A simple wave has a repeating pattern with a specific wavelength, frequency, and amplitude. (MS-PS4-1)

A sound wave needs a medium through which it is transmitted. (MS-PS4-2)

When light shines on an object, it is reflected, absorbed, or transmitted through the object, depending on the object’s material and the frequency (color) of the light. (MS-PS4-2)

The path that light travels can be traced as straight lines, except at surfaces between different transparent materials (e.g., air and water, air and glass) where the light path bends. (MS-PS4-2)

A wave model of light is useful for explaining brightness, color, and the frequency-dependent bending of light at a surface between media. (MS-PS4-2)

However, because light can travel through space, it cannot be a matter wave, like sound or water waves. (MS-PS4-2)

Digitized signals (sent as wave pulses) are a more reliable way to encode and transmit information. (MS-PS4-3)