

Light Energy

Light energy is part of electromagnetic radiation where visible light is a very small portion of that spectrum. The nature of electromagnetic radiation is often described as a wave. For example, the color of light that animals perceive is based on the wavelength of the light waves. Light waves contain discrete packets of light energy called photons. The shorter the wavelength, the greater the energy. Hence, gamma waves have very short wavelengths and contain large amounts of energy while radio waves have very long wavelengths but relatively small amounts of energy. The portion of the spectrum of electromagnetic radiation that animals perceive is referred to as the visible spectrum and includes light with wavelengths between 380 (violet) and 700 nm (red).

When light strikes an object, one of three things will happen. If the object is transparent the light is transmitted, meaning it will pass through the object. However, if the object is not transparent the light will either be absorbed, or it will be reflected. The color that is perceived by the human eye is due to the light that is being reflected off it. Objects that appear black absorb all the light that is striking them while objects that appear white reflect all of the light that is striking them.



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