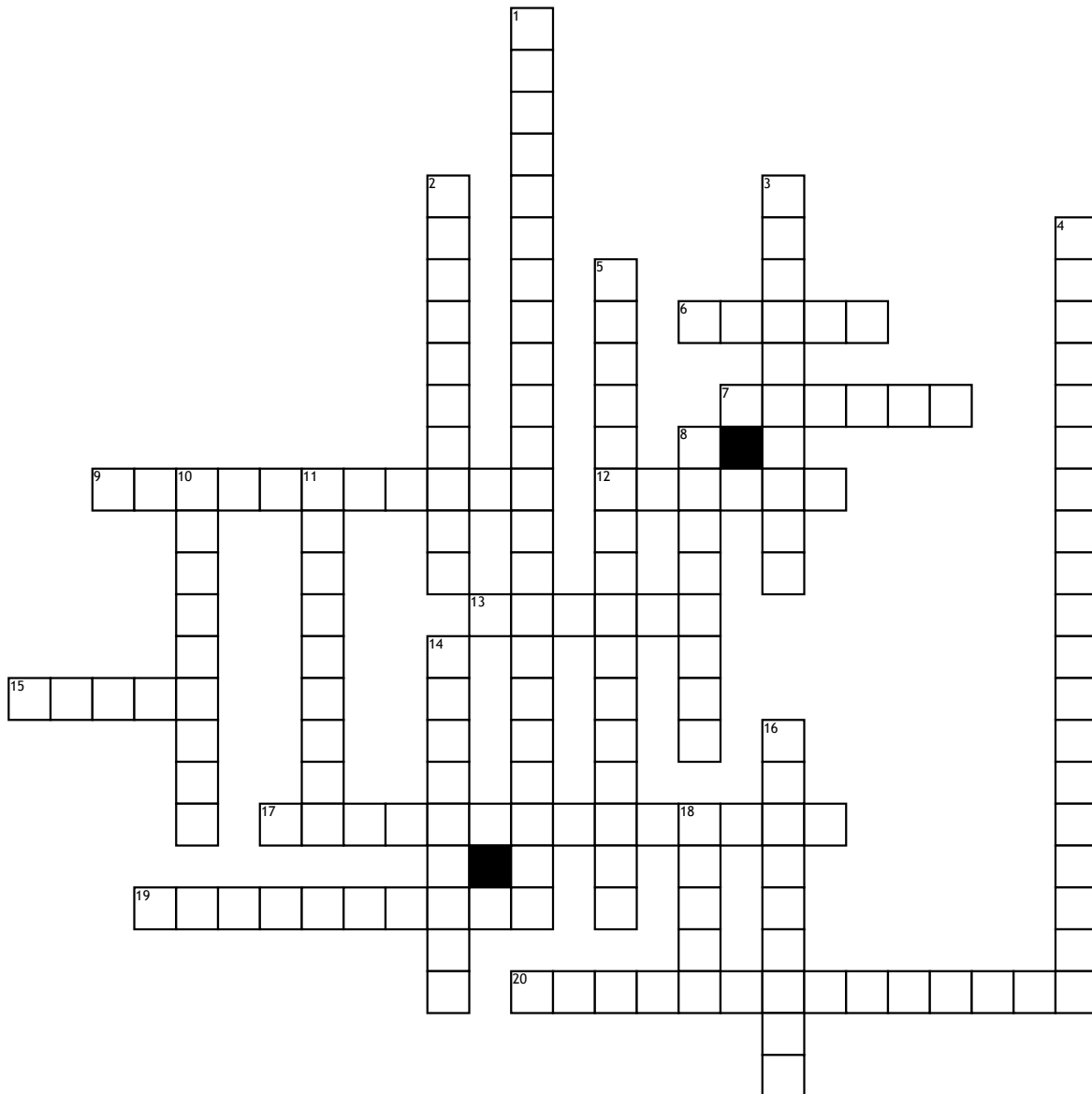


# WAVES



**Across**

- 6. The point on a wave with the maximum value or upward displacement within a cycle.
- 7. An intervening substance through which something else is transmitted or carried on.
- 9. The process of light bending around an obstacle or spreading out after it moves through a small space.
- 12. The point on a wave with the minimum value or downward displacement within a cycle.
- 13. The duration of one complete cycle of a wave or oscillation.
- 15. Any complete round or series of occurrences that repeats or is repeated.
- 17. a wave that is an oscillation of matter, and therefore transfers energy through a medium. [
- 19. The change in direction of a wave passing from one medium to another caused by its change in speed.

20. A wave that is propagated in a direction perpendicular to the direction of displacement of the transmitting field or medium.

**Down**

- 1. A. Simple harmonic motion occurs when the force  $F$  acting on an object is directly proportional to the displacement  $x$  of the object, but in the opposite direction.
- 2. The process in which incident radiated energy is retained without reflection or transmission on passing through a medium.
- 3. The distance, measured in the direction of propagation, between two points of the same phase in consecutive cycles of a wave.
- 4. a wave produced by the acceleration of an electric charge and propagated by the periodic variation of intensities of, usually, perpendicular electric and magnetic fields.
- 5. a wave that is propagated in the same direction as the displacement of the transmitting medium.

- 8. An obstacle implanted within the medium, and if the dimensions of the obstacle are smaller than the wavelength of the wave, then there will be very noticeable diffraction of the wave around the object.
- 10. The number of waves passing a fixed point, or the number of oscillations or rotations of a body moving to and fro, or in a circle, in unit time.
- 11. The maximum displacement or distance moved by a point on a vibrating body or wave measured from its equilibrium position.
- 14. The oscillating, reciprocating, or other periodic motion of a rigid or elastic body or medium forced from a position or state of equilibrium.
- 16. The distance a wave travels in a specified length of time.
- 18. a disturbance that transfers energy through matter or space, with little or no associated mass transport. Waves consist, instead, of oscillations or vibrations of a physical medium or a field, around relatively fixed locations.