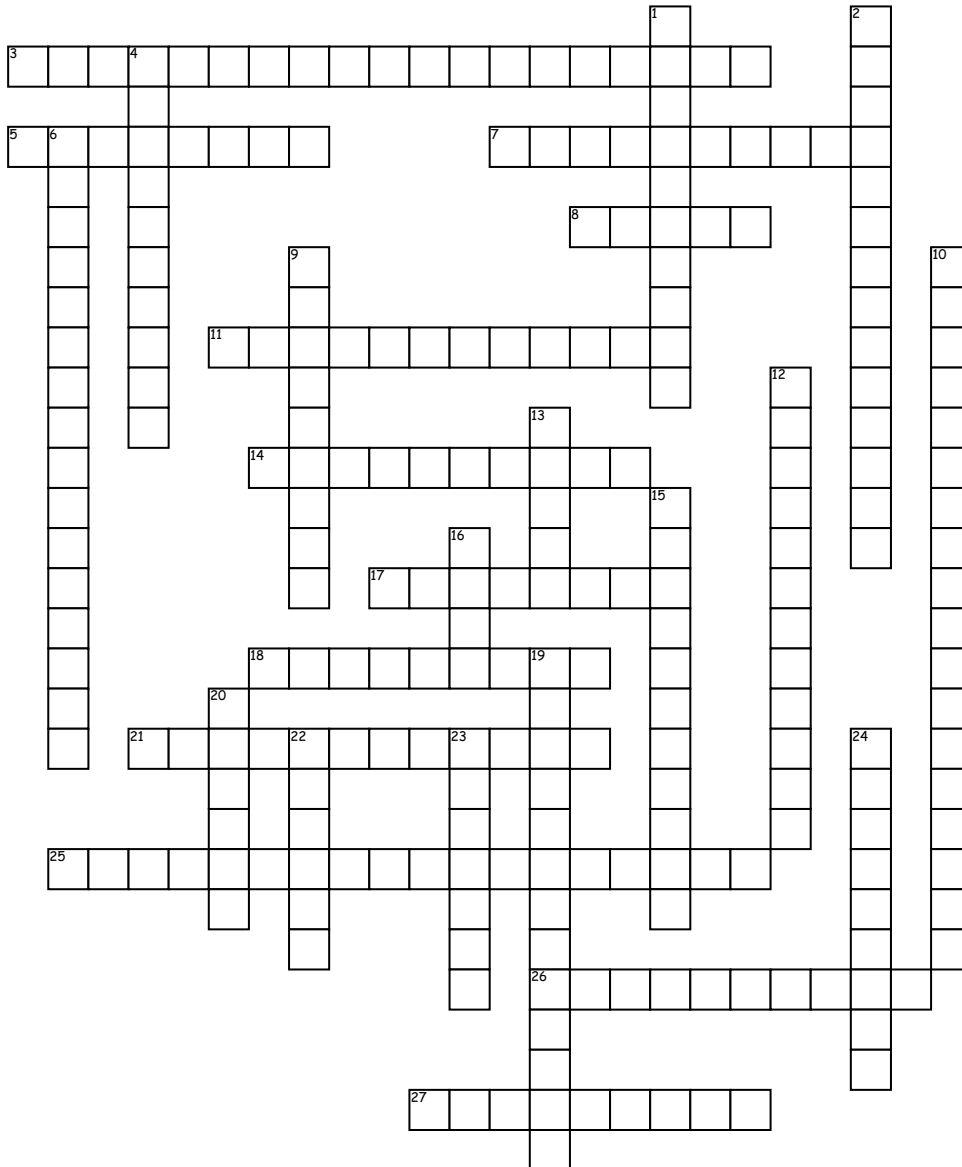


Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Unit 3 Light Crossword Puzzle



## Across

3. Can be characterized by either the frequency or wavelength of their oscillations, which determines their position in the electromagnetic spectrum

5. States that the black body radiation curve for different temperatures peaks at a wavelength inversely proportional to the temperature.

7. The movement caused within a fluid by the tendency of hotter and therefore less dense material to rise, and colder, denser material to sink under the influence of gravity, which consequently results in transfer of heat.

8. Top of wave in wavelength

11.  $3.0 \times 10^8$

14. The bending of a wave when it enters a medium where its speed is different

17. A condition that is not limited to a specific set of values but can vary infinitely within a continuum.

18. Measure of its change over a single period

21. The branch of science concerned with the investigation and measurement of spectra produced when matter interacts with or emits electromagnetic radiation.

25. An emission spectrum that consists of a continuum of wavelengths.

26. A temperature scale based on one proposed in 1724

27. An opaque object that emits thermal radiation.

## Down

1. The distance between successive crests of a wave

2. A physical constant that is the quantum of action, central in quantum mechanics.

4. The process by which heat or electricity is directly transmitted through a substance when there is a difference of temperature or of electrical potential between adjoining regions, without movement of the material.

6. A spectrum of the electromagnetic radiation emitted by a source

9. The number of occurrences of a repeating event per unit time.

10. A spectrum of electromagnetic radiation transmitted through a substance, showing dark lines or bands due to absorption of specific wavelengths.

12. The lowest temperature that is theoretically possible

13. Refers to visible light

15. An objective comparative measure of hot or cold.

16. Energy that spontaneously passes between a system and its surroundings in some way other than through work or the transfer of matter.

19. 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.

20. It is defined such that the triple point of water is exactly 273.16 K.

22. Bottom of wave in wavelength

23. A scale and unit of measurement for temperature

24. The emission of energy as electromagnetic waves or as moving subatomic particles, especially high-energy particles that cause ionization