

Name _____

Colors of Light: Wavelengths and Frequencies Unveiled

Short Answer Key

1. Wavelength and frequency are inversely related: as wavelength decreases, frequency increases, and vice versa.
2. Two colors with longer wavelengths than green light are yellow (approximately 570-590 nanometers) and orange (approximately 590-620 nanometers).
3. In various cultures, blue is often associated with feelings of calmness, trust, and peace. It can also symbolize sadness or melancholy in some contexts.
4. A prism creates a spectrum of colors from white light by bending or refracting light at different angles, based on its wavelength. Each color has its own distinct wavelength, so they spread out into a spectrum when passing through the prism.
5. An example could be how the color of lighting in a room can affect people's mood. Warm, yellowish lighting can create a cozy and relaxed atmosphere, while bright, cool-toned lighting may promote alertness and productivity.

